ABSTRACT

Title of Document:	(RE)PLACING AMERICA: COLD WAR MAPPING AND THE MEDIATION OF INTERNATIONAL SPACE
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The United States emerged from World War II as an undeniably *global* power,

and as the Cold War unfolded, America faced decisions about where to place and display

its power on the globe. The Cold War was a battle between two ideologies and competing

world systems, both of which were vying for space and had the tools and technologies to

control those spaces. Maps became a central vehicle for the testing of these new

boundaries. Mapping projects and programs emerged from a variety of popular

cartographers, foreign policy strategists, defense leaders, Congressional representatives,

scientists, oppositional movements, labor unions, educational publishers, even everyday

citizens. As each of these sources confirms, the scope of American commitments had

expanded considerably; to account for this expansion, a cartographic impulse underwrote

the continually evolving Cold War, and the tensions of art and science, realism and

idealism, and space and place inherent in this impulse helped form the fault lines of the

conflict.

(Re)Placing America looks largely at the ways that cartography adapted to such

changes and tensions in the second half of the twentieth century, and how the United

States marshaled the practice of mapping in a variety of ways to account for the shift to

internationalism. This dissertation explores how cartography mediated visions of space, and particularly, how it defined America's place within those spaces.

Treating cartography as a complex rhetorical process of production, display, and circulation, the five chapters cover major geopolitical thematics, and the responding evolution of maps, from World War II until the Cold War's end in the early 1990s. Some of these driving themes include the "air-age" expansion of visual perspectives and strategic potential in journalistic maps; the appropriation of cartography as a medium for intelligence and national security objectives; the marshaling of maps as evidential weapons against the Soviet Union in diplomatic exchanges, Congressional reports, and government-sponsored propaganda; the shifts from East/West antagonisms to North/South ones as cartography was drafted into the modernization efforts of the U.S. in mapping the Third World; and the Defense Department's use of maps to argue for nuclear deterrence, while protest groups made radical cartographic challenges to these practices of state power. *(Re)Placing America* reads closely the maps of the forty-years-plus conflict and considers the complexity of their internal codes (in colors, shapes, icons, etc.), while also reaching out externally to the intersecting interests and visions of the cartographic producers and the Cold War contexts in which they emerged. The project seeks out and explores particular nodal points and thematics where maps consolidated and shaped changing shifts in perception, where cartographic fragments cohered around the defining moments, but also sometimes in the everyday politics of the Cold War.

Ultimately, this project offers four conclusions about and conduct and operation of American mapping during the complex, ideologically charged time of the Cold War. First, the function of the map to both "fix" and "unfix" particular perceptions of the world

is relevant to assessing how America sought to stabilize its place in a rapidly changing world. Second, the internationalism of the Cold War was bound up in the capacities for cartography to document and adapt to it. Third, the humanistic notion of a geographical imagination is central to understanding why particular Cold War agents and institutions continually drew on cartography to represent their interests. Finally, combining an ideological approach to reading maps as articulators of contextual tensions and historical ideas with an instrumental approach to maps as material, strategic documents can best help to situate cartography as an ongoing process of production, circulation, and display.

(RE)PLACING AMERICA: COLD WAR MAPPING AND THE MEDIATION OF
INTERNATIONAL SPACE

by

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To Elinor

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INTRODUCTION

**SPACE, PLACE, AND THE CARTOGRAPHIC
SCOPE OF AMERICA'S VISION IN THE COLD WAR**

>   *In the leading machine the head of the Air Force was sitting beside the pilot. He had a world atlas on his knees and he kept staring first at the atlas, then at the ground below, trying to figure out where they were going. Frantically he turned the pages of the atlas…In the seat behind him sat the Head of the Army who was even more terrified.*
>   *"You don't mean to tell me we've gone right out of the atlas?" he cried, leaning forward to look.*
>   *"That's exactly what I'm telling you!" cried the Air Force man. "Look for yourself. Here's the very last map in the whole flaming atlas! We went off that over an hour ago!" He turned the page. As in all atlases, there were two completely blank pages at the very end. "So now we must be somewhere here," he said, putting a finger on one of the blank pages.*
>   *"Where's here?" cried the Head of the Army.*
>   *The young pilot was grinning broadly. He said to them, "That's why they always put two blank pages at the back of the atlas. They're for new countries. You're meant to fill them in yourself."*
>
> – Roald Dahl, *The BFG*[1]

Katherine Harmon fittingly closes her book on art maps, *You Are Here*, with the

above passage from Roald Dahl's classic children's book.[2] More than simply a clever

send-off about maps, Dahl's vignette expresses a cartographic conundrum that goes a bit

deeper into the anxieties and opportunities of charting political space. On the one hand,

the Army and Air Force experts are anxious that their trusted map no longer reflects the

space below—the uncharted space on the ground is empty white blankness on the atlas.

At the same time, the pilot smiles with the acknowledgement that the space below is

something that is not a *given*, but has to be actively *written*. In a sense, then, Dahl reveals

the essential tensions around the legibility of space through maps: the map is often taken

for granted as a representation of what *is*, but once its function as a constructed image is

acknowledged, a nervous loss of control is created; a feeling of "flying off the atlas."[3]

Those who have the power (and vision) to fill in the blank pages are presented with a

momentous opportunity of writing the world according to their particular perspective (and interests). Like the airplane crisscrossing over wide expanses of territory, the perspective of the cartographer is often framed from a vantage point outside of the space itself, thus giving them (and their users and readers) a powerful positionality and placement; an encouragement to see terrain as abstract, able to be shaped, flattened, and simplified.[4]

When the Head of the Army asks "Where's here?" in *The BFG*, he may as well be articulating the United States' grappling with its own "placement" throughout the twentieth century. During that time, world space had in many respects become closed—most of the nooks and crannies across the globe were accounted for, organized and classified with lines and borders.[5] Simultaneously, American power underwent massive spatial transformations, enjoying an increasingly higher bird's eye view of international space, while perceiving that it had the immense responsibility of being the writer of that space.[6] Moving from a worldview marked by traditional balances of power and hemispheric boundaries toward a more fluid, abstract, and above all modern internationalism, the United States faced a world that seemed both tantalizingly and alarmingly closer.[7] Cultural critic John Berger once wrote that: "Our vision is continually active, continually moving, continually holding things in a circle around itself, constituting what is present to us as we are…Every image embodies a way of seeing."[8] The very materials (like maps), then, through which Americans envisioned themselves as a nation, helped constitute a sense of national identity and served as a visual guide for interpreting our place in the world.

In 1943, well before victory for the Allies in Europe and the Pacific was assured, Walt Disney released a film that spoke directly to momentous geopolitical changes across the globe. Entitled *Victory Through Air Power*, the half-animated, half-live action film was based on the bestselling 1942 book of the same name by Major Alexander De Seversky, a Russian émigré, pilot, aviation engineer, and military strategist.[9] In between narrated animation segments, De Seversky lectured to the camera that the only way for America to prevail was to fully embrace the revolution of the air, arguing that no spot on earth was immune from overhead attack and that the entire globe, including its skies, was a battlefield. For De Seversky, the answer for America was to put an end to the "surface thinking" of sea and ground forces, and increase the commitment to long-range bombing from the air—the one way to penetrate the massive geopolitical reach of German and Japanese forces.[10]

While De Seversky's arguments may not have seemed especially novel, the medium for his message most decidedly was. In his lecture segments, De Seversky moved back and forth between giant wall maps displaying his war strategies, and a massive globe in the middle of the room, which he could spin in all directions to argue for his new approach to World War II space. The maps were dynamic, colorful, and unconventional—some used powerful metaphors of arrows and icons of flags to show infiltration of boundaries and the intense nationalization of war; others centered on the North Pole rather than using traditional layouts, in order to show the new proximities of countries and the new routes by which to wage warfare across long distances. The animated sequences themselves continually drew upon maps to demonstrate Axis encirclements across the globe, while also showing the immense Allied industrial effort

of sending tanks, ships, planes, and bombs to remote locales. At one point, a large clock is drawn in front of a background of a world map, counting down to show the compression of time and distance in this new world—a persuasive graphic for transmitting a sense of geopolitical urgency. In many of the maps, the viewer sees the world beneath, rolling in front of them from an airplane's perspective. Cartography, in short, was the unsung star of the film. Through striking visual metaphors and odd perspectives, what De Seversky and Disney displayed overall was a shrinking world, continually agitating and redefining its geography in consonance with increasingly sophisticated science and military technology. What was also on display was the importance of vision itself—the opening placard set the tone by declaring: "Our country in the past, has struggled through many storms of anguish, difficulty and doubt. But we have always been saved by men of vision and courage, who opened our minds and showed us the way out of confusion."[11] Thus, having control over space, on land and in the skies, was more than just a question of a technological and economic race for superiority, it was a race for perception, a task for which maps were becoming more and more important.

Altogether, viewers witnessed a cartographic argument for a powerful internationalism that demanded not just American firepower and dollars, but moral leadership as well. De Seversky makes the point during his map lecture, for example, that the dividing line between soldier and civilian had disappeared—that the business of strategy had broadened to include *all* Americans. Such an argument was, not coincidentally, accompanied in this era by a heightened demand for cartography from a host of popular, government, and academic institutions. De Seversky himself was a

Defense advisor, popular author, and scientist; his very appropriation in a Disney film showed the newly fluid roles that mapmakers, map users, and cartographic strategists were taking on. In instances like this, maps were fast becoming part of a larger movement to bring public opinion into the realm of national strategy and foreign policy. Not only were there significant changes in the ways maps looked, but also in the ways they were being produced, appropriated, and circulated as compelling arguments for the direction of American influence. Maps, thus, took on a performative dimension, mediating America's role in the world and dramatizing the stakes of international conflict.

Beyond offering a mere curio of World War II propaganda, then, *Victory Through Air Power* foretold something larger about America's future. The film ends with an animated sequence where a giant eagle descends from the sky and attacks a map of Japan that has morphed into a black octopus flailing all over the Pacific Ocean. After defeating the octopus, the eagle flies off and lands nobly on top of a globe. That globe gradually bronzes into the top of a flagpole, which holds an American flag flapping in the wind. As World War II shifted into Cold War by the end of the 1940s, maintaining the eagle's grip on the globe became more difficult and contentious. As the Cold War unfolded, for example, America found itself in Roald Dahl's pilot seat, facing decisions about where to place and display its power on the globe, with both the anxiety and opportunity of defining the new international space. It was no wonder, then, that maps became a central vehicle for the testing of these new boundaries. The Soviet Union was not simply a new octopus to be destroyed by military power (although that motif would certainly surface prominently in the era's maps); this was a global battle between two ideologies and competing world systems, both of which were vying for space and had the tools and

technologies to control those spaces. And in this time, mapping projects and programs emerged from a variety of popular cartographers, foreign policy strategists, defense leaders, Congressional representatives, scientists, oppositional movements, labor unions, educational publishers, even everyday citizens. As each of these sources confirms, the scope of American commitments had expanded considerably; to account for this expansion, a cartographic impulse underwrote the continually evolving Cold War, and the tensions of art and science, realism and idealism, and space and place inherent in this impulse helped form the fault lines of the conflict.

(Re)Placing America looks largely at the ways that cartography adapted to such changes and tensions in the second half of the twentieth century, and how the United States marshaled the practice of mapping in a variety of ways to account for the shift to internationalism. The Cold War was an inescapably *spatial* conflict, where America often attempted to contain its Soviet enemy, while consolidating pacts and international commitments to build imposing boundaries for itself. In the era of domino theories and containment, as Paul Chilton writes, "the political came to be imagined in spatialized terms, and specifically, through the spatial gestalt of the container which grounds the notions (and feelings) of identity and difference, of self and other, sovereign state and anarchic non-state, clearly and distinctly separated by a bounding limit."[12] More than a simple balance of military forces, and political agreements, the Cold War represented a strong ideological volley; space was not simply about military security, it was also about security of ideas and a way of life. This project explores how cartography mediated these visions of space, and particularly, how it defined America's place within those spaces.

The Contours of (*Re*)*Placing America*

As critical geographers and cartographers have noted, maps spatialize the language of politics—a melding of signs and symbols that both reflect and create colorful and charged worldviews.[13] Like politics, maps converge art *and* science. As Alan Henrikson writes, "Cartography is a combination of science and art, of the objective and the subjective in human thought and activity…Maps thus may be embedded in the discourse of politics and of art, just as political symbols can be embedded in the language of maps."[14] The lines, the shapes, and the colors that map historical and contemporary geopolitical struggles can simultaneously provide a sense of order and/or disorder, depending on the political particularities. Maps, thus, function to classify wide expanses of space, providing a perception of security that we can know the world.[15] Behind this rational, scientific "knowing," of course, lies the art and the artifice of mapmaking, a much more contentious, rhetorical process.

With this, I make the assumption that maps themselves are unique, visual political grammars, creating and reflecting charged discourses about ideology and power. I also take seriously the notion, prevalent amongst geographers and historians, of a "geographic imagination" where cultures obtain and circulate geographic knowledge.[16] In addition, I situate cartography as a rhetoric of display, caught in a dynamic of revealing and concealing—a reductive, selective, and partial process where what is not mapped often becomes just as salient as what is lined and bounded on the page.[17] In this way, maps are vehicles for perception that provide ways of seeing the world; as Christian Jacob has written, maps are a "grammar of the gaze" and an "interaction of eye and memory."[18] Not only does the content of the map reveal and conceal certain spatial information about the

world, but the very form of the map etches the user's positionality in space.[19] The importance of acknowledging the synergy between form and content is thus key to the study; Kenneth Burke wrote that form is "the psychology of the audience. Or, seen from another angle, form is the creation of an appetite in the mind of the auditor, and the adequate satisfying of that appetite." This so-called "breach between form and subject-matter, between technique and psychology," Burke offered, "is the result…of scientific criteria being unconsciously introduced into matters of purely aesthetic judgment."[20] Because of its explosive mixture of science and aesthetics, cartography offers a productive way to discuss how form and content dissolve into each other. The perspective and projection of the map, in large part, becomes the subject of the map itself.[21] Therefore maps, I argue, are ideological blueprints, and they help perpetuate powerful cultural narratives.

Cartography is also a particularly appropriate subject for Cold War study, precisely because maps represent, in simplified images, the kinds of discursive historical tensions that Cold War strategists, academics, and citizens negotiated throughout the whole of the conflict. As John Pickles writes, "If cartography is a form of discourse…then the cartographer and the map are at the center of debates over technocracy and power in the modern world, and must be brought within the compass of social criticism and assessed from the perspective of social theory."[22] There has never been, perhaps, a more contentious, rancorous, and epic debate around modern technocracy and power than the one in which the United States found itself during the Cold War. Robert Scott has written that ambivalence is built into the very concept of the Cold War, that "words and actions have thus far stopped short, and stopping short is

essential to the meaning of cold war; it is a state of being and can't be discussed as a stable condition."[23] The notion of tension becomes central, since the Cold War cannot be defined as any kind of static entity, but more as a continually contracting and expanding force over the course of forty-plus years.[24]

One of the reasons, then, that this project is built on *space* and *place* is because it is, I believe, in the push and pull between these concepts that the Cold War's special kind of ambivalence can be explored. The idea of placement often connotes stability; this project does not assume stability, but instead attempts to characterize the cartography of the Cold War as a search for stability. If maps are conceptualized as a process, then the development of Cold War maps can be seen as a series of attempts at stabilizations.[25] Humanist geographer Yi-Fu Tuan has defined some of the essential space/place distinctions, positing that "spaces are marked off and defended against intruders" while "places are centers of felt value." [26] In a passage that speaks almost eerily well to the American Cold War, Tuan writes, "The ideas 'space' and 'place' require each other for definition. From the security and stability of place we are aware of the openness, freedom, and threat of space, and vice versa. Furthermore, if we think of space as that which allows movement, then place is pause; each pause in movement makes it possible for location to be transformed into place."[27] Maps offer the pauses in the Cold War's abstract definitions of space, positing placements for the viewer, and by extension a placement for American values.[28] As Kevin DeLuca has written,

> Strategy requires a *center* of power from which to control *space*. *Place* implies a
> particular locality of which a person has an intimate knowledge derived from
> passionate attachment and caring inhabitation, while *space* suggests an

impersonal geometrical region known through the rationalized, objective methods of science.[29]

Maps are part of the impersonal rationality of modern science and the intense locality of felt value and knowledge—both of which constrain the perceptions of modern American interests and power.

With this intertwined conception of space and place, this project is built on a series of questions—inquiries that attempt to critically interrogate both cartography and the Cold War itself. One set of these questions revolves around contextual considerations of American state power and its international commitments. For example: *how did the United States conceive of its "place" within a globalizing, international landscape? In an ideological conflict like the Cold War, how was "space" part of America's self-definition, and how was it used to define other states (like the Soviet Union) and geopolitical regions and areas?* Finally, *how was American internationalism constrained by the visual medium of cartography and by the rhetorical choices of mapping institutions and cartographic actors?* I am interested, ultimately, in how the scope of American state power on the international stage was envisioned and framed by particular visual artifacts, and the processes that created and circulated these artifacts. Maps are not the only way of answering such questions about space and place, but I argue that they are a significant one. Powerful binaries of East/West and (later) North/South affected American conceptions of the Cold War, and maps orientated both their makers and their users in these directions, offering a mode of vision by which to locate American national interests and security in a dynamic international conflict.[30]

While such questions situate America's construction of the Cold War, the other major line of research questions revolves around understanding the practice of cartography itself. For one, *how did the practice of mapping adapt and evolve over the forty-plus years of Cold War conflict?* Relatedly, *how were maps produced and circulated in this era, and how did the requirements of the Cold War shape both the products and processes of cartography?* Geography and cartography as disciplines were themselves undergoing major technological and ideological changes in this time, continually contested by new theories and oppositional movements, and often maintained through government and corporate sponsorship; even more importantly, these disciplines' aspirations to contribute to both hard and social sciences complicated the practice of mapping. Geographer David N. Livingstone's inquiries into "geographical tradition" are particularly salient here, as he asks, "What role…did geography play in past society? Was it used for political, or religious, or economic purposes by particular groups? Who benefited from the latest theory, and who lost out?...For accepting or rejecting any scientific theory is always and irreducibly a social act, by a specific social group, in particular circumstances."[31] In this spirit, I also ask: *how did the political interests of popular, government, and academic actors and institutions complicate and shape both the internal design of the map and its external movement through U.S. political culture? How were maps themselves rhetorically constructed as viable evidence and knowledge producers for these differing interests?* In other words, not only do the content of the maps themselves become of interest, the ways in which they were *seen* and conceived as arguments and tools for various powers become central to the cases and themes of this project. Finally, compounding these map-related questions involves closely reading the

maps themselves, thus leading to an important last question: *how do the perspectives, projections, and internal codes of maps reflect the visions and strategies of their makers and sponsors?* The map is a rich network, layered and crisscrossed with a host of different meanings, interpretations, and contradictions—the colors, icons, shapes, and captions, however small, have larger ramifications for how world space is drawn and acted upon.

In summary, this study critically examines Cold War visual history by analyzing the rhetorical choices in the framing of cartographic form and content.[32] What makes the Cold War cartographic context so striking is how the rhetorical function of maps was foregrounded—in the new internationalism of this period the very flexibility and variety of map usage and construction articulated the discursive nature of Cold War space, where foreign policy elites, popular opinion makers, and academics saw the world as a site for interpretation—not as a geographical set of natural givens.[33] Such a premium on interpretation involved a modern focus on symbolic images and the credibility of world opinion, and maps were seen as more than simply a set of points and lines depicting political realities.[34] As Gilles Deleuze and Felix Guattari point out:

> The map is open and connectable in all its dimensions; it is detachable, reversible, susceptible to constant modification. It can be torn, reversed, adapted to any kind of mounting, re-worked by an individual, group, or social formation. It can be drawn on the wall, conceived of as a work of art, constructed as a political action or as a meditation.[35]

In its malleability and usability, then, the map is open and amenable to the needs of its users— designed for particular moments and problems, often outdated quickly and made

ephemeral by time. Embedded in reports to Congress, passed around State Department halls, accompanying stories in *Reader's Digest*, gripped by helicopter pilots over Vietnam—maps' very ubiquity in the Cold War speaks to their instrumentality to a host of competing voices. Maps continually argued the Cold War into perpetuation, offering the acceptable borders by which the war could be conceived and fought. This type of vision gave maps the kind of abstract qualities that could allow American interests to be seen on a global scale, and in more universal terms; interests spread not just with weaponry, but with information technology, capital, and ideas.[36] Such abstractions also gave way to notions for foreign policy elites, military planners, and academics that space was a commodity that could be known and classified. Maps gave Cold War leaders a strong power of global surveillance, and encouraged the type of constant vigilance and fear of proximity that sustained policies of containment and liberation.[37]

In addition, since the notion of place, particularly, is bound up in human value, this project understands the internationalism of Cold War maps as having deep roots in American culture, embedded in a larger history of American discourses around national space. This necessitates an engagement with what Mikhail Bakhtin has called "the intrinsic connectedness of temporal and spatial relationships," as history and geography collide in America's global expansion throughout the 19th and early 20th centuries and its culmination in the Cold War.[38] As Isaiah Bowman, FDR's principal geographer and a famous architect of the new American global space in the 20th century, once said: "Empire builders must think in terms of space as well as time; to a revolutionary degree man changes his geography as he goes along."[39] The production of spaces in America is accompanied by a geographical rhetoric that has a contentious relationship with history,

often intervening to create tidy, sequential narratives of American destiny and progress.[40] For example, Jacob sees the history of cartography as marked by a power of seduction with mythic overtones, a representation that would "seem to constitute a privileged space of projection for the viewer's desires, aspirations, and affective and cultural memories."[41]

So, part of the value of this project lies, I hope, in exploring how maps can provide reductions of external realities for both producers and consumers of geographic knowledge, with maps projecting "an order of reason onto the world and forc[ing] it to conform to a graphic rationale, a cultural grid, a conceptual geometry."[42] Such a grid was constructed over the course of American history, from the hemisphere-bound conceptions of police powers in the Monroe Doctrine, to the missionary zeal of Manifest Destiny; the closing of American space as ideological opportunity in Frederick Jackson Turner's Frontier Thesis, to the argument for geopolitical sea supremacy by Alfred Mahan; from T.R.'s integral rhetorical expansion of American might in the Roosevelt Corollary, to the skyrocketing popularity of *National Geographic* after it published photographs of the exotic Philippine "other"; from Wilsonian-style internationalism and the principles of self-determination at Paris in 1919, to the self-conscious return to isolationism in the interwar, and then on to the explosion of popular globally-focused mapmaking during World War II.[43] Powerfully and completely, America had been engaged in a dynamic dialogue about its placement within world space by the time a breach with the Soviet Union took place at the onset of the Cold War. A distinctly modern internationalism had been taking root for decades, the implications of which found their way into the very visualization of American power and global strategy. Cara Finnegan has defined visual culture as the "historically situated beliefs about vision and images that influence

audiences' practices of looking."[44] Understanding the historical situatedness, then, of how maps were created and used in a conflict as wide and complex as the Cold War, I believe, is an important part of the rhetorical history of the United States, and an opportunity to accentuate its core spatial values.

I also enter this project into the critical conversation in rhetorical studies around the Cold War, answering the calls, by scholars such as Bryan C. Taylor and Stephen Hartnett, to expand the texts by which we examine the conflict.[45] But more than merely expanding and opening up the texture of critical Cold War studies, *(Re)Placing America* seeks to contextualize a medium (cartography) that is often analyzed as if it stood outside of its context and the processes of its own production. Thus, I seek a specifically rhetorical critique of mapping in the Cold War that neither privileges text nor context, but instead holds them in suspension.[46] A hallmark example is found in the multi-authored *Cold War Rhetoric* collection, wherein the discourse of the conflict is viewed through a series of lenses pertaining to strategy, metaphor, and ideology.[47] Martin Medhurst uses a strategic approach to demonstrate the contingencies of realist assumptions in the goals of Cold War statecraft, and urges critics to take an "equally strategic view of language as symbolic action."[48] Robert Ivie, by contrast, looks at ways in which Cold War motives, and their accompanying images, constrain the way the war was fought; through metaphors, he seeks to show the importance of values in the critical inquiry of the Cold War, aiming to "deliteralize the conventional imagery that holds sway over our political imaginations."[49] Finally, Philip Wander finds the "grounding of meaning" to be a key concern of Cold War study, tracing how our definitions of Cold War audiences and arguments are "rooted in historical struggle and the ideological conflicts in which they

appear."[50] Both the prophet and the technocrat become Wander's ideological touchstones, the zeal of the missionary and the expertise of the scientist cohering into arguments that "share a view of the world, literally 'the world,' so deep and fundamental as to be called the 'ground' on which foreign policy is debated in this country."[51] Part of this study's function is to find these approaches' crossroads, and bring them together.[52]

Studying maps in this period certainly calls for Wander's brand of ideological criticism, where the map can be seen to line and bound competing ideologies rooted in American discourse; yet, as Lawrence Prelli has shown, maps are metaphorical by nature, serving often to literalize the abstract spaces they purport to display, and they thus provide a gauge of the kinds of values that constitute a map's symbolic enactment.[53] Given that maps were created for particular Cold War purposes, passed around in halls of foreign policy, Medhurst's calls for an engagement with strategy must also be heeded here. My research questions require the fusion of traditional rhetorical approaches to the Cold War, in order to gauge the strategic employment of maps by different institutions and audiences, probe how maps become metaphors for space itself, and discuss how powerful interests vie for political space on the blank page and perpetuate ideologies of foreign policy.[54]

At the same time as I enter a conversation in rhetorical studies, I also hope for interdisciplinary dialogue from this project, in order to expand the ways we can talk about and debate complex issues of politics and identity. If the global reach of the United States in the Cold War is indelibly stamped by intersections between art and science, space and place, centers and peripheries, then the cartographic conceptions of American power and influence are worth study from a multitude of angles. Scholars indeed have

already generated rich lines of interdisciplinary work in this area, but these lines are often

running parallel to each other, rather than intersecting and entangling. The work of

historians, geographers, social theorists, international relations scholars, and rhetoricians

are not always sharing the task of interrogating these notions of geography and power

together—and, this project offers ways their disparate projects could be joined into

fruitful partnerships.

Finally, this project takes advantage of the rich archival resources of maps

produced during the Cold War. Maps are both accompaniments to other Cold War

discourses and are interesting visual languages in their own right, and thus I access

archives from the U.S. government, private institutions, and individual cartographers to

evidence the broader contextual connections of maps in this period.[55] This, of course,

necessitates a wide survey of maps, and this study deliberately covers the temporal Cold

War as a whole, rather than focusing on a specific set of maps during a particular Cold

War conflict or the mapping practices of one particular institution. The stereotype of Cold

War cartography is, of course, found in the old textbook or magazine maps of the late

1940s and early 1950s where a red-tentacled Soviet Union (like Disney's Japanese

octopus) spreads its menace all over the map. Much writing on Cold War cartography, in

fact, has been focused on "unmasking" the persuasive messages *behind* maps as

propaganda.[56] These texts are important, and are certainly engaged in this study. But a

more productive approach eschews simply labeling maps as propaganda, and instead

accentuates the intertextual relationships between the various maps and their producers. I

find it instructive, then, to see so-called propaganda maps in dialogue with the maps

embedded in Congressional reports, or the cartographic initiatives of researchers in the

Department of State. All were informed by Cold War constructions of space and place, and all were engaged by mechanisms of state power and technologies.

Rhetoric and Cartography: Crossing Borders

Maps are embedded in the processes of everyday symbolic communication without much effort to contest or challenge that embeddedness. As Peter Vujakovic explains, "Maps are no longer special, the property of privileged elites or institutions."[57] Much of the mapping digested today comes from a wide variety of sources, with completely different interests and often, competing worldviews (e.g., commercial or government cartographers, statistical surveys, educational systems, tourism industries).[58] The function of maps as social constructions of space and place often goes unrealized—almost as if maps were naturally called into being by the space itself.[59] The relatively new movement of critical cartography questions these assumptions and punctuates how maps are texts, which are part of a larger political and social discourse, rather than objective mirrors of reality—and I enter this study into such a conversation.[60]

Textualizing Maps: The Art and Science of Cartographic Space

A large part of the critical cartography movement charts how the ornamentation of art and the functionality of science are found in a map's lines and shapes—the map simultaneously decorates and archives data.[61] Before this critical turn, historians had typically framed cartography more in terms of its instrumentality—as "Surveys of Reason" that chart the virtues of progress and accuracy.[62] At least since the Enlightenment, where such virtues became almost sacred, science has been expected from maps—anything less was perceived as unethical.[63] In many ways, the history of cartography has mirrored the development of a scientific worldview.[64] The historical

focus on the science of the map, as a seeming display of "what *is*," as many critical geographers point out, creates the foundation of an enduring myth about cartography— the idea that mapping constitutes geographical truths.[65] This myth of the map as mirror of nature reveals the map's immense power, as it can mystify political realities for those in power.[66] A line representing a border on a map can determine the identity of the peoples living on either side of that line—the graphics on the page can naturalize such divisions.[67] Space can be seen as quantity and surface, something that can exist outside of subjective meaning and experience.[68] In this way, the map is often perceived to *transform* space into something completely new, showing "something no one could ever see."[69] Consequently, the world is constituted by its flattening on a page.[70] This abstract, modernist, and above all, reasonable reduction of the earth is meant to widen a rational understanding of it; looking at a map positions the viewer to stand outside the world and become objective about one's placement within it.[71]

Interdisciplinary theorists in critical cartography have sought, then, to accentuate the contested terrain of mapmaking. As Stephen Hartnett explains,

Indeed, the explicitly functional nature of maps . . . is based predominantly on the fact that maps strive to achieve a transparent, nonrhetorical status in which they are read, not as agenda-setting and metaphor-based *re*presentations, but as impartial, metonymic-based presentation.[72]

Like all processes of textual representation, maps are situated and partial, especially in their attempts at *im*partiality.[73] J.B. Harley argued that "the steps in making a map— selection, omission, simplification, classification, the creation of hierarchies, and 'symbolization'—all are inherently rhetorical."[74] Maps advocate for space and they are as

much tied to ideology as they are to landscape.[75] And as rhetorical texts, maps cannot

exist as isolated objects—the graphic image of a map is usually fixed inside a written text

(a paper, a book, an atlas), and can rarely be understood outside of the discursive goals of

its larger project or its historical context.[76] The map becomes a coded image, then, with

linguistic and graphic elements that promote a variety of intertextual meanings dependent

on the perspective of the society within which those meanings are created and read.[77]

Part of situating these intertextual meanings involves one of the other major

historical interventions of critical cartographers: foregrounding the map's relationship

with nation-state power. To examine most world political maps is to see a wall of states.

Each state has a distinct, lined boundary, with its own color and shape that separates it

from the neighboring states around it. In a sense, the state is like a jigsaw piece that could

be pulled out of the larger puzzle as its own functioning entity, thus simplifying space as

a set of bounded territories.[78] A map can match a state's territory with an array of abstract

characteristics—soil, crime rates, area codes, tax statistics.[79] In the case of the state, maps

help connote who has ownership and power; the philosophy of the leadership of a

particular state subsumes the full space of its boundaries, smoothing out all nuances in

between the borders that may complicate the map.[80] Maps are one contributor to this

individualization and personification of states—the states themselves are our "neighbors,"

"enemies," and "partners"—not the people who inhabit the states, or even those who lead

them. Once personified in this way, the state's territory becomes a home that must be

guarded.[81] The map, then, mirrors state power in its ability to "colonize space."[82] As

Michel de Certeau has noted:

> The map, a totalizing stage on which elements of diverse origin are brought
>
> together to form the tableau of a "state" of geographical knowledge, pushes away
>
> into its prehistory or into its posterity, as if into the wings, the operations of which
>
> it is the result or the necessary condition. It remains alone on the stage.[83]

The map masks the processes of its creation, and thus allows the state to claim itself as natural.[84]

The Movement Towards a Critical Cartography

The cartographic movement that self-consciously set out to debunk myths of objectivity to critique state power did not suddenly spring out of the tumult of the 1960s. Certainly, the German tradition of *geopolitik* accepted that maps themselves could be made into persuasive weapons.[85] In America, popular, more amateur journalistic cartographers in the 1930s such as Richard Edes Harrison drew maps that were unabashed in their positionality as strategic arguments—in his own writings, Harrison even foregrounded the importance of cartography as a kind of discursive exchange between mapper and user.[86] The conundrum of the modernist perspective on mapping, however, was that geographers and cartographers were haunted by the idea of their work as propaganda (especially since their work was arguably being appropriated as such in World War II). And so, there were continual attempts to create a sense of distance between "proper mapping" and mapping that was deemed an arm of the state.[87] Famous geographers like Isaiah Bowman were making distinctions between "geography," as a worthy discipline built on spatial facts, and "geopolitics," a pernicious pseudo-science used by those bent on world power.[88] These discourses were based on a key bifurcation that critical geographers and social theorists in the coming decade would try to erase: that

other nations' maps are prone to distortion, but as long as our science remains clean and objective and mapping is left to the expert, then *our* maps could simply present space as "is." In other words, not all maps were rhetorical, just those that made their interests overt to the user; and with the correct map-reading expertise, the map reader could discern which maps were arguing and which ones were not.[89] And since many of the geographers who were marshaled by the OSS in World War II for wartime work were ambivalent about their experience gathering spatial facts for power, they fashioned a self-conscious move toward geography as a harder, more quantitative science, much removed from the "geography-as-exploration" of old.[90]

It was not until the university upheaval of the 1960s when more united voices began to question the tidy historical narrative of the map. Scholars were grappling with a contested disciplinary history, caught between being an arm of expansive institutional power, and being an objective, non-ideological, scientific enterprise that could somehow accurately reflect humans' relationships to their surroundings.[91] With this, maps were increasingly seen as bound up in competing tensions of science, art, and political power.[92] This development was concurrent with a movement towards "radical geography," where the scholar became activist, and space became something to be reclaimed for its inhabitants, rather than as a tool of expansion by the state. David Harvey's *Social Justice and the City* (1973), for example, attempted to unite Marxism with spatial analysis, decrying urban blight and chiding geographers to become more immersed in their locales and advocate for the poor and oppressed, actions that radical geographers like William Bunge were taking in slum neighborhoods of Detroit.[93] One of Harvey's major achievements was engaging with Situationists such as Guy Debord, who critiqued

capitalism for "undermin[ing] the quality of *places*," and Henri Lefebvre, whose "social production of space" theories would become bedrock foundations for the new geography.[94] Building on these conceptions, scholars such as Yi-Fu Tuan used humanism to question cartography's rational, Enlightenment tradition, and maintained that geographers must accentuate feelings and values in the map.[95] As Donald W. Meinig wrote in this tradition: "the key to the kind of humanistic geography we need…requires an 'immersion in the meaning of place' and 'in the end this can only be a *personal* response.'"[96]

While these geographers were developing comprehensive theories about the political production of space by invoking Continental philosophy and Marxist theory, Benedict Anderson re-theorized nationalism and Edward Said brought forth a comprehensive critical space for postcolonialism.[97] Anderson's work proposed the *map-as-logo* wherein the territory of nation-state power used the map as its flag, with the abstract shapes of borders on the page standing in for the nation itself.[98] Such notions propelled fuller critiques by geographers and historians around the concept of a geographic imagination, where national communities project themselves and their ideologies, and write themselves cartographically onto expanding space.[99] Concurrently, Said tied these geographic narratives into the languages of Western cultural domination, writing that imperialism is "an act of geographical violence through which virtually every space in the world is explored, charted, and finally brought under control," and that, "none of us is completely free from the struggle over geography."[100] Said's conflation of the accumulation of geographic knowledge with violence, and Anderson's sensitivity to

space and national identity, represented the kinds of theoretical challenges that fueled the interdisciplinary movement in critical geography.[101]

Contestation and Visuality: Merging Maps with the Postmodern

The outgrowth of these humanistic projects is found in, of course, the postmodern turn. This turn owes much to Foucault's work on space, power, and discursive formations—in fact, his interview by editors of the radical French geography journal *Herodote* in 1976 has become a touchstone for radical geographers, where Foucault admits that geographies "lie at the heart of my concerns."[102] Arguably one of the more influential voices in merging Foucaultian theories of power with progressive examinations of cartographic history was geographer J. Brian Harley, whose string of essays beginning in the mid-1980s called for an epistemological shift in understanding geographic knowledge, Harley wrote that:

> Deconstruction urges us to read between the lines of the map—'in the margins of the text'—and through its tropes to discover the silences and contradictions that challenge the apparent honesty of the image. We begin to learn that cartographic facts are only facts within a specific cultural perspective. We start to understand how maps, like art, far from being a 'transparent opening to the world,' are but 'a particular human way…of looking at the world.'[103]

It is this simple shift towards the study of what is not on the map, of what is silent, that best characterizes the current strand of critical scholars of cartography.[104]

Harley's notions of map deconstruction are integral to *(Re)Placing America* because they allow for an interrogation of American cartographic narratives of spatial expansion during the Cold War, particularly to explore what institutions claimed

knowledge of America's place in world space, and what was left out of Cold War maps.[105] A sense of deconstruction as liberation characterizes Harley's writings:

> If the moral contours of the shape of the world have already been drawn by others—usually those in positions of power—then the danger is that the cartographer is relegated to becoming a robotic arm of an institutional or commercial patron. Map makers have to ask themselves how, if they so desire, they can recapture control over the morality of the map, so that the cartographic author is able to exercise ethical judgment. Otherwise we may create a design masterpiece but it will merely be a projection of an unethical landscape in whose making we have no part and for whose social consequences we have abrogated responsibility.[106]

When Harley wondered aloud if "cartography is too important to be left entirely to cartographers," he was asking if mapmakers are too implicated in their reliance on organized, classified, and controlled space to be significant change agents.[107]

Harley's characterization of the dialectic of *change* and *control* in maps is critical to my Cold War study, since the conflict housed a series of clashing, never fixed worldviews, with state power looking for a stable place on the map, while radical academics, protest groups, and others sought to destabilize such power.[108] Underlying the historiography of mapping is the tense relationship of the entire enterprise of mapping itself with the forward thrust of modernity and progress ideologies. According to these histories, the flow of American ideas is inherently spatial and the drive of exploration and a predilection toward the geographic gaze has been following America since its inception.[109] The massive, multi-volume *History of Cartography* project, started by

Harley before his death and now led by David Woodward, is the ultimate example of the new critical historiography of world maps: marshaling a collection of historical geographers to re-enter the historical record and see the processes of cartography bearing on the changing worldviews of history spanning five centuries.[110]

One crucial disciplinary part of this (re)intervention into the historical record, is a kind of reappropriation of the damaged word "geopolitics" into the study of foreign policy and international relations, termed *critical geopolitics*. The proponents of critical geopolitics were making a specific, pointed response to what they saw as the rigid, binary conception of space in the Cold War.[111] Out of the Reagan-era rekindling of the Cold War, international relations theorist Simon Dalby posited *all* political discourse as geopolitical in nature, setting divisions, and partitioning identities in spatially profound ways.[112] Following Dalby, scholars such as Timothy Luke, John Agnew, and especially Gearóid Ó Tuathail wrote reinterventions into recent American Cold War history. Their critiques of foreign policy realism are especially instructive to the assumptions of *(Re)Placing America* because they conceptualize geopolitical thought as a "problematic" rather than a given and they seek to trace how the U.S. has become a "rule-writer for the international community."[113] As Ó Tuathail and Agnew have noted in a joint work, "geopolitics should be critically re-conceptualized as a discursive practice by which intellectuals of statecraft spatialize international politics in such a way as to represent a world characterized by particular types of places, people, and dramas."[114] This kind of work is also seen in calls for "post-realism," where critics characterize Cold War foreign policy realism not as a static paradigm but as a powerful, absorbent narrative that subsumes all other narratives of world space and international relations.[115] A fitting

example of post-realist criticism comes in David J. Sylvan's and Stephen Majeski's arguments about how American Cold War foreign policy culture allowed *places* to become essentialized as "knowable," relatively fixed, and "commonsensical"; this allowed a place like Vietnam to be seen as having certain unchangeable characteristics that help create rigid conceptions of problems and solutions in foreign policy.[116]

The rhetorical dimensions of foreign policy and geopolitics, and how state strategists read the world, are also intimately related to scholars who study the visual dimensions of space, and the processes by which cultures envision their geographies. In terms of rhetorical theory, for example, Raymie McKerrow defined space in more postmodern terms, as he suggested moving toward a full realization of "the openness of space and a more inclusive sense of the alternative styles of lived time experienced within cultures."[117] Critical interventions by Greg Dickinson, Brian Ott, and Eric Aoki have exemplified the openness of McKerrow's approach by conceiving of space in more concrete terms: as textualized on films, in the very practices of "seeing" landscapes, and through the experiential vision of even walking through museums and historic neighborhoods.[118] Greg Dickinson writes that "space…does not disappear behind the vale of mediatic representation. Instead, spaces become the nodes where images and imaginations come together. Spaces and images become constitutive of each other and of the possibilities of spatialized experience itself." Dickinson maintains that immersion in images does not necessarily dislocate us in postmodern excess, but rather that "audiences engage spatial narratives and images as strategies for mapping and remapping their 'location' in time and space."[119] Specifically, in terms of maps, Lawrence Prelli has drawn out these assumptions through readings of scientific cartography. He articulates

their uses in forensic argument, in how visual displays impose narratives and temporal relationships and he points out how symbols on the map are fixed into categorical relationships.[120]

Following this line of inquiry are scholars who have made more systematic engagements with the "visual turn," occasioned by semiotic and rhetorical readings of cartographic and geographic discourse, wherein maps are eyed close-textually for their symbolization, iconography, color, projection, temporality, and use of language.[121] An important advance by this more acute focus on visuality is how scholars critiqued their forebrears for over-emphasizing the map-as-text, often relying too much on linguistic interpretations of a distinctly visual medium.[122] The "text," warned pioneering media geographer Jacquelin Burgess, works as a symbolic metaphor, but can constrain analysis by prescribing particular ways of reading; thus cartographers such as Alan MacEachren have emphasized a lexical approach where the layers of visual meaning in maps are interrogated and historical geographers like R.A. Rundstrom move beyond the text and into the processes of visual production. In addition, theorists of graphic design like Gunther Kress and Theo van Leeuwen contend that visual perspective itself is a political choice in maps and graphics that creates complex positionalities for the map user.[123]

All of these strands of thought are instructive to this project because they display the need to stay grounded in the concrete cultural experiences, values, and identities of the cultures being mapped, as well as the ways in which visual design practices themselves order such experiences. As Stephen Hartnett writes, "claiming that maps may be read rhetorically enables the transition from 'what is to what could be,' and is nothing less than an invitation to move beyond the infinite regress of postmodern debates…and,

instead, to delve more deeply into both the practical implications and the utopian

possibilities of engaging in a rhetorically and philosophically informed turn to concrete

historical studies."[124] Much of the literature on postmodernity and space looks toward the

future—the techniques of surveillance and geographic information systems, media

geographies, geographies of gender, the role of the nation-state as mapped into

globalization.[125] This project, however, pauses to take a look into our recent past and

seeks to find how much of our future conceptions of space are informed by the discursive

constructs of the Cold War. The advantage of the rhetorical tradition is that it foregrounds

these concrete situations; this project's approach to Cold War space is part of this legacy,

true as it is to Said's admonition that we are never free from "the struggle over

geography." In summary, *(Re)Placing America* is a part of all these sometimes congruent,

sometimes divergent critical traditions in history, geography, and rhetoric, and also,

hopefully, a meaningful extension of them. Rather than simply deconstructing maps, this

project examines the contextual processes by which maps are produced and circulated,

specifically within the critical perspective of Cold War geopolitics.

Real and Ideal Worlds: The Tensions of Cold War Geopolitics

As geographer Jouni Hakli notes, "cartography offers a productive momentum to

political practices"; in other words, the relevance of maps is based on the "immutability

in the relationships that maps establish between cartographic representation and the world

of practice within which they emerge."[126] This project, then, necessitates a nuanced

understanding of how Cold War values and mapping institutions, technologies, and

practices were continually engaging one another. Neil Smith and Anne Godlewska have

pointed out that, "this connection of histories *of* geography with historical *geographies* is

what needs to be explored."[127] So, when dealing with the Cold War context, I seek to balance both the history of Cold War geography with the geography of Cold War history. This purpose requires exploring the literature around the particular geopolitical visions that marked America's place in the Cold War, and how maps were appropriated to frame such visions.

Cold War Geopolitical Assumptions and Imaginaries

One of the central contributions of critical geopolitics revolves around the crucial point that the spatial reasoning and assumptions of the Cold War era had deep roots. The Cold War's brand of modernist, international space goes back at least as far as the 1880s.[128] It was in the last decades of the 19th century where America faced the prospect of a truly closed geography, where the ends of exploration were finally reached, and frontiers transformed from physical ones into intellectual ones, thus paving the way for a more relational, global outlook. It was by no means coincidental that these developments in American space were accompanied both by the development of geography as a science, the explosion of a popular geographic imagination in both the press and in school curricula, and substantial changes in mapping production practices.

Susan Schulten contends that 1898 was an especially watershed moment; up until this point, American cartography was largely a reactive medium, but America's tentative steps toward world power status in the Spanish-American War and later the occupation of the Philippines were now being charted (and argued into being) by rising commercial map institutions such as Rand McNally. The world (according to an American perspective) was reconceptualized on the flat page as a commodity, accessible to the masses, and malleable to the powerful. The thirst for maps became even clearer with the

ascendance of *National Geographic,* which evolved from a specialist's technical journal into a popular powerhouse; most importantly, the magazine's popularity united science with national interest, and geography became increasingly tied to national narratives of identity and "making geography both a tool of expansion and a medium of middlebrow culture."[129] At the same time, the formal/academic reasoning of geography slowly turned from environmental determinism to a more fluid approach that mapped human needs into the landscape; concurrently, early modern geopolitical thinkers like Halford Mackinder and Friedrich Ratzel began the move towards interpretation as the business of political geography—that strategists could "read" global space in terms of relationships between *places*. School geography textbooks and their maps also began to reflect this humanistic and interpretive turn, but specifically in how America creates economic progress through its manipulation of natural resources, rather than through territorial domination.

Soon after, the internationalism that arrived contentiously out of World War I was projected into maps and geographical texts as visual arguments for interventionism and economic expansionism. Such arguments were based around the pursuit of incontrovertible spatial facts—or as Michael Heffernan has called, "the fantasy of information," a myth that the best route to world power was through the acquisition of pure objective knowledge.[130] Part of this development was an implicit defensiveness that America was placing itself not as an imperialist in world space, but as trustee of that space.[131] Meanwhile, as these changes took place gradually right up to the mid-twentieth century, the processes of mapping production were transforming, moving from craft to automation and standardization, and relying more on sophisticated photogrammetric and photomechanical methods.[132] This dovetailed with an increasingly technical discourse in

cartographic science; for example, academics like John Paul Goode and Erwin Raisz were influential in their early work by popularizing projections that went beyond accepted standards like the Mercator.

According to scholars in critical geography, the advent of air-age mapping technology, coupled with America's move to the geographic center in World War II, most contributed to the contextual origins of Cold War space. Cartographers out of this new tradition, particularly popular journalists and public figures like De Seversky, would tinker with both perspective and projection in the form of the map—many maps, for example, would use unorthodox projections like the use of a polar center to show new proximities, or novel angles would be used to position the perspective of the reader as hovering over a spherical earth, rather than a flat map.[133] The expansion of the cartographic perspective into the air buttressed the increasingly abstract views of world space, and accompanied the modernist brand of internationalism: America could be the steward of the world and help to develop the globe in its own image, while still protecting its own national interests. As Roderick P. Hart and Kathleen E. Kendall have written, modernist rhetoric is "both restless and relentless," acknowledges that "perception and reality are phenomenally interlocked in politics" and shows a "keen eye for the symbolic."[134] The symbolic importance of America's role on the map, then, was seen as directly related to the nation's self-perception as a world power.

Despite this explosion of the importance of cartography, many theorists writing about Cold War geography have noted the tendency for foreign policy strategists and technocrats to assume a kind of *transcendence over geography* in the Cold War.[135] For example, geopolitical realists like Nicholas Spykman, writing before and during World

War II, assumed geography was permanent—that certain principles were unchanging, thus giving way to a pervasive determinism that physical features and facts of the land prescribed the outcomes of foreign policy.[136] In the Cold War, many of these attitudes were adopted in practice; if geography was considered permanent, then it could be seen as a non-issue, and could be reduced to simple locating and topography.[137] Maps, then, could be seen simply as evidence, rather than as shapers of national interests in the Cold War. But as Neil Smith has most forcefully argued, despite the belief that geography had somehow become obsolete, the Cold War was actually fought on intensely geographical terms.[138] The denial of geography in the Cold War, in many ways, allowed for the essentializing of space and place.[139] As Stanley Brunn has argued, "there are underlying spatial and political processes operating to produce what is often depicted as a static pattern and considered a state of equilibrium."[140] Thus, a project such as *(Re)Placing America* explores how Cold War spaces become etched into binary images of us/them, and gives texture to the processes by which politically motivated spatial frameworks are solidified into what seem like natural divisions. Scholars like Ó Tuathail, for example, argue that since geography and cartography are all about situatedness, even Cold Warriors who tried to situate themselves above space were in fact choosing that positionality, which itself is a rhetorical process.[141] As John Agnew relatedly points out, the space-less globalism of the Cold War is marked by an "ideological geopolitics" in which values and myths drawn from the experiences of the U.S. and the U.S.S.R. came to define the terms of the geographical imagination of the period.[142]

This imagination was marked by a host of different spatial assumptions that anchored the Cold War throughout most of its duration. Some of the most important of

these were, obviously, the central conflict over political-economic organization, a
"Three-World" spatial configuration where U.S. and Soviet spheres vied for expansion, a
homogenization of the globe into blocs in which "universal models of capitalism-liberal
democracy and communism reigned free of geographical contingency," and the
naturalization of the War through spatial concepts such as containment, domino effects,
and liberation.[143] The Cold War was especially marked by big-picture approaches to
spaces, where geographical details in discourses like maps were used as strategic fodder
for larger, more abstract world visions. These strategic visions were part of large-scale
academic and state collaborations on mapping programs in what John Cloud calls the
"great geo-spatial convergence of the Cold War," implicating universities, the State
Department, and various defense institutions.[144] As a postwar U.S. Air Force manual puts
it, new panoramic perspectives allowed map users to achieve "automatic
visualization."[145] Thus, the government's approach to map production accentuated the
role of a map in providing an immediate ordering of the space below. Not only did this
allow the U.S. government to define its own spatial priorities, it allowed it to infiltrate the
Soviet Union with sophisticated mapping technology and techniques and produce
cartography that could place exactly what the enemy was doing and where. In short,
mapping was redefined as essential to national security and intelligence.[146]

These assumptions are closely related to a rise in both the importance of technical
expertise and the intensity of ideology during this shift to internationalism. Both
geographers and rhetoricians have commented on these relationships between technology,
vision, and ideology. For example, geographer Saul Cohen posited that the reshaping of
the world's political map in the Cold War is a result of "both technological innovation

and ideological ferment" where advances in map technology allow for states to anchor their positions from higher vantage points, and ideologically in terms of advancing liberalism and anti-colonialism.[147] Philip Wander's rhetorical theories of the Cold War's technocratic realism and prophetic dualism have noted this as well. Prophetic dualism is the ideology that characterizes the United States not simply as a geographical designation, but as the absolute in Truth, Justice, and Freedom; technocratic realism, on the other hand, is rooted in Progressivism and New Deal liberalism, and requires the precision of the expert and the managing of facts.[148] Here, Cold War competition is more economic than moral, and thus negotiation and compromise become more visible. Recently, Ned O'Gorman has updated these concepts by juxtaposing the rational, pragmatic approaches of containment against the fusion of the religious and secular in approaches of liberation. In the process, O'Gorman finds strategic tensions between a realist balance of powers that could be managed by experts and a more contingent approach that must involve moral values of fear, hope, and an engagement with an often non-rational world opinion. Postwar administrations and their discourses often trafficked in the seeming contradictions of both approaches, as other rhetorical scholars have noted.[149] Tensions of idealism and realism, then, were drawn right into the lines of Cold War maps.[150]

Such developments were marked by what Dalby has called the "hegemony of security discourse" where the move to globalism encompassed a greater degree of loneliness and a requirement of a hyper-vigilance of space.[151] Smith has characterized this as the strange pull of isolationism and internationalism that haunted the Cold War, where the war was certainly fought on more global terms than any conflict before it, but also placed the U.S. in the role of superpower fighting on its own.[152] This is concurrent

with what David Harvey has termed a "distinctively US-based cosmopolitanism" in the Cold War where "geographical knowledge, organized from the standpoint of the geopolitical survival of the United States, is oriented to military, economic, and cultural control of the world" and is accompanied by a "brutal ignorance of local traditions, meanings, and commitments."[153] In other words, it was the complex clashes of U.S. nationalism and internationalism, and localism and globalism, that defined America's sense of itself and its interests as a new world center.[154] In *(Re)Placing America*, I contextualize these assumptions in what geographers have called the "shrinking world" concept in the Cold War, where technologies of transportation, information, and communication dramatically reshape the way proximity is viewed—and where maps give new meaning (and create new anxieties) around conceptions of closeness and interdependence.[155]

Finally, the last integral point about Cold War geopolitical tensions is to understand their varied discursive sources. Geographer Klaus Dodds, for example, sets out to show that Cold War representations of space are not simply restricted to policy-making circles—the geopolitics of the period was a broader cultural phenomenon. He offers three inter-linking levels of Cold War geopolitical discourse: *practical*, which encompasses the often pragmatic and strategic rationales produced by the government, its armed forces, and foreign policy bureaucracies; *formal*, which represents the academic/theoretical approach to geopolitics; and *popular*, which assesses geo-representations in mass media such as magazines, school books, popular atlases, newspapers, and film/TV.[156] *(Re)Placing America* operates not at any one level of these discourses, but at their intersections, and seeks to find the aforementioned tensions of

internationalism/isolationism, fact/value, and idealism/realism at play in maps produced by a diversity of technocrats, strategists, academics, journalists, and commercial map companies.[157] Joanne Sharp's study on the influence of *Reader's Digest* in the 1950s on the Cold War geographical imagination, for example, discusses the use of "geographs" in the Cold War, or "scripts between elites and masses for spatial interpretation of the political world."[158] Indeed, the interdisciplinary scholars of Cold War geopolitics have been moving in this direction, theorizing on how these collisions between American statecraft, geo-science, and popular culture appropriated the new globalism into overlapping "scripts." My goal, in the spirit of these works, is to investigate these collisions in how maps both expand and constrain U.S. perceptions of the Cold War political landscape.

The Scope of Cold War Cartography: Mapping the Study

The scope of this dissertation is purposefully wide—in order to evidence these macro-changes in spatial orientations, I have chosen to cover a broad range of cartographic sources and activities in order to show the dynamic nature of the Cold War over time. However, I have sought to balance this wide scope with close explorations of particular maps, cartographers, and institutions. To reach this balance, I have designed each chapter around larger spatial and Cold War thematics, exploring the broader contexts of these themes before culminating in very specific critical analyses of representative cases. Organized in a rough temporal way, the particular cases chosen for this project provide nodal points for demonstrating the placement of American values during the Cold War, and they focus on key overlapping, intertextual cartographic conversations. By no means do I claim this to be a comprehensive history of Cold War

mapping, but the project does offer a general sense of the trajectory of political maps from an American standpoint—beginning in World War II and up through the collapse of the Soviet Union. Most importantly, though, the maps themselves are the key characters, brought on display here and engaged with in-depth as primary documents in their own right.

Chapter One situates *(Re)Placing America* in terms of the "air-age globalism" that marked the popular journalistic cartography of World War II. The chapter begins by exploring the "tensions and tenets" of this globalism, and how wartime air technology sparked a cartographic movement featuring new perspectives and projections. These discourses were especially stamped by a pre-occupation with both the opportunity and fear of a rapidly shrinking world. The airplane had revolutionized notions of distance and proximity, and maps accounted for this and displayed such changes in profound ways— ways that would manifest themselves in even more stark terms during the Cold War. This discussion climaxes with an in-depth look at Richard Edes Harrison, the quintessential air-age magazine cartographer in the 1940s and 1950s. The chapter mines his bestselling atlases and maps for *Fortune* and other publications, and also draws on his collections in the archival holdings of the Library of Congress to add texture to the arguments, using his writings about cartographic strategies and theories of map audiences. An analysis of some key Harrisonian maps, and their stylistic innovations in terms of projections and strategic perspectives, is used to show how "vision" and "strategy" became two key ideologies for cartography in this era. This chapter is also sensitive to the notion that the spatial shift into a new modern internationalism is accompanied by a Cold War focus on public opinion, and the role that maps played in mediating Cold War popular conceptions

of the globe as a whole during the conflict's beginnings constitute the chapter's major contributions. Often, Harrison's maps have been classified as propaganda, but this chapter allows such classification to become a point of departure for a discussion on the expectations of map form and content in a burgeoning Cold War context. Thus, Chapter One digs at the roots—from a popular standpoint—of the spatial shifts that accompanied America's rise to international superpower status.

Chapter Two follows these popular air-age assumptions into the post-World War II realm of foreign policy and U.S. government cartography. The major thematic tension in this chapter revolves around how maps provided both artistic imagination and scientific authority for U.S. leaders, constrained by the new flexibilities that the shrinking air-age world offered but also complicated by the need to produce a vast amount of spatial facts about the world in order to protect American interests. The larger question, in a sense, revolves around: "what did the United States want to be after World War II?" as the period was marked by a sense of idealism that America's power could be used to unite the world, coupled with a geopolitical realism that acknowledged the coming threats of a smaller global landscape. The beginning of the chapter broadly outlines how maps were increasingly hailed into the spaces of national security, as academic and popular cartographers built the architecture of a postwar spatial framework. The driving case of the chapter, though, revolves around S.W. Boggs, the Department of State's official geographer from 1927–1954. Boggs oversaw the expansion of the State Department's geography division from humble origins as a map archive for the Paris Peace Conference of World War I into a bustling center for geographic intelligence. But it was Boggs' combination of success and failure that made him most interesting. His

career marks the mundane everyday, behind-the-scenes work of an academically trained geographer negotiating U.S. objectives. He was notable for bringing in artists like Richard Edes Harrison and others to make U.S. maps more accessible and dynamic, yet he faced the very real institutional constraints of space as guarded knowledge. Boggs' constant attempts to expand the scope of government mapping and international cartographic collaboration were often stifled and complicated by Cold War dictates. Chapter Two mines both his academic work and public treatises on maps that circulated in the State Department, but also uses the Records of the Geographer of the Department of State at the National Archives to evidence his inter-agency collaborations and his department's mapping initiatives. In general, this chapter works in the uneasy transition from the promise of the air-age to the more complex public/institutional rapprochement that met government representatives involved in placing America during a tumultuous time.

Chapter Three finally arrives at the Cold War proper, bringing in these popular and institutional strands from the opening chapters and projecting how they created an East/West binary between the United States and the Soviet Union. This powerful binary, I argue, was created, in part, by two important functions of Cold War maps, particularly in the 1950s: maps as *images of commitment* and maps as *evidentiary weapons*. As images of commitment, maps spatialized America's extension into a host of military, political, and economic agreements; these maps were marshaled to both argue for America's leadership across the globe and to question the nation's ability to protect its own interests in the process. As evidentiary weapons, maps were hailed by a host of different popular and government institutions to rhetorically display knowledge of Soviet

spaces and were used as provocative arguments in actual diplomatic exchanges with the Soviet Union. This function of Cold War mapping especially involved the map's historical power of precision and authority, as well as its compression of technological expertise into a persuasive, usable visual package. Through both these functions, American strategists, leaders, and popular institutions placed America in stark terms against its Soviet counterparts, erecting borders and projections on the page that doubled as ideological barriers as well. The chapter draws on a wide array of maps, bringing in journalistic constructions of America on the Cold War map from *Time, Life, Fortune*, even the *Associated Press*, but also showing the embeddedness of maps into Congressional reports (through the archives of the Congressional Serial Set) like the Mutual Security Act and the House Un-American Activities Committee reports on Soviet power. The chapter's central case involves the origins, display, and use of the American Federation of Labor's "Gulag—Slavery, Inc." map, which innovatively used cartography as a rhetorical force and a tool of knowledge production against the Soviet Union's prison system. The AFL's production of the map was underwritten by the State Department and the Central Intelligence Agency, thus evidencing the fluidity of map production in this time. Even more importantly, the complex circulation of the Gulag map, as it flowed across international labor movements, newspapers, and government reports, accentuates the intertextuality that brought meaning to maps beyond the mere display of what was on the actual page. Investigations into the George Meany Memorial Archives of the American Federation of Labor reveal the Gulag project as a complex Cold War network, where cartography was drawn directly into the informational weaponry of America's Cold War. Altogether, Chapter Three traffics in the complexities of place and how

America attempted to stabilize its own identity in the Cold War by ordering and classifying cartographic knowledge of its ideological enemy.

Chapter Four assesses the rhetorical function of maps in advancing contentious perspectives of the "Third World," a key part of the cartographic expansion of the Cold War.[159] The tension between America's drive to be a benevolent developer of democratic ideals and economic modernization on one hand, and an international enforcer of its own interests on the other, is most poignantly displayed on these maps. This chapter opens with a brief discussion of the Arno Peters projection controversy of the early 1970s, a mapping project that radically challenged U.S. and Euro-centric mapping perspectives and instead argued for the so-called "South" as an incendiary political force. This discussion leads to a broader exploration of the Third World as a spatial concept, and how the ideologies of development and modernization throughout the 1950s and 1960s constrained the practice of cartography, incorporating North/South orientations into the firmly entrenched East/West cartographic frameworks.[160] Chapter Four culminates in an analysis of a variety of U.S. mapping projects related to Third World development: archivally-driven assessments of the State Department's response to the rapid pace of decolonization, the American Geographic Society's government and military-sponsored medical cartography project that sought to track Third World disease as part of the U.S. mutual security initiatives, and America's leadership role in the United Nations cartography program, where U.S. scientists and government representatives used cartography as a practice to teach other nations self-sufficiency and democratic ideals. In general, this chapter works in the context of worldwide upheaval and challenges to the United States' conduct of the Cold War. From a cartographic point of view, America was

widening the perspective around its commitments and entanglements in a host of Third World fronts, and maps were instrumental in providing a new sense of scope for America in the Cold War.[161] At the same time, the Third World could also be drawn on the map as a site of resistance and contention—as a challenge against attempts to fix America as a center on the map. Altogether, Chapter Four notes that the strong cartographic pull of modernism and its encomiums to progress and liberation was also marked by a powerful uneasiness around America's vision of its place in a time when the nation's power was seen as vulnerable.

Chapter Five arrives at the "Second Cold War" and its large-scale rekindling of the U.S./Soviet arms race in the early 1980s. I first recount a notorious 1984 Oxford Union Debate between Reagan's Secretary of Defense Caspar Weinberger and radical socialist professor E.P. Thompson, where U.S. defense cartography (from a series of public pamphlets between America and the Soviet Union) came under fire as arguments that America had become a morally-bankrupt technocracy built on deathly weapons systems.[162] Particularly, cartography was a contentious vehicle for accounting for nuclear armaments in this era, quantifying and displaying the escalation of sophisticated missile technologies, while also extending the shrinking air-age 1940s globalism of the airplane into the hyper-internationalism of the missile (where traditional notions of distance were almost completely dissolved).[163] Here, maps were both well-suited and limited in their abilities to depict nuclear capacities: the defense cartography of the era was mitigated by a movement of academics and activists that used maps to argue for disarmament. These radical maps depicted a horrific nuclear future of destruction, death, and fallout that had to arouse emotional and moral outrage over an abstract "future geography." Chapter Five

juxtaposes two central cases and puts them in conversation with one another. The analysis begins with a focus on the propaganda volley of maps in "Battle of the Booklets" between Weinberger's Department of Defense and the Soviet Ministry of Defense, and how each projected nuclear capacity and vulnerability against their rival. This exploration is followed by a critical analysis of the maps of William Bunge, arguably the antithesis of the technologized defense cartography of Weinberger and company. Bunge was a pioneering quantitative geographer who became increasingly radicalized by the Vietnam War and the Civil Rights movement; by the 1980s, his *Nuclear War Atlas* project cartographically represented the nuclear disarmament movement, with a crude but fiery set of maps that railed against the powerful weapons of the Cold War.[164] Both cases show different perspectives on the "nuclear geopolitics" that foretold the end of the Cold War in compelling ways—particularly in how maps negotiated rhetorics of change and control in the relationships between superpower technologies and oppositional movements.[165]

Finally, I conclude the study with a series of reflections on how geographers and cartographers began to envision the breakdown of the Cold War spatial system. The popularly published *State of the World* atlases frame, as an opening case, the challenges to state power binaries that constrained a new and uncertain sense of American placement when familiar spatial constructs were in flux. Atlases like the *State of the World* made radical challenges to Cold War state perspectives, but were also complicated by the map's historical use as an arm of state power; thus, such maps provide an interesting snapshot of the complexities of "transition." The Cold War's brand of air-age globalism was giving way to globalization, and this shift in mapping discourse provides an opportunity to reflect on the ramifications of the Cold War's spatial power in defining

America's geographic imagination even into the 21st century. New American visions of world space (and the maps that account for them) are inescapably rooted in the anxieties of Cold War place, and I attempt to pull these threads together to close the study.

Ultimately, *(Re)Placing America* operates under Susan Schulten's wise assumption that "We can never, of course, reach beyond geography, for it is impossible to imagine the world outside of its interpretive conventions. But we can ask *how* geography has mediated the world, and how it has concretized the abstract."[166] It is also essential to keep in mind what Denis Wood and John Fels have written—that a "map…transforms the world into ideology."[167] What I attempt to do in the following chapters is interrogate the ideologies of the map itself (and its uses), during a period where a war was waged on the basis of ideologies rooted in particular values of space and place, and marked by expanding visions of the world and its relationships. *(Re)Placing America* takes the stance that the study of Cold War internationalism, and of America's place on the globe, is best approached by looking for the deeper discursive connections that underwrite the mapping of world space.

Notes: Introduction

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[1] Roald Dahl, *The BFG* (New York: Farrar, Straus, and Giroux, 1982), 193–96.

[2] Katherine Harmon, *You Are Here: Personal Geographies and Other Maps of the Imagination* (New York: Princeton Architectural Press, 2004), back flap.

[3] This notion of space and legibility is perhaps best theorized by anthropologist James C. Scott in his excellent *Seeing Like a State*. In this work, he posits legibility as a central problem of modern statecraft, with the goal of creating a synoptic view of land. In particular, his discussions of early cadastral maps (tax collection maps) evidence the complexity of a state attempting to catalogue its landscapes and people for the sake of national interest. See James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, CT: Yale University Press, 1998).

[4] The amount of contested definitions of "space" cannot scarcely be recounted in this essay, but I essentially follow roughly the judgment of spatial theorist and pioneering urban geographer David Harvey who wrote in *Social Justice and the City* that, "If we regard space as absolute it becomes a 'thing in itself' with an existence independent of matter. It then possesses a structure which we can use to pigeon-hole or to individuate phenomena. The view of relative space proposes that it be understood as a relationship *between* objects which exists only because objects exist and relate to each other. There is another sense in which space can be viewed as relative and I choose to call this relational space—space regarded, in the fashion of Leibniz, as being contained *in* objects in the sense that an object can be said to exist only insofar as it contains and represents within itself relationships to other objects…[S]pace becomes whatever we make of it during the

process of analysis rather than prior to it. Further, space is neither absolute, relative, or

relational *in itself*, but it can become one or all simultaneously depending on the

circumstances…In other words, there are no philosophical questions that arise over the

nature of space—the answers lie in human practice. The question 'what is space?' is

therefore replaced by the question 'how is that different human practices create and make

use of distinctive conceptualizations of space?" This notion of actively constructed,

contextual space is also furthered by Henri Lefebvre: "Space is not a scientific object

removed from ideology and politics; it has always been political and strategic. If space

has an air of neutrality and indifference with regard to its contents and thus seems to be

'purely' formal, the epitome of rational abstraction, it is precisely because it has been

occupied and used, and has already been the focus of past processes whose traces are not

always evident on the landscape." I would also include Edward Soja's notions here as

well, as he writes: "Space in itself may be primordially given, but the organization, and

meaning of space is a product of social translation, transformation, and experience." Soja

actually fashions the term "spatiality" as a way to detangle space from its usually

physicalist connotations. He believes space has wrongly been seen as "something

external to the social context and to social action, a part of the 'environment', a part of

the setting for society—its naively given container—rather than a formative structure

created by society." See David Harvey, *Social Justice and the City* (Baltimore, MD:

Johns Hopkins University Press, 1973), 13–14; Henri Lefebvre, "Reflections on the

Politics of Space," *Antipode* 8 (1976): 31; and Edward Soja, "The Socio-spatial Dialectic

(1989)," in *Reading Human Geography*, eds. Trevor Barnes and Derek Gregory (London:

Arnold, 1997), 246–47, 255.

[5] A discussion on the shifts from an open space to a closed space, particularly in a Cold War context, can be found in Alan K. Henrikson, "Maps, Globes, and the 'Cold War'," *Special Libraries* 65 (1974): 445–46. Gearóid Ó Tuathail goes even further into the roots of America's closed spaces in his discussion of the development of 20th century geopolitics. See Gearóid Ó Tuathail, *Critical Geopolitics: The Politics of Writing Global Space* (Minneapolis: University of Minnesota Press, 1996), 15–16.

[6] Harley discusses the importance of signification in bird's eye views of the earth. See J.B. Harley, *The New Nature of Maps: Essays in the History of Cartography*, edited by Paul Laxton (Baltimore, MD: Johns Hopkins University Press, 2001), 45.

[7] See Frank Ninkovich's thesis in his introduction to *Modernity and Power: A History of the Domino Theory in the Twentieth Century* (Chicago: University of Chicago Press, 1994), xi–xv.

[8] John Berger et al, *Ways of Seeing* (New York: Penguin Books, 1972), 10.

[9] Alexander P. De Seversky, *Victory Through Air* Power (New York: Simon & Schuster, 1942). See also Alexander P. De Seversky, *Air Power: Key to Survival* (London: Herbert Jenkins, 1952).

[10] Walt Disney, *Victory Through Air Power*, YouTube video, 70 min. (10 parts), Walt Disney Pictures, 1943, http://www.youtube.com/watch?v=paY6y87rrpE.

[11] This specific scene can be found in "Part 1" of the scenes offered on YouTube.

[12] Paul A. Chilton, "The Meaning of *Security*," in *Post-Realism: The Rhetorical Turn in International Relations*, edited by Francis A. Beer and Robert Hariman (East Lansing: Michigan State University Press, 1996), 210.

[13] Ó Tuathail, *Critical Geopolitics*, 60.

[14] Henrikson, "The Power and Politics of Maps," 64, 51.

[15] As Jeremy Black has written, mapping is constrained by our desire to "explain, classify, and organize," entailing a significant relationship between the cartographic impulse and control itself. See Jeremy Black, *Maps and Politics* (Chicago: University of Chicago Press, 1997), 95.

[16] Derek Gregory has given the most full theoretical treatment of this "geographic imagination" concept. See Derek Gregory, *Geographical Imaginations* (Cambridge, MA: Blackwell, 1994). Yet, perhaps the fullest historical application of these notions can be found in Susan Schulten, *The Geographical Imagination in America, 1880-1950* (Chicago: University of Chicago Press, 2001). See also Holleran's review of Schulten for more discussion of this concept in Michael Holleran, "America's Place in the World," *Reviews in American History* 30 (2002): 419–24. Other instructive treatments of the concept can be found in the following: Joan M. Schwartz and James R. Ryan, eds. *Picturing Place: Photography and the Geographical Imagination* (New York: I.B. Tauris, 2003); and Denis E. Cosgrove, *Apollo's Eye: A Cartographic Genealogy of the Earth in the Western Imagination* (Baltimore, MD: Johns Hopkins University Press, 2001).

[17] On "rhetorics of display," see Lawrence J. Prelli, ed., *Rhetorics of Display* (Columbia: University of South Carolina Press, 2006). On maps as selective and reductive, see Judith A. Tyner, "Persuasive Cartography," *Journal of Geography* (July-August 1982): 141–44.

[18] Christian Jacob, *The Sovereign Map: Theoretical Approaches in Cartography Throughout History*, trans. Tom Conley (Chicago: University of Chicago Press, 2006), 6.

[19] To evidence America's shift into Cold War space, I focus on the contestable functions of maps as *representations*—because perhaps, above all, maps are entangled in the problems of representing "what is," while making visual arguments about "what should be." Michael Shapiro's work offers an introduction to the overall complexities of space and representation. See, as a representative example, Michael J. Shapiro, *The Politics of Representation* (Madison: University of Wisconsin Press, 1988). For the problems of representation and maps specifically, see Peter Vujakovic, "'A New Map is Unrolling Before Us': Cartography in News Media Representations of Post-Cold War Europe," *The Cartographic Journal* 36 (1999): 43–57; Denis Wood, *The Power of Maps* (New York: Guilford, 1992), 4–26; Trevor J. Barnes, "Obituaries, War, 'Corporeal Remains,' and Life: History and Philosophy of Geography, 2007-2008," *Progress in Human Geography* 33 (2009): 693–701; and John Pickles, "Texts, Hermeneutics and Propaganda Maps," in *Writing Worlds*, 194–229.

[20] Kenneth Burke, *Counter-Statement* (Berkeley: University of California Press, 1968), 31.

[21] In an article on "Ideology in Geography" for the radical geographical journal *Antipode* in the early 1970s, James Anderson warned about ignoring the dialectical relations of content and form, and that "one cannot choose between the spatial and social, one must have both." James Anderson, "Ideology in Geography: An Introduction," *Antipode* 5 (1973): 1–6.

[22] Pickles, "Texts, Hermeneutics and Propaganda Maps," 194.

[23] Robert L. Scott, "Cold War and Rhetoric: Conceptually and Critically," in *Cold War Rhetoric: Strategy, Metaphor, and Ideology,* eds. Martin J. Medhurst, Robert L. Ivie,

Philip Wander, and Robert L. Scott (New York: Greenwood, 1990), 4. A second edition of this book was released in 1997.Robert L. Scott, "Introduction," in *Cold War Rhetoric: Strategy, Metaphor, and Ideology,* eds. Martin J. Medhurst, Robert L. Ivie, Philip Wander, and Robert L. Scott (New York: Greenwood, 1990), 4. A second edition of this book was released in 1997.

[24] The field of rhetorical studies has been particularly active in arguing the Cold War as a rhetorical worldview. See especially Stuckey's discussion of the Cold War as powerful interprettive schema in Mary Stuckey, "Competing Foreign Policy Visions: Rhetorical Hybrids After the Cold War," *Western Journal of Communication* 59 (1995): 214–27; also note Kane's discussion of the Cold War as a kind of commanding lens by which to view the world in Thomas Kane, "Foreign Policy Suppositions and Commanding Ideas," *Argumentation and Advocacy* 28 (1991): 80–91.

[25] Ben and Marthalee Barton, in their advocacy for postmodern visual design practices, have written, "Although the map as a concrete graphic text is an act of enunciation with ideological dimensions, such an act of production and an act of reception. The map, in other words, may be considered as *process* rather than *product*, and strategies of repression take the form of the repression of process in map discourse." See Ben F. Barton and Marthalee S. Barton, "Ideology and the Map: Toward a Postmodern Visual Design Practice," in *Professional Communication: The Social Perspective*, eds. Nancy Roundy Blyler and Charlotte Thralls (Newbury Park, CA: Sage, 1993), 62.

[26] Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977), 4.

[27] Tuan, *Space and Place*, 6.

[28] In terms of the relationships between space and place, the work of Doreen Massey has been particularly influential. As representative examples, see Doreen B. Massey, *For Space* (Thousand Oaks, CA: Sage, 2005); and Doreen B. Massey, *Space, Place, and Gender* (Minneapolis: University of Minnesota Press, 1994).

[29] See Kevin Michael DeLuca, *Image Politics: The New Rhetoric of Environmental Activism* (New York: Guilford, 1999), 76–77.

[30] The Medhurst and Brands edited collection, *Critical Reflections on the Cold War*, explores the relationship between rhetoric and materiality throughout, but see Graebner's opening essay specifically on this notion of the Cold War as an ideological conflict in Norman J. Graebner, "Myth and Reality: America's Rhetorical Cold War," in *Critical Reflections on the Cold War: Linking Rhetoric and History*, eds. Martin Medhurst and H.W. Brands (College Station: Texas A&M, 2000), 22–35.

[31] David N. Livingstone, *The Geographical Tradition* (Oxford, UK: Blackwell, 1992), 2.

[32] A good source on this geopolitical construction of the Soviet "other" can be found in Simon Dalby, *Creating the Second Cold War: The Discourse of Politics* (London: Pinter Publishers, 1990).

[33] An interesting discussion of this interpretive turn during the Cold War takes place in Richard K. Ashley, "The Geopolitics of Geopolitical Space: Toward a Critical Social Theory of International Politics," *Alternatives* 12 (1987): 403–4.

[34] For a historian's take on these shifts, see Ninkovich, *Modernity and Power*, xiv–xv. For a more geographic perspective, see the first chapter of Neil Smith, *American*

Empire: Roosevelt's Geographer and the Prelude to Globalization (Berkeley: University of California Press, 2003). Rhetorical perspectives on Cold War public opinion can be found in J. Michael Hogan, "The Science of Cold War Strategy: Propaganda and Public Opinion in the Eisenhower Administration's 'War of Words,'" in *Critical Reflections on the Cold War*, 140–161. In addition, Shawn J. Parry-Giles' thesis about the liberal internationalization of propaganda in the Eisenhower administration, as a response to the Truman administration's more aggressive cultural approach, fits within this idea that the rhetorical shift into the Cold War was marked by a greater focus on the image "abroad" and symbolic power of America. See Shawn J. Parry-Giles, "Rhetorical Experimentation and the Cold War, 1947-1953: The Development of an Internationalist Approach to Propaganda," *Quarterly Journal of Speech* 80 (1994): 448–67; and for her fuller exploration of the topic, see Shawn J. Parry-Giles, *The Rhetorical Presidency, Propaganda, and the Cold War, 1945-55* (Westport, CT: Praeger, 2002).

[35] Gilles Deleuze and Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. B. Massumi (Minneapolis: University of Minnesota Press, 1987), 12.

[36] This notion of maps and abstractions is perhaps most eloquently described by Thongchai Winichakul in *Siam Mapped*, where he writes, "In terms of most communication theories and common sense, a map is a scientific abstraction of reality. A map merely represents something which already exists objectively 'there.' In the history I have described, this relationship was reversed. A map anticipated spatial reality, not vice versa. In other words, a map was a model for, rather than a model of, what it purported to represent…It had become a real instrument to concretize projects on the earth's surface."

See Thongchai Winichakul, *Siam Mapped: A History of the Geo-Body Nation* (Honolulu: University of Hawai'i Press, 1994). In terms of the specific context of this project, Farish discusses these kinds of spatial abstractions in the spatial changes of World War II and the early Cold War—see Matthew Farish, "Archiving Areas: The Ethnogeographic Board and the Second World War," *Annals of the Association of American Geographers* 95 (2005): 663–79. Ninkovich also makes arguments about how abstraction and space took on important connections during the rise of Wilsonian internationalism, and traces its roots into the Cold War: Ninkovich, *Modernity and Power*, 109.

[37] For a discussion of the rhetorical qualities of containment and liberation discourses, see Ned O'Gorman, "'The One Word the Kremlin Fears': C.D. Jackson, Cold War 'Liberation,' and American Political-Economic Adventurism," *Rhetoric & Public Affairs* 12, (2009): 389–428.

[38] M.M. Bakhtin, *The Dialogic Imagination: Four Essays*, trans. Caryl Emerson and Michael Holquist (Austin: University of Texas Press, 1981), 84. Bakhtin's discussion of the "chronotope" provides instructive reflections on these time-space relationships. A chronotope is defined as a literary-artistic device where "spatial and temporal indications are fused into one carefully thought-out, concrete whole. Time, as it were, thickens, takes on flesh, becomes artistically viable; likewise, space becomes charged and responsive to the movements of time, plot and history." Bakhtin, 84. The chronotope aids the study of the map texts because it helps theorize how time becomes materialized through space and become a "center for concretizing representation." Bakhtin's work posits that time and space collide to present a *represented* world in the text that is separate from the world that *creates* that text. Thus the map, for example, represents time and space in narratives

that are ordered by the real contexts they are created in, while the represented world in

the map is obviously different than the real world; yet, the important insight is that both

worlds constantly renew each other. Bakhtin, 252–258. In addition, for a in-depth source

on the cartographic implications of the time/space nexus, see Irina Ren Vasiliev,

"Mapping Time," *Cartographica* 34 (1997): 1–50.

[39] Smith, *American Empire*, 21.

[40] In addition to Neil Smith's aforementioned work, John Agnew's exploration of

the essentializing of time and space in modern geopolitics is important. See Agnew,

Geopolitics, 36.

[41] Jacob, *The Sovereign Map*, 2.

[42] Jacob, *The Sovereign Map*, 2.

[43] Schulten, *The Geographical Imagination*.

[44] Lester C. Olson, Cara A. Finnegan, and Diane S. Hope, "Performing and

Seeing," in *Visual Rhetoric: A Reader in Communication and American Culture*, edited

by Lester C. Olson, Cara A. Finnegan, and Diane S. Hope (Los Angeles, CA: Sage, 2008),

18.

[45] Bryan C. Taylor and Stephen Hartnett, "'National Security, and All that it

Implies…': Communication and (Post-) Cold War Culture," *Quarterly Journal of Speech*

86 (2000): 467.

[46] My focus here is not dissimilar from the approach Rosteck takes as he tries to

bridge divides between rhetorical analysis and critical/cultural studies. See Thomas

Rosteck, "Rereading Wrage: Form and Cultural Context in Rhetorical Criticism,"

Quarterly Journal of Speech 84 (1998): 471–90.

[47] Medhurst, Ivie, Wander, and Scott, *Cold War Rhetoric*.

[48] Medhurst, "Rhetoric and Cold War," 25.

[49] Robert L. Ivie, "Cold War Motives and the Rhetorical Metaphor: A Framework of Criticism," in *Cold War Rhetoric*, 75–76.

[50] Wander, "The Rhetoric of American Foreign Policy," in *Cold War Rhetoric*, 156.

[51] Wander, "The Rhetoric of American Foreign Policy," 170.

[52] Certainly this is not an argument that these three approaches are the only instructive ones offered in the field of rhetorical studies. A good example is in the more dramatistic approach to the Cold War that was postulated by Thomas Hollihan, wherein foreign policy strategy in the Cold War era is marked by three dramatistic configurations: Cold War dramas, new world order dramas, and power politics dramas. See Thomas A. Hollihan, "The Public Controversy Over the Panama Canal Treaties: An Analysis of American Foreign Policy Rhetoric," *Western Journal of Speech Communication* 50 (1986): 368–87.

[53] Lawrence J. Prelli, "Visualizing a Bounded Sea: A Case Study in Rhetorical Taxis," in *Rhetorics of Display,* ed. Lawrence J. Prelli (Columbia: University of South Carolina Press, 2006), 90–110.

[54] A good example of a piece in the rhetorical studies tradition that unites these three approaches is in Parry-Giles' study of institutional propaganda during the Eisenhower administration. See Shawn J. Parry-Giles, "Militarizing America's Propaganda Program, 1945-55," in *Critical Reflections on the Cold War*, 98–123.

[55] This especially involves an exploration of the Records of the Office of the Geographer, Department of State at National Archives II, the intensive *Title Collection* of U.S. and world maps at the Library of Congress—which houses government, commercial, and educational maps from the early 1940s into the late 1960s, the Richard Edes Harrison Collection at the Library of Congress, the International files of the American Federation of Labor from the early 1950s at the George Meany Memorial Archives, and the Congressional Serial Set map archives both digitized and in print, collected at the University of Maryland's McKeldin Library.

[56] Good examples of this trend include John Ager, "Maps and Propaganda," *Bulletin for the Society of University Cartographers* 11 (1979): 1–15; Alan Burnett, "Propaganda Cartography," in *The Geography of Peace and War*, eds. David Pepper and Alan Jenkins (New York: Blackwell, 1985); Derek R. Hall, "A Geographical Approach to Propaganda," in *Political Studies From Spatial Perspectives*, eds. A.D. Burnett and P.J. Taylor (Chichester, UK: John Wiley & Sons, 1981), 313–330; Judith A. Tyner, "Persuasive Cartography," *Journal of Geography* (July-August 1982): 141–144; and most recently, Edoardo Boria, "Geopolitical Maps: A Sketch History of a Neglected Trend in Cartography," *Geopolitics* 13 (2008): 278–308. Propaganda as defined by these works is broader than the more restricted definition offered, for example, by rhetorical scholars like Hogan and Parry-Giles, where propaganda refers specifically to government sources using persuasive campaigns to effect public opinion. Geographers and cartographers are more often using propaganda to refer to *any* overt and covert use of persuasion in maps. Many of these works use propaganda more as an educational lens by which to "teach" map users to understand the processes of selection in political maps.

[57] Peter Vujakovic, "Mapping the War Zone: Cartography, Geopolitics and Security Discourse in the UK Press," *Journalism Studies* 3 (2002): 188.

[58] Mark Monmonier, *Maps with the News: The Development of American Journalistic Cartography* (Chicago: University of Chicago Press, 1989), 1.

[59] Patrick J. Daley, "Mapping the Environment: Contested Physical and Cultural Terrain in the 'Far North,'" *Journalism and Communication Monographs* 1 (2000): 268–269.

[60] J.B. Harley, "Deconstructing the Map," *Writing Worlds: Discourse, Text and Metaphor in the Representation of Landscape*, eds. Trevor J. Barnes and James S. Duncan (London: Routledge, 1992), 247.

[61] John Pickles, *A History of Spaces: Cartographic Reason, Mapping and the Geo-Coded World* (London: Routledge, 2004), 9.

[62] Derek Gregory, *Geographical Imaginations* (Cambridge, MA: Blackwell, 1994), 7.

[63] Harley, *New Nature of Maps*, 35. So, even though, for example, medieval Christendom hardly ever used maps to represent geographical information, many historical atlases looking back at that era show its areas divided into bounded territories, unambiguous and cleanly drawn. Michael Biggs, "Putting the State on the Map: Cartography, Territory, and European State Formation," *Comparative Studies in Society and History* 41 (1999): 374. Also see Anderson, *Imagined Communities*, 174–175

[64] Anti Randviir, "Spatialization of Knowledge: Cartographic Roots of Globalization,"

Semiotica 150 (2004): 230–31.

[65] Claude Raffestin, "From Text to Image," *Geopolitics* 5 (2000): 9.

[66] I would subscribe here to James Robertson's definition of myths that they are patterns of behavior, belief, and of perception which people have in common" and that they provide the wisdom by which "the contrasts and conflicts which normally arise among people, among ideals, among the confusing realities" can be "reconciled, smoothed over, or at least made manageable." Leroy Dorsey has also added that "they bridge differences and promote commonality among human beings by framing their reality in an almost mystical way." Dorsey also points toward Bronislaw Malinowski's conception of myth, which points to their inherent usability, writing that myth "expresses, enhances, and codifies belief; it safeguards and enforces morality; it vouches for the efficiency of ritual and contains practical rules for the guidance of man." In terms of critical geography, Denis Wood's conceptions of maps and myths seems to align with these ideas, and hints at their use as political weapons, as he writes that the map "as myth…refers to itself and to its makers, and to a world seen quite subjectively through their eyes. It trades in values and ambitions; it is politicized." See James O. Robertson, *American Myth, American Reality* (New York: Hill & Wang, 1980), xv; Leroy Dorsey, "The Frontier Myth in Presidential Rhetoric: Theodore Roosevelt's Campaign for Conservation," *Western Journal of Communication* 59 (1995), 3–4; Bronislaw Malinowski, *Magic, Science and Religion and Other Essays* (Westport, CT: Greenwood, 1984); Wood, *The Power of Maps*, 116.

[67] Raffestin, "From Text to Image," 7.

[68] Biggs, "Putting the State on the Map," 378.

[69] Biggs, "Putting the State on the Map," 378.

[70] The map, as John Pickles writes, is a "story of the radical abstraction of the practices of the finger and the eye." Pickles, *A History of Spaces*, 6.

[71] John Pickles, "Text, Hermeneutics and Propaganda Maps," 217.

[72] Stephen Hartnett, "Michel de Certeau's Critical Historiography and the Rhetoric of Maps," *Philosophy and Rhetoric* 31 (1998): 287–288.

[73] Hartnett, "Michel de Certeau's Critical Historiography," 288; Gregory, *Geographical Imaginations*, 7.

[74] Harley, "Deconstructing the Map," 242–43.

[75] Harley, *New Nature of Maps*, 37. Pickles, "Texts, Hermeneutics, and Propaganda Maps," 219; Trevor J. Barnes and James S. Duncan, "Introduction: Writing Worlds," in *Writing Worlds: Discourse, Text and Metaphor in the Representation of Landscape*, eds. Trevor J. Barnes and James S. Duncan (London: Routledge, 1992), 8.

[76] Pickles, "Texts, Hermeneutics, and Propaganda Maps," 219–20. And one must also consider the map in its relation to other cartographic interpretations of the same landscapes or events. As Mark Monmonier warns, "if any single caveat can alert map users to their unhealthy but widespread naivete, it is that a single map is but one of an indefinitely large number of maps that might be produced for the same situation or from the same data." See Mark Monmonier, *How Maps Lie*, Second Edition (Chicago: University of Chicago Press, 1996), 2.

[77] Alan M. MacEachren, *How Maps Work: Representation, Visualization, and Design* (New York: Guilford Press, 1995), 349.

[78] Biggs, "Putting the State on the Map," 374, 396; Wood, *The Power of Maps*, 10.

[79] Wood, *The Power of Maps*, 10, 11.

[80] Alexander B. Murphy, "Historical Justifications for Territorial Claims," *Annals of the Association of American Geographers* 80 (1990): 544.

[81] Christer Jonsson, Sven Tagil and Gunnar Torqvist, *Organizing European Space* (London: Sage, 2000), 11, 14.

[82] Edward Soja's particular indictments of state power and political space are important to consider in any discussion of maps and power. See Edward W. Soja, *The Political Organization of Space*, Commission on College Geography Resource Paper No. 8 (Washington, DC: Association of American Geographers, 1971).

[83] Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1984), 121.

[84] While we often take states for granted as the building blocks of our spatial understanding of the world, the mapping of states is relatively recent. Benedict Anderson notes the map's propensity in early modern times to spark the emergence of a "state-mind"—the European Mercator map via print was providing clear borders for a traditional structure of political power around the globe. Yet, as Michael Biggs points out, it was not until the early nineteenth century when "rulership and ground [became] fused," thus homogenizing the space of the state. Political authority became tied to the map; it no longer "hovered over it." By the twentieth century, nationalism began to fill out the territorial division of states and became a dominant principle of partitioning and

bordering. To this day, the term geopolitics now carries loaded connotations of territorial conquests—a pejorative word that conjures up an imperial bullying by state actors. See Anderson, *Imagined Communities*, 171, 175; Jonathan Bach and Susanne Peters, "The New Spirit of German Geopolitics," *Geopolitics* 7 (2002): 5; Biggs, "Putting the State on the Map," 374, 391, 392, 396; Black, *Maps and Politics*, 12; Demko and Wood, "Introduction: International Relations Through the Prism of Geography," 5–6.

[85] For more on the geopolitical implications of Haushofer's approach, see Ó Tuathail, *Critical Geopolitics*.

[86] Harrison was an excellent writer on map theories in his own right. Some of the most representative pieces include Richard Edes Harrison, "Art and Common Sense in Cartography," *Surveying and Mapping* 19 (1959): 27–28; Richard Edes Harrison, "Introduction," in *Look at the World: The Fortune Atlas for World Strategy* (New York: Knopf, 1944); and Richard Edes Harrison, "The War of the Maps: A Famous Cartographer Surveys the Field," *Saturday Review of Literature* (August 7, 1943): 24.

[87] For example, S.W. Boggs, the geographer for the Department of State in the 1940s, warned in the early days of the Cold War of a "cartohypnosis," by which map audiences could be tricked into the lies of unscrupulous cartographers, yet at the same time offered "map literacy" principles by which audiences and mapmakers could escape such insidious persuasion. S.W. Boggs, "Cartohypnosis," *The Scientific Monthly* 64 (1947): 469–76.

[88] Isaiah Bowman, "Geography vs. Geopolitics," *Geographical Review* 32 (October 1942): 646–58.

[89] Some of the most representative pieces discussing this revolution include Robert McMaster and Susanna McMaster, "A History of Twentieth-Century American Academic Cartography," *Cartography and Geographic Information Science* 29 (2002): 305–21; and Rich Heyman, "'Who's Going to Man the Factories and Be the Sexual Slaves if We All Get PhDs?': Democratizing Knowledge Production, Pedagogy, and the Detroit Geographical Expedition and Institute," *Antipode* 39 (2007): 99–120.

[90] Barnes and Farish, "Between Regions," 808. See also Richard Hartshorne, "The Functional Approach in Political Geography," *Annals of the Association of American Geographers* 40, no. 2 (1950): 95–130.

[91] For a collection of Foucault essays on this subject, as well as some critical analyses by leading scholars, see Jeremy Crampton and Stuart Elden, eds., *Space, Knowledge, and Power: Foucault and Geography* (London: Ashgate, 2007).

[92] Harley, *New Nature of Maps,* 35. The image is taken from Richard Rorty, *Philosophy and the Mirror of Nature* (Oxford, UK: Blackwell, 1980).

[93] David Harvey, *Social Justice and the City* (Baltimore, MD: Johns Hopkins University Press, 1973), 118, 148–49, 110. See also William Bunge, *Fitzgerald: Geography of a Revolution* (Cambridge, MA: Schenkman, 1971).

[94] Guy Debord, *Society of the Spectacle*, trans. Ken Knabb (1968; London, UK: Rebel Press), 94; Henri Lefebvre, "Reflections on the Politics of Space," *Antipode* 8 (1976): 31.

[95] A useful summation of the aims and goals of humanistic geography can be found in Yi-Fu Tuan, "Humanistic Geography," *Annals of the Association of American Geographers* 66 (1976): 266–76.

[96] D.W. Meinig, "Geography as an Art," *Transactions of the Institute of British Geographers* 8 (1983): 321.

[97] An introduction to this history can be found in Edward W. Soja, *Postmodern Geographies: The Reassertion of Space in Critical Social Theory* (London: Verso, 1989).

[98] Benedict Anderson, *Imagined Communities*, Revised Edition (London: Verso, 1991).

[99] Derek Gregory, *Geographical Imaginations*; Schulten, *The Geographical Imagination in America*.

[100] Said, as quoted in the following: Matthew Edney, *Mapping an Empire: The Geographical Construction of British India, 1765-1843* (Chicago: University of Chicago Press, 1997), 24; and Anne Godlewska and Neil Smith, eds., *Geography and Empire*, (Oxford, UK: Blackwell, 1994), 6.

[101] For an excellent discussion of the notions of decolonization and deconstruction in maps, see Graham Huggan, "Decolonizing the Map: Post-Colonialism, Post-Structuralism and the Cartographic Connection," *Ariel* 20 (1989): 115–31. In addition, a fruitful subdiscipline of historical geographers has been the study of "empire" and geography, and there are a host of excellent sources that take on this subject. See Neil Smith and Anne Godlewska, "Introduction: Crucial Histories of Geography," in *Geography and Empire*, edited by Anne Godlewska and Neil Smith (Oxford, UK: Blackwell, 1994); Felix Driver, *Geography Militant: Cultures of Exploration and Empire* (Oxford, UK: Blackwell, 2001); Martin Bruckner and Hsuan L. Hsu, eds., *American Literary Geographies: Spatial Practice and Cultural Production 1500-1900* (Newark: University of Delaware Press, 2007); Anne Baker, *Heartless Immensity: Literature,*

Culture, and Geography in Antebellum America (Ann Arbor: University of Michigan Press, 2006); Caroline Field Levander and Robert S. Levine, eds., *Hemispheric American Studies* (New Brunswick, NJ: Rutgers University Press, 2008); D. Graham Burnett, *Masters of All They Surveyed: Exploration, Geography, and a British El Dorado* (Chicago: University of Chicago Press, 2000); Karen M. Morin, *Frontiers of Femininity: A New Historical Geography of the Nineteenth-Century American West* (Syracuse, NY: Syracuse University Press, 2008); Katherine G. Morrissey, *Mental Territories: Mapping the Inland Empire* (Ithaca, NY: Cornell University Press, 1997); Samuel Truett, *Fugitive Landscapes: The Forgotten History of the U.S.-Mexico Borderlands* (New Haven, CT: Yale University Press, 2006); Tamar Rothenberg, "Voyeurs of Imperialism: *The National Geographic Magazine* before World War II," in *Geography and Empire*, 155–72.

[102] Foucault says in this interview, "Once knowledge can be analysed in terms of region, domain, implantation, displacement, transposition, one is able to capture the process by which knowledge functions as a form of power and disseminates the effects of power. There is an administration of knowledge, a politics of knowledge, relations of power which pass via knowledge and which, if one tries to transcribe them, lead one to consider forms of domination designated by such notions as field, region and territory. And the politico-strategic term is an indication of how the military and the administration actually come to inscribe themselves both on a material soil and within forms of discourse." Michel Foucault, "Questions on Geography," in *Power/Knowledge: Selected Interviews and Other Writings*, ed. and trans. Colin Gordon (New York: Pantheon, 1980), 63–77. For other important sources in this vein, see Gunnar Olsson, *Lines of Power/Limits of Language* (Minneapolis: University of Minnesota Press, 1991). Also, a

good discussion of Olsson (and the entire realm of postmodern writing in terms of space and landscape) appears in Trevor J. Barnes and James S. Duncan, "Introduction: Writing Worlds." A reprinting of Olsson's original "Lines of Power" essay is also included in this collection. Also see Pickles, *A History of Spaces*, 180.

[103] Harley, *The New Nature of Maps*, 153.

[104] It is important, though to mention the key critiques of Harley; in particular, see Barbara Belyea, "Images of Power: Derrida/Foucault/Harley," *Cartographica* 29 (1992): 1–9.

[105] Social critics like Frank Lentricchia loathed deconstruction (and even geographers like Gregory, Soja, and Harvey had their issues with it), writing that, "politically, deconstruction translates into that passive kind of conservatism called quietism; it thereby plays into the hands of established power; deconstruction can show that representations are not and cannot be adequate to the task of representation, but it has nothing to say about the social work that representation can and does do." Lentricchia, *Criticism and Social Change*, 50–51; James S. Duncan and Trevor J. Barnes, "Afterword," in *Writing Worlds: Discourse, Text & Metaphor in the Representation of Landscape*, eds. Trevor J. Barnes and James S. Duncan (New York: London, 1992), 250–51.

[106] Harley, *New Nature of Maps*, 205.

[107] Harley, *New Nature of Maps*, 203.

[108] My own previous work has dealt with cartographic dilemmas of change and control. See Timothy Barney, "Power Lines: The Rhetoric of Maps as Social Change in the Post-Cold War Landscape," *Quarterly Journal of Speech* 95 (2009): 412–34.

[109] See especially Felix Driver, *Geography Militant: Cultures of Exploration and Empire* (Oxford, UK: Blackwell, 2001); Martin Bruckner and Hsuan L. Hsu, eds., *American Literary Geographies: Spatial Practice and Cultural Production 1500-1900* (Newark: University of Delaware Press, 2007); Anne Baker, *Heartless Immensity: Literature, Culture, and Geography in Antebellum America* (Ann Arbor: University of Michigan Press, 2006); Caroline Field Levander and Robert S. Levine, eds., *Hemispheric American Studies* (New Brunswick, NJ: Rutgers University Press, 2008); D. Graham Burnett, *Masters of All They Surveyed: Exploration, Geography, and a British El Dorado* (Chicago: University of Chicago Press, 2000).

[110] David Woodward, ed., *The History of Cartography*, Volumes 1-3 (Chicago: University of Chicago Press, 2007).

[111] Along similar lines is re-intervention into the *present* by political geographers worrying about a focus on too much deconstruction and not enough construction. A roundtable discussion led by Guntram Herb in a 2009 issue of *Political Geography* indicts geographers for spending too much time on the image and representation of the map, rather than on the material practices behind their use and construction. As the discussants reiterate, there is very little engagement with gender, class, and sexuality in mapping, and thus cartographers and critics rely on a traditional realist acceptance of the governance tradition and the primacy of the territorial state on the map. As Jeremy Black has warned, any study of cartography has to understand the limits of the *form* itself—a map can well demonstrate boundaries and fixed areas of space, but is often less well-equipped to demonstrate the messiness of human relationships that mark place. Guntram H. Herb, Jouni Hakli, Mark W. Corson, Nicole Mellow, Sebastian Cobarrubias, and

Maribel Casas-Cortes, "Intervention: Mapping is Critical!," *Political Geography* 28 (2009): 332–42; Black, *Maps and Politics*, 73; Vujakovic, "A New Map is Unrolling," 45.

112 Dalby, *Creating the Second Cold War*.

113 Ó Tuathail, *Critical Geopolitics*, 60–61. See Gearóid Ó Tuathail and Timothy W. Luke, "Present at the (Dis)Integration: Deterritorialization and Reterritorialization in the New Wor(l)d Order," *Annals of the Association of American Geographers* 84 (1994): 381–98; Gearóid Ó Tuathail and John Agnew, "Geopolitics and Discourse: Practical Geopolitical Reasoning in American Foreign Policy," *Political Geography* 11 (1992): 190–204; Gearóid Ó Tuathail, "(Dis)Placing Geopolitics: Writing on the Maps of Global Politics," *Environment and Planning D: Society and Space* 12 (1994): 525–46; John O'Loughlin, "Ordering the 'Crush Zone': Geopolitical Games in Post-Cold War Eastern Europe," in *Geopolitics at the End of the Twentieth Century*, eds. Nurit Kliot and David Newman (New York: Routledge, 2000): 34–56.

114 Ó Tuathail, *Critical Geopolitics*, 60.

115 Francis A. Beer and Robert Hariman, "Realism and Rhetoric in International Relations," and "Strategic Intelligence and Discursive Realities," in *Post-Realism: The Rhetorical Turn in International Relations* (East Lansing: Michigan State University Press, 1996): 1–30; 387–414.

116 David J. Sylvan and Stephen J. Majeski, "Rhetorics of Place Characteristics in High-Level US Foreign Policy Making," in *Post-Realism*, 309–29.

117 Raymie McKerrow, "Space and Time in the Postmodern Polity," *Western Journal of Communication* 63 (1999): 287.

[118] See Greg Dickinson, Brian L. Ott, and Eric Aoki, "Spaces of Remembering and Forgetting: The Reverent Eye/I at the Plains Indian Museum," *Communication & Critical Cultural Studies* 3 (2006): 27–47; and Greg Dickinson, "Memories for Sale: Nostalgia and the Construction of Identity in Old Pasadena," *Quarterly Journal of Speech* 83 (1997): 1–27.

[119] Greg Dickinson, "The Pleasantville Effect: Nostalgia and the Visual Framing of (White) Suburbia," *Western Journal of Communication* 70 (2006): 214.

[120] Prelli, "Visualizing a Bounded Sea," 95.

[121] In *The Power of Maps*, Wood offers a series of codes of intrasignification and extrasignification that work on internal and external levels of meaning. See Wood, *The Power of Maps*, 116–32; Gregory, *Geographical Imaginations.* An example of a communication study that utilizes these codes can be found in Daley, "Mapping the Environment." In addition, Wood and Fels have made important extensions of these visual tropes—see Denis Wood and John Fels, "The Natures of Maps: Cartographic Constructions of the Natural World," *Cartographica* 43 (2008): 189–202. But perhaps the best example of the move toward a full theory close-textual reading of maps is in Alan MacEachren, *How Maps Work: Representation, Visualization, and Design* (New York: Guilford, 1995).

[122] Vujakovic has made this critique in Vujakovic, "A New Map is Unrolling," 44-45. Vujakovic's work in general is instructive in its visual and intertextual analyses of popular Cold War and post-Cold War maps. See also Peter Vujakovic, "Mapping the War Zone" Cartography, Geopolitics and Security Discourse in the UK Press," *Journalism Studies* 3 (2002): 187–202; Peter Vujakovic, "Whatever Happened to the 'New

Cartography'?: The World Map and Development Mis-Education," *Journal of Geography in Higher Education* 26 (2002): 369–80.

[123] See Jacquelin Burgess, "The Production and Consumption of Environmental Meanings in the Mass Media: A Research Agenda for the 1990s," *Transactions of the Institute of British Geographers* 15 (1990): 139–61; R.A. Rundstrom, "Mapping, Postmodernism, Indigenous People and the Changing Direction of North American Cartography," *Cartographica* 28 (1991): 1–12; Gunther Kress and Theo van Leeuwen, *Reading Images: The Grammar of Visual Design* (New York: Routledge, 1996).

[124] Hartnett, "Michel de Certeau," 289.

[125] For a summary of these newer trends in terms of maps specifically, two particular works of Jeremy Crampton are especially instructive. See Jeremy W. Crampton, "Maps as Social Constructions: Power, Communication and Visualization," *Progress in Human Geography* 25 (2001): 235–52; and Jeremy W. Crampton and John Krygier, "An Introduction to Critical Cartography," *ACME: An International E-Journal for Critical Geographies* 4 (2006): 11–33.

[126] Jouni Hakli, "Mapping Politics," in the Herb roundtable in *Political Geography*, 335.

[127] Smith and Godlewska, "Introduction," 7.

[128] See Schulten, *Geographical Imagination in America*. See also the work done by Martin Bruckner on the geographic imagination of America's early days. Martin Bruckner, *The Geographic Revolution in Early America: Maps, Literacy, & National Identity* (Chapel Hill, NC: University of North Carolina Press, 2006);

[129] Schulten, *Geographical Imagination in America*, 68.

[130] Michael Heffernan, "The Politics of the Map in the Early Twentieth Century," *Cartography and Geographic Information Science* 29 (2002): 221.

[131] Schulten, *The Geographical Imagination in America*, 130–31.

[132] Karen Severud Cook, "The Historical Role of Photomechanical Techniques in Map Production," *Cartography and Geographic Information Science* 29 (2002): 137–154; Peter Collier, "The Impact on Topographic Mapping of Developments in Land and Air Survey, 1900-1939," *Cartography and Geographic Information Science* 29 (2002): 155–74.

[133] Hannah Arendt's discussion of the "Archimedean Point" is a fitting expression of these choices, as she wrote about the abolishment of the "old dichotomy between earth and sky" pointing out that, "We always handle nature from a point in the universe outside the earth. Without actually standing where Archimedes wished to stand,…we have found a way to act on the earth and within terrestrial nature as though we dispose of it from outside, from the Archimedean point. And even at the risk of endangering the natural life process we expose the earth to universal, cosmic forces alien to nature's household." Such a powerful perspective, she writes, encompasses both "despair and triumph" simultaneously, and this certainly speaks to the air-age's new anxieties and opportunities. See Hannah Arendt, *The Human Condition* (Garden City, NY: Doubleday, 1959), 237–238.

[134] Roderick P. Hart and Kathleen E. Kendall, "Lyndon Johnson and the Problem of Politics: A Study in Conversation," in *Beyond the Rhetorical Presidency*, ed. Martin J. Medhurst (College Station: Texas A&M University Press, 1996), 93, 96, 97.

[135] Smith, *American Empire*, xvii–xviii.

[136] See Nicholas Spykman, *America's Strategy in World Politics: The United States and the Balance of Power* (New York: Harcourt and Brace, 1942).

[137] For a discussion on the implications of these ideas, see Jan Nijman, "The Limits of Superpower: The United States and the Soviet Union Since World War II," *Annals of the Association of American Geographers* 82 (1992): 681–96.

[138] Smith, *American Empire*.

[139] Agnew, *Geopolitics*, 36.

[140] Stanley D. Brunn, "Geopolitics in a Shrinking World: A Political Geography of the Twenty-First Century," in *Political Studies from a Spatial Perspective*, eds. A.D. Burnett and P.J. Taylor (Chichester, UK: John Wiley & Sons, 1981), 131–32.

[141] Ó Tuathail, *Critical Geopolitics*, 15.

[142] Agnew, *Geopolitics*, 102.

[143] Agnew, *Geopolitics*, 103.

[144] Cloud, "American Cartographic Transformations," 262. Also, Cloud's entire body of work has some of the most comprehensive archival work of any historian working on Cold War geography. For some of his most representative work, see John Cloud, "Crossing the Olentangy River: The Figure of the Earth and the Military-Industrial-Academic-Complex, 1947-1972," *Studies in the History and Philosophy of Modern Physics* 31 (2000): 371–404; John Cloud, *Hidden in Plain Sight: CORONA and the Clandestine Geography of the Cold War* (University of California, Santa Barbara: PhD dissertation, 1999); and John Cloud, "Imaging the World in a Barrel; CORONA and the Clandestine Convergence of the Earth Sciences," *Social Studies of Science* 31 (2001): 231–251.

[145] Henrikson, "Maps, Globes, and the 'Cold War'," 448.

[146] Extension of the Cold War into the Polar North, for example, represents this key decentering, becoming another defining dynamic of Cold War geographic science, defense mobilization, and foreign policy. Canadian geographers such as Stephen Bocking have noted the increased state surveillance of polar space, and political geographers like Sanjay Chaturvedi have posited the mapping of this area as an expansion of the geographical scope of containment. For example, the construction of the Distant Early Warning (DEW) Line in Northern Canada (a series of radar stations built to detect Soviet bombers) by the U.S. created a new front in the Cold War, and cartographically spoke to the ties between Cold War militarism and modernization. In a similar vein, the expansion of Cold War mapping technologies into charting the ocean floor represented further extensions of the globalist concepts of American space—as Doel, Levin, and Marker point out, massive defense-funded projects like the Heezen-Tharp seafloor map of 1958 represent strange mixes between public and private cartographic production, with the political assumptions of national security underlying seemingly objective scientific work. See Henrikson, "Maps, Globes, and the 'Cold War'," 451–52; Bocking, "A Disciplined Geography"; Chaturvedi, *The Polar Regions*, 83–104; Lassi Heinenen and Heather N. Nicol, "The Importance of Northern Dimension Foreign Policies in the Geopolitics of the Circumpolar North," *Geopolitics* 12 (2007): 133–65; Matthew Farish and P. Whitney Lackenbauer, "High Modernism in the Arctic: Planning Frobisher Bay and Inuvik," *Journal of Historical Geography* 35 (2009): 517–44; Matthew Sparke, "A Map that Roared and an Original Atlas: Canada, Cartography, and the Narration of Nation," *Annals of the Association of American Geographers* 88 (1998): 463–95; Ronald E. Doel,

Tanya J. Levin, and Mason K. Marker, "Extending Modern Cartography to the Ocean Depths: Military Patronage, Cold War Priorities, and the Heezen-Tharp Mapping Project, 1952-1959," *Journal of Historical Geography* 32 (2006): 605–26.

[147] Saul B. Cohen, *Geography and Politics in a World Divided*, Second Edition (New York: Oxford University Press, 1973), xiv.

[148] Wander, "The Rhetoric of American Foreign Policy," *Quarterly Journal of Speech* 70 (1984): 339–352.

[149] O'Gorman, "'The One Word the Kremlin Fears'," 390. There are other rhetorical analyses around the implications of containment and liberation rhetoric in American foreign policy. Two particularly appropriate examples (both addressing key statements of Cold War policy) are important to note here: one covers the Truman Administration's contentious postwar construction of its foreign policy approach, culminating in the canonical Truman Doctrine; the other follows Eisenhower's unique definitions of peace, and his strategies of "apocalypse management," which redefined the Cold War as a more fluid, less static confrontation between two superpowers sharing the same path toward destruction. See Denise M. Bostdorff, *Proclaiming the Truman Doctrine* (College Station: Texas A&M University Press, 2009); and Ira Chernus, *Eisenhower's Atoms for Peace* (College Station: Texas A&M University Press, 2002).

[150] A case study in the rhetorical tradition that examines these dualities between idealism and realism can be found in Kraig's analysis of the realist critiques of the Carter administration's human rights policy. See Robert Alexander Kraig, "The Tragic Science: The Uses of Jimmy Carter in Foreign Policy Realism," *Rhetoric & Public Affairs* 5 (2002): 1–30.

[151] Dalby, *Creating the Second Cold War*, 9.

[152] Smith, *American Empire*, 10. See also White's review of Smith in Richard White, "The Geography of American Empire," *Raritan* 23 (2004): 1–19.

[153] David Harvey, "Cosmopolitanism and the Banality of Geographical Evils," *Public Culture* 12 (2000): 552.

[154] See also Walter Mignolo, "The Many Faces of Cosmo-polis: Border Thinking and Critical Cosmopolitanism," *Public Culture* 12 (2000): 721–48.

[155] Brunn, "Geopolitics in a Shrinking World."

[156] Klaus Dodds, "Cold War Geopolitics," in *A Companion to Political Geography*, eds. John Agnew, Katharyne Mitchell, and Gearóid Ó Tuathail (Malden, MA: Blackwell, 2003), 206–7.

[157] It is especially important, when talking about Cold War rhetoric and its various sources of argument, to remember Goodnight's discussions of the tensions between technical, public, and personal spheres of argument. See G. Thomas Goodnight, "The Personal, Technical, and Public Spheres of Argument," *Journal of the American Forensics Association* 18 (1992): 214–27. Particularly in the Cold War, the frequent supremacy of the technical sphere of argument is born out in the importance of the emergence of geography and cartography as part of Cold War government/military science, and how such uses of the map both diverged and converged with the map's appropriations in popular discourse.

[158] Joanne P. Sharp, *Condensing the Cold War: Reader's Digest and American Identity* (Minneapolis: University of Minnesota Press, 2000), 26–27. The quote comes from Guntram Herb, "Double Vision: Territorial Strategies in the Construction of

National Identities in Germany, 1949-1979," *Annals of the Association of American Geographers* 94 (2004): 144.

[159] As historian Odd Arne Westad has argued, the study of Cold War history is often limited by a focus on East-West orientations. For Westad, it is the move toward the South that more decisively defines the character of the Cold War, and thus he calls for a spatial re-orientation of critical approaches. Odd Arne Westad, *The Global Cold War: Third World Interventions and the Making of Our Times* (Cambridge: Cambridge University Press, 2006).

[160] It is important to note, too, that in addition to these vertical expansions into the North and South, one of the most notable expansions of Cold War maps into the sky could be found in the cartography of outer space. What British geographer Fraser McDonald has termed *critical astropolitics* becomes significant here, where the Cold War's "heavenly visions and hellish anxieties" are projected outside the Earth. In this, maps of outer space (and *from* outer space) depict a kind of "extension of the frontier West," where the promise of expansion and conquest reign, yet also speak to the larger vulnerabilities of placement in the Cold War. An important example here, of course, is the iconic photos of the Earth taken during the Apollo missions—as Denis Cosgrove has noted, this stunning picture of the full sphericity of the Earth was a watershed moment in the development of Cold War global space (and America's role in that space) and forever changed the cartographic imaginary. The tensions of Cold War globalism were on full display in that on the one hand, America could project itself as stewards of an interdependent "one-world" built on a universalist, modernist dream that the world could be united; yet on the other hand, the image of the globe connoted a loneliness in the

blankness of space and, for some, a lack of agency for humanity. Fraser MacDonald,

"Space and the Atom: On the Popular Geopolitics of Cold War Rocketry," *Geopolitics* 13

(2008): 611. See also Fraser MacDonald, "Geopolitics and 'the Vision Thing': Regarding

Britain and America's First Nuclear Missile," *Transactions of the Institute of British*

Geographers 31 (2006): 53–71; Cosgrove. "Contested Global Visions: One World,

Whole-Earth, and the Apollo Space Photographs," *Annals of the Association of American*

Geographers 84 (1994): 270–94.

[161] See especially Henrikson, "Maps, Globes, and the 'Cold War.'"

[162] The controversy is recounted in Burnett, "Propaganda Cartography," 68. In an

Oxford Union Debate between Sec. of Defense Caspar Weinberger and disarmament

activist/academic E.P. Thompson, Thompson refers to two armament pamphlets

exchanged between the U.S. and the U.S.S.R. as the "two most evil books of our time."

See the pamphlets/booklets produced by Soviet Ministry of Defense in *Disarmament:*

Who's Against? (Moscow: Military Publishing House, 1983); and *Whence the Threat to*

Peace?, Second Edition (Moscow: Military Publishing House, 1982). From the U.S.

Department of Defense, see *Soviet Military Power* (Washington, D.C.: U.S. Government

Printing Office, 1982). Also of interest in this vein is the NATO publication, *NATO and*

the Warsaw Pact: Force Comparisons (Brussels: NATO Information Services, 1984).

[163] America's abstract maps of its nuclear capacities versus its Soviet opponent

are often peculiarly marked by both the *projection* of the fear of nuclear annihilation *and*

an eventual triumph over evil through sheer capacity for destruction. G. Thomas

Goodnight's analysis of Reagan's three most significant nuclear addresses is mostly

interested in the more traditional discursive, non-visual aspects of the Second Cold War's

nuclear rhetoric. Yet, his central insights are crucial here: that Reagan-era nuclear rhetoric of deterrence suspended the present in a time of crisis, creating a tension between a "a past that does not end and a future that cannot come," To move America beyond nuclear terror, rhetors such as Reagan would attempt to subsume nuclear rhetoric into narratives of American destiny, triumph, and trial, and gives evildoers (the U.S.S.R.) opportunities to convert. See G. Thomas Goodnight, "Ronald Reagan's Re-Formulation of the Rhetoric of War: Analysis of the 'Zero Option,' 'Evil Empire,' and 'Star Wars' Addresses," *Quarterly Journal of Speech* 72 (1986): 390–415.

[164] William Bunge, *Nuclear War Atlas* (New York: Basil Blackwell Inc., 1988).

[165] The phrase "future geography" is borrowed from Susan L. Cutter, "Geographers and Nuclear War: Why We Lack Influence on Public Policy," *Annals of the Association of American Geographers* 78 (1988): 135–36. See also Michael Curry, "Commentary on 'Geographers and Nuclear War: Why We Lack Influence on Public Policy'," *Annals of the Association of American Geographers* 78 (1988): 720–27. For more on the notion of nuclear criticism from social critics, rhetoricians, and geographers, see Jacques Derrida, " No Apocalypse, Not Now (Full Speed Ahead, Seven Missiles, Seven Missives)," trans. Catherine Porter and Philip Lewis, in *Diacritics* 14 (1984): 20–31; Spencer R. Weart, *Nuclear Fear: A History of Images* (Cambridge, MA: Harvard University Press, 1988); Matthew Woods, "Inventing Proliferation: The Creation and Preservation of the Inevitable Spread of Nuclear Weapons," *Review of International Affairs* 3 (2004): 416–17; Hugh Gusterson, "Nuclear Weapons and the Other in the Western Imagination," *Cultural Anthropology* 14 (1999): 111–43; Edward Schiappa. "The Rhetoric of Nukespeak," *Communication Monographs* 56 (1989): 253–72; Ann E.

Larabee, "Ground Zero: The City, the Bomb and the End of History," *Canadian Review of American Studies* 22 (1991): 263–79; and Bryan C. Taylor, "Nuclear Pictures and Metapictures," *American Literary History* 9 (1997): 567–597.

[166] Schulten, *The Geographical Imagination in America*, 241.

CHAPTER ONE

**THE BIRD'S EYE VIEW OF AIR-AGE GLOBALISM: NEW PERSPECTIVES
AND PROJECTIONS OF AMERICAN INTERNATIONALISM**

In April 1941, almost eight months before the Japanese attack on Pearl Harbor,
the Saint Paul Institute's Science Museum in Minnesota premiered an exhibition entitled,
"Can America Be Bombed?" Using a series of massive spherical maps, the display
visually explored the geography of North America and its relation to the Pacific and
Europe in terms of bombing ranges and their strategic functions. As Louis H. Powell, the
director of the exhibit, later wrote: "In those far-off days when America was being rudely
forced into an awareness of its proximity to Europe and Asia, a new unit for measuring
distance was born—the distance to which a bomber could fly with a paying load of
bombs and, with reasonable certainty, return to its base."[1]

Despite the exhibit's implications for America's burgeoning international
relationships in the new World War context, most striking about the exhibit was both the
maps' dramatic form and the ways in which they circulated. The show spread nationwide,
to the Buhl Planetarium in Pittsburgh, the New York Museum of Science and Industry,
and the art museums of Toledo, Minneapolis, and Albany. Powell was particularly proud
that the exhibit "made museum history by surmounting the traditional barriers that
separate art and science museums and appearing in leading museums of both kinds."[2]
Reproductions of several of the units reached the office rotundas of House and Senate
buildings in Washington and some of the cartographic experiments used at the Institute
produced 40-inch blackboard surfaced globes for tracing international routes in the
Navy's aerial navigator training program.[3]

"Can America Be Bombed?" was an example of the wide usage of new mapping forms during the World War II period. The exhibit illustrated, particularly, the move from a flat-map conception of the world to a more flexible, active engagement with world space emerging at the time. A restlessness of vision marked this period in the 1940s—brought about by the concurrence of expanding world commitments with the military and commercial possibilities of air travel. Indeed, the emphasis on the entire globe as a field of strategy helped form the basis of a spatially conscious popular culture, imaginatively enhanced by the new cartographic technologies of what came to be known as "air-age globalism."

American isolationism was a dying ideology, but the planes that reached the stagnant ships in Pearl Harbor finally put the nails in its coffin for good, and maps would come to textualize the new global scope for a wide array of audiences.[4] Moreover, maps were employed as a lens of vision in the highest halls of leadership. In his fireside chat of February 23, 1942, President Franklin D. Roosevelt referenced the momentous political implications of this new perspective in geopolitics:

> Those Americans who believed that we could live under the illusion of isolationism wanted the American eagle to imitate the tactics of the ostrich. Now, many of those same people, afraid that we may be sticking our necks out, want our national bird to be turned into a turtle. But we prefer to retain the eagle as it is—flying high and striking hard.[5]

Underscoring this rhetorical move, FDR's press secretary Stephen T. Early dispatched statements to national newspapers a week prior to the chat. He requested that Americans bring their maps and globes with them as they sat and listened to the President's next war

update "so that they might clearly and, in that way, much better understand him as he talks with them."[6] Appealing directly to armchair cartographers, FDR demanded, "Look at your map…This war is a new kind of war. It is different from all other wars of the past, not only in its methods and weapons, but also in its geography."[7]

The new geopolitics dictated that the oceans no longer protected the United States from its moral duty; the new cartographic measurement would become minutes, not miles. As head of the Library of Congress's Map Division, Walter Ristow, wrote in 1944, "All geography becomes *home* geography when the most distant point on earth is less than sixty hours from your local airport."[8] This discourse of the air was reflected in both the move toward popular, journalistic cartography during World War II as well as in the rapid growth of the U.S. government's already sizable cartographic apparatus—novel types of maps and globes covered the walls and desks of academics and defense bureaucrats, but also found their way into American homes in new and compelling ways.

More important, though, for this discussion are the ways in which these new discursive formations, born of World War II strategy and technologies, began to shape and support a larger liberal, modern internationalism that would come to mark the character of post-war conceptions of America's "place" in the global community. Alan Henrikson's crucial work on maps as "ideas" concludes that "this mental transformation and shrinkage of the earth during World War II was…a major cause of the 'Cold War,' a factor of no less significance than the well-known military, political, economic, and ideological causes."[9] While avoiding the causalism that marks Henrikson's conclusions, I suggest in this chapter how the novel air-age cartographic perspectives of this era helped shape the interpretive ground on which the Cold War could be waged. I argue that air-age

mapping mediates a historic shift in American foreign policy and spatial worldview from classic principles of political realism (and its emphasis on geopolitically defined states and concrete balances of power) towards a more fluid, abstract, and image-based internationalism.[10] In this sense, the map served as both a mode of artistically envisioning a new internationalism and a powerful instrument of scientific precision in the protection of American interests. As Frank Ninkovich writes, "Interests, formerly 'hard,' material, and national, became by this new standard soft, symbolic, and international."[11] Thus, in Ninkovich's estimation, "interpretation" became the central focus, with both popular audiences and leaders coming to "'read' the international environment as if it was a text," and the global order imagined and argued into being, not simply achieved through a "mastery of objective details."[12]

The birds-eye view from the airplane's vantage point was replicated in the formal conventions of maps, as cartographers attempted to encompass sweeping movement on the static page.[13] From journalists to academics to government technicians, there was a rising consensus that the hemispheric world of traditional boundaries and power relationships was no longer viable. The sheer amount of competing ways to project this shift, however, shows that there was little agreement about the forms this new internationalism would take. This chapter, then, makes the rhetorical dimensions of form and content critical. On the one hand, the *content* of air-age maps present particular spatial problems that can be used to frame solutions—the map itself being used for a strategic objective (i.e., "seeing" World War II correctly will help wage successful war). At the same time, the *form* of the map is dramatically emphasized, with the novelty of perspective and projection itself a main subject of the map. Thus, the map's status as

strategic means is brought to the forefront. Every new perceptual angle and strange projection spatially revealed a new strategic relationship, and thus notions of constantly shifting visual perception, adaptation, and vigilance are intrinsic to strategy.

A key rhetorical tension emerged between seeing America's place on the globe as indicative of the promise of an idealistic global community versus the frightening prospect of a world that was *too* close and that needed to be ordered and secured. This tension complicated the new premium on cartographic perception and the relationship between rigidity and openness would find its way into the lines of the maps themselves, part of the revealing and concealing process that Lawrence Prelli attributes to maps as forms of display.[14] While a wide range of cartographic discourses during World War II and the early Cold War evidenced these tensions, this chapter highlights one compelling case to represent the complex and contested role of new cartographies in the visual displays of America's rise to internationalism. The popular geographies in newspapers and magazines galvanized air-age rhetoric in particularly profound ways, involving American audiences as consenting participants in global strategy. A close look at the work of *Fortune* magazine's longtime artist Richard Edes Harrison, the leading journalistic cartographer (and prolific map critic) during World War II, provides a particularly instructive example of this phenomenon. Harrison was responsible for the employment of provocative new projections that challenged conceptions of east/west, north/south, and he created maps that placed readers in the perspective of a pilot flying over strategic areas of international conflict.[15] His work was collected in best-selling wartime atlases such as *Look at the World: The Fortune Atlas for World Strategy* and he

wrote extensively in both popular and academic outlets about the need for flexibility in the use of maps.[16]

In Harrison's case, I consider his maps with specific attention to the formal visual and discursive characteristics of his mapping philosophy. At the same, I also contextualize Harrison's contributions to air-age culture as part of a larger American development towards internationalism, while accounting for the constraints of the journalistic, popular medium in which he worked. Harrison's global worldviews implicitly accept cartography as a constructed, contingent, and contestable discourse, able to shape perception rather than simply reflect spatial relationships. At the same time, his cartographic contributions offer particular parameters for the ways in which the postwar landscape would be seen as a field of global strategy. It is in this nexus between the ideological and the strategic that this chapter unfolds. Air-age vision and cartographic perspectives from popular sources like Harrison helped draw the lines on which Cold War space was bounded, and placed where American interests would find their geographical expression. By examining a case preliminary to the Cold War, I can explore how Cold War internationalism did not arrive fully formed following World War II, but was born from preexisting systems and patterns of discourse, including cartography. Before discussing Harrison, however, I offer a contextual sketch of air-age ideologies and their relationship to the visual culture of the period, in order to situate the potency of spatial discourse during World War II and its aftermath.

The Tenets and Tensions of the Air-Age Shift to Global Internationalism

"Air-age globalism" was a complex phenomenon that constrained the geographic imagination of both American popular culture and government policymakers from the

1930s into the Cold War.[17] Its roots obviously reach back to the famous flight at Kitty

Hawk (and some would argue, even further) and it gathered steam in the globalizing

rhetoric of Wilsonianism.[18] But air-age globalism's primary expression revolved around

the build-up and execution of America's involvement in World War II—air-age theorists

like Ristow continually invoked Pearl Harbor as its point of origin. The international

implications of the newfound air flexibility were conflated with national interest and

wartime security on multiple discursive levels. As I have noted, pilot and aviation

executive Alexander De Seversky, for instance, marketed his treatise *Victory Through Air*

Power (1942) into a bestselling sensation.[19] The Walt Disney-produced film adaptation of

the book, complete with De Seversky's lectures arguing for the supremacy of American

air technology in front of wall-sized interactive maps, interspersed with colorful

animation sequences showing the influence of airplane power across the globe, displayed

just how much the air visually conditioned 1940s discourse.[20] High school textbooks such

as *Our Air-Age World* advanced the notion of a miniaturized globe that students could

synthesize as one whole.[21] Elsewhere, military figures like General H.H. "Hap" Arnold,

an early Air Force pioneer, became popular icons for symbolizing American ingenuity

and superiority in the air. As Congresswoman Clare Boothe Luce said in a speech to

Congress in 1943:

> It is a picture that has deeply entered the imagination of almost everyone in this
>
> country under 30 years of age…Grammar school boys can tell you today that the
>
> best way to get to [Bombay and Singapore] is to fly north from Chicago, across
>
> the polar ice cap—in 40 flying hours. Incidentally, they never think in land miles,
>
> they think in flying hours. They know because they keep up on these things, that

Lt. Gen. Hap Arnold flew from Australia to San Francisco in 7 minutes under 36 hours.[22]

Mass media profiles, as in a 1946 *National Geographic* spread on Hap Arnold's demand for a strong postwar air program and his dire warnings of an atomic Pearl Harbor, perpetuated such legends. The article even included photographs of test explosions alongside polar-centered maps showing the strategic avenues for American air technology.[23]

The fascination with new and transcendent polar air routes was also found in tracts such as *The Right to Fly* (1947) by John Cobb Cooper, which included 12 polar-azimuthal maps to supplement text arguing for the "indivisibility of air space" and indicting postwar complacency in strategic planning.[24] Cooper was especially influential because of his multiple roles as director of Pan Am Airways, as a member of President Harry Truman's Air Policy Commission, and later as a consultant drafted by President Dwight Eisenhower to lend legal opinion on the flyover of Sputnik. Similarly, figures such as G. Etzel Pearcy would helm Trans World Airlines, publish in the popular and academic literature about America's political responsibility as a steward of the air, and go on to serve as Official Geographer of the State Department.[25] As these examples indicate, the practitioners of air-age globalism tended to move fluidly from roles as corporate executives, government representatives, popular critics, academic researchers, and educators—and the functions of the air as an economic, military, and political vehicle blended in equally complex ways. Thus the geography of the age was highly intertextual, with numerous overlapping texts addressed to multiple audiences and incorporating various levels of power and expertise.

These air-age practitioners often shared similar assumptions. In 1944, Walter Ristow formulated such assumptions into eight basic principles that characterized the new geography. Most important is the first tenet that *air age geography is global geography*.[26] With long-range aircraft and the multitude of state interests involved in the war, the traditional focus on regional geography had to be supplemented with world-minded surveys of the globe.[27] The second is that *geography is not a static science*, which reflects the view that perspectives and worldviews need to be changed and continually questioned.[28] Third, *air age distance is measured by time rather than space*, where "there are no longer any far corners of the earth" and space is measured in minutes and hours rather than miles.[29] A fourth tenet is that *transport by air discounts geographical barriers* as borders become more irrelevant in terms of movement and occupation of space.[30] Many air-age maps, for example, eschew borders, sticking to the topography of rolling mountains and basins, leaving out political boundaries and highlighting the fluidity of continental land.[31] Fifth is the idea that *the world is not divided into hemispheres*.[32] Air-age geography makes hemispheres obsolete—America was now seen as closer in proximity to the "Eastern hemisphere" of Eurasia than to Latin America, questioning conceptions central to U.S. foreign policy since the Monroe Doctrine. Relatedly, the sixth tenet is that *world transportation routes are no longer restricted to east-west lines*—the seafaring mind of the Mercator projection accentuated geographical imaginaries of east and west, but in the air, travel from a given place was possible in all directions on a spherical earth.[33] Finally, Ristow's seventh and eighth tenets are also interrelated, positing that *ocean basin geography is out of date* and that there is a *new significance of weather and climate in the Air Age*.[34] The centrality of

ocean basins like the Mediterranean or the Caribbean were thus challenged here, while

the barriers of desert and ice no longer sealed off access to important parts of the world.[35]

Cartography provided an essential projection for this new air powered globalism,

as it also altered the visualization of American political space in profound ways.

Fundamentally, the sheer accessibility of maps as a popular form dramatically expanded.

Sociologist (and later propagandist for the State Department) Hans Speier wrote of maps'

ubiquity around the outbreak of America's involvement in World War II in the journal

Social Research: "today, maps are distributed on posters and slides, in books as

propaganda atlases, on post cards, in magazines, newspapers and leaflets, in moving

pictures and on postage stamps…They may give information, but they may also plead."[36]

John K. Wright, the American Geographic Society's president throughout the 1940s, not

only noted the wide array of map outlets, but also reminded readers of how diverse and

contingent they were in how they were made. As Wright noted, many maps "are not

drawn from nature but are compiled from such documentary sources as other maps,

surveyors; notes and sketches, photographs, travelers' reports, statistics and the like. As

these sources are themselves man-made, the subjective elements they contain are carried

over into the maps based on them."[37] This characteristic of cartography, Wright believed,

allowed maps to "form public opinion and build public morale."[38] In accounts like

Speier's and Wright's, the notion of cartography as a contingent discourse is fully

emergent. While theories of map subjectivity were by no means new, the extent to which

the map was slowly seen as a cultural dialogue between cartographer and audience was a

novel contribution. This necessarily involved popular map users as much as it did the

elite, making strategy a more inclusive national directive, dependent on public opinion.

As De Seversky put it, in the air age "tactics are the province of specialists, while strategy is the province of the people."[39]

An increased focus on the quality of perception marked this new inclusive strategy as a central theme. The traditional notion of political maps as simply tools of state officials for partitioning the world was being challenged. A new global outlook, which supplanted a focus on fixed borders and lines with fluidity and a synthetic gaze that captured the world as one, held important implications for American power and values. For example, air-age authors like Heinz Soffner, writing in a 1942 issue of the *American Scholar*, were advancing World War II as one inclusive visual text that could be *read*, dependent on a kind of totality of perception. Referencing maps, for example, Soffner noted: "pictures of this kind reduce the mental process of reading words one after another and of transforming their content into images and ideas, to a simple matter of perceiving, directly and as a whole, one more or less complex message."[40] It was notable, for example, that FDR's large, specially fashioned office globe during World War II did not even have axes; it simply sat in a giant glass bowl to facilitate easy gazing from any direction, without limits.[41]

The ease of gaze in the use of maps and globes was integrally bound up in the idea of the map as a potential tool of citizenship in this era. FDR placed an emphasis on "looking" at a map as a form of popular participation in the achievement of wartime objectives. His new emphasis on mapping and maps as part of popular citizen action validates Susan Schulten's thesis that the era of air-age globalism was especially marked by the common acceptance that geography itself could be equated with power.[42] As Soffner wrote during the war: "the maps' new challenge was to help keep citizens up-to-

date with simplified, digestible arguments in a world where time (in war) was dramatically speeding up."[43] It was no coincidence that one of Richard Edes Harrison's most popular set of maps was collected under the title of "Atlas for the U.S. Citizen"; the lay audience became a participant (or at least a consenting witness) in the cartographic process to a greater extent than had been seen before.

Constantly updating the "state of the world" for American audiences meant that air-age globalism (and its maps) also connoted a sense of constant movement and a reconfiguration of the relationship between time and space. Geographer Louis Quam's 1943 critique of cartographic propaganda in Germany offered that "maps designed to illustrate the lightning speed of modern war must suggest movement."[44] In commenting on the increased use of "maps as weapons," Hans Weigert wrote in 1941 for the famed early social research journal *Survey Graphic* that "the static map reflects a fixed state and conditions, while the dynamic map shows action, intentions, influences, developments, the growth and downfall of civilizations and their ideologies" and that "only the dynamic map can do justice to the vital fact that the world of today is constantly shrinking and can stress the power lines on which deadly or peaceful messages are conveyed from air base to air base."[45] During the final days of World War II, influential geographers such as Derwent Whittlesey, president of the Association of American Geographers, were wary of the map's heritage as a static rendering of political borders, and had to now account for its new space/time dialectics. In 1945, Whittlesey theorized in his presidential address to the AAG that there was a "new horizon" in geography that required an acceptance of a new vertical dimension: "Every advance in the vertical plane alters the potential capacity of the earth…Extension of man's range thus multiplies his power, rather than adding to it.

The simultaneous closure of the era of surface expansion and opening of unmeasured

potentialities latent in a three-dimensional world are setting new values upon every part

of the earth."[46] This multiplied range, in turn, necessitated an acceptance of time as a key

condition—Whittlesey also pointed out that geography's new horizon emphasized

velocity more overtly, or the speed by which an area is covered, and pace, the rate at

which human life moves.[47]

These functions of compressed and accelerated time also emphasized a new kind

of mobility in maps that was not just about the transport of military might, but also about

the transmission of commercial goods and communication as well. As historian James C.

Malin wrote in 1944, "The air age is a new world opening to man through the medium of

air communications—radio, television, and aircraft…The air age must be thought of as

more than the age of flight because flight, like discovery, is only one form of mobility.

The air-age trilogy is sound, sight, and flight."[48] Thus, air-age globalism could not simply

be reduced to maps of military strategy—it was marked by a new premium on speed that

employed the air as a conduit for ideas and money. Henrikson later captured these

complexities by characterizing the air-age as an all-enveloping space/time shift that

signaled a death of surface-thinking: "Surveying the earth from the sky did not simply

make it appear more holistic and uniform; the experience (real or imagined) converted a

two-dimensional surface into a three-dimensional environment; the atmosphere as a new

geographic element had to be considered, revolutionizing communication and

transportation."[49] The flat map now confronted a third dimension, thus altering the angle

and perspective by which maps were used, and dramatically changed the way surfaces

could be read by both elite and popular audiences.

In addition, the traditional realist dichotomy between domestic life and international relations was breaking down; the values of everyday life at home were becoming more synonymous with the values of international community.[50] Henry Luce is an exemplar of this complex movement to liberal internationalism.[51] In his famous articulation of the American Century in 1940, for example, Luce articulated globalism as a pursuit both of economic interests and "world opinion," which publications like *Time* and *Fortune* would cultivate.[52] With pronouncements like "our world…is one world, fundamentally indivisible," Luce saw America as the responsible steward for maintaining such a rolling, unified space.[53] The isolationism of American cant was still seen as having a hold on the culture, even if it had been eroding at least since the turn of the century, and Luce and his cartographers-for-hire like Richard Edes Harrison were making clear attempts to break through its ideological hold on U.S. geopolitics. Air transportation itself became the new dividing border, then, pitting those who would use the new power for its supposed beneficial potential (for free trade, free movement, free government etc.) against those who would use it for "evil" (the empire-mad armies of Germany, Italy, etc.).[54] The air-age's image-based values marked moral choices between a path of good and a path of evil, with air power now "considered essential not only to the security of the United States but to world peace."[55] As De Seversky characteristically (and bluntly) put it during the heart of the Cold War: "The manifest destiny of the United States is in the skies."[56]

In this way, the unfolding international space of the air-age was both a site of idealist liberal hopes for modern progress and immense anxiety at the new proximities suggested by the power of mediated images from a plane.[57] For example, on the one hand,

air-age discourse could embody the hopeful, humanistic internationalism of a Wendell

Willkie, the 1940 Republican nominee for President who gained acclaim for his book

One World. Willkie's book used his crisscrossing experience around the globe in an ATC

aircraft as evidence that the world was ready to transcend "narrow nationalism" and work

toward global peace, complete with maps that used the new global projections

popularized by cartographers like Richard Edes Harrison.[58] The discourse of the early

United Nations also was built on this kind of transcendent internationalism—its famous

logo, in fact, features a polar-centered globe (a projection made famous by Harrison)

surrounded by branches symbolizing peace.[59] On the other hand, the air-age also

encompassed a sense of the air as a frightening constraint on global security. The opening

minutes, for example, of Leni Riefenstahl's *Triumph of the Will*, offer the viewer a

Fuhrer's-eye view from a plane descending through the clouds over Germany.[60] In large

part, America's air-age cartographic techniques were a conscious contextual response to

what was perceived as Axis propaganda through the "message maps" of Hitler's

geographic consultant Karl Haushofer and his theories of German *geopolitik*.[61] Isaiah

Bowman, in particular, excoriated geopolitics as a sham science borne out of fascist

academic journals and instead upheld "political geography" as a more acceptable (and

accurate) American standard.[62]

Altogether, the new discourse of air-age globalism housed a complex rhetoric of

tense, spatial contradictions that spoke to the truly global. And maps would come to chart

these contradictions in latitude and longitude. Thus, the relationships between the map's

function as a strategic argument and a symbol of scientific presentation are bound up in a

diversity of usages and assumptions during the shift to a more globally-minded

perspective. This contextual maelstrom of academic, popular, and institutional discourses provides the critical atmosphere for this chapter's discussion of one of the leading popular, journalistic purveyors of fresh, international perspectives, Richard Edes Harrison, who sketched his maps amidst the uncertain spaces of this new interpretive internationalism and problematized the way mid-twentieth century cartography was used and how it circulated.

Iron Albatross:
Richard Edes Harrison and the Bird's Eye View of Modern Internationalism

The society page of the July 9, 1960, issue of *The New Yorker* published a vivid account of a recent bird-watching expedition by the Linnaean Society of New York—a group of amateur ornithologists. The trip was notable for a rare sighting of a particularly special bird. As one of the participants recounted:

> The bird took off, and as it dipped its head I caught the bright orange yellow on top of its bill. It spreads its wings—seven feet—and we saw what it was: *Diomedea chlororynchos*, the yellow-nosed albatross, the last bird you would expect to find in the North Atlantic!...The albatross was wonderfully cooperative: he'd fly a short distance, sometimes within fifty feet of our boat, then land and let the gulls dive-bomb him for a while, all within a very short compass…An adult bird in full plumage—a picture-book exposition. You couldn't ask for anything better.[63]

The witness to this ornithological wonder happened to be an esteemed resident of East 51st Street in New York City, one Richard Edes Harrison. Mr. Harrison was a minor New York celebrity, as president of the Linnaeans.[64] But this albatross chaser and well-to-do New Yorker had another key item on his resume, not discussed in this interview: that of a

professional cartographer. His 1994 obituary in the *New York Times*, begins with the headline, "Richard Harrison, Avid Bird-Watcher and Map Maker, 92," with the "and Map Maker" reading like an afterthought.[65]

Harrison's two life pursuits were not necessarily mutually exclusive, however. Throughout the course of the 1930s and into the global and catastrophic conflict of the Second World War, cartography, like the business of war itself, took to the air. As fighter planes traversed the Earth and spread their wingspans and weaponry, mapmakers were devising a birds-eye view of the world, actively changing our view of the globe and our placement in it. Like the albatross soaring to unexpected heights, Americans became enamored with a new air-age global perspective. From this vantage point, the world was now closer—an exciting and frightening prospect. Like FDR's "striking eagle" in his 1942 fireside chat, the spatial dynamics of this new viewpoint were bound up in the awesome capacities of American power.

As house cartographer for *Fortune* and consultant for *Life* magazine, for almost two decades, Richard Edes Harrison certainly permeated the "geographic imagination" of World War II and post-war culture.[66] Cartographic perspective and projection were his two innovations.[67] His most famous maps revived long-forgotten modes of projection that anchored maps around the Arctic instead of establishing Europe as the center of the world, changing the entire spatial perception of proximity. Other maps dispensed with the "North on top, South on bottom" viewpoint, placing his readers instead, like his albatross, "from a vantage point high above the earth so that the distances draw together in perspective, as they might to an incredibly farsighted man poised at an altitude of many thousand miles."[68]

Recent scholarly interest in Harrison has put the "mapmaker" before the "birdwatcher"—in particular, Schulten's work positions Harrison as a central player in the debates during the second half of the twentieth century that discuss geography and cartography as discursive phenomena.[69] Harrison seemed acutely aware of this discursive function of his trade, chiding his field for being rigid and precise, and calling for an acceptance of "art as a full partner of technology in the design and drafting of maps."[70] Harrison's dogged amateurism evidenced his realization that maps were part of a cultural dialogue, rather than simply a top-down presentation of elite, scientist objectives. In defining cartography as "the difficult art of trying to represent the impossible," Harrison accentuated the role of rhetoric in cartographically advancing political agendas.[71]

I examine here the crossroads between the Harrisonian frame of "maps as discourse" and the spatial changes that faced American rhetoric in the mid-twentieth century air-age. I argue that Harrison's air-age aesthetic is an important part of this new interpretive paradigm, eschewing the "truths" of the classical power politics and balance of interests, and positing new relationships and proximities. Particularly in their transformation of perspective and projection, his maps project on flat pages the anxieties and opportunities that are part of a modern internationalism. Thus, a critical reading of Harrison's actual maps is necessary to understand the new, high vantage points that they offered.[72] Yet, Harrison's work specifically as a system of visual rhetoric deserves further examination because not only do his maps reflect global changes in this period, but also the very act of mapping new perspectives and experimenting with cartographic perception helps create the interpretive ground by which the globe could be read and written by popular audiences and strategists.[73] Harrison remains a vital case, in particular,

to rhetorical scholars not simply because he helped broaden the geographic imagination and allowed America to "look at the world" in a new way, but because he called attention to the discursive nature of space itself at a historical moment that foregrounded the world's textuality during global war. Harrison's arguments for flexibility in perspective and projection accentuated cartography's malleability and contributed to the powerful ideology that the world can be molded through the symbolic image. In the process, Harrison's rhetoric buttressed the new narrative of international space and encouraged the type of visual abstraction necessary for American national interests to be cast as universal.

To advance these arguments, I analyze a series of representative Harrisonian maps, particularly those seen in his "Atlas for U.S. Citizen" supplement in the September 1940 issue of *Fortune* and those published in his best-selling *Look at the World: The Fortune Atlas for World Strategy* (1944), among others found in his archive. The critique of these maps focuses on Harrison's approach to perspective and projection and its bearing on two major themes: 1) the notions of *seeing* and *vision* at play on the cartographic page, with a focus on how the maps simultaneously conceal and reveal the alternative possibilities inherent in a "rhetoric of display"; and 2) how the maps both uphold and challenge notions of what strategy means in a new air-age context, re-envisioning borders and proximities and reflecting an uneasy globalism where goods, information, and peoples are continually in flux. Throughout, the rhetorical tensions of form and content illuminate Harrison's emphasis on the rhetorical flexibility of cartography itself and its connection to America's developing global strategy.

Analyzing the Perspective and Projection of Harrison's Maps

Maps have always served to take the observer out of space and place them above the world "as it is."[74] Richard Edes Harrison's cartography, in particular, represents an explosive example of how form and content in maps fuse together, complicating that sense of detachment above the earth, and evidencing how air-age perspectives can house the kind of new abstractions that supported emerging, midcentury internationalist values.

Harrison hailed from turn-of-the century Baltimore. Traveling often with his family, and led by his prominent Yale biologist father, he had a talent for field sketching and was a quick study in architecture, for which he would attend Yale in 1926. During the Depression, he found work in the art department for a products company, designing an assortment of oddities such as matchbook covers, record jackets, liquor labels, ashtrays, and lighting fixtures.[75] Schulten remarks of Harrison that "his style owes more to the persuasive look of advertising than to cartography," and certainly his time toiling away at ephemeral design contributed in some part to his sleek, streamlined, and above all, marketable cartographic style.[76]

Mark Monmonier dedicated his 1989 book *Maps With the News* to Harrison "whose unplanned career in journalistic cartography enhanced public awareness of the potential of news maps."[77] Indeed, Richard Edes Harrison was an accidental mapmaker— essentially a substitute cartographer, called by a friend at *Time* in 1932 to etch out a quick map when the regular draftsman could not be found. His fill-in job became a fairly regular assignment until, by 1935, he joined the full-time staff of *Fortune*.[78] In that year, Harrison made his mark by introducing the international perspective map for the first time in what he termed the "Vulture's View" of the Italian-Ethiopian conflict, oriented

with the southwest at the top of the page.[79] As the European war escalated, Harrison

became a *Fortune* fixture and remained affiliated there for the next ten years-plus. The

ubiquity of news maps today is taken largely for granted; during Harrison's ascent to

popular prominence, news maps were just starting to circulate, and without a significant

history of news cartography in American culture, cartographers like Harrison had a wide

range of freedom in their design and iconography.[80] The map's ability to support and

complement the story it accompanied was more important than complete scientific

accuracy. To reach a mass audience, Harrison and other up-and-coming news

cartographers sought to simplify spatial information and unburden it from the yoke of

academic and elite control.[81] Such work brought home a sense of the globe so that

"Americans imagine and comprehend a world that most [did] not experience firsthand."[82]

Harrison himself reflected, "It is among the weekly and monthly magazines…that the

greatest assault on tradition has been made…they have borne the burden of making the

public conscious of global geography."[83] Despite his success, though, he did find that his

"assaults" were not always necessarily welcome. Harrison's archive at the Library of

Congress reveals a note he wrote to accompany the archiving of his 1938 map of

Czechoslovakia (fig. 1.1), detailing how he was fired as an official staff member from

Fortune because his editor found the map "confusing." Of course, he would continue to

be associated with *Fortune*, to great acclaim, but not as a permanent staff. So, Harrison

was constantly navigating between his philosophy of flexible, strategic mapping and what

he thought his editors (and the general public) would be able to accept.[84]

Harrison's meticulous production techniques subverted mapmaking tradition

through two notable contributions to the air-age cartographic lexicon: new perspectives

Figure 1.1. Richard Edes Harrison, Preliminary Draft of "Czechoslovakia," for *Fortune*, 1938 (Geography & Map Division, Richard Edes Harrison Collection, Library of Congress)

that place the map user in the role of pilot, and a deliberate crusade to supplant the

enduring Mercator projection with other, more novel projections.[85] *Life*'s profile of the

Fortune atlas provides a fascinating account of Harrison's process behind the

"perspective map," which plays with dimension to make the globe appear as if it is

coming off the page.[86] He begins with a small freehand sketch of the portion of the globe

to be included, and then photographs the globe from a distance of six feet (placing the

mapmaker at a theoretical altitude of almost 40,000 miles over the Atlantic Ocean).[87]

Harrison then chooses a greatly enlarged, close-up of the area produced from the

photograph, which provides the basis of his vividly detailed sketches, out of which he

produces his trademark three-dimensional sense of the reader flying over mountainous

terrain.[88] These techniques in and of themselves were not innovative—yet, it was the

sense of movement and extreme angles that evidenced Harrison's particular ability to

help "redevelop a native freshness of perception."[89] In terms of projection, I am referring

to the choice of focus or center of the map. In more technical terms, according to

Monmonier, projections "transform the curved, three-dimensional surface of the planet

into a flat, two-dimensional plane" and anchors the focus of the reader's eye.[90] In

choosing polar centers, for example, or by showing a round globe on the flat page, these

projections become a salient rhetorical choice—the selection of a particular center on a

map has political ramifications in the message disseminated to readers and users of the

atlas; all other points and lines on the map flow from that origin point.[91]

    A representative map by Harrison from his *Look at the World* atlas evidences

these themes of projection and perspective. "Europe from the East" (fig. 1.2) is one of

Harrison's most striking and simple maps in the atlas and covers a full two-page spread,

Figure 1.2. Richard Edes Harrison, "Europe From the East," *Look at the World: The Fortune Atlas for World Strategy***, 1944**

unadorned by any legends or captions save its title. The image is typical of Harrison's "perspective maps," showing the reader a rolling, rounded sliver of the globe, with three-dimensional accents to connote flying over the topography of Europe. What is remarkable about this perspective, though, is that it centers on Eastern Europe from the viewpoint of an imposing Soviet Union.[92] The very center of the map rests in Poland; Moscow is dotted at the bottom center of the map, and the entire European continent appears to flow out of it. At the top of the map is Spain, with the Atlantic Ocean on the horizon, and in the northeast is a glimpse of North Africa. Harrison's framing foretells some important Cold War ramifications: it is easy to assume a Soviet-eye view of an Eastern Europe for the taking, unfolding almost naturally before a great expanding power all the way to the Atlantic. In the corner above the perspective map, in the margins of the white space, is an inset of an orthographic projection depicting the whole globe, highlighting in red the slice of Europe and North Africa that are the subject of the larger map. These Cold War implications were borne out when Harrison refashioned his "Europe From the East" to present it as "Satellites in Arms," in Leland Stowe's 1951 *Life* article of the same name, which details the extent of Soviet influence through railroads and waterways for transporting weapons and mobilizing forces throughout Eastern Europe.[93] Vein-like red lines wind their way all over the continent, using the Soviet-eye perspective to show the anxiety of the Soviet Union's vantage point of Cold War power.

A cartographic reorientation such as this one suggests how brittle the perception of World War II alliances with the Soviet Union may have been, and how a simple change in spatial perspective could reveal new relationships. At the same time, the very power of maps as strategic tools becomes part of the map's subject. Air-age globalism's

strategy necessitates a flexibility of vision, and Harrison's map promotes the value of perceptual adaptation, bringing to the forefront the discursive nature of world space. In this light, the lack of captions or any linguistic description (aside from place names) challenges the viewer to see the inevitability of this novel perspective, as a kind of common-sense geographical depiction that requires no explanation for the discerning viewer.[94] In addition, having the global inset in the corner reminds the viewer of the connection of the region to the larger globe—that what takes place in one sliver of the world is just a piece of bigger, broader strategic spatial relationships and proximities that Americans face in the new air-age era. Harrison's map, then, represents the contours of the air-age's material contributions to the evolving modern internationalism—the turn to the symbolic and interpretive in world affairs that globalized security and charted national interests on an international scale.

Situating Vision in Harrisonian Maps

The very title of Harrison's most famous and bestselling collection indicates the air-age era's new premium on the value of vision and visibility. *Look at the World* is an imperative for clearheaded perception of new supposed realities. This plea to readers is not insignificant to a rhetorical reading of the maps contained inside: maps are bound up in complex rhetorics of truth and transparency, as vehicles of both art and science, fact and value. Lawrence Prelli notes that "displays manifest through…specific, situated, rhetorical resolutions of the dynamic between revealing and concealing. And such rhetorical resolutions exhibit partial perspectives—an orientation, a point of view, a way of seeing—that both open and restrict possibilities for meaning for those who become audience to them."[95] Thus, the act of spectatorship itself is problematized; the *method of*

seeing transfers a set of values and images that are "always situated in complex circumstances of viewing, interpreting, and consuming."[96]

Harrison's subversion of cartographic form manifests an engagement with the rhetorical dimensions of visual mediation, but also contends with the historic role of maps as unmediated frames for reality. The map "Eight Views of the World" (fig. 1.3) puts these dimensions on visual display.[97] Harrison often uses the orthographic projection throughout *Look at the World*. Air-age globalism appeared truly global on the orthographic maps, as this type of map represented in two dimensions the benefits of the average desk globe.[98] Unlike the perspective maps, which tried to represent the sphericity of the earth in regional fragments, orthographic views portrayed the totality of a freely rotating globe. Yet, the novelty of "Eight Views" is that there are indeed eight different projections over the two-page spread; the reader contends with eight globes, all centering

Figure 1.3. Richard Edes Harrison, "Eight Views of the World," *Look at the World: The Fortune Atlas for World Strategy*, **1944**

and highlighting different areas of the world. The first globe features a centered United

States, with the tagline, "The U.S.: its geographical isolation is more seeming than real,"

as Harrison's view is situated so that all continents can be seen on the globe in

relation to America.[99] The United States is highlighted in bright red on each of the eight

maps, amplifying its connection to the other continents of the world. Another one of the

eight maps shows Antarctica at the north of the globe, with a sharp, orange Argentina

protruding toward it (complete with a caption reading, "Argentina: a dagger pointed at

the heart of Antarctica").[100] Europe's orthographic projection shows the tiny peninsula

dwarfed and sandwiched by Asia to its left and Africa to its right, with a caption stating

the visually obvious, "Europe: more close neighbors than any other continent."[101]

Prelli's work on maps emphasizes the immediacy of a map's rhetorical *taxis*, in

that it provides a particular and constraining arrangement of space.[102] In "Eight Views,"

the total arrangement of these eight maps connotes an active, rotating, and often

vulnerable earth, as if the relative worth of all parts of the world simply depends on the

perspective (and interests) of the map user. Harrison could have provided the reader with

one world map highlighting all of these relationships, but by choosing to place eight

different views in succession, the rhetorical nature of space becomes integral to the

presentational form. Like the desk globe at home, Harrison allows the user to flip around

and choose a focus in "Eight Views." Visually, this choice connotes that no matter which

way you look at it, the "one world" is entangled with relationships in all directions, and

isolationism is easily disputed by the "spin" of the globe.[103] Harrison's choice to use the

globe itself inside the conventions of a flat map are key: as Denis Cosgrove writes on the

complex genealogy of the globe in the Western imagination: "On a flat map the known

can be extended to the very edges of representational space, leaving implicit the question of what lies beyond the frame; on the globe the 'ends of the earth' cannot be ignored."[104] Thus, what were former peripheries become potential centers, shifting the very idea of vision in the Harrisonian approach.

This notion of visual arrangement, of course, recalls Harrison's particular focus on audience. His emphasis on flexibility puts the audience in charge of, and implicated in, the reading, placing the user right into the pilot's seat. But the reader also can assume a variety of personas in these perspectives. In a 1942 issue of *Fortune*, for example, Harrison contributed a map entitled, "Southeast to Armageddon" (fig 1.4), in which the viewer is given a "Hitler's-eye view" of the Middle East and beyond from a point high above Berchtesgaden.[105] The map's content offers a sense of the geographical difficulty
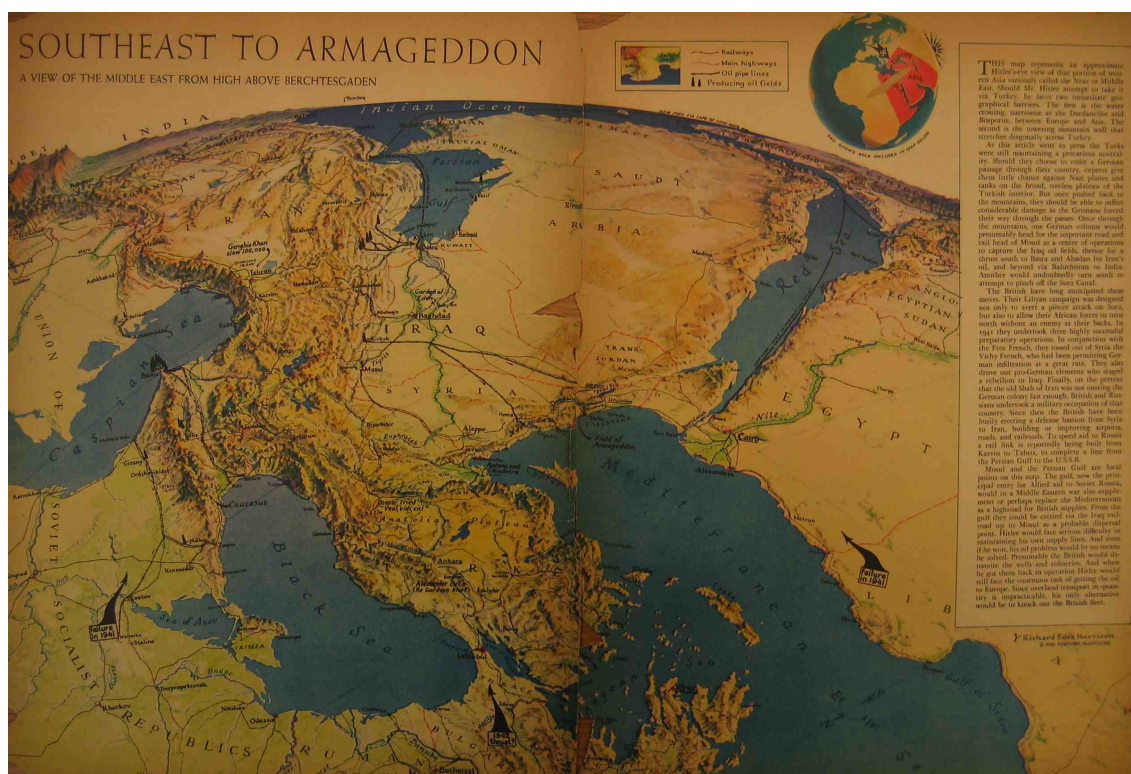
Figure 1.4. Richard Edes Harrison, "Southeast to Armageddon," *Fortune*, **1942 (Geography & Map Division, Richard Edes Harrison Collection, Library of Congress)**

facing the Nazis in an attack on Asia Minor; but in highlighting form at the same time, the map's user is invited to inhabit the "enemy's"spatial worldview through the function of the map itself.

Similarly, a 1943 *Fortune* map entitled "The Not-So-Soft Underside" (fig. 1.5) places the viewer in perspective from a point over North Africa looking at the "underbelly" of Europe from the Mediterranean.[106] A small note accompanying this map in Harrison's archive at the Library of Congress reveals the mapmaker saying, "The view was selected to undermine Churchill's insistence that Europe had to be attacked in its 'soft underbelly.' My working title for this map was 'How soft is the Belly?' The weasel-worded printed title was the selection of the editors."[107] So, in taking on Churchill's claims of strength in attacking Germany from North Africa and accusing the Allies of

Figure 1.5. Richard Edes Harrison, "The Not-So-Soft Underside," ***Fortune*, 1943 (Geography & Map Division, Richard Edes Harrison Collection, Library of Congress)**

misunderstanding basic geography, Harrison makes the case that the angle of vision

given to the user can be used to dispute the truths of powerful strategists; cartographic

perspective becomes a kind of evidence itself for strategic argument.

Both "Southeast to Armageddon" and "The Not-So-Soft Underside" position their

audience in the role of both enemy and ally from the air. In the process, each map

pointedly argues about strategy's spatial content, while evidencing the malleability of

form in a notably rigid medium. As Harrison admits in *Look at the World*, most maps are

seen as architects' blueprints, and give the reader an infinite viewpoint where "one is not

over a particular point on the map, one is over all points simultaneously."[108] Harrison's

perspective maps, however, foreground selectivity and partiality; in the same introduction,

he mentions talking with pilots of the Eighth Air Force in Europe about their experiences:

"A conventional map, they complained, only looks right when you are directly above the

objective, i.e., some time *after* release of the bombs. The problem was solved by making

maps with a *finite* viewpoint that shows the objective from the normal angle and height of

approach. The new maps coincided with a true view of the target."[109] Harrison, then,

immersed popular audiences within partial worldviews, and his fixation on audience

engagement reflects the new internationalism's focus on world opinion and flexible,

global communication that opinion-shapers like Luce were boldly calling for. His

perspectives place the audience into dialogue with the cartographer and manifest an

awareness of space's social constitution.

Of course, Harrison's quotation about the "true view of the target" speaks to his

complex engagement with truth and transparency in maps. This complexity stems in part

from Harrison's contextual framework. Harrison was immersed in a journalistic visual

culture that designed maps to order, illustrating war problems that were unfolding by the day. Such maps were thus judged by their ability to provide a window into a particular strategic issue, rather than their illumination of fact. For example, an editor instructed Harrison, writing directly on one of the tracing sheets for his July 1941 *Fortune* map of the Soviet Union: "don't be too mathematical about centering it."[110] At the same time this journalistic paradigm was firmly in place, many of Harrison's colleagues in the disciplines of geography and cartography were drafted by the Office of Strategic Services (OSS) to produce a monumental amount of spatial data in what would eventually become a quantitative revolution in geography.[111] The leaders of this revolution sought to produce clear, reliable spatial facts for America's strategy, and in many ways were reacting to the perceived distortion of geography by the Third Reich.[112]

Harrison's use of distortion in his maps represents these tensions between cartography as an argument, and cartography as transparent mirror of the world. For example, *Look at the World* maps such as "Great Circle Airways" (fig. 1.6) feature a north polar gnomonic projection, with Harrison centering on the North Pole at the expense of dramatically distorting the shapes and areas of lands lying on the outer reaches of the map. Mexico, for example, looks particularly unrecognizable.[113] Another of the atlas's polar-centered maps, "Arctic Arena," uses the full globe orthographic projection, distorting the familiar shapes of continents and placing the Soviet Union and Europe north of the United States in order to illustrate the new proximities that air routes over the North Pole bring to life.[114] These novelty maps are certainly not the types of sketches that would be found in the halls of the State Department during the war. But Harrison's distortions challenge the "common sense" viewpoint of the Euro-centric and
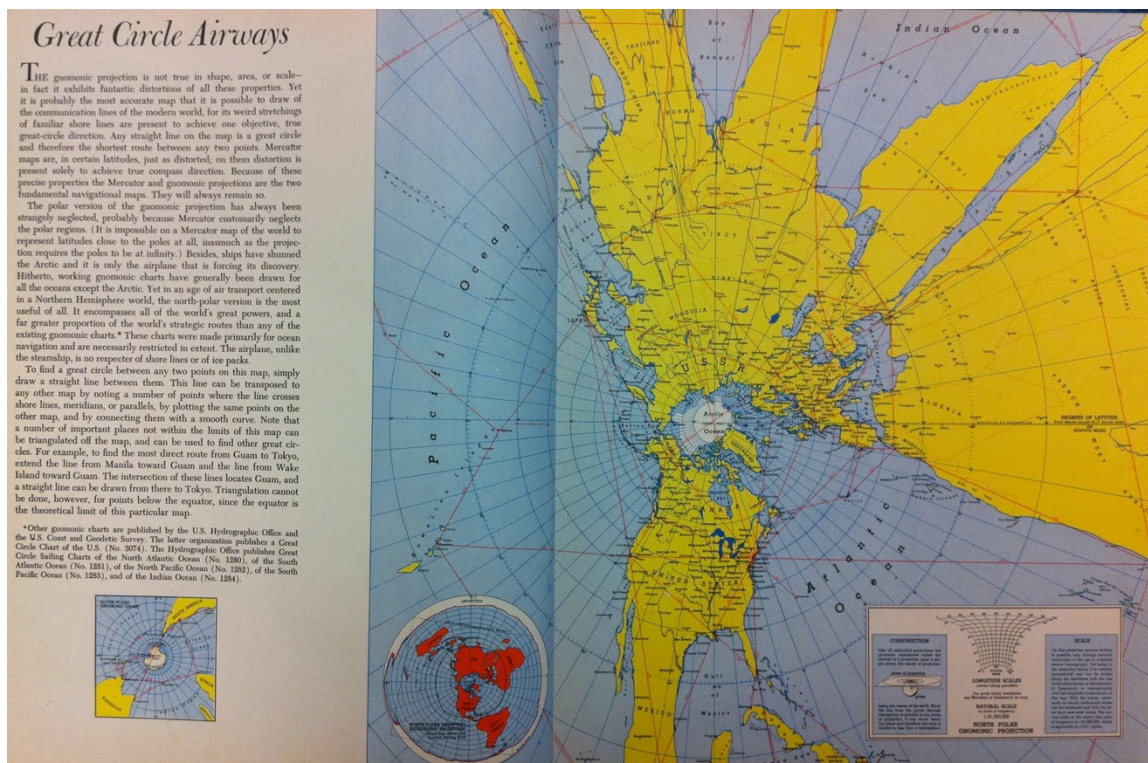
Figure 1.6. Richard Edes Harrison, "Great Circle Airways," *Look at the World: The Fortune Atlas for World Strategy*, **1944**

East-West minded Mercator map; maps that Harrison believed were a misleading "truth" about the way the world was *supposed* to be viewed.[115] In Harrison's introduction to the atlas, for example, he attacks Nazi Germany's leading geographer, Karl Haushofer, for his almost exclusive reliance on Mercator.[116] Interestingly enough, Harrison was not attacking German maps for their lack of accuracy or for promoting a propagandistic viewpoint, but for their lack of *flexibility*, and this is a key distinction. For Richard Harrison, Germany's cartographic crime was not the manipulation of geographic truths, but a failure of vision itself.

Harrison was concerned about what S.W. Boggs, the State Department geographer of the 1940s and early 1950s, called "cartohypnosis," where the audience "exhibits a high degree of suggestibility in respect to stimuli aroused by the map."[117] Harrison's answer was simply to give users a bevy of tools at their eyes and fingers, with

each of his own novel perspectives just one in a series of possible views. As he wrote in *The Saturday Review*, "American geography and cartography are exhibiting growing pains. They are emerging not from infancy but from a static condition bordering on senility."[118] And later in *Surveying & Mapping*, Harrison wrote that "in the military agencies, I keep hearing the words 'user requirements' over and over again. There is only one over-riding user requirement and that is: can the poor fellow understand the map?"[119] Harrison's flexible amateurism, in this way, tweaked the classic American tenet of common sense philosophy, a self-consciously unpretentious construct where truths are made self-evident.[120] "Geographical sense" meant, for Harrison, that all maps distort and that mapmakers are human and that each kind of unique distortion could *actually* be useful.[121]

Harrison's conceptions of vision and perspective are innovative, but also very much products of their time. Certainly, Harrison's notion of deliberate distortions benefiting the world of cartography did not exactly catch on, but the notion of a fluid, relational space did, and Harrison provides a complex mediation of the move towards relative space.[122] In accentuating flexibility of perspective, the map itself loses some of its power as a control mechanism, yet the audience is still constrained by the limited choice of perspectives provided to them by the cartographers.[123] Harrison still remains instructive here, because he elevated the power of the user, and thus implicitly questioned the natural equilibriums of the balances of power that maps traditionally highlight. Relational space depends on the act of how one looks at the world and the search for a better perception of world space. Hence Harrison reminds us through his approach that

maps do not necessarily show the world as is, but more as it could be—a very liberal notion of modern progress at work.

Situating Strategy in Harrison Maps

Richard Edes Harrison's promotion of flexible internationalism on the cartographic page shifted the focus from whose maps were more accurate in a war to whose maps were the more dynamic communicators. Highlighting the techniques by which audiences gained new perspectives becomes a key part of the display. In these new globalist perspectives, strategy itself became a lens by which to view the entire world. As Ninkovich concluded, "The perception of the globe's unity in space and time was crucial, for it obliterated the geographical, cultural, and temporal distinctions that gave life to the historical myth of old and new worlds," and thus there came a need to conceptualize national interest from the standpoint of unity of global processes rather than from the particularist frame of traditional statecraft.[124] American liberal strategists during World War II and into the early Cold War found space malleable and more universal, but that new flexibility of perspective ushered in a reductive worldview.

One of Harrison's most celebrated maps provides a sense of how conceptions of strategy were changing in this time. For his opening world map in *Look at the World*, entitled "One World, One War" (fig. 1.7), Harrison chose to use the polar azimuthal equidistant projection, which he referred to as "the darling of the proponents of the 'air-age'."[125] The use of the polar center places North America in close quarters with North Asia and the Soviet Union, with the world shown in one unbroken piece. In the description next to the map, Harrison entertains the idea that "if the continents were equidistantly separated…almost all areas of the globe would have equal strategic

Figure 1.7. Richard Edes Harrison, "One World, One War," *Look at the World: The Fortune Atlas for World Strategy*, **1944**

value."[126] Though a great distortion (Australia on the edges of the map is stretched

beyond recognition), the visual of the polar center has important ideological connotations.

World power is equalized and the globe is brought into a tightly wound collection of

landmasses. As Harrison notes, it maps "the problems and the opportunities of fighting

all over the world at once."[127] Thus, strategy itself becomes an ideology of managing

complicated interdependences and being flexible in response to aggression in a much

closer world.

A similar map, using a polar azimuthal projection, from *Fortune* 1941, illustrates

the new continuities of space and proximities in even bolder relief: the fascinating

"World Divided" (fig. 1.8) looks almost the same as "One World, One War."[128] Here,

however, the large expanse of the Soviet Union is actually colored in pitch black as an

Axis country, uniting it with Germany, Japan, and Italy. Over the blacked-in country is a

Figure 1.8. Richard Edes Harrison, "The World Divided," *Fortune*, 1942 (Geography & Map Division, Richard Edes Harrison Collection, Library of Congress)

small caption, noting for the reader to "count this black if Nazis win a quick and complete victory."[129] The projection not only connotes a sense of dangerous closeness that changes perceptions of strategy, but Harrison also uses color as a bold tool that realizes the situation's immediacy to the reader.[130] Coloring in one of the largest Allies as a potential Axis conquest suggests that maps could go outside their conventions of showing world space "as is" and connote future projections and strategic relationships that play with both space and temporality. Without the contextualizing of the caption, though, the reader simply sees the landmass of the Soviet Union as a black mass, a threatening pall to be cast on a multi-colored world. Captions can certainly constrain the reading of any map, as Denis Wood and John Fels have pointed out, but they often cannot compete with the totalizing power of color and shape in the map, and here the very real

possibility that the Nazis might conquer the Soviet Union becomes a character in the presentation.[131] That essential tension between word and image is a constantly mitigating factor in Harrison's maps, and in popular cartography in general. Perhaps more importantly, though, the map places the notion that an entire world can be divided into two camps through the cartographic use of color, foreshadowing the Cold War architecture of maps to come.

America's shift to an image-based internationalism, though, is best seen in maps that specifically frame America's interests in terms of the rest of the world. Harrison's works capture this shift by simultaneously highlighting the anxieties and opportunities inherent in the perspectives. An air-age world created interdependences that could mean both strengths and vulnerabilities for American power. In terms of the dangers, a map like "Three Approaches to the U.S." (fig. 1.9) in Harrison's "Atlas for the U.S. Citizen" shows three perspectives of the United States from Berlin, Tokyo, and Caracas.[132] These maps attempt to show drastically how vulnerable the United States is from all three locations. While the Berlin and Tokyo maps have obvious strategic implications for World War II, the inclusion of Caracas highlights that we are vulnerable even in our own hemisphere. Once again, the totality of the presentation is key—rather than show each of these perspectives in their own separate maps, Harrison puts each perspective from Berlin, Tokyo, and Caracas on the same page, on top of one another as if to lay out an argument. Geography is reduced to strategy, and vulnerability becomes an integral part of such a strategy—trust no one from any geographical perspective. While many other Harrison maps offer a more pro-active vision of America, putting the American reader inside the map and at the helm of the action, the "Three Approaches" map looks *at* America, and

Figure 1.9. Richard Edes Harrison, "Three Approaches to the U.S.," *Fortune*, 1940

the sense of juxtaposition offers the American audience feelings of vulnerability, lack of

control over their place, and at the mercy of potential enemies from all directions.

Such a perspective recalls the realist's fear of international anarchy that

necessitates a balance of power perspective. For example, Harrison's maps adorn the

pages of early realist geographer Nicholas Spykman's famous treatise, *America's*

Strategy in World Politics, which offers a power-politics plea for world strategy.[133]

Spykman, with his air-age principles, indicted American isolationism and disseminated

the idea that even in peace, the United States is unsafe and vulnerable. "A balance of

power" Spykman wrote, "is an absolute prerequisite for the independence of the New

World and the power position of the United States. There is no safe defensive position on

this side of the oceans. Hemisphere defense is no defense at all."[134] Arguably, the choice

of the polar center in many of Harrison's maps highlights this kind of realism and the

historiography of polar geography has tracked how the Arctic became a key piece of

"cold war psychosis."[135] Through the influence of polar maps that connected the fortunes

of the United States and the Soviet Union, the icy wasteland skyrocketed to political

significance—and the potential for international cooperation in the polar world's new

proximities was stifled by the culture of Cold War national security.[136] In the rush to

defend American interests, this newly realized geographic proximity helped to create the

conditions for an ever-widening ideological distance.

Despite these possible readings and appropriations of his maps, Harrison's work

cannot be simply reduced to the ideologies of realism. His approach involves a much

more global appreciation of how American interests could be synonymous with world

interests. Perspective maps such as "Great Lakes to Greenland," for example, visualize

the air-age perspective of the Great Lakes and the Northeast United States (fig. 1.10).[137]

Just over the horizon, over what looks like a truncated Atlantic Ocean, Harrison has

drawn in the coasts of Norway, Scotland, Ireland, France, and Spain, bringing Europe

into the normally western hemispheric point of view. Also contributing to this change is

that Harrison downplays the rigidity of borders. While there is a line separating Canada

from the United States on the "Great Lakes to Greenland" map, the eye focuses more on

the continuity of the three-dimensional style landscape, and thus the two countries appear

as one mass. Air route lines on the map track the trajectory from New York through Nova

Scotia, Newfoundland, and onto Ireland, connecting the continents' interests and

lessening the impact of the wide Atlantic expanse. In terms of strategy and ideology, such
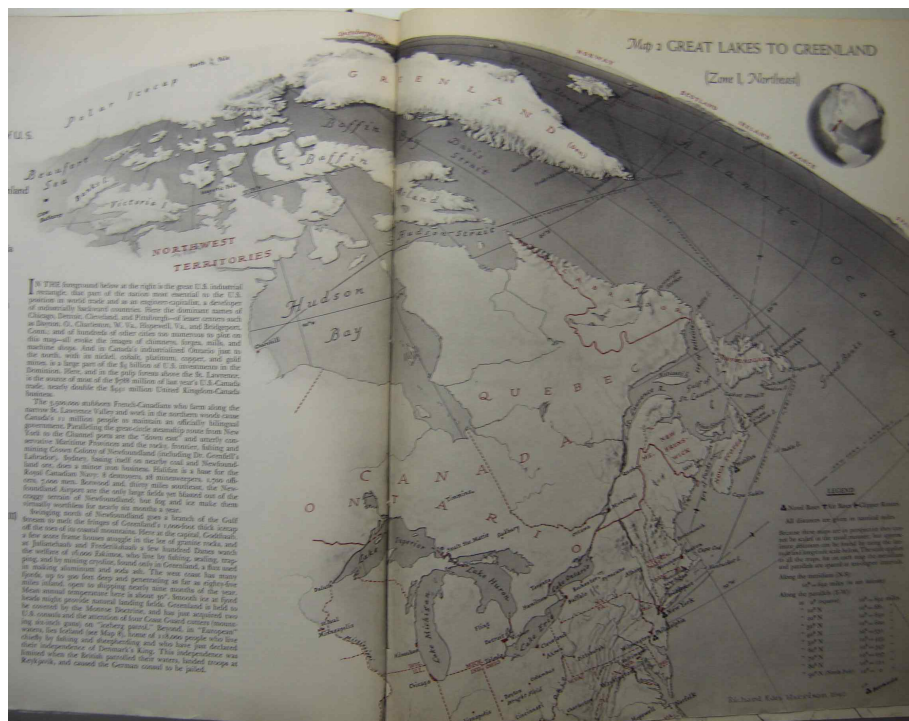
Figure 1.10. Richard Edes Harrison, "Great Lakes to Greenland," *Fortune*, **1940**

perspectives place Canada in the forefront of American interests, as a kind of gateway to

other parts of the world, and hence, the conception of manifest destiny becomes much

more global in scope on the page. Similarly, the map "Puget Sound to Siberia" (fig. 1.11)

focuses on the proximity between Alaska and the Soviet Union. From Harrison's air-age

vantage point, Siberia and hence the burgeoning world superpower of the Soviet Union

seems almost completely connected to (and encroaching upon) American territory.[138]

Accompanying this map is a telling note about strategy:

> It is…unlikely that Soviet Russia or Japan, indifferently equipped and operating
>
> from far distant sources of supply, should attempt to take the Pacific Northwest as
>
> the Germans took Norway. It is far more likely that the U.S. having taken steps to
>
> secure its defense, should one day find that it had in its Aleutian bases a strongly
>
> supported big stick with which to influence both Japanese and Soviet policy.[139]
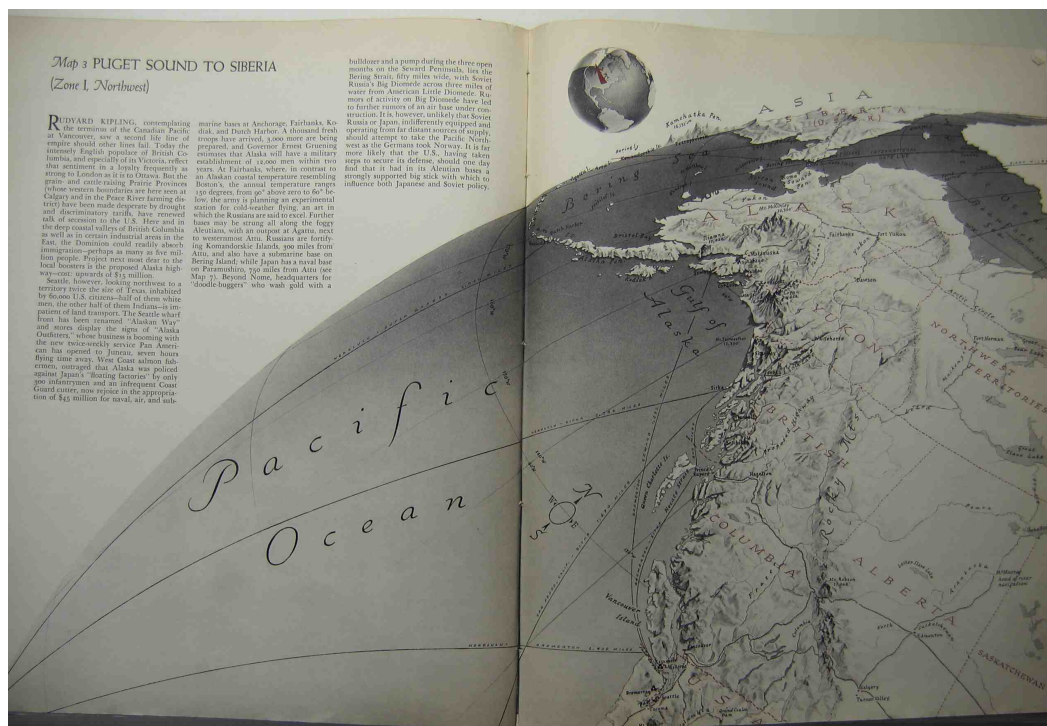
Figure 1.11. Richard Edes Harrison, "Puget Sound to Siberia," *Fortune*, **1940**

Such captions match the visual with both a fear of proximity, in hinting at Soviet and

Japanese presence in our sphere of influence, with an active sense of duty to spread U.S.

might. The old classical realists traditionally saw the world in terms of nation-state power,

but maps like Harrison's challenge such ideas with their lack of borders—all is connected.

The introduction to Harrison's *Atlas for the U.S. Citizen*, entitled "The U.S. and

the World" and written by the *Fortune* editors, is a telling description of how air-age

perspectives marked a multi-faceted internationalism. Predating America's entry into

World War II, the article equates the new perspective of a shrinking world as a kind of

call to arms. A quote here at length shows the way in which Harrison's perspectives were

situated:

> At last, however, the great awakening may be upon us, and we may be prepared to
>
> demand that the realism we love so well in lesser spheres now rules our thought in

the larger spheres where our fate will be determined. Such realism may show us

that we are as unique in the world and as alone as we were in 1840. But realism

cannot end there. For realism does not fulfill itself in mere recognition of facts.

After recognition, realism leads to action, to a true change; and when the change

has occurred, then the realistic view is different from what it was before. If, for

instance, recognizing our weakness, we proceed to make ourselves strong, then a

realistic view of the world may lead us to foreign policies that we cannot now

consider…And so, facing our loneliness, we may also recapture our old

aggressive spirit…For the atlas, which these maps make up, is so designed that

the citizen of the U.S. may here, with the whole world before him, begin to make

manifest to himself the outlines of his nation's destiny.[140]

Thus, while the word realism is used here, its implications are much broader than only

maintaining a balance of power: the modern internationalism brings forth a new manifest

destiny that prizes a relational, interpretive vision of world space. The strategist can

remake the world. The classic realist operated out of an acceptance of weakness and

aloneness as a natural condition; here are hints that this loneliness is a construct that can

be disputed by using the right perspective.

In much of Harrison's World War II work, this new internationalism visually

projects interdependence and cooperation as a possible goal. The aerial view of Europe in

the "Atlas for the U.S. Citizen" (fig. 1.12) makes this call for internationalism most

poignantly. The map uses Newfoundland as its vantage point at the center bottom of the

map, with England serving as a center-point (the equator becoming a vertical arc, rather

than its traditional horizontal position).[141] Hovering right above England is an imposing
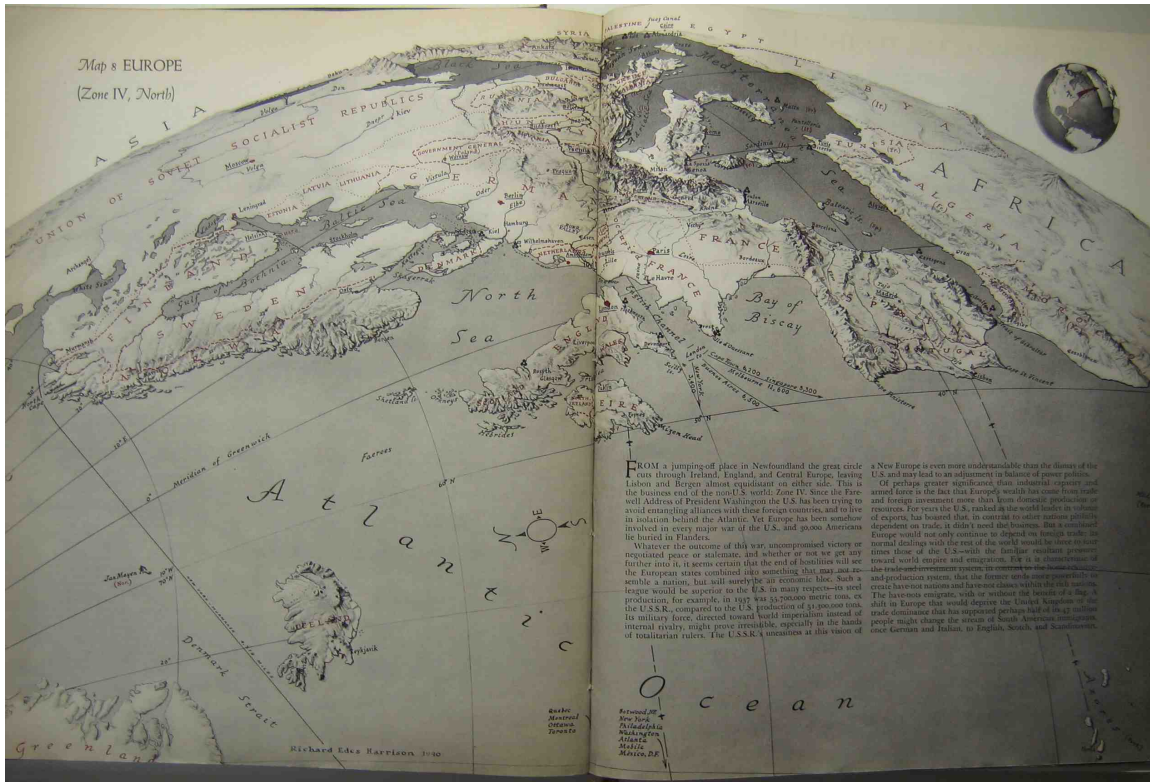
Figure 1.12. Richard Edes Harrison, "Europe," *Fortune*, **1940**

Germany with the gigantic expanse of the U.S.S.R. immediately to the left, its girth

stretched all the way off the map's frame. Turkey, Syria, and Palestine sit at the top of the

sphere, making the Middle East a strategic location on the horizon. At the bottom,

Harrison also lists strategically specific American cities such as Botwood (N.H.), New

York, Philadelphia, Washington, D.C., Atlanta, and Mobile next to an arrow pointing off

the map, again bringing the affairs of the Old World into American sights. The inclusion

of Botwood and Mobile indicates that Harrison was interested in bringing the universal

into the American home. Small cities and towns were just as strategic in disseminating

the new air-age geographic information as were conventional points like New York and

Washington, D.C., suggesting that Americans share cultural geographic similarities and

an inherent unity with other places in the world. As the caption points out, "Since the

Farewell Address of President Washington the U.S. has been trying to avoid entangling

alliances with these foreign countries, and to live in isolation behind the Atlantic. Yet Europe has been somehow involved in every major war of the U.S., and 30,000 Americans lie buried in Flanders."[142] The caption supplements the immediacy drawn into the lines of the map and adds an emotional element to the calls for abandoning isolationism. These ideas reiterate the internationalist view that Europe is really a central American concern, and that our influence in the European arena must be a function of a common sense perspective.

Finally, Harrison re-visualizes global transformation via his maps' ability to highlight how strategy now involves the spread of communication, economics, and culture, and not simply political and military assets. For example, the gnomonic style of projection exhibits some of the greatest distortions of any type of cartographic projection. But Harrison praises it as "probably the most accurate map…of the communication lines of the modern world, for its weird stretchings of familiar shore lines are present to achieve one objective, true great-circle direction. Any straight line on the map is a great circle and therefore the shortest route between any two points."[143] In his "Great Circle Airways" map (refer back to fig. 1.6), Harrison's gnomonic projection with a north polar center encompassed and visually displayed all of the world's "great" powers and represented a large proportion of the world's strategic routes of communication.[144] The north polar gnomonic thus captures the interconnectedness (and interdependence) of nation-states in a wartime context, giving the feeling of mutuality and prizing communication as a new fulcrum of strategy.[145]

Other maps in Harrison's archive illustrate the importance of both industrial and commercial air interests in this new era, evidencing that the new internationalism was not

simply a function of traditional state power. For example, the striking, elaborate "World According to Standard (N.J.)," from *Fortune* in 1940 (fig. 1.13), argues about the complex embroilment of the Standard Oil Company of New Jersey in World War II.[146] A tangled flow of thick, colored lines and directional arrows connect an icon of Standard's oil fields in Texas to factories in New Jersey and Illinois, and then to strategic points all over the earth, from Canada to Venezuela, Great Britain, Romania, and then far East to Indonesia. The more important the region is to oil production and profit, the larger it is projected on the map, thus making for a distorted world as seen through the eyes of an oil company executive. An accompanying chart shows a collection of national flags made proportional to the size of that country's Standard tanker fleet tonnage, with the U.S. dwarfing the others. Another *Fortune* map takes a similar approach, except this time to demonstrate the importance of commercial air interests: "U.S. Air Industry" (fig. 1.14)

Figure 1.13. Richard Edes Harrison, "The World According to Standard (N.J.)," *Fortune*, 1940
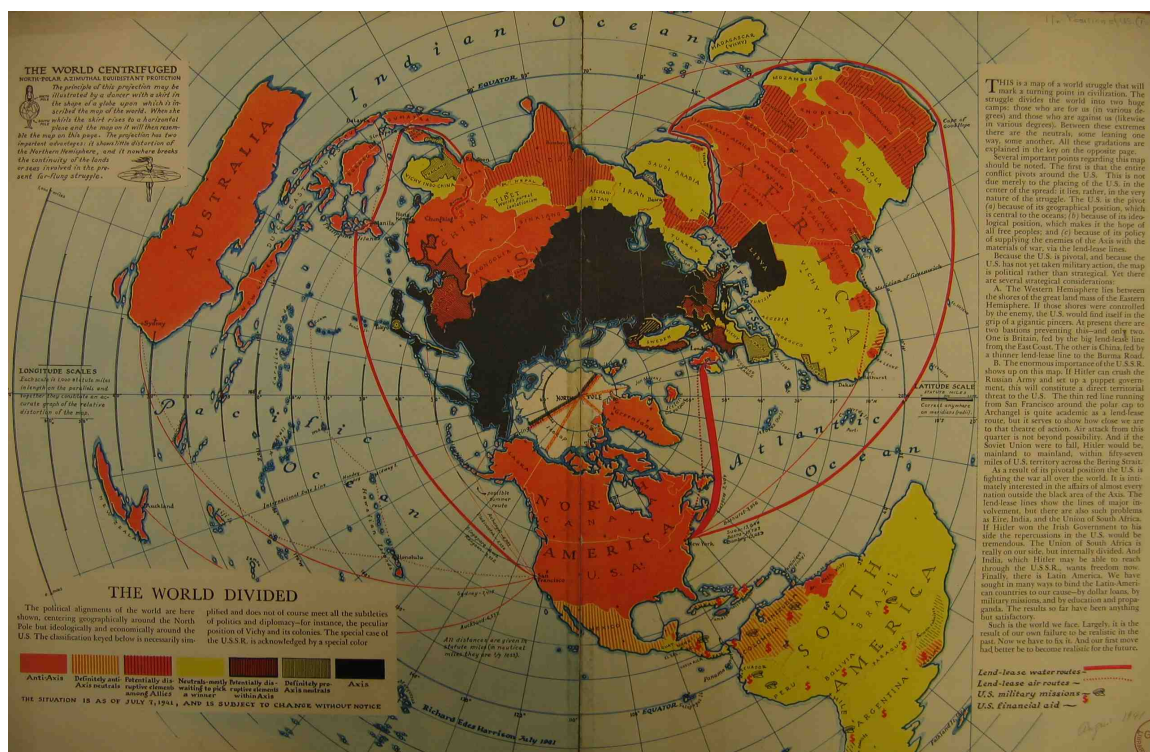
Figure 1.14. Richard Edes Harrison, "U.S. Air Industry," *Fortune*, 1941 (Geography & Map Division, Richard Edes Harrison Collection, Library of Congress)

shows a freehand sketch of the United States distorted almost beyond recognition in

terms of area and shape.[147] Harrison shrinks or enlarges the size of each state according to

the air power that state has in terms of commercial plants, planes, engines, and propellers.

The bloated looking shapes of states like Maryland, Pennsylvania, Kansas, Massachusetts,

Texas, California and others suggest an industry almost ballooning and expanding right

on the flat page in front of the reader and connote that individual states are implicated in

a global war effort. Thus in this map, the very technology central to the new air-age

perspective is offered as the subject of the map, and frames America as leading the

charge in commercial reign over the skies. It is also telling that Harrison was hired to

create a world map for Pan Am in 1946 (fig. 1.15): a Harrison-style globe is rendered in

blue-gray with criss-crossing deep red spider-like lines all over the map showing the

Figure 1.15. Richard Edes Harrison, "Pan Am World Airways," 1946 (Geography & Map Division, Richard Edes Harrison Collection, Library of Congress)

airline's routes across the entire globe.[148] In a postwar map such as this one, the

American global transport of air weaponry is replaced by the transport of American

capital.[149] Such a point is a poignant demonstration of the complexities of the burgeoning

air-age internationalism, as visualized in cartography: the spread of soft power, carried by

technologies like oil tankers, airplanes, and later satellites, is infused into conceptions of

global space. The form of the maps' aerial perspectives and choices of projection and

distortion connote a sense of rolling, inevitable movement above space, and that visually

mediates the new movement of capital, technologies, and "ideas" that came out of the

shift to liberal American globalism at mid-century.

Harrison's Legacy

The entire corpus of Harrison's World War II maps acknowledges that a world of

new proximities could certainly bring empire-thirsty armies closer to the United States,

but answers that it is the transcendent power of American perspective that can transform world space. There is a certain irony in the fact that Harrison bemoaned the "too-long forgotten realities of world geography," even as his novel cartographic perspectives were part of the kind of abstraction that modern internationalism needed—the air-age detachment of seeing the earth unfold in front of you, from the standpoint of one's own particular interests.[150] The realities of world geography were shapeable, according to the sheer variety of perspectives and relationships that Harrison offered.

Despite Harrison's pursuit of a realistic picture of the world, he was more than aware of the ironic conundrums cartographers face in making necessary distortions. For example, his archive contains a diary with sketches and notes for an unfinished book he was writing in the early 1940s called "The World is Round-O!," and it speaks to his recognition of the discursive nature of cartography. Harrison writes:

> This book is subtitled a treatise on maps, but it is really about the skin of a spherical object and man's painful efforts to take the hide off the sphere and spread it flat so that the pattern of it still remains recognizable…When the attempt is made to show the entire surface of the globe on one sheet of paper, the cartographer's dilemma is completely revealed. It is like trying to wrap a grapefruit without wrinkling the paper, or like commissioning a portrait painter to do a head showing not only the face but the sides, back and top simultaneously.[151]

The potential problem, though, is that, in the process of abstraction, maps become metaphors for the space itself. As Lawrence Prelli has demonstrated in his study of scientific maps as forensic evidence, while metaphors are often visually literalized on the graphic page, they can also be de-literalized as well.[152] By reminding viewers of the

discursivity of maps through his dramatic emphasis on form, Harrison takes the map out

of its traditional role as an impartial display of states and geographic information, in a

sense "de-literalizing" the old classic metaphor that the "map is the territory." Harrison

reifies the power of the new map in the sense that *all* is now strategic and malleable, with

his cartographic perspectives and projections displaying new vulnerabilities, strengths,

and proximities. Eschewing the traditional borders and orientations expected from maps,

Harrison simplifies the globe in a new way with a reductionism that encourages a

common sense interpretation of American interests as commensurate with all points on

the map. Harrison is caught in the tension between textualizing the world and revealing

its artifice, caught between concealing the map's construction and making it a naturalized

instrument of liberal foreign policy and strategy.

A poignant example of the ideological contradictions of Harrison's brand of air-

age globalism comes out of his works' contentious relationship with the principle of

manifest destiny. As noted, the 1940 introduction to "Atlas for the U.S. Citizen" called

for Americans to use Harrison's geography to rekindle a sense of their manifest destiny,

to enter World War II and spread principles of freedom and democracy (by force) around

the globe.[153] Seven years later, in the same year that President Harry S. Truman spoke

doctrinally of a new manifest destiny in the fight against Communism, the second edition

of the *New Compass of the World* appeared, with Richard Edes Harrison listed as a co-

editor. The introduction to the classic geopolitics text, credited to Harrison, Weigert, and

Vilhjalmur Stefansson, reads as follows:

> We are aware of the "dangerous beginnings of an American geopolitics, with
>
> blueprints for American imperialism riding the waves of the future." In 1943, we

described its aims as "disillusioned balance-of-power solution on the basis of regional groupings, in preparation for what the sponsors of such 'realistic' plans consider inevitable: the Third World War." We feel the same way today, four years after. In fact, we realize more strongly than before the challenge to a geography which may have to teach both some science and some history, to raise its calm voice and to warn against the false values of a new Manifest Destiny based on geographical truths.[154]

America's ideological expansion during the 1940s, as seen in these differing conceptions of modern manifest destiny, saw Richard Edes Harrison caught in an air-age ambivalence around America's global power. In Harrison's wake, the politicization of air space continued. The very contestability of the air's supposed potential for international transcendence is best evidenced by the Soviet Union's famous downing of Francis Gary Powers' U2 spy plane in May of 1960; the "perspectives" from air space were thus highly charged and far from simply abstract. John Cloud's historical work on Cold War geography, for example, has noted the increasing sophistication of air technologies to provide maps for the highest levels of Cold War classification; the pilot's human eye (and thus the cartographer's as well) was replaced by the mechanical eye of the satellite in determining the spaces for national interest.[155] In addition, as geographer William Bunge's radical appropriations of Harrison-style perspectives during the 1980s Cold War resurgence made clear, the airplane's small world was made infinitely smaller by the programmable nuclear missile.[156] Thus, the art of the amateur journalist-cartographer may have faded away, but the complexities of that "perspective from above" lived on.

Harrison's output precipitously declined after World War II, and his status as a celebrity cartographer slowly faded away. His infrequent Cold War work, however, did continue to evidence his trademark perspective and projections of old in a new strategic context: his map of the U.S.S.R.'s first atom bomb for *Life* in 1949 (fig. 1.16), for example, took the global orthographic projection and showed a series of concentric circles around a small mushroom cloud radiating destruction across the globe.[157] "Communist Fastness" (fig. 1.17), from *Fortune* in 1950, repurposed the polar perspective of World War II to show the menacing proximity of the new world force. His "Fatherland is Again Divided" map for *Life* in 1954 (fig. 1.18) revived his classic perspective approach in a large-scale rendering of a split Germany as seen from an imagined height over the Mediterranean.[158] The State Department would continue to consult with Harrison after World War II ended, and the fact that he was drafted to
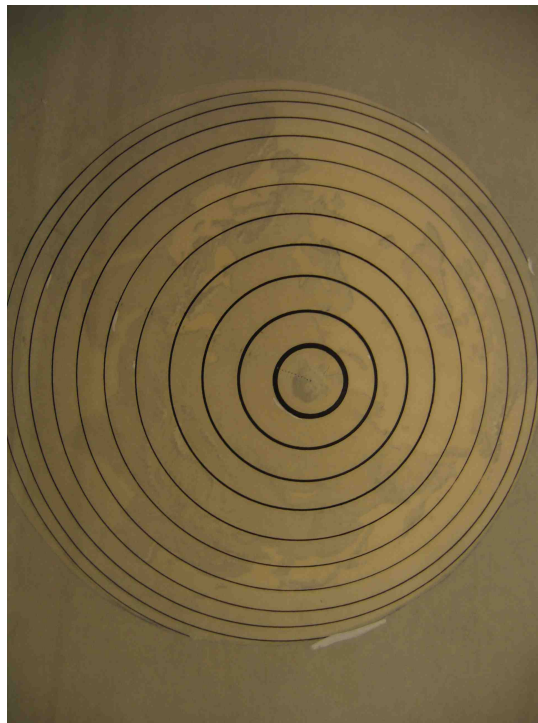
Figure 1.16. Richard Edes Harrison, "U.S.S.R.'s First Atom Bomb," *Life*, 1949
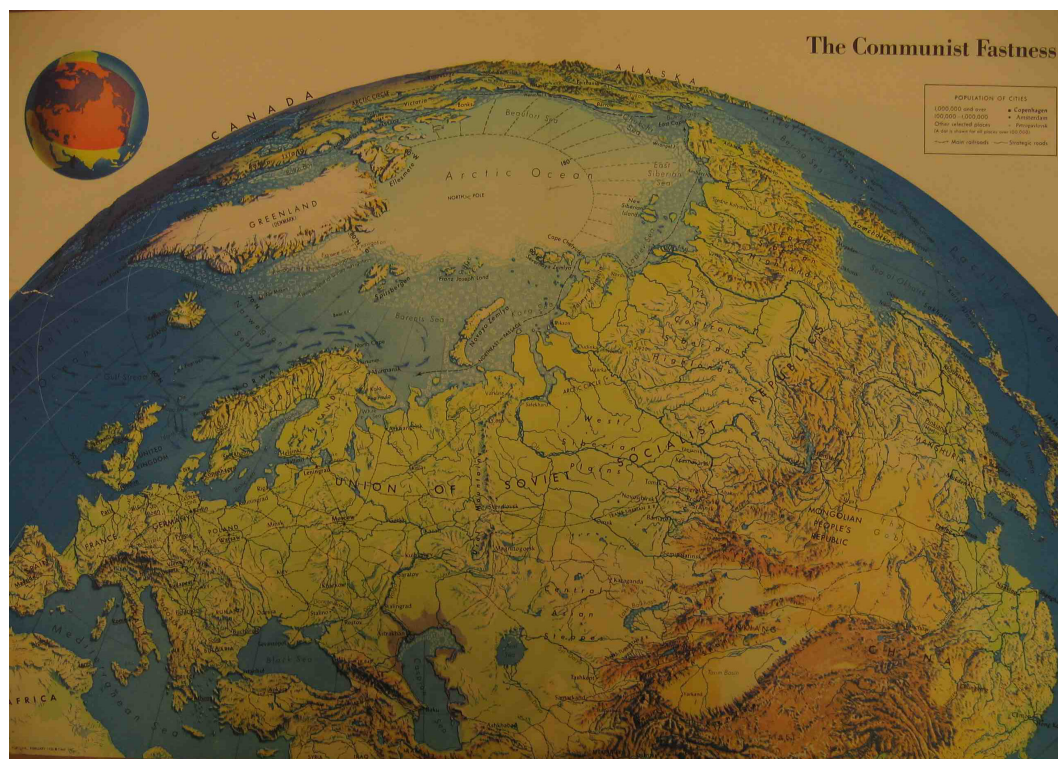
Figure 1.17. Richard Edes Harrison, "The Communist Fastness," *Fortune*, **1950**

Figure 1.18. Richard Edes Harrison, "The Fatherland Is Again Divided," *Life*, **1954**

produce maps for General George Marshall's report to the Secretary of War on the

victory in 1945 does indicate that his perspectives were being appropriated at high levels

of policymaking crucial to early Cold War strategy.[159] But his most influential work was

tied to World War II, and thereafter, he retired to become more of a friendly and

respected elder statesman for his fellow cartographers, and a noted chaser of birds. Of

course, his captivating yarn about his pursuit of an elusive albatross in the society pages

of the *New Yorker* appeared almost exactly one year before Khrushchev erected the

symbolic manifestation of the iron curtain through the center of Berlin. Now, in a post-

Cold War landscape, a world where globalism has transformed into globalization, and

money and information technology change the very definition of transportation,

Harrison's compelling accentuation of proximities and calls for fresh perspectives remain

important (and still eye-catching).

Conclusion

Recalling Harrison's role in articulating a new cartographic perspective

demonstrates how cartography during World War II and the immediate postwar period

highlighted the perspective of vision, the means of the map, as being just as important as

the content of the map itself. In the process, Harrison revealed that perception and

interpretation are a key part of how global space is transformed, and influenced, in

Finnegan's terms, "audiences' practices of looking."[160]

Mining the rhetoric of cartography during this period uniquely interrogates the

abstract visualizations of the air-age's interpretive paradigm. The entire field of American

"placement" in the world was (re)imagined from a host of different academic, popular,

and government perspectives and each of these perspectives informed and constrained the

others. Such perspectives support Dodds' theory that the intertwining of practical, formal, and popular geopolitical reasoning in the Cold War created interpretive dispositions in how the world was read and how the globe was rendered as a platform for action.[161] While Harrison was primarily a figure in World War II popular culture, the development of postwar foreign policy reflects the complex solidification of the new air-age globalism's spatial tenets. As John Lewis Gaddis has hinted, any serious student of policy could hardly see every point on the earth as equally strategic; yet, the new ideology of requiring a constantly shifting perspective would dramatically enlarge the field of what would be considered part of strategy. Postwar administrations had all accepted in some form a world of diversity, and a future where America remakes the world in its image was not considered realistic or even ideal.[162] The problem, though, was that another view prevailed during this period—the view that America was the only power to enforce such diversity; thus all threats became more threatening and all interests became even more vital. Gaddis writes, then, that the "the effect had been to push the United States into universalism by the back door: the defense of diversity in what seemed to be a dangerous world had produced most of the costs, strains, and self-defeating consequences of indiscriminate globalism."[163] For example, the notion of "flexible response" encouraged a theatre like Vietnam to become, for liberal policymakers, a symbol of American power and credibility. Thus, perception equaled reality, and the entire traditional idea of strategy being a "calculated relationship of ends and means" was transformed into a paradigm where means and process were of greater importance than ends and objectives.[164] This post-World War II internationalism moved away from the classical realist acceptance of conflict and disharmony; the perspective from the American airplane (as appropriated by

Harrison) attempted to transcend this, and with threats and opportunities present from any angle on the globe, a cycle of American overextension was set in place.

The flexibility of air-age visual rhetoric like Harrison's mediated a move toward a fairly fixed worldview that would come to mark at least the early days of the Cold War conflict. The next chapter looks specifically at a representative case through the Department of State, to project how the very tensions of realism and idealism, truth and value, art and science, means and ends, were also bound up in the way American foreign policy makers "fixed" these new worldviews in a time of transition.

Notes: Chapter One

[1] Louis H. Powell, "New Uses for Globes and Spherical Maps," *The Geographical Review* 35 (1945): 49.

[2] Powell, "New Uses for Globes," 49.

[3] Powell, "New Uses for Globes," 53.

[4] Alan K. Henrikson, "Maps, Globes, and the 'Cold War'," *Special Libraries* 65 (1974): 445–46.

[5] Franklin Delano Roosevelt, "Fighting Defeatism," in *FDR's Fireside Chats*, ed. Russell D. Buhite and David W. Levy (Norman: University of Oklahoma Press, 1992), 209.

[6] W.H. Lawrence, "Roosevelt to Warn U.S. of Danger; Asks All to Trace Talk on Maps," *New York Times*, February 21, 1942.

[7] Roosevelt, "Fighting Defeatism," 207–208.

[8] Walter W. Ristow, "Air Age Geography: A Critical Appraisal and Bibliography," *The Journal of Geography* 43 (1944): 333.

[9] Alan K. Henrikson, "The Map as an 'Idea': The Role of Cartographic Imagery During the Second World War," *The American Cartographer* 2 (1975): 46.

[10] Frank Ninkovich's thesis in *Modernity and Power* captures precisely this modern revolution in foreign policy wherein the values of national interests would not be measured simply by concrete threats, economic plusses or minuses, or even national prestige, but instead upon the basis of coherence of beliefs. See Frank Ninkovich,

Modernity and Power: A History of the Domino Theory in the Twentieth Century

(Chicago: University of Chicago Press, 1994), xiv.

[11] Ninkovich, *Modernity and Power*, xv.

[12] Ninkovich, *Modernity and Power*, xv.

[13] For a representative contemporary academic analysis of the new "birds-eye view" and the notion of expanding three-dimensional space due to changes in technology and communication, see Whittlesey's presidential address to the Association of American Geographers. Derwent Whittlesey, "The Horizon of Geography," *Annals of the Association of American Geographers* 35 (1945): 1–36. See especially pages 15–27.

[14] See, especially, Lawrence J. Prelli, "Visualizing a Bounded Sea: A Case Study in Rhetorical *Taxis*," in *Rhetorics of Display*, edited by Lawrence J. Prelli (Columbia: University of South Carolina Press, 2006), 90–120.

[15] For a contemporary review of new air-age projections and a critique of Harrison, see Arthur R. Hinks, "Some New Effects in Map Projection: Review," *The Geographical Journal* 104 (1944): 123–27.

[16] Richard Edes Harrison, *Look at the World: The Fortune World Atlas for Strategy* (New York: Alfred A. Knopf, 1944). For an exploration of Harrison's process, see "Perspective Maps: Harrison Atlas Gives Fresh New Look to Old World," *Life*, February 28, 1944, 56.

[17] From my reading, I would credit Walter Ristow with the coining of the phrase. He was at least responsible for conceiving of "air-age globalism" as a kind of movement/paradigm that could be assessed in academic terms.

[18] For more on this idea of Wilsonianism, see D.W. Meinig, *The Shaping of America: Global America 1915-2000* (New Haven, CT: Yale University Press, 2004), 299–369.

[19] Alexander P. De Seversky, *Victory Through Air* Power (New York: Simon & Schuster, 1942). See also Alexander P. De Seversky, *Air Power: Key to Survival* (London: Herbert Jenkins, 1952).

[20] Walt Disney, *Victory Through Air Power*, YouTube video, 70 min. (10 parts), Walt Disney Pictures, 1943, http://www.youtube.com/watch?v=paY6y87rrpE.

[21] Leonard Oscar Packard, Bruce Overton, and Benjamin De Kalbe Wood, *Our Air-Age World* (New York: Macmillan, 1944).

[22] Representative Clare Boothe Luce of Connecticut, "America in the Post-War Air World," *Congressional Record*, 78th Cong., 1st sess., 1943, vol. 89, pt. 1, 760.

[23] General H.H. Arnold, "Air Power for Peace," *National Geographic Magazine*, February 1946, 137–193.

[24] John Cobb Cooper, *The Right to Fly* (New York: Henry Holt and Company, 1947).

[25] See G. Etzel Pearcy, "The Air Age: Fact or Fantasy? An Evaluation of the Global Air Transportation Pattern," *The Journal of Geography* 46 (1947): 304–12.

[26] Ristow, "Air Age Geography," 333.

[27] Trevor J. Barnes and Matthew Farish, "Between Regions: Science, Militarism, and American Geography from World War to Cold War," *Annals of the Association of American Geographers* 96 (2006): 811–13; Ristow, "Air Age Geography," 334.

[28] Ristow, "Air Age Geography," 334.

[29] Ristow, "Air Age Geography," 334.

[30] Ristow, "Air Age Geography," 334.

[31] Henrikson, "The Map as an 'Idea',"28.

[32] Ristow, "Air Age Geography," 334.

[33] Ristow, "Air Age Geography," 334–35.

[34] Ristow, "Air Age Geography," 335.

[35] For more information on the development of mapping ocean basins in the early Cold War era, see Ronald E. Doel, Tanja J. Levin, and Mason K. Marker, "Extending Modern Cartography to the Ocean Depths: Military Patronage, Cold War Priorities, and the Heezen-Tharp Mapping Project, 1952–1959," *Journal of Historical Geography* 32 (2006): 605–26.

[36] Hans Speier, "Magic Geography," *Social Research* 8 (1941): 310–11, 316.

[37] John K. Wright, "Map Makers are Human: Comments on the Subjective in Maps," *The Geographical Review* 32 (1942): 528.

[38] Wright, "Map Makers are Human," 527.

[39] De Seversky, *Air Power*, 16.

[40] Heinz Soffner, "War on the Visual Front," *The American Scholar* 11 (1942): 467.

[41] Alan K. Henrikson, "Maps, Globes, and the 'Cold War'," 447.

[42] Susan Schulten, *The Geographical Imagination in America 1880-1950* (Chicago: University of Chicago Press, 2001), 229.

[43] Soffner, "War on the Visual Front," 465.

[44] Louis O. Quam, "The Use of Maps in Propaganda," *The Journal of Geography* 42 (1943): 22.

[45] H.W. Weigert, "Maps are Weapons," *Survey Graphic* 30 (1941): 529. Also, see Cara Finnegan's discussion of the emergence of *Survey Graphic* in the 1930s and 1940s in *Picturing Poverty: Print Culture and FSA Photographs* (Washington, DC: Smithsonian Institution Scholarly Press, 2003).

[46] Whittlesey, "The Horizon of Geography," 20.

[47] Whittlesey, "The Horizon of Geography," 23–24.

[48] James C. Malin, "Space and History: Reflections on the Closed-Space Doctrines of Turner and Mackinder and the Challenge of Those Ideas by the Air Age, Part 2," *Agricultural History* 18 (1944): 107.

[49] Henrikson, "Maps, Globes, and the 'Cold War,'" 448.

[50] Richard K. Ashley, "The Geopolitics of Geopolitical Space: Toward a Critical Social Theory of International Politics," *Alternatives* 12 (1987): 413–15. Also of interest is the work done by Steven Goldzwig on the importance of international opinion on the Truman administration's handling of civil rights in the military, and Mary Dudziak's wider history of Cold War civil rights and its effects on foreign policy. See Steven Goldzwig, "Civil Rights and the Cold War: A Rhetorical History of the Truman Administration's Desegregation of the United States Army," in *Doing Rhetorical History*, ed. Kathleen J. Turner (Tuscaloosa: University of Alabama Press, 1998), 143–69; Mary L. Dudziak, *Cold War Civil Rights: Race and the Image of American Democracy* (Princeton, NJ: Princeton University Press, 2000).

[51] For a good discussion of the "new internationalism" in terms of its advancement by international organizations, see Akira Iriye, *Global Community: The Role of International Organizations in the Making of the Contemporary World* (Berkeley: University of California Press, 2002).

[52] Henry R. Luce, "The American Century (1940)," reprinted in *Diplomatic History* 23 (1999): 159–71. See also Smith's introductory discussion of Luce in Neil Smith, *American Empire: Roosevelt's Geographer and the Prelude to Globalization* (Berkeley: University of California Press, 2003), 17–21.

[53] Luce, "The American Century."

[54] For example, in the introduction to the classic 1943 geopolitics text *The Compass of the World* (featuring maps by Harrison), Archibald MacLeish, the poet and former *Fortune* editor, wrote of both the awe and responsibility of the new air-age globalism: "Neither master of the air nor power in the air nor the airmen's global image of the earth can make, alone, the world we hope to live in…Nevertheless we know, all of us, the power of images in our lives and in the lives of nations. We know that those who think their world a free place of free movement, of free commerce both in men and words, are already free men, whatever limitations are put upon their freedom by brutality or force…Men have mastered the air. And the question now, on which this terrible war is fought—is whether…the air will be an instrument of freedom such as men have never dared to dream of or an…instrument of slavery by which a single nation can enslave the earth…without the hope or possibility of rebellion and revolt." Archibald MacLeish, "The Image of Victory," *Compass of the World: A Symposium on Political Geography*, eds. Hans W. Weigert and Vilhjalmur Stefansson (New York: Macmillan, 1944), 10–11.

[55] See Henrikson, "The Map as an 'Idea',"42.

[56] De Seversky, *Air Power*, 294.

[57] For a discussion on this duality of despair and triumph from an "air" perspective, Hannah Arendt's exploration of the "Archimedean Point" is a fitting expression of these new choices, writing about the abolishment of the "old dichotomy between earth and sky" and pointing out that, "We always handle nature from a point in the universe outside the earth. Without actually standing where Archimedes wished to stand…we have found a way to act on the earth and within terrestrial nature as though we dispose of it from outside, from the Archimedean point. And even at the risk of endangering the natural life process we expose the earth to universal, cosmic forces alien to nature's household." Such a powerful perspective, she writes, encompasses both "despair and triumph" simultaneously, and this certainly speaks to the air-age's new anxieties and opportunities. Hannah Arendt, *The Human Condition* (Garden City, NY: Doubleday, 1959), 237–38.

[58] Susan Schulten, "Richard Edes Harrison and the Challenge to American Cartography," *Imago Mundi* 50 (1998): 187. Wendell L. Willkie, *One World* (New York: Simon & Schuster, 1943), 202. See also Henrikson, "The Map as an 'Idea'," 28.

[59] Other figures such as Vice President Henry Wallace were extolling a post-war universe marked by global cooperation over air space, predicting that "When this war ends we shall be only at the threshold of the coming air age. Freedom of the Air means to the world of the future what Freedom of the Seas meant to the world in the past." The world could, then, be brought together a new freedom in *vision* itself. See Henry Wallace, "What We Will Get Out of the War," *The American*, March 1943, 104.

[60] *Triumph of the Will*, directed by Leni Riefenstahl (1934; Eureka, CA: Synapse Films, 2001), special ed. DVD. For a discussion of the scene's spatial significance, see Denis E. Cosgrove, *Apollo's Eye: A Cartographic Genealogy of the Earth in the Western Imagination* (Baltimore, MD: Johns Hopkins University Press, 2001), 242.

[61] A host of contemporary academics and government technicians were concerned about the use of "geopolitics," and in particular the employment of maps for strategic ends; the most representative include Weigert, "Maps are Weapons," 528–30; Wright, "Map Makers are Human," 527; Powell, "New Uses for Globes," 49–58; Soffner, "War on the Visual Front," 465–76; Quam, "The Use of Maps in Propaganda," 21–32.

[62] Isaiah Bowman, "Geography vs. Geopolitics," *Geographical Review* 32 (1942): 646–58.

[63] "Albatross," *New Yorker*, July 9, 1960, 23–24.

[64] See also "Friends," *New Yorker*, February 4, 1967, 24–25.

[65] Wolfgang Saxon, "Richard Harrison, Avid Bird-Watcher, and Map Maker, 92," *New York Times*, January 7, 1994.

[66] For more discussion of the "geographical imagination" concept, see David Harvey, *Social Justice and the City* (London: Edward Arnold, 1973); Susan Schulten, *The Geographical Imagination in America*; Joan M. Schwartz and James R. Ryan, eds. *Picturing Place: Photography and the Geographical Imagination* (New York: I.B. Tauris, 2003); Derek Gregory, *Geographical Imaginations* (Cambridge, MA: Blackwell Publishers, 1994).

[67] Another of Harrison's obituaries spoke of his cartographic influence: "Indeed it is fair to say that he was *the* critical actor in a process that culminated some years later

with publication and impact of that stunning image of our 'blue marble' as glimpsed from outer space." Wilbur Zelinsky, "In Memoriam: Richard Edes Harrison, 1901–1994," *Annals of the Association of American Geographers* 85 (1995): 190.

[68] "Perspective Maps," 56.

[69] Schulten, "Richard Edes Harrison and the Challenge." Also, see particularly Schulten's characterization of the map (and more specifically the atlas as a "text") as a "language of American power" during this period, in the introduction to her book. Schulten, *The Geographical Imagination in America*, 5–7.

[70] Richard Edes Harrison, "Art and Common Sense in Cartography," *Surveying and Mapping* 19 (1959): 27–28.

[71] Richard Edes Harrison and Robert Strausz-Hupe, "Maps, Strategy, and World Politics," in *Foundations of National Power*, eds. Harold & Margaret Sprout (Princeton, NJ: Princeton University Press, 1945), 65.

[72] Harrison's contributions to air-age globalism and the popular geographic imagination have been excellently documented elsewhere. See Schulten, *The Geographical Imagination*, and Henrikson, "Maps, Globes, and the 'Cold War'," "The Map as an 'Idea'," and "America's Changing Place in the World: From 'Periphery' to 'Centre'?," in *Centre and Periphery: Spatial Variation in Politics*, edited by Jean Gottmann (London: Sage, 1980), 73–100.

[73] Lawrence Prelli has noted the function of visual displays that simultaneously reveal and conceal in an act of constraining rhetorical interpretations and values, and this proves instructive here. See Lawrence Prelli, "Rhetorics of Display: An Introduction," in

Rhetorics of Display, edited by Lawrence Prelli (Columbia: University of South Carolina Press, 2006), 1–38.

[74] John Pickles, *A History of Spaces: Cartographic Reason, Mapping, and the Geo-Coded World* (London: Routledge, 2004), 6.

[75] Wilbur Zelinsky, "In Memoriam," 187–88.

[76] Schulten, "Richard Edes Harrison and the Challenge," 178.

[77] Mark Monmonier, *Maps with the News: The Development of American Journalistic Cartography* (Chicago: University of Chicago Press, 1989), dedication page.

[78] Harrison produced his singular works at his cluttered office at *Fortune* and in the basement workshop of his East 51st brownstone, which, with a "bulletin board crowded with startling clippings and sketches and other choice specimens of waggery," acolyte Wilbur Zelinsky described as "an assemblage worthy of acquisition and display by the Smithsonian." An exploration of his archive at the Library of Congress confirms this characterization. See Wilbur Zelinsky, "In Memoriam," 188.

[79] Walter W. Ristow, "Journalistic Cartography," *Surveying & Mapping* 17 (1957): 375.

[80] Mark Monmonier. *Maps with the News: The Development of American Journalistic Cartography* (Chicago: University of Chicago Press, 1989), 23.

[81] Denis E. Cosgrove and Veronica della Dora, "Mapping Global War: Los Angeles, the Pacific, and Charles Owens's Pictorial Cartography," *Annals of the Association of American Geographers* 95 (2005): 373–74.

[82] Ristow, "Journalistic Cartography," 374; Schulten, *The Geographical Imagination in America*, 3.

[83] Richard Edes Harrison, "The War of the Maps: A Famous Cartographer Surveys the Field," *Saturday Review of Literature*, August 7, 1943, 26.

[84] See Richard Edes Harrison, *Fortune* 1938: Czechoslovakia, part 1, file 19, Richard Edes Harrison Collection, Geography & Map Division, Library of Congress, Washington, DC. Also worth looking at for more on Harrison's process is a 1985 interview with Monmonier. See Monmonier, *Maps with the News: The Development of American Journalistic Cartography*, 167. For a categorized list of all of Harrison's *Fortune* output, see Joanne M. Perry, "Harrison's *Fortune* Maps, 1939–1945: An Annotated Cartobibliography," *Special Libraries Association Geography and Map Bulletin* 148 (1987): 13–20; Joanne M. Perry, "Harrison's *Fortune* Maps, 1933–1938: An Annotated Cartobibliography," *Special Libraries Asscociation Geography and Map Bulletin* 157 (1989): 46–56.

[85] For more on the history of the Mercator projection, see Mark Monmonier, *How to Lie With Maps*, 2nd ed. (Chicago: University of Chicago Press, 1996), 14–15; 94–96; Mark Monmonier, *Rhumb Lines and Map Wars: A Social History of the Mercator Projection* (Chicago: University of Chicago Press, 2004).

[86] "Perspective Maps," 56.

[87] The use of photography to create spatial, geographic representations has been noted by scholars like Joan M. Schwartz and James R. Ryan, who, in their book *Picturing Place: Photography and the Geographical Imagination*, posit photography as a key piece of the "picturing impulse" of geography, a "means of observing, describing, studying, ordering, classifying and, thereby, knowing the world." See Schwartz and Ryan, eds., *Picturing Place*, 6, 8.

[88] "Perspective Maps," 61; Schulten, "Richard Edes Harrison and the Challenge," 180.

[89] Schulten. "Richard Edes Harrison and the Challenge," 178; Henrikson, "The Map as an 'Idea'," 19–53.

[90] Monmonier, *How to Lie With Maps*, 8.

[91] For a discussion of the connection of map projections and politics, see the "Mapping the World and its Peoples" chapter in Jeremy Black, *Maps and Politics* (Chicago: University of Chicago Press, 1997), 29–59.

[92] Harrison, *Look at the World*, 30–31.

[93] Leland Stowe, "Satellites in Arms," *Life*, December 17, 1951, 98–99.

[94] For the origins of the critical discussions in cartography around the "silences" of maps and their role in power relations, begin with Harley's collection. J.B. Harley, *The New Nature of Maps: Essays in the History of Cartography: Essays in the History of Cartography,* ed. Paul Laxton (Baltimore, MD: Johns Hopkins University Press, 2001).

[95] Prelli, "Rhetorics of Display," 15.

[96] Lester C. Olson, Cara A. Finnegan, and Diane S. Hope, "Visual Rhetoric in Communication" and "Performing and Seeing," in *Visual Rhetoric: A Reader in Communication and American Culture*, eds. Lester C. Olson, Cara A. Finnegan, and Diane S. Hope (Los Angeles: Sage, 2008), 7, 9, 16.

[97] Richard Edes Harrison, *Look at the World*, 52–53.

[98] Consolidated Vultee Aircraft Corporation, *Maps…And How to Understand Them*, 3rd ed. (New York: Consolidated Vultee Aircraft Corporation, 1943), 9.

[99] Harrison, *Look at the World*, 52.

[100] Harrison, *Look at the World*, 52.

[101] Harrison, *Look at the World*, 53.

[102] Prelli, "Visualizing a Bounded Sea."

[103] Visualizing global space typically places the observer outside of space and features the "world-as-picture," framing the "world as apart from and prior to the places and people it contains." See John Agnew, *Geopolitics: Re-visioning World Politics*, 2nd ed. (New York: Routledge, 2003), 15–16. Also see Henrikson, "America's Changing Place in the World," 73–100.

[104] Denis Cosgrove, *Apollo's Eye*, 13.

[105] Richard Edes Harrison, *Fortune* 1942: Southeast to Armageddon, part 1, file 82, Richard Edes Harrison Collection, Geography & Map Division, Library of Congress, Washington, DC. This map was later reproduced with a more tame title in *Look at the World* as "Southeast to Asia."

[106] Richard Edes Harrison, *Fortune* 1943: Not-so-Soft Underside, part 1, file 97, Richard Edes Harrison Collection, Geography & Map Division, Library of Congress, Washington, DC.

[107] Richard Edes Harrison, Not-so-Soft Underside.

[108] Harrison, *Look at the World*, 11.

[109] Harrison, *Look at the World*, 11.

[110] Richard Edes Harrison, *Fortune* July 1941: U.S.S.R., part 1, file 70, folder 2, Richard Edes Harrison Collection, Geography & Map Division, Library of Congress, Washington, DC.

[111] Aforementioned works by Neil Smith and the Barnes/Farish collaborations discuss this movement. See also Robert and Susanna McMaster, "A History of Twentieth-Century American Academic Cartography," *Cartography and Geographic Information Science* 29 (2002): 305–21.

[112] See especially Bowman, "Geography vs. Geopolitics."

[113] This visual image borrowed from Arthur Robinson's infamous attack on the controversial Peters' projection. See Arthur H. Robinson, "Arno Peters and His New Cartography," *American Geographer* 12 (1985): 103–11.

[114] Harrison, *Look at the World*, 50–51.

[115] Harrison, *Look at the World*, 10–12.

[116] Harrison, *Look at the World*, 12.

[117] S.W. Boggs, "Cartohypnosis," *The Scientific Monthly*, June 1947, 469.

[118] Harrison, "War of the Maps," 24.

[119] Richard Edes Harrison, "Art and Common Sense in Cartography," 27–28.

[120] For a discussion of "common sense" philosophy and geopolitical reasoning, see Gearóid Ó Tuathail and John Agnew, "Geopolitics and Discourse," 194–99. See also Edoardo Boria, "Geopolitical Maps: A Sketch History of a Neglected Trend in Cartography," *Geopolitics* 13 (2008): 304–5.

[121] Harrison, *Look at the World*, 12.

[122] Judith A. Tyner, "Persuasive Cartography," *Journal of Geography* (1982): 140–44.

[123] See Timothy Barney, "Power Lines: The Rhetoric of Maps as Social Change in the Post-Cold War Landscape," *Quarterly Journal of Speech* 95 (2009): 412–34.

[124] Ninkovich, *Modernity and Power*, 4.

[125] Harrison, *Look at the World*, 8–9, 12; Consolidated Vultee Aircraft Corporation, *Maps…And How to Understand Them*, 11.

[126] Harrison, *Look at the World*, 9.

[127] Harrison, *Look at the World*, 9.

[128] Richard Edes Harrison, *Fortune* 1941: World Divided, part 1, file 74, Richard Edes Harrison Collection, Geography & Map Division, Library of Congress, Washington, DC.

[129] Harrison, World Divided.

[130] For more on color conventions in mapping, see Monmonier, *How to Lie with Maps*, 170–71.

[131] Denis Wood and John Fels, "Designs on Signs/Myth and Meaning in Maps," *Cartographica* 23 (1986): 54–103.

[132] Richard Edes Harrison, "Atlas for the U.S. Citizen," *Fortune,* September 1940, 58.

[133] Francis P. Sempa, *Geopolitics: From the Cold War to the 21st Century* (New Brunswick, NJ: Transaction, 2002), 75–76.

[134] Nicholas Spykman, *America's Strategy in World Politics: The United States and the Balance of Power* (New York: Harcourt, Brace, and Company, 1942), 157.

[135] Sanjay Chaturvedi, *The Polar Regions: A Political Geography* (Chichester, UK: John Wiley & Sons, 1996), 88–89.

[136] Chaturvedi, *The Polar Regions*, 88–89.

[137] Harrison, "Atlas for the U.S. Citizen," 44–45.

[138] Harrison, "Atlas for the U.S. Citizen," 46–47.

[139] Harrison, "Atlas for the U.S. Citizen," 46.

[140] Harrison, "Atlas for the U.S. Citizen," 42.

[141] Harrison, *Look at the World*, 56–57.

[142] Harrison, *Look at the World*, 57.

[143] Harrison, *Look at the World*, 54.

[144] Harrison, *Look at the World*, 54–55.

[145] Along similar lines, an interesting Harrison map drafted for *Compass of the World* in 1944 portrays South America covered in foreign broadcasting lines from all over the globe, with the caption: "Scarcely any other region is so thickly overspread with foreign broadcasting as this continent." Richard Edes Harrison, Macmillan, February 1944: Compass of the World, part 1, file 112, Richard Edes Harrison Collection, Geography & Map Division, Library of Congress, Washington, DC.

[146] Richard Edes Harrison, "World According to Standard," *Fortune*, March 1940, 84–85.

[147] Richard Edes Harrison, *Fortune* 1941: Air Industry, part 1, file 67, Richard Edes Harrison Collection, Geography & Map Division, Library of Congress, Washington, DC.

[148] Richard Edes Harrison, PanAm, September 1946: Aitoff World Map, part 1, file 156, Richard Edes Harrison Collection, Geography & Map Division, Library of Congress, Washington, DC.

[149] One last example aptly sums up the shift into a flexible internationalism where American interests take on a wider scope. The "Europe from the Southwest" map in *Look*

at the World shows Europe unfolding from a point above North Africa, and its stance high above the rough topography, in a sense, reduces the importance of such natural boundaries like mountains; transportation becomes the key power over terrain, thus abstracting traditional geographic concerns. The caption reinforces this notion: "The same airplane…that makes light of polar ice makes light of Mediterranean mountains. The Alps may have figured largely in German ideas of a European fortress; but a fortress needs a roof. The Alps may have also figured in their minds as a cultural wall, but ideas need more than mountains to stop them." See Harrison, *Look at the World*, 28–29.

[150] Harrison, *Look at the World*, 9.

[151] He goes on to even compare this approach to a Dali painting, thus showing his acknowledgement of cartographic abstraction. Richard Edes Harrison, Publications Box, part IV, Richard Edes Harrison Collection, Geography & Map Division, Library of Congress, Washington, DC.

[152] Prelli, "Visualizing a Bounded Sea."

[153] Harrison "Atlas for the U.S. Citizen," 42.

[154] Hans W. Weigert, Vilhjalmur Stefansson, and Richard Edes Harrison, *New Compass of the World – A Symposium on Political Geography* (New York: Macmillan, 1949), xii–xiv.

[155] John Cloud, "American Cartographic Transformations During the Cold War," *Cartography and Geographic Information Science* 29 (2002): 261–82.

[156] William Bunge, *Nuclear War Atlas* (New York: Basil Blackwell, 1988), 1, 9.

[157] Richard Edes Harrison, *Life* October 1949: U.S.S.R.'s First Atom Bomb, part 1, file 179, Richard Edes Harrison Collection, Geography & Map Division, Library of Congress, Washington, DC.

[158] Richard Edes Harrison, *Life* April 1954: The Fatherland is Again Divided, part 1, file 229, Richard Edes Harrison Collection, Geography & Map Division, Library of Congress, Washington, DC.

[159] General George Marshall, *General Marshall's Report: The Winning of the War in Europe and the Pacific (Biennial Report of the Chief of Staff of the United States Army July 1, 1943 to June 30, 1945 to the Secretary of War)* (New York: Simon & Schuster, 1945).

[160] Olson, Finnegan, and Hope, "Performing and Seeing," 18.

[161] Klaus Dodds, "Cold War Geopolitics," in *A Companion to Political Geography*, eds. John Agnew, Katharyne Mitchell, and Gearóid Ó Tuathail (Malden, MA: Blackwell, 2003), 206–7.

[162] John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy* (New York: Oxford University Press, 1982), 276.

[163] Gaddis, *Strategies of Containment*, 276.

[164] Gaddis, *Strategies of Containment*, 273.

CHAPTER TWO

ONE WORLD OR TWO?: FOREIGN POLICY AND THE CARTOGRAPHIC TENSIONS BETWEEN ART AND SCIENCE IN THE TRANSITION TO COLD WAR

In April 1945, the war on the Western Front was at its end, and Floyd Hough was sent looking for maps. Post-war planning was in full effect; Allied forces were scrounging all over Europe for highly sensitive intelligence that would facilitate such planning. Hough was an Army geodesist, leading a special unit for the Military Intelligence Division of the Office of Chief Engineers. Geodesy, an earth science concerning the accurate measurement of the shape and roundness of the earth, had fascinated scientists for centuries, but the air-age military context made the accurate shape of the earth (particularly for bomber routes and the delivery of missiles) a more urgent concern. Hough's team was moving through Germany in "cloak and dagger fashion," according to *Life*, directed to steal maps and geodetic survey information from a host of abandoned German university archives and institutes, when Hough received intelligence about a massive cache of military maps captured from the Russians by Germany.[1] They located the stash in an old warehouse in the village of Saalfeld, and found a rich haul of military data that was well beyond their expectations. But Saalfeld was scheduled for transfer to the Russian zone; the legend is that Hough quickly commandeered a group of U.S. artillery trucks and filled them with the contents of the archives, with the last truck just loaded on one side of the village as Soviet tanks rolled in on the other side.

The Hough Team's findings "would change the course of the Cold War."[2] Hough's infiltration of contested space to capture classified Soviet knowledge became a

kind of heroic, geographic "explorer" narrative for the increasingly technologized and abstract charting of Soviet territory. Hough's story was often featured in public coverage of Cold War cartography: a *Life* article from 1956, on "the missile-era race to chart the earth," lionizes Hough for using clandestine knowledge of the earth to advance Cold War objectives. *Life* reported a later incident at a conference in Russia where Hough was speaking: "a Russian delegate eyed the American with cold politeness. 'We have heard a lot about you, Mr. Hough,' he said."[3] America's ability to penetrate Soviet and Eastern bloc space, with reliable accuracy, was Hough's enduring Cold War legacy, and the U.S. government would come to use this knowledge itself as a weapon. The findings themselves produced foundational data for geodesy, photogrammetry, and cartography for the next 25 years. Over the course of the Cold War, military cartographers and earth scientists converted the information into a standardized set of coordinates for points all over the heart of the Eurasian landmass, which aided the development of satellite reconnaissance technologies sponsored by the Army, Navy, and the Air Force, and was used for intelligence by the Central Intelligence Agency and the Department of State.[4] This work also led to a coordinated effort by the U.S. government to standardize international cartographic policies so that Cold War strategic allies could benefit from the same spatial information about the Soviet Union.[5] On the one hand, Hough represented the last vestiges of the traditional geographic explorer, the pioneer who risks his safety in order to triumphantly chart new spaces. On the other hand, his mission posed a new role for cartography that would increase during the postwar era—the "hailing" of geography as a basis for state intelligence in international conflicts, and a site for crucial integrations between the U.S. government, military and the academy.[6]

My concern, though, is not about Hough or his findings, but rather about the kinds of transitional spaces in which government cartographic policies were conceived and executed—the kind of context in which an actor like Hough could achieve notoriety. The strategic use of maps had dramatically increased during World War II, and the world was fast becoming a field of strategy that could be read as a whole text. These popular air-age perspectives were filtered through the U.S. government's institutional lens, with profound implications for the ways particular agencies converged geo-spatial data into new ideologies of how to place American power around the globe. John Cloud writes of these essential shifts for mapping in the Cold War, noting the "massive…expansion in the scope and activities of federal cartographic and intelligence agencies," driven especially by new technologies that could closely monitor the threat of nuclear war.[7] World regions became "part of geopolitical Cold War imperatives," and thus cartographic science was forged by interactions through scientists, military, industry, and the state in order to meet common strategic problems.[8] Fighting the Soviet Union required the power to construct spatial knowledge of the entire earth with the utmost precision.

Maps are not simply images—they are abstractions, refiguring material spaces into bounded symbols of colors and lines, and creating a unique world apart from the space they supposedly depict. Between those lines is, of course, an array of power relations between mapmaker and map interpreter.[9] As Henri Lefebvre remarks, spaces are not natural givens that we inhabit, but are produced by cultural forces in a continuous process of creation.[10] Often, it is the elites or experts of a society that produce what Lefebvre called "representations of spaces," or the politicized practices that construct and abstract spatial relations.[11] Thus maps are continually bound up in these processes of

representation, as visualizations made by powerful forces that argue space into being. The development of modern internationalism in American culture is one such "representation of space." The case of Richard Edes Harrison manifests the premium placed on the value of new perception, through rhetorical recastings of vision and strategy in popular maps. This development in perception had substantial foreign policy repercussions on the character of America's new internationalism during World War II and into the Cold War. John Lewis Gaddis noted that the tension between means/ends would require constant negotiation for post-war strategists, and it was often the perception of power and strength that determined strategy, rather than what could actually be measured.[12] Thus, I argue in this chapter that particular constructions of the world, or representations of space, by certain government elites, are constrained by the form of perception in maps.

I begin by discussing the contextual implications of the new air-age globalism on the development of government cartography and its technologies. The bulk of the discussion, however, focuses on a specific case that illustrates the Department of State's use of cartography in postwar policy design by highlighting the wartime and postwar work of S.W. Boggs, the Department's Official Geographer from 1923-1954. Like Harrison, Boggs often idealistically absorbed his time's geographic imagination as manifested in new flexibilities of global mapping. But as a representative of the U.S. government, Boggs' cartography was also beholden to the shifting institutional necessities of a foreign policy apparatus that sought a blueprint for a postwar world. This chapter notes that while Boggs, like Harrison promoted the new air-age flexibilities and formulated spatial ideologies for the emerging modern internationalism, he was also constrained by his role as an academy-trained, government technician and the new

institutional necessities of a foreign policy culture that sough a blueprint for a postwar world. Government cartographers were especially caught between the idealism of the one-world and the chance for international scientific cooperation to map the earth, and the reality of the U.S. government's need for maps to help strategically "contain" hostile spaces. Thus, I hold that Boggs' cartographic output as both academic and government policy shaper navigates these essential tensions, and sheds a revealing light on the spatial transition of the U.S. government during the postwar and Cold War eras.

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U.S. Foreign Policy and the Implications
of Air-Age Geography in the Early Cold War

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The air-age approach in the development of America's spatial values, operating as it did in such a charged context as world war, hinted at a kind of idealism, as if with the new premium on fluidity and "atmosphere" Americans could somehow fly away from borders, nationalism, and war machines. In practice, however, the shift to globalism was less about transcending such concerns and more about re-envisioning them. Geographer Neil Smith points to a crucial reconception of space, concurrent with the new perspectives from the air, where absolute geography (seeing spaces as a pre-existing identity with the common sense notion that space "is") shifted to a relational geography where distance is relative, and space is constituted socially.[13] The act itself of *seeing* global space was critical here, opening up the world to new interdependences that required constant, vigilant management.[14] For example, Paul Smith, writing for the American Congress on Surveying & Mapping in 1954, championed legibility as the defining need of aviation-related maps, with the dramatic expansion of scale "controlling the amount of legible material that can be shown."[15] During that same Congress, Albert Lieber recounted a popular defense maxim of the air-age era that "an Army without maps

is an Army without eyes," thus noting the importance of a map's ocular function in the exercise of U.S. power.[16]

New, interdependent spatial relationships meant that transportation fluidly connected capital and communication networks, and the realist power politics that bounded the nation state as the key political unit was challenged.[17] In geopolitical terms, realism posited that, rather than human agency and will, "it was the natural environment and the geographical setting of a state which exercised the greatest influence on its destiny."[18] But air-age perspectives signaled a key change: geographers no longer had to travel the land in order to describe its contours; the power of the airplane challenged such expertise, privileging the technological means by which the perspective was obtained. The Hough narrative, for example, was largely about the act of amassing forbidden data and using it in the service of sophisticated (and increasingly classified) technologies. Thus, the perspective of those with access to such technologies was also privileged, giving a new power to liberal government strategists' reading of the world. FDR's principal geographic consultant (and advisor to Woodrow Wilson at Versailles) Isaiah Bowman was a clear representative of the appropriation of relational power politics into a modern, liberal framework.[19] Bowman upheld a kind of "interpretive turn" in understanding world space, writing that: "It is often said that geography does not change. In truth geography changes as rapidly as ideas and technologies change; that is, the *meaning* of geographical conditions changes."[20]

For Bowman, and many air-age political geographers, there was no natural balance of power in the world, but rather a contestable field of space constituted by ideas. "Geography, like history and politics," Bowman noted, "is a discipline by which we can

better understand 'power'…" and "if we are wise we shall focus our attention on the

unending process of readjustment among the many, rather than on a temporary condition

of balance among the few."[21] To Bowman, that process revolved around the idea of

"liberty," making geography part of an ideological and moral strategy.[22] This air-age

vision suggests, then, that power came from the ability to *get a better perspective*, and

hinted that the way to command the world was to see that world clearly (and in

Bowman's terms, "freely")—with maps being the vehicle for that visualization.[23] On the

whole, because of the institutional and academic reach of figures like Bowman,

geography was advancing beyond the thorough regional description prized by titans of

the field such as Richard Hartshorne, and became much more globally politicized in the

halls of the Departments of State and Defense.[24]

    As Frank Ninkovich has noted, during this shift to an interpretive kind of

internationalism, American policymakers suffered from a condition "which was the

opposite of dyslexia: incoherence inhered in the text rather than in the minds of the

readers."[25] The rhetorical world of air-age globalism fit this condition. It did not mean

changing the liberal modernist approach to progress; it meant finding new ways to

perceive where that incoherence was, in this case from a vantage point high above the

earth. If the globe was seen textually rather than as some fixed entity, it could be molded

and approached from different angles. Neglecting the balance of ends and means in the

old geopolitical realism for a sharper focus on "credibility" meant that there would be

constant attempts to get a more credible perception of world events.[26] As Alan Henrikson

puts it, "How reliable are the mental maps by which American diplomatic and military

officials navigate the world? For them, the problem of faithful representation of the world has always been an acute one."[27]

Realism was not abandoned by any means, as the development of high-level Cold War strategy and military science showed. Balancing power politics against raw, rational calculation still was integral to reading the landscape; as Richard Ashley has pointed out, realist power politics does not have to be antithetical to the liberal modern narrative, and can even serve as a supplement to it.[28] But realism was indeed transformed and made much more nuanced: in Gaddis' terms, a new universalism of American interests vied against the particularism of past foreign policy, forming an essential tension of post-World War II strategy.[29] Geographers Trevor Barnes and Matthew Farish point out that "during the Second World War and the early Cold War, the entire Earth became a generalized space of American military strategy," but in practice, this notion of strategy was discursively broadened well beyond its mere military applications and into the realm of international relations.[30]

With this new focus on flexibility, and the power of strategic perception in reading the earth, came the inevitable anxieties about having the right expertise and technologies to make such judgments. For example, Leonard Wilson reflected on his experiences in the Map Division of the Office of Strategic Services during the War, and was haunted by what he saw as inadequate cartographic training and methods, especially against the sophistication of European geographers.[31] Certainly, air-age global era theorists frequently critiqued German "message maps" and often prescribed map literacy for government officials and "discerning" publics. A 1944 State Department report memorandum called "An Evaluation of German Geopolitics," for example, by research

analyst Herbert Block, excoriated the "geo-mania" of Hitler's influential geographer Karl

Haushofer and declared that "German geopolitics is not a science; it is a slimy cluster of

wishful thinking, political scheming and mendacious propaganda, interspersed with

scientific facts."[32] A map is included with the report (fig. 2.1) that sketches Haushofer's

theory that the United States and the Soviet Union are imperialists looking to expand to

South America and Southeast Asia.[33] While, of course, this theory foreshadows the

bipolarities of the coming Cold War, Block strongly dismisses such a prediction as

distorted geography and "wishful as well as dreadful thinking." Thus, the research and

analysis for post-war planning at institutions like the State Department were constructed

in conscious response to the use of German geopolitics, and were constrained by

anxieties that America would reproduce Germany's pernicious use of spatial realities.
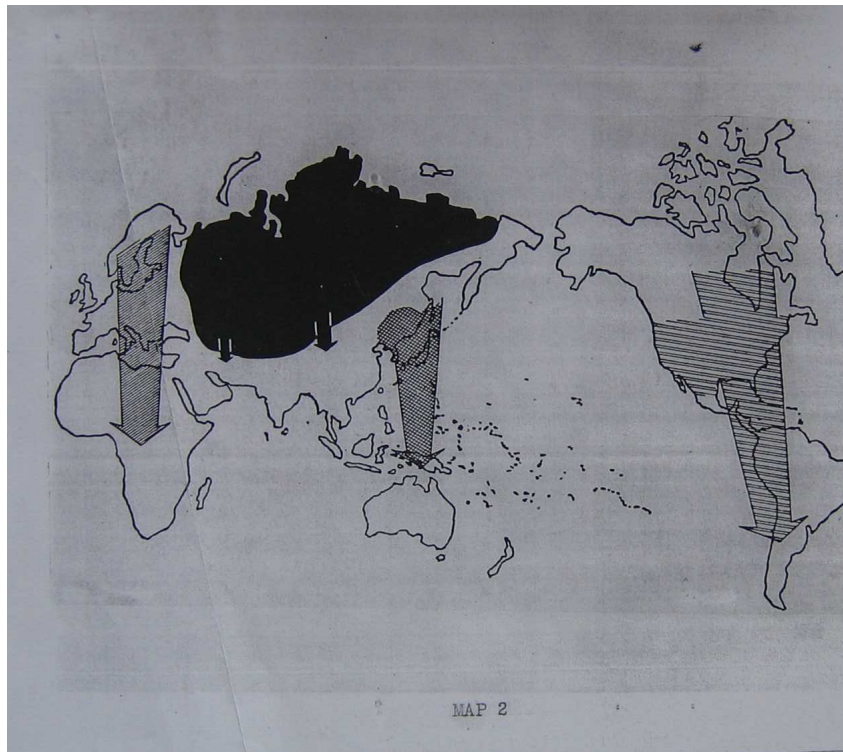
Figure 2.1. "Haushofer's Latest Theory: Imperialist Expansion Along the Meridians," in State Department Memorandum, *Evaluation of German Geopolitics*, 1944 (Department of State, Cartographic & Architectural Records, National Archives II, College Park)

Such government discourse, then, often ran on an implicit fear of misappropriation and a sense of the world's possible explosiveness that could emerge from mistaken interpretation.

As popular forums appropriated maps more than ever before, academic and government discourse around maps debated the matter of expert and elite interpretation: often, the debate was about *who* had the best reading and who had the tools to fashion the most clear-headed perception of world realities. Director of the American Geographic Society in 1951, George Kimble, reported to the American Congress on Surveying and Mapping,

> I am far from saying that all we need to give us better times and more stable economies is better maps or more surveys. What we need even more, I submit, is better map users—better men in fact. The best maps in the world and the most ambitious surveys may help us to diagnose the troubles of humanity, but it will take all the sympathy, understanding, and unselfishness of all the good men in all the parties to solve them.[34]

Kimble's example of internationalism encompasses both an idealistic faith in the abilities of "good men" to interpret the world in ways that will benefit the world, but conversely a fear that maps themselves are not up to the task of presenting the globe clearly enough, especially if they end up in the wrong hands. Government geographers like S.W. Boggs would come to embody, in cartographic terms, both of these inclusive and exclusive strains of the new internationalism, serving as a reminder of the complexity of America's perspective during the Cold War's formative stages.

From at least a government standpoint, then, maps in many ways became emblems of knowledge production, used to compress and arrange strategic information about global spaces in legible forms for experts. To perform this knowledge-producing function, maps required more flexibility in their capacities to converge technologies across a host of government institutions. Members of postwar military and academic circles worried that not only did American maps need superior accuracy, but they needed to better account for powerful advances in technology. At the American Congress on Surveying and Mapping in 1950, for example, a defense expert pointed out that, "Electronic navigation, strategic bombing, amphibious operations, anti-marine warfare; and the use of radar, radio-ranging devices, and supersonic aircraft inject complex requirements for maps and charts that scarcely a decade ago would have been considered for a 'Buck Rogers' character."[35] The U.S. government would have to adapt to these new requirements in order to construct a consistent, strategic vision of the Soviet Union that could be managed and contained. They thus required cross-collaboration between groups like the Army Map Service, the Air Force, the State Department, and international institutions like the United Nations Economic and Social Council.[36] To make these collaborations effective, the business of mapping required redefinition as central to broad values of national security.[37] The new global landscape required maps to be part of a more collaborative and fluid national security apparatus, and go beyond merely serving the individual requirements of its producing agencies. As Herbert Loper, a special weapons expert and Brigadier General pointed out, "Mapping…as an instrument of national defense cannot be circumscribed by definitions which would place it in a distinct or isolated category related only to movements and operations on a battlefield. On the

contrary, its role is as broad and all inclusive as is our total capacity to maintain our national integrity."[38]

While the prospect of international and inter-agency collaborations was hopeful, the high stakes of national security complicated the U.S. government's ability to truly share cartographic information. In particular, continuing advancements in the theoretical world of mapping built on the Hough findings redefined the very notion of distance, and made it much more of a contestable, guarded concept.[39] In 1956, for example, the Army Map Service reported an astonishing finding that the world was actually smaller than what was previously thought. Using new high precision techniques, Army geodesists amassed enough information about a strategic line of points from Finland to South Africa affirming that the world was about 128 meters shorter than previously thought.[40] While this may seem like a small, scientific curio, its implications were much larger. *Scientific American* pointed out that this development "should theoretically increase the accuracy of maps four-fold," and more importantly, as *Time* offered, "improved knowledge of the earth's size and shape will also be useful to dispatchers of long-range guided missiles."[41] Maps could no longer simply tell us the *where*, but had to tell us with certainty about relationships between targets. In *National Geographic*'s terms, "the *exact* distance from, say, Tallahassee to Timbuktu may suddenly become crucially important."[42] *Almost exact* was not good enough. The introduction to an Air Force manual on geodesy expressed this starkly: "Somewhere in an Air Force control center, alert for a warning of aggression, a man is prepared to 'push the button' which will launch powerful retaliatory weapons to the far reaches of the earth… Thus, in addition to the need to develop capable and

reliable weapon systems, we must answer the questions: Where? How far? In which direction?"[43]

Producing knowledge of the earth's surface and its curvature, then, could mean the potential difference between triumph and defeat in a nuclear conflict. The "shrinking world" of Richard Edes Harrison and others in World War II had taken on new dramatic meaning. The entire historical function of cartography and geography was changing because of such developments—we could know the important strategic points in the Soviet Union without having to actually invade their borders. That kind of abstract spatial management continued to mark the duration of the conflict.[44] As *Life* put it, "the most surprising solution which the geodesists have found to the problem of mapping the earth is simply to ignore the earth as it is. They have learned to distrust its outward physical look and to devise a theoretical world of their own devoid of all natural wonders."[45] In a sense, the world could more easily be flattened to a series of "inanimate platforms" for strategy.[46]

To properly place America in relationship to the Soviet Union required continuing advances in reconnaissance and surveillance from far above the earth. Aerial photography for cartography and the increasing use of satellites to do such work provides an important example here. Stephen Bocking argued that shifts in observational technology from the air defined the Cold War in the late 1940s and 1950s: interpretation of aerial data was taken out of the subjectivity of the field and into the laboratory, and mapping became less about local knowledge and more about interpretation of data.[47] In addition, a premium on secrecy and controls on access to the air began to constrain these developments. President Dwight Eisenhower's public "Open Skies" proposal of 1955 suggested that NATO and

Warsaw Pact nations should be able to conduct mutual, bi-lateral aerial reconnaissance of each other to protect from surprise attack and prepare defenses against the other's weapon systems.[48] Once Soviet Premier Nikita Khrushchev rejected this proposal, efforts to develop undetectable satellite technologies for mapping and reconnaissance accelerated. These efforts resulted in initiatives like the highly classified CORONA project in 1958, which provided the first photographs of Soviet nuclear bases from an unmanned satellite orbiting the earth. Dino Brugioni's historical look at the "eye in the sky" of these Cold War satellite technologies noted the redefinition of the traditional military concept of the "high ground": "each increase in altitude has given an ever-widening view, until humans can now envision the ultimate prospect of achieving an unlimited perspective of the universe."[49] But this expansiveness and abstraction of vision had its consequences: as General W.Y. Smith, a member of President John F. Kennedy's National Security Staff pointed out: "sometimes we relied on CORONA's data too much…we mistakenly believed that, if we could see enemy targets and count them, we understood their strength and our objective. Nevertheless, we found out that wasn't the case at all."[50] Or to put it in Cloud's terms, "once the figure of the earth is ubiquitous, it becomes invisible."[51]

Such developments reveal how cartography became a key mode of knowledge production during the Cold War. The ways in which the United States depicted itself, the Soviet Union, and the rest of the world on the map were constrained by new strategic objectives for national security, new perspectives gained through both public and private advances in technology, and an abstract vision of international space as something to be managed and ordered. To know the space of the Soviet Union with accuracy and

precision took on implications for America's own vision of itself as a world power, and maps provided mediations of these complexities.

The U.S. State Department was one key agency that was marshaling an immense amount of spatial intelligence through increasingly sophisticated technologies, and playing an integral role in designing international space (and America's placement within that space) for the volatile post-World War II landscape. At the State Department, S.W. Boggs, was one among a host of government representatives that were navigating the tensions of air-age cartography and its uses in producing knowledge for international relations and the maintenance of national security.

<div align="center">

American Projector:
S.W. Boggs' Cartographic Vision for the State Department in the Early Cold War

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On January 21, 1947, the Department of State's official geographer, Samuel Whittemore Boggs, sent over a state-of-the-art air route globe and his own patented geometrical plastic hemisphere to his new boss's office. Secretary of State George Marshall (who started his tenure on that very day), received the globe with a memo attached that read, "I hope that you will find them very useful in studying 'global relations,' some of which cannot be perceived from maps." He even offered to "replace the large Mercator map" currently in Marshall's office with either a Miller cylindrical projection world map ("with much less exaggeration in polar regions than the Mercator") or two hemisphere maps centered on France and the Pacific Ocean.[52] To Boggs, this was not merely a diplomatic welcome gesture of geographic wall and desk art—the perception of a full, accurate earth was a matter of necessity for the responsible conduct of international relations.[53] The following was his oft-used maxim:

He who would solve world problems must understand them;

He who would understand world problems must visualize them; and

He who would visualize world problems should study them on the spherical

surface of a globe.[54]

S.W. Boggs was indeed a product of the air-age generation, where conceptions of distance and perspective were revolutionized by planes spreading bombs, money, and ideas across the earth—thus he acutely appreciated how maps do not simply reflect relationships, but can sustain, shape, and challenge them.[55] He worked in a transitional era where the traditional balance-of-power politics of flat, rectangular maps like the Mercator were left behind for more nuanced appreciations of fluid changes in communication and internationalism that came about during World War II and its aftermath. Boggs' tireless proselytizing for policymakers and academics to absorb a truly round and world-wide view suggests, then, the postwar premium on the quality of global perception.

What makes Boggs worth exploring is the cartographic conundrum resulting from the interplay between his institutional responsibility to serve the government and his role as a popular academic. This conundrum manifested itself in his work, his publications, and even his private correspondence. While he promoted the map's possibility of expressing flexible and novel connections in a better world, he was haunted at the same time by what he called "cartohypnosis" and maps' suggestibility in a dangerous, explosive postwar landscape, informed by the pseudo-science of World War II geopolitics.[56] For example, as Boggs writes in a 1946 State Department memo, "Peace requires orderly development, which in turn necessitates a vast knowledge of the earth, its peoples, and its resources; and maps are essential in recording and presenting facts."[57]

He thus prized the culture of the geographic, scientific expert in being able to teach and disseminate the "best" ways to read this changing world, and how to aptly map a sense of ordered and (often) classified knowledge.[58]

Boggs also seemed to understand the importance of artistic form in ordering that knowledge. For example, in a letter to Richard Edes Harrison about consulting work for an animated film about maps, Boggs wrote: "I very much desire that, while the whole presentation shall be completely factual, those facts which are of extraordinary significance and striking quality will hit the audience with their full significance. We want no Hollywood stuff for good effects, unless the facts themselves call for such effects in order to be truthful."[59] In other words, cartographic realities sometimes needed extra emphasis to connect with an audience, and required an engagement with the nature of rhetorical display.[60]

These examples reveal Boggs as a constant negotiator of the rhetorical tensions between reality and representation, fact and values. He faced a unique bind between appreciating the shifting, malleable, discursive nature of maps while still seeing the primacy of unimpeachable scientific, geographic facts that were not inherently argumentative. Maps endure a long, contentious relationship with notions of "truth," and have historically served as mediators of state power.[61] Unlike Harrison and other commercial cartographers who might wish to make a pointed argument about war strategy, Boggs faced the added representational problem of producing maps and marshaling geographic facts for official diplomacy, and thus he confronted a heightened emphasis on accuracy and authenticity of the picture of the globe and its expanding relationships. As John Wright wrote during the heart of World War II, "the trim, precise

and clearcut appearance that a well drawn map presents lends it an air of scientific authenticity that may or may not be deserved."[62]

  S.W. Boggs, in both his academic discourse and in his official governmental capacity, articulated the centrality of cartographic vision in the early Cold War, and conceived maps as having a discursive function for popular and government audiences. But because he realized the complexities of air-age maps, Boggs was embroiled in the contradictions between the immense opportunity of a smaller world and the potentially crippling fear of it. Boggs and his cartographic discourse embody the rhetorical tensions in American postwar space, and function as a discursive bridge between the amateur, artistic, and flexible perspectives exemplified by Harrison, and the worldview of the disciplinary expert who helped the science of geographical facts become an indispensable tool of the military-government-academic complex during the Cold War. Boggs' geography, then, considers the larger ramifications of how representatives of the federal government conceived of the postwar landscape, and how the accumulation of cartographic knowledge informed the rhetorical worldview of those representatives.

  I primarily focus on Boggs' cartographic activities, both academic and institutional, during the immediate postwar period (until his death in 1954). Specifically, I analyze his mapping projects and the inventional processes that created them. Boggs' career and geographical contributions extended well beyond this narrow period of time. But by focusing on his shifting role in the emerging Cold War, I provide a snapshot of the strategic functions and priorities and the ideological commitments of the State Department's geographic practice, and Boggs' unique place within these often competing forces.[63] To this end, I explore the following major themes: 1) Boggs' representation of

postwar anxieties around the expansion of international space and American commitments, as seen through his campaigns to expand the scope of mapping projections and advance new cartographic perspectives; 2) his complex rhetorical management of both the artistic, imaginative form of maps and the scientific expectations that constrain them, evidenced especially through his correspondence with commercial cartographers and his own experimental work; and 3) his embodiment of the formal, structural struggle of an academic serving government objectives, seen especially in the tensions between his idealist calls for international cartographic cooperation and his role in serving the realist objectives of American intelligence interests in the early Cold War. Altogether, I maintain that the evolving and changing expectations of both mapping form and content during the early Cold War is evidenced by Boggs' work in the complex context of the modern internationalism pervading mid-century American discourse.[64]

The Office of the Geographer of the United States, Department of State

The Office of the Geographer at the State Department was commissioned in 1921, a direct result of the Paris Peace conferences. In the heady days of post-World War I global reorganization and its new geographical partitions and boundaries, a substantial number of maps were produced. The Department of State established an office responsible for cataloguing and providing access to these maps for foreign policy makers and their staffers. Colonel Lawrence Martin, an expert in physiography and an integral part of the Military Intelligence Division during World War I, was chosen as a member of President Wilson's retinue in Paris. Because of his central role in drafting treaty maps, he was assigned to lead the new division at State, not only to classify and log the maps, but also to provide technical advice on boundary disputes.[65] As geographer Lewis Alexander

has noted, "from its inception the Office served as a central point…for the handling of material relating to political control of territory throughout the world."[66]

When Martin transferred to the Map Division at the Library of Congress, Boggs was chosen for the job at the State Department. He was influenced by Martin's idealism, and the wave of geographic leaders that were part of the Paris generation—men like the American Geographical Society's Isaiah Bowman and Columbia University's Douglas Johnson. Boggs had done some map research and editing for the American Book Company before reaching the State Department, and he channeled some of that commercial experience into his work.[67] He would become most noteworthy as one of the government's foremost boundary experts—an early pioneer in the academic discipline of political geography.[68]

At the height of the Division's influence toward the end of World War II, the staff was close to 90 strong. This number did not include the increased number of people working under contracts on State Department geographic projects through the American Geographical Society in New York, the Office of Population Research at Princeton University, and the Office of Foreign Agricultural Relations in the Department of Agriculture.[69] The Division housed a research branch containing sections in population, agriculture, minerals, power/industry, transportation and a cartographic branch with sections in planning/editing, program maps, and special maps.[70] Part of Boggs' responsibility was to establish constant rapport with the various other cartographic branches of the government, particularly in the War Department. Specifically, one of Boggs' main functions was in "future geography," anticipating the world of states after World War II ended and conceiving of America's place in a new world.[71] Thus, clarity of

vision was central to his leadership over the Division. As he wrote in a 1943 memorandum:

> In order to see world problems in global relationships, the emphasis, throughout, is on seeing things *whole*, in perspective. The distribution of peoples and resources is being considered…impartially…formulated to achieve optimum development of every portion of the earth, for the benefit of all people everywhere. Any qualifying assumptions would add confusion by introducing artificial and temporary factors into the picture.[72]

The importance of vision seemed in direct relation to Boggs' emphasis on the usability of maps produced under his direction—if his job was, as he put it, "intended to be of maximum practical assistance to the principal policy-making officers of the Department of State," then his mapping program needed to constantly adapt to the rhetorical needs and values of his audience.[73]

Boggs was aware of the challenges he faced in leading such an office during an era of great geographic upheaval. In a 1943 progress report from his Division, Boggs spoke of the problems of trying to meet requests for "spot research" while still executing long-term research and analysis of geographic data, writing that "it should be recognized that many individual maps and research studies can not be executed in less time than several months."[74] In a time when boundaries and partitions were in constant flux, this became a constraint (and frustration) on Boggs' ethic of thorough, well-researched mapping. As seen in Harrison's case, World War II and the ensuing postwar years were marked by a new journalistic paradigm where maps were continually drafted to make arguments about world problems, and Boggs was certainly influenced by (and

contributed to) this new rapid-fire style of "keeping up" with world problems through maps. At the same time, Boggs was part of an older guard, a culture of the "gentleman geographer" where the expectation was that smart, reasonable men looking at the facts of a round earth had the capability of making the best possible decisions. He emerged from a tradition of geography as a kind of semi-hard science related to geology, a discipline that Terry Eagleton once referred to as "maps and chaps."[75] At the same time, he accompanied his contemporaries like Bowman into a greater engagement with geography as a social phenomenon. The fact that there was even an "official geographer of the United States" connotes that there was an institution in the federal government where spatial issues were deliberated and solutions worked out—and that spatial issues could be compartmentalized. Boggs was both, then, part of the new geographical vanguard to expand the visualization of the world through new patterns and relationships, but also part of an attempt by state power to place America through the constant amassing of geographic facts about the world.

After World War II, there was a significant restructuring of Boggs' division at the Department of State. Staff was cut, and the division's function morphed into a more advisory capacity as it was moved to the intelligence sections of the State Department (from its original place in the Division of Public Affairs).[76] Government cartography was spread across an array of institutions, some open, some closed, and State Department cartographers and geographers, for example, primarily became researchers and intelligence gatherers, rather than direct shapers of foreign policy. At the same time, academic geography was on the wane, as pioneering departments of geography, like Harvard University's, were closing.[77] As Neil Smith has persuasively pointed out in his

biography of presidential geographer Isaiah Bowman, this was a time when geographic thinking was at its most influential, yet also paradoxically at its most denied. In other words, the more important geography became and the more access to its maps became widespread, the more people thought they could somehow transcend geography.[78] Institutional/academic tensions were both at play in the shaping of Boggs' worldview, symbolizing the architecture of postwar American spatial perspectives in the immense transitional period from World War II to the Cold War.

The Form of Roundness:
New Projections and Perspectives in Boggs' Cartographic Discourse

As in Harrison's case, "projection" itself was a highly charged term during this period, as it obviously carried geographic connotations of the need for technical accuracy in devising a vision of the world. Projection also in some ways spoke to the translation of new power relationships on a global scale—that in a sense, the right projection was of paramount importance because it predicted what future geographical problems and solutions might need solving. The map needed to contain these relationships and manage them, and the choice of projection set such parameters. Thus, the form of the map was fused with the content of the map itself—and Boggs was part of a movement, then, in which cartographic form was widely accepted as a conscious rhetorical choice, and audience played a more important role.

Boggs believed that his job required emphasizing the weight of such choices in how we marked America's new role in the world—in fact, he was no latecomer to the air-age interest in devising ways to project new relationships.[79] Early on in his tenure as State Department geographer, Boggs presented a paper to Britain's Royal Geographical Society in 1929, where he advanced his own new formal projection for maps. Called the

equal-area "eumorphic" projection, Boggs' innovation makes for a rounder earth on the flat page, and is an explicit corrective on the how the shape of the Northern hemisphere is enlarged by the Mercator.[80] As he points out, "with man's growing desire to 'see the world whole', the use of maps of the entire globe is increasing. The properties most desired in world maps…are the representation of the shape of large areas as accurately as possible, and areas in their true proportions."[81] Boggs presents a world map in this piece (fig. 2.2) to demonstrate the utility of the projection: the map shows the full earth in one sphere with an elongated equator, with the plainest difference from traditional maps being the enlarged size of Africa, centered and prominent, and a sprawling Southeast Asia that is stretched in unfamiliar ways. As he says in the notes to the map,

> It will be noticed that the more densely populated regions of the northern half of the eastern hemisphere (Eurasia and Northern Africa) have a peculiar relationship to latitude. The fact is that greater human importance attaches to the parts of Eastern Asia which lie *below* 40° north latitude, whereas in the west, practically all of Europe lies *above* 40°. Approximately half of the world's population lives in Asia between latitudes 10° and 40°, and it would therefore appear highly desirable to preserve the shape of the land areas of China, Japan, and India as accurately as possible.[82]

Thus, through his restructuring of the relationships between land and population of maps, Boggs hints that we ignore the importance of the so-called developing areas at our peril (fig. 2.3, for example, shows a later use by Boggs of his eumorphic projection to showcase world population data).
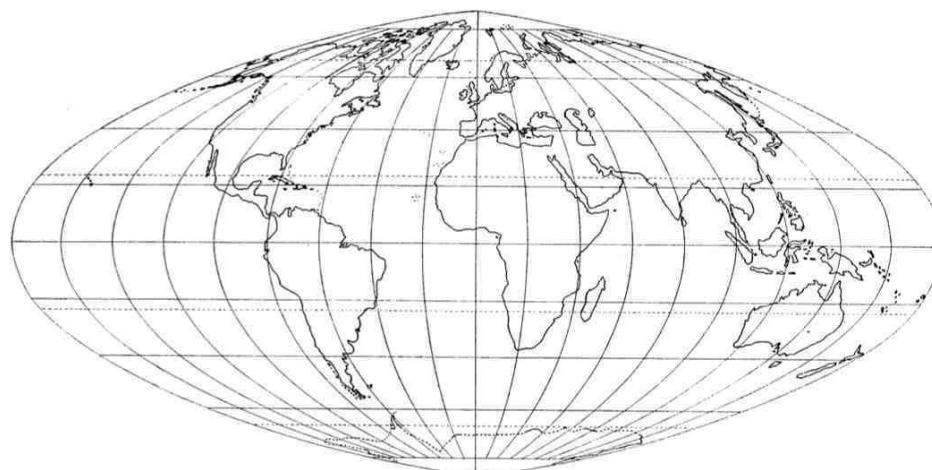
Figure 1. The World on the proposed eumorphic equal-area projection, a mean between those of Sanson and Mollweide

Figure 2.2. S.W. Boggs, "Eumorphic Projection," *Geographical Journal*, **1929**
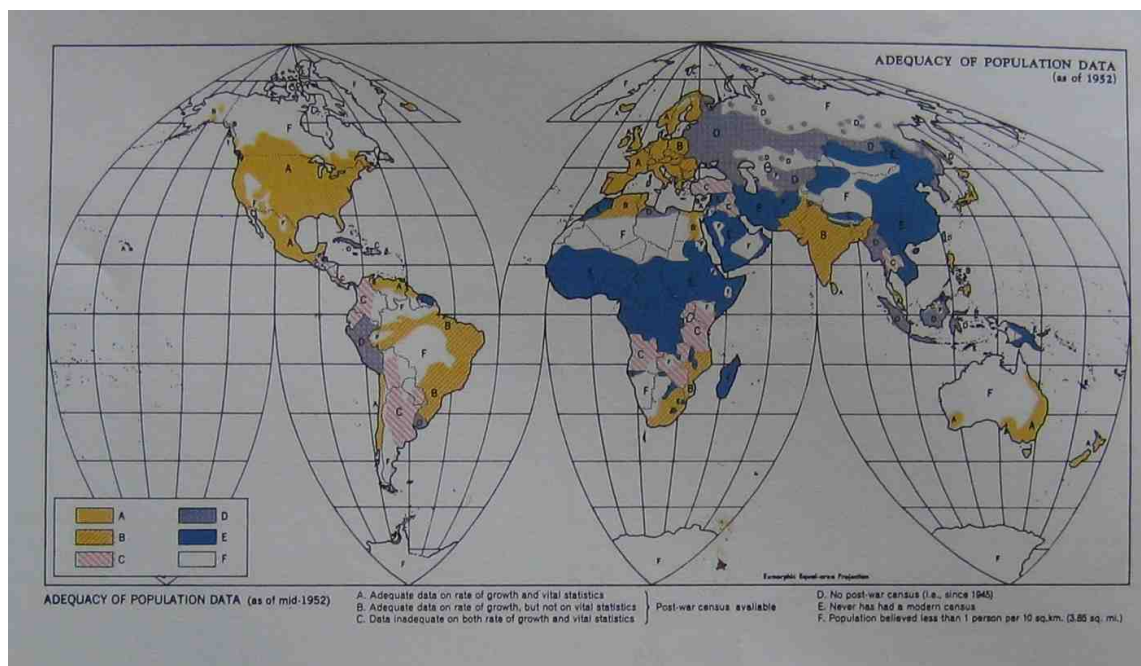
Figure 2.3. S.W. Boggs, *Adequacy of Population Data*, **1952 (Department of State, Cartographic & Architectural Records, National Archives II, College Park)**

Boggs' attempt to strike a balance between area and shape distortion represents an increasingly idealist expectation of maps to be both scientifically accurate and socially responsible. In a subtle way, the intertwined notions of proportionality, shape, and power are put on display—notions that came to mark the global geopolitics of World War II and its aftermath in the development of the Cold War.[83] His later work at the State Department in postwar planning, for example, during World War II bore this out—he was consulted by the Division of Cultural Relations at the State Department to advise on a high-level post-war planning program called "The Permanent Cultural Relations Program as a Basic Instrumentality of American Foreign Policy."[84] Boggs then initiated a cultural mapping program in his department, commenting to the head of Cultural Relations that "the emphasis of non-western viewpoints seems to me very fortunate. We shall expect the half of the world's population that lives in eastern and southern Asia to take a much more important place in world affairs in the near future."[85] Projects such as these acknowledged the role of maps in depicting new cultural relationships as shaped for strategic ends, a characteristic that grew in importance during the Cold War.

His eumorphic projection itself appeared periodically in State Department maps in the early Cold War, perhaps most notably in maps for Boggs' 1951 treatise on national claims in adjacent seas (fig. 2.4).[86] A eumorphic projection in the sea claims article shows the full world with an accurate balance of shape and area. Each continent is outlined in various lines of red, designed to show the width of zones for waters over which sovereignty is claimed by the coastal state. In a Cold War world, the global projection was used to show the complexity of boundaries and sovereignties accompanied by text warning about "international friction" in both the jurisdiction of sea
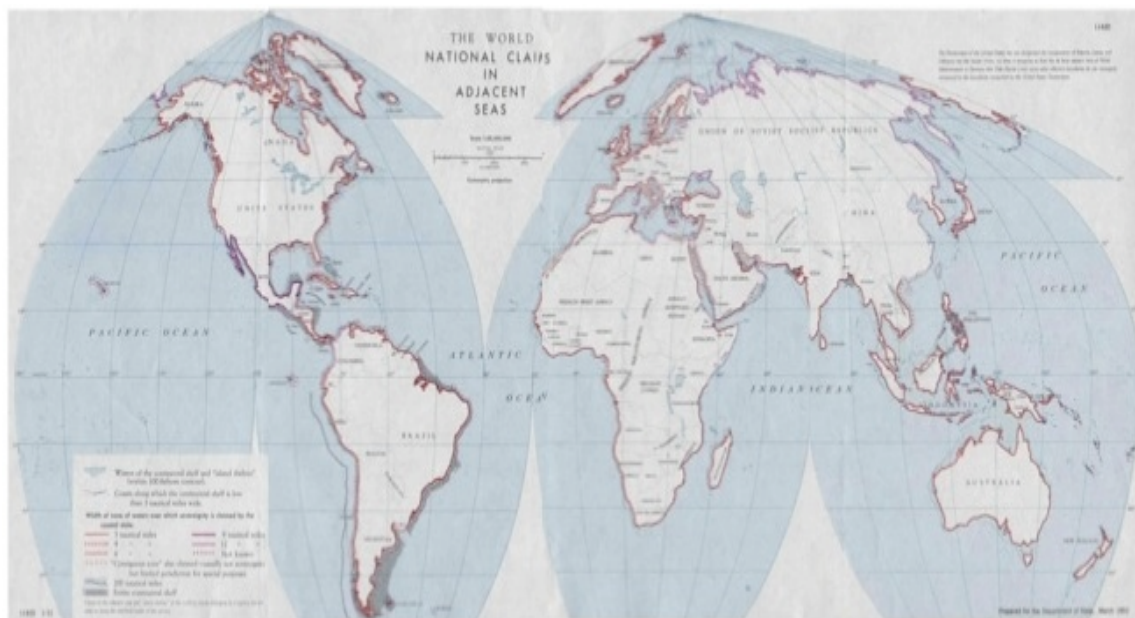
Figure 2.4. S.W. Boggs, "The World National Claims in Adjacent Seas," *Geographical Review*, **1952**

beds and air space, and worrying about the "chaos from which to create a viable world of order."[87] In addition, the focus of the map becomes control over oceans rather than the land, making the point once again that it is the entirety of the earth that was moldable and shapeable in the air-age. This, of course, represents the increasing Cold War abstraction where natural features such as ocean and land blend together into items that become part of a total world political strategy. The content of sea jurisdiction relationships was not new, but the novel projections now posited these relationships on a much larger and more momentous stage.

Boggs' eumorphic projection was never widely used (although it was distributed commercially by the A.J. Nystrom Company for use in classrooms[88]), but it clearly represents an important transitional bridge between other more popular projections such as the Miller cylindrical projection.[89] Geographer Edward J. Baar, writing in 1947, noted Boggs' direct influence in inspiring O.M. Miller of the American Geographical Society to fashion a cylinder-based world map for popular usage.[90] Miller's projection was a new

take on the Mercator that advanced Boggs' earlier theories. As Miller wrote in 1942, he attempted to find an acceptable balance "which to the uncritical eye does not obviously depart from the familiar shapes of the land areas depicted by the Mercator projection but which reduces areal distortion as far as possible under these conditions."[91] The Miller projection finds its way into many different Cold War-era media, such as the United Nations' 1953 "Student Map of the United Nations," the 1965 map of the world produced by Civic Education Inc. (publishers of such educational periodicals such as the *Young Citizen*), and *Scholastic Magazine*'s "Economic Map of the World" from 1966.[92] These are political maps depicting simple Cold War-era alliances, so that students in schools could "place" America's commitments in a global world. Their circulation highlights the wide popular impact of scientific projections from a few elite geographers during the air-age. Moreover, they provide texture and form to the way many saw the postwar landscape on classroom walls and in popular magazines.

Boggs' excitement about the new Miller projection would mark his work on the institutional level, a kind of missionary zeal that Alexander attributed to him.[93] Boggs circulated messages around the State Department about the evils of the old-school Mercator to anyone who would listen, attempting to change the vision expressed by what was in the hands and on the walls of policy makers and military strategists.[94] For example, he was in frequent contact with the House Foreign Affairs Committee in 1947 to furnish their committee rooms with new air-route globes and Miller maps, and was also continually attempting to supply various branches of the military with Mercator replacements.[95] In an almost humorous exchange between Boggs and Lt. Colonel Desloge Brown with the Army Corps of Engineers, the Colonel responds by agreeing

with Boggs' suggestion that the Miller cylindrical map is a better one to use, but he cannot do it because they had already spent too much money printing copies of the Mercator.[96] Thus, there were economic constraints to the circulation and usage of government maps in this period, and the Mercator often prevailed due to its ubiquity and ease of access.

Boggs' mission to expand U.S. global perceptions can also be found in his project to challenge hemispheric perspectives, specifically in relation to how they constrained American strategic thinking in a postwar environment—an idea which was endemic to the air-age movement.[97] Hemispheres, of course, are a staple of American spatial thought, pervading the discourses of politics and foreign policy since at least the Monroe Doctrine, and later by the Roosevelt Corollary appearing after the Spanish-American War and America's occupation of the Philippines. Hemispheric lines and boundaries provided formal shape to the conduct of both peace and war in the 19th and 20th centuries. Boggs sought to complicate this. Like other air-age geographers, he was stepping away from the notion that placement on a globe had some sort of natural division to it; to him, hemispheres were constructs, slices of perspectives that made for political shorthand.

Once again, his maps' subversion of perspective and projection certainly bear this out, and can be found in both Boggs' published work and his duties as a policy advisor. For example, in an April 1944 memorandum sent to Secretary of State Cordell Hull, Boggs suggests a "de-europeanization" of the government's geographical nomenclature, proposing to get rid of terms such as "western hemisphere" altogether, as well as other terminologies that use names based on the direction and distance of regions from Europe, such as "Far East." Boggs goes on to attribute these potential symbols of bad

neighborliness and insensitive diplomacy to "misconceptions derived from uncritical use of maps."[98]

In one of his most influential pieces, distributed to the State Department and appearing in *The Journal of Geography* in 1945, Boggs asked the provocative question, "When a person speaks of 'this hemisphere' as the one in which the United States of America is located, one may well inquire, 'Which hemisphere?'" Boggs also included a series of diagram maps that accompanied the text's arguments about hemispheres as often arbitrary political choices. Each diagram framed a flat, rectangular Miller projection showing the entire world next to a rounded azimuthal projection that highlights a particular hemispheric perspective from that world map. This contrast between rectangular map and global sphere uses form to make an argument for the partiality of perspective in using maps for foreign policy. For example, in his maps of the "so-called Western hemisphere" (fig. 2.5), he uses the rounded globe to show that the Americas are located in a hemisphere that is mostly constituted by ocean. By placing this map alongside maps of "the northern hemisphere" centered on the North Pole, Boggs plays with traditional notions of distance, as he shows U.S. proximity to Europe with a focus on the North Atlantic. Boggs notes in the text below the maps that "Dakar, Moscow, and Northern Manchuria are nearer to the center of the United States than is Buenos Aires," thus foreshadowing some of the postwar architecture of international relations.[99]

In 1954, as the Cold War was well underway, Boggs wrote in an update of his hemisphere article for the State Department: "Thus there is no human being anywhere on earth who does not live in some hemisphere that includes *all* of the United States" (in fig. 2.6, this is demonstrated visually through Boggs' claim that the U.S. exists in every

FIG. 3. The map-maker's conventional "western hemisphere." The meridians 20° W. and 160° E. of Greenwich constitute the conventional limit of this hemisphere. The center is a point in the Pacific Ocean, on the equator, in 110° W. longitude, about 1,250 statute miles from the nearest point on the American continents, near Acapulco, Mexico, and more than 2,000 miles from the Panama Canal. The unshaded portion of the world map comprises this conventional "western hemisphere," and the shaded portion is the "eastern hemisphere." The letters around the circular hemisphere map signify: N, North Pole; I, Iceland; A, Azores; CV, Cape Verde Islands; S, South Pole; NZ, New Zealand; and G, Guadalcanal Island in the Solomon group.

Figure 2.5. S.W. Boggs, "Western Hemisphere," *Journal of Geography/Department of State Bulletin*, **1945**

FIG. 10. The sum of all hemispheres containing all of the United States. The sum of the hemispheres shown in figures 7, 8, and 9, and of others that might be added in which points on the Pacific coast of the United States are on the edge of one or another hemisphere, is indicated by the unshaded area on this map. The shaded area in the Indian Ocean (about 4,180,000 square miles) is the only portion of the earth's surface which can not be included in some hemisphere that covers all of the United States. Kerguelen Island is the only land in that area, and it has no recorded population.

Figure 2.6. S.W. Boggs, "Sum of All Hemispheres Containing All of the United States," *Journal of Geography/Department of State Bulletin*, **1945**

hemisphere).[100] In an emerging Cold War that was purportedly a battle between East and West, Boggs' placement of America into multi-directional relationships was a reminder of the full global reach of American responsibility—the early Cold War was marked by the division of blocs and pacts, treaties and security alliances that were no longer partitioned according to traditional hemispheres and deterministic geopolitics, but by more fluid strategic "interests."[101] As seen here, hemisphere itself is a function of rhetorical display, engaged in the constant reveal/conceal dynamic of the cartographic process.[102] The necessary abstraction from round earth to flat page creates a cartographic anxiety over how best to show a fuller world within limitations that are always revealing themselves. Altogether, then, Boggs' interplay of perspective, projection, and hemisphere, speaks to the rhetoric of air-age globalism that complicated the foreign policy decisions of the early Cold War.

Boggs and the Role of Geographic Imagination in State Department Cartography

In March 1947, the same month that President Harry Truman articulated the framework of the early Cold War with his doctrine of fighting communism wherever it expands, it is fitting that John K. Wright published his presidential address to the American Geographical Society with the title, "*Terrae Incognitae*: The Place of the Imagination in Geography."[103] At a time when the familiar alliances of World War II had collapsed, and colonial empires were nearing exhaustion, the new postwar globe had to be re-thought and re-strategized; as Walter Lippmann wrote, "The world we have to deal with politically is out of reach, out of sight, out of mind. It has to be explored, reported, and imagined."[104]

Cartography and geography were at a crossroads, with practitioners challenged by the fact that they were part of a massive O.S.S. intelligence operation advancing American war interests, yet incensed by what they perceived as the assault of German geopolitical pseudo-science on the reputation of the two disciplines during World War II. Wright's response to these developments provocatively proposed that geography and its visualization in maps must embrace at least a degree of subjectivity and an appreciation of what he called "aesthetic imagining," notably during an era of extraordinary distrust of any overlap between art and politics.[105] Because "geography deals in large measure with human beings, and the study of human affairs and motives has not yet reached a stage in which more than a small part of it can be developed as a precise science," Wright termed his new conception, "geosophy," or "the study of geographical knowledge from any or all points of view," thus widening the importance of a humanistic perspective.[106]

Boggs' work and writings embodied the humanistic/scientific tensions of a "geosophic" outlook. His position is a unique one as a mediator/translator between the new artistic flexibility of cartographic media in World War II and postwar journalism, and the requirements of the geographic expert to visually frame scientific facts for policy purposes. While geographer Denis Cosgrove referenced Boggs as a representation of "the postwar move to recapture the map for professional cartography," this simplifies too much Boggs' nuanced appreciation of map audiences and the role of subjective imagination in cartographic presentation.[107] Recall Luce's famous 1940 re-imagining of the globe in air-age discourse through the "American Century" that posited globalism as a pursuit of American economic interests and a cultivation of world opinion, a compelling argument against balance-of-power politics and pretenses to isolationism.[108]

Interestingly enough, two of the Luce's empire's most prominent artistic articulators of these notions, Harrison at *Fortune*, and Boris Artzybasheff, the *Time* cover portraitist and graphic artist, corresponded extensively with Boggs and the State Department during World War II and its aftermath. Artzybasheff was a Ukrainian-born illustrator who drew 215 covers (amongst countless other designs) for *Time* from the mid-1930s up to his death in 1965. His art was marked by a realist style of portraiture, but also influenced by surrealism's grotesquery, as seen in his anthropomorphic drawings of planes with human faces, and in his graphic cartoon work depicting international politics.[109] Boggs was responsible for initiating partnerships between artists such as Artzybasheff and the State Department for technical cartographic advice and map production, but in the process absorbed an appreciation of these artists' global visualization and their sense of the larger American public.

Boggs' interaction with Harrison reveals his pro-active role advancing a new flexibility in the government's appreciation of spatial problems. Boggs recruited Harrison on wartime projects such as map construction for the O.S.S., the State Department's contribution to the Army Training Atlas, and developed new techniques based on Harrison's innovation of using the nomograph in drafting maps, a device which eliminated time-consuming mathematical work and allowed the mapper to easily draw great-circle routes (fig. 2.7 shows a take on how to use "scale," drawn by Harrison for Boggs in 1946).[110] Harrison's skilled amateur background and his unorthodox methods were noteworthy to technicians like Boggs because of their efficiency in creating maps faster.[111] Harrison advanced cartography as a communication process between mapmaker and user, and this approach energized Boggs; in their correspondence about various
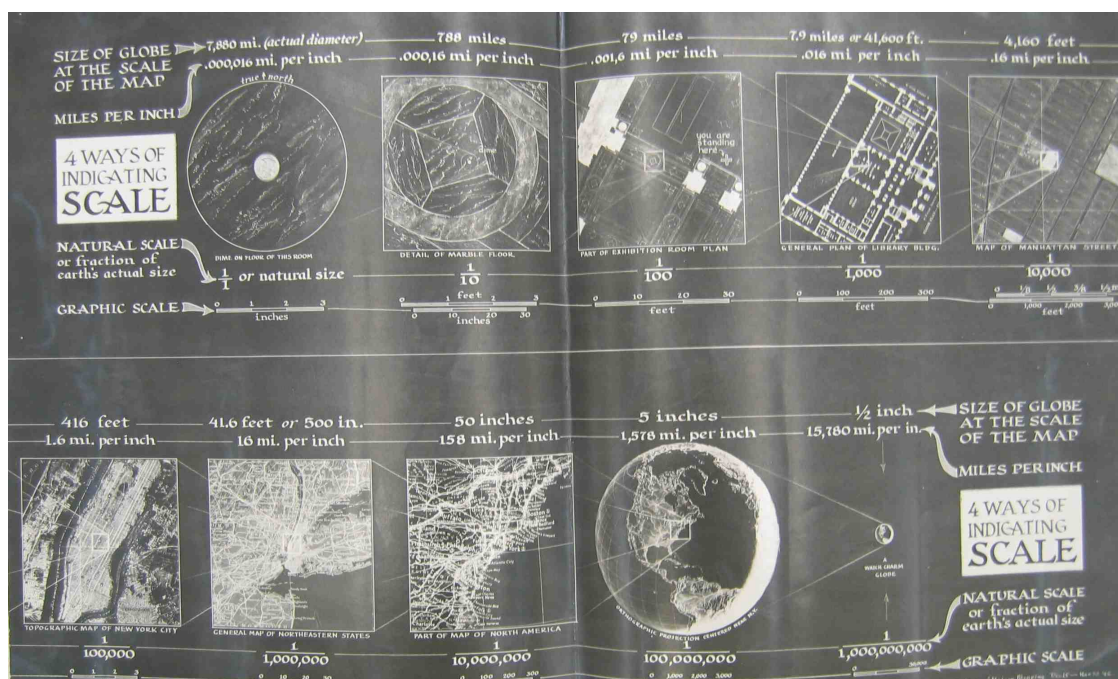
Figure 2.7. Richard Edes Harrison, "4 Ways of Indicating Scale," U.S. Department of State, 1946 (Department of State, Cartographic & Architectural Records, National Archives II, College Park)

cartographic projects, the notion of "audience" stands out. Working together on a new system of shading and iconography for a Boggs map, for example, the two explored how novel contrasts in cartographic symbols can reveal new realities, with Boggs commenting to Harrison that,

> I would be delighted to have your criticism of the ideas, and perhaps a few simple little sketches of possible conventional physiographic symbols…In making maps which really get across to the man on the street, and to the busy statesman or executive, perhaps these radically different shadings would result in making maps so characteristic that they would attract attention and be easily distinguishable from the run-of-the-mill products of the present.[112]

Both Harrison and Boggs also shared distaste for what Harrison termed "the air-age prophets," such as George Renner at Columbia, who sparked a fiery controversy

when he drew a map for a 1942 *Collier's* article that predicted a postwar world divided into cultural zones that would replace traditional national boundaries.[113] Renner's critics were incensed that he would use the new internationalism to advance a crude cultural determinism.[114] Harrison and Boggs certainly accepted the air-age changes to cartographic practice, but they saw such changes as creating open-minded flexibility based around strategic purposes, rather than as a political pseudo-science. Thus, Harrison and Boggs saw cartographers like Renner as "spreading geographic misinformation accelerando."[115]

At the same time, Boggs' acceptance of Harrison's flexibility was constrained by his status as a geographic professional. For example, when Harrison asked Boggs for expert advice on his forthcoming *Look at the World* atlas, Boggs replied:

> I believe it would be well if you were to tone down your criticisms of the geographers with reference to maps a bit. I believe the geographers have understood the world more as one does by using a globe better than you give them credit for. Their sin has been largely that they fail to see to it that the non-professional had available to him the kinds of maps that the uninitiated need in order to grasp some of the concepts that many of us want to get across…You are fortunate in being associated with publishers who are not content unless they do something rather new and different.[116]

Boggs, then, acknowledges the different constraints in his perspective as a government geographer against the requirements of Harrison's journalistic paradigm: he believes that professional geographers may understand the new internationalism, but they cannot articulate it well enough yet. The relationship between Boggs and Harrison thus

represents an implicit conception of cartography as a contingent discourse, needing experts to translate for the uninitiated but also requiring an engagement with constructive imagination to connect with multiple audiences.

Relatedly, Boggs' friendship with Boris Artzybasheff was responsible for putting a *literal* human face on the new cartographic perspectives of the air-age.[117] In a 1942 letter to Artzybasheff, Boggs asks if the artist could potentially draw the head of a man on a white billiard ball, in hopes of designing a model that could show how projecting global features creates significant distortions on a flat map—in other words, flattening the nations and populations of the world is much like flattening a person's face beyond all recognition. As he points out to Artzybasheff, "What I would like to get across to the 'flat-mappers' is that when we are looking at a flat map which includes the whole world, we are looking at a caricature which is analogous to representing the face, both sides of the head, back and top of the head, and beneath the chin all on one flat surface."[118] Artzybasheff's bizarre creation makes its way into Boggs' 1954 report (fig. 2.8) to the State Department on global foreign relations as a diagram where the globe with the human head is shown split into seven different popular map projections, such as the Mercator, the Miller, and the azimuthal hemispheric projections. In each case, a distorted face shows the limits of choosing particular world projections—none of the seven projections look like a real human face.[119] There is a humanistic strain in Boggs' calls for flexibility—by taking maps out of staid, academic partitions and meridians and using human features, he was interrogating, by way of Artzybasheff's artistic outlook, the very process of vision by which we see a whole earth.[120]

Another example of Boggs reaching beyond traditional conceptions of geography
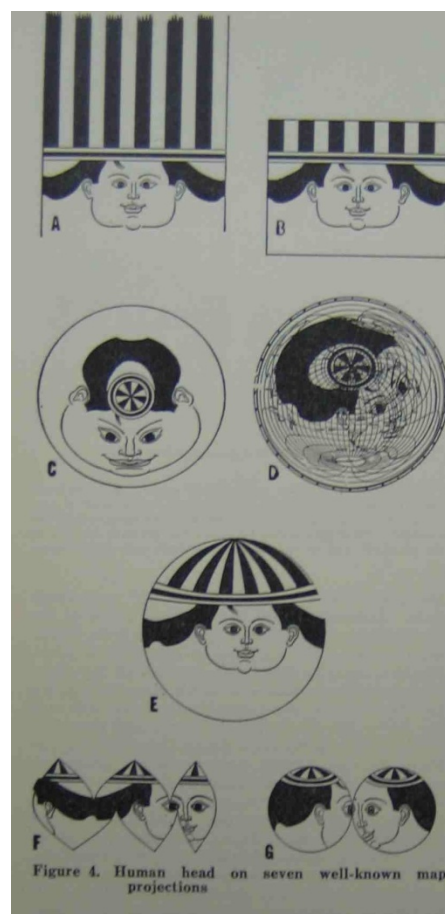
Figure 2.8. Boris Artzybasheff for S.W. Boggs, "Human Head on Geographical Globe and Human Head on Seven Well-Known Map Projections," *Department of State Bulletin*, **1954**

was in his work for an animated educational film, for which he served as consultant and for which he also recruited Artzybasheff.[121] The 1947 film, entitled *Expanding World Relationships*, was produced through Springer Pictures, and was later distributed internationally through the United States Information Agency.[122] The picture is a fascinating mid-century textual artifact designed to grapple with the new global relations of the United States in a changed post-war landscape, and emphasizing the role of perspective itself. In one production memorandum to Artzybasheff, for example, Boggs expresses his thought process in designing an appropriate air-age global perspective for educational objectives. Boggs proposes that Artzybasheff design for the film a series of

scenes where aliens approach the earth from a rocket ship, gaining a "bird's eye view" of the earth as they descend toward it. What the aliens find when they explore earth is a "strong indication that man may not have sense enough to organize his affairs" and "they end up with a very factual, realistic picture of the world as it is, especially as the relations between peoples in different parts of the world…have changed very unequally." Boggs goes on to talk about the benefits of using this alien perspective to "attract the interest of anybody" and to show how humans must gain a better bird's-eye view and knowledge of the earth before they commit "racial suicide."[123] Here we see the brand of idealism behind Boggs' approach—that better spatial knowledge can somehow "save" us.

Interestingly, Boggs uses the detached-outsider perspective to demonstrate these principles, hinting that Americans have to step outside their placement within a contentious world, and look at the world though a lens that transcends traditional boundaries. More importantly, though, in considering *Expanding World Relationships* is the very fact of Boggs' investment in a lay audience's ability to conceive of what he saw as both the opportunity and danger of the internationalism that constituted the postwar world. As a technical scientist working in the government, he was sensitive to the importance of public opinion in achieving both scientific and institutional objectives through artistic means. This work on what was essentially a propaganda film for advancing U.S. interest in world affairs is, of course, in tension with his own anxieties during that same time, expressed in his writing, of a "cartohypnosis" that was lulling the populace into submission.

Finally, articulating the new air-age perspectives in form was directly related to Boggs' expansion of what mapping content should contain. Even in the beginning stages

of American involvement in World War II, one of Boggs' roles at the State Department was to anticipate U.S. mapping needs in a peacetime international environment. An early example can be found in Boggs' 1941 piece for the Association of American Geographers, produced after consultation with Richard Edes Harrison. In this piece, he proposes a new mapping program that depicts the economic and social effects of increases in the speed of travel and communication, which are matched by a decrease in transport costs. As he noted "it is as if a quiet game of croquet had been transformed into a stirring contest of polo, with its mounted players covering a greatly enlarged field at high speed, while the game was yet in progress."[124]

In a 1941 map that Boggs called an experimental depiction of transport-cost per ton-mile, he casts a projection of the world that compares, through a variety of shading and gradients, this new sense of expanded movement (fig. 2.9).[125] The map eschews
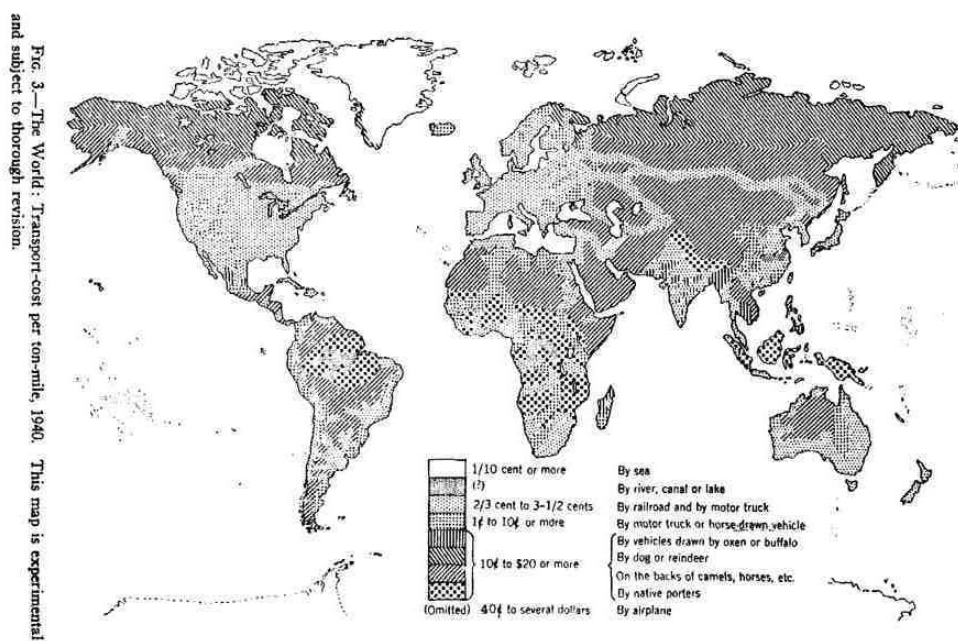
Figure 2.9. S.W. Boggs, "The World: Transport-Cost Per Ton-Mile," *Annals of the Association of American Geographers*, **1941**

boundaries for a complex fluidity that accentuates world interconnectedness. Four years

later, Boggs produced a diagram for the State Department that extended this argument,

using a "cartogram" to confound expectations of form (fig. 2.10).[126] Instead of making

territory on a map proportional to its area, a cartogram represents territory as proportional

to some other chosen trait.[127] Boggs' cartogram has five world maps—one for steamship,

motor truck, railroad, airplane, and primitive transport, and each map is proportioned in

size so that the same linear interval spans approximately equal transport-cost on all of the

maps. With steamships being the cheapest transport, the world map showing those costs

is tiny in comparison to the much larger map of motor truck costs. Finally, the primitive
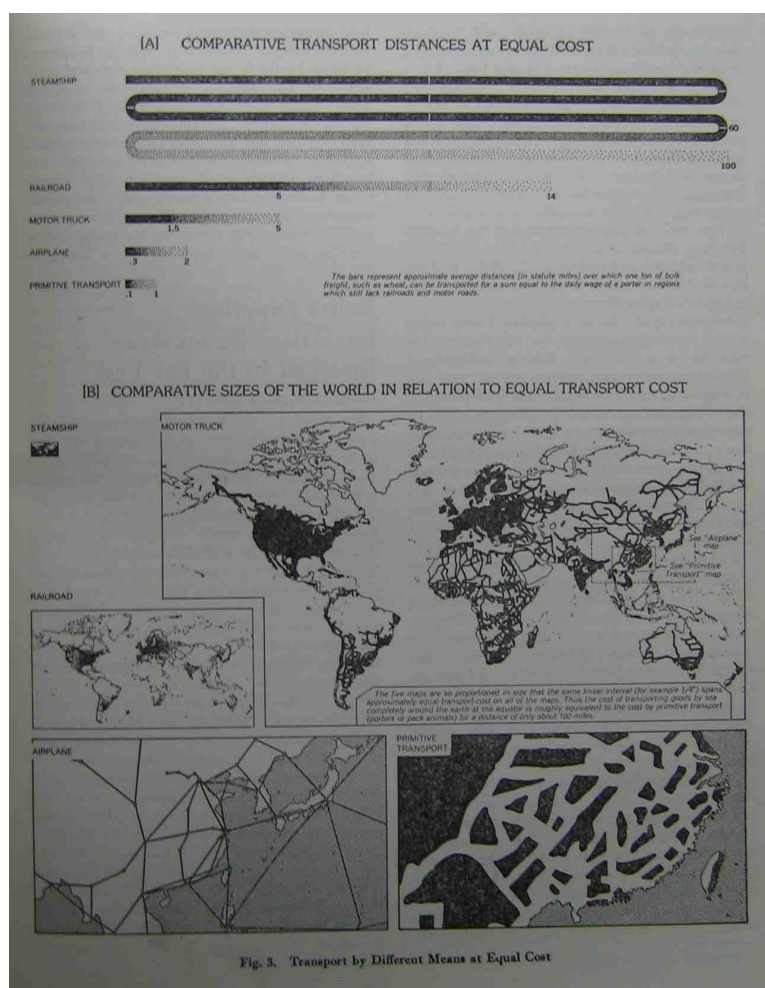
Figure 2.10. S.W. Boggs, "Transport By Different Means At Equal Cost," *Department of State Bulletin*, **1945**

transport map is not a world map at all—it is a scale regional map representing about 100 miles of a stretch in Southeast Asia. Thus, the cost to send a steamship completely around the world is roughly equivalent to the cost by primitive transport of mere miles. Ultimately, in maps like these, Boggs substitutes the traditional ways of showing travel speeds and communication changes (like arrows and directional icons emanating from given centers or as a series of maps showing the changes over a period of time), and uses a single world map of comparisons and degrees of development that can be synthesized by the reader in one gaze.

Boggs' internationalized, relational focus was part of an air-age effort to make *circulation* itself a subject of the map. Boggs himself would say, "Man has a fondness for circulating, which accounts for some of his problems of relationships. Circulation is the rule in nature, of the air itself, of the sea, of many birds, and of some animals. Man's new facility of movement enables him to circulate with freedom equal to nature's in its freest moods."[128] He goes on to warn against the futility of putting walls in the way of the airplane and the marketplace—the pitfalls of a "crustacean psychosis in an avian age."[129] For Boggs, then, the right maps provide the right way to avoid such pitfalls, as cartography becomes an experimental vehicle by which to posit novel relationships and put humanity into the lines and boundaries of an often staid medium. Like Wright's notion of "geosophy," Boggs understood that the air-age's ever-shrinking globe brought maps into an inescapably social realm.

Boggs' association with a new crop of cartographers and geographers mixing artistic and scientific perspectives, from both popular and institutional perspectives, is important. Artists such as Harrison and Artzybasheff were purveyors of flexibility and

"fresh perception," as Harrison would call it, and their recruiting by Boggs for collaboration on a number of State Department projects reveals the interest of the government in classifying and controlling the shape of a turbulent postwar world. In an era of closed geographic space, there was still room for an American geographic imaginary, a new kind of manifest destiny of capital and communications that could be spread throughout the earth—and Boggs' mapping programs show the shift towards capturing this global view on the flat page. His air-age arguments that mapped the new speeds of transportation and the world economy found their way into the development theories and Cold War social science of liberation advanced later by Walt Rostow during the Kennedy and Johnson administrations.[130] Boggs recognized that not only was there was an artistic element in designing the postwar American world through intertextual relationships between government and journalistic mapping, but that the audience, as bearer of public opinion, became central to the production of space.

Boggs' Cartographic Dualities of Idealism and Vigilance in the Early Cold War

Boggs' calls for new types of peacetime cartographic planning in the postwar landscape took him in two different, complex directions: a pursuit of global scientific cooperation for the benefit of humanity, and the vigilant guarding of geographic intelligence to advance national interests. Boggs managed both simultaneously. Throughout his work, Boggs clung to a heroically idealized vision of science. In an impassioned essay written for the American Political Science Association in 1948, he says:

> To scientists, a majority vote would mean nothing…They shun confusion over
> words. Those vague agglomerations of tradition and rationalized folkways known

as "ideologies" have no place in their deliberations. Scientists do not withhold

from one another their knowledge, techniques, and equipment…Why should they,

when there is only one universe, one earth-world, one human race, to study?[131]

To Boggs, then, science could transcend the partitions (and inherent ideologies) of

political boundaries. Several of his cartographic projects that sought this transcendence

are worth discussing here.

First, Boggs was a central advocate for U.S. participation in the International Map

of the World project. The I.M.W. was a transnational project that began in 1891 at the

Fifth Geographical Congress in Germany. It proposed one series of maps on a uniform

scale and standardized projections to cover the entire world.[132] A U.S. proposal was

finally accepted, after a series of summits in 1909, that the scale of 1:1,000,000 be

adopted.[133] Each participating nation would marshal their geographic resources to

produce sheets of their territories to the particular specification, willingly cataloguing

their entire geographic mass of information into standardized units that would be shared

amongst each other with an unprecedented level of detail. As historical geographer

Michael Heffernan has pointed out, this project was meant to challenge the "imperial and

national" foundations of cartography and use geographic fact as a basis for connecting

humanity, rather than merely marking divisions.[134]

The I.M.W. project was hampered by constant difficulties due to World War

antagonisms, the lack of consensus over specifications, and the slow responses of

individual cartographic agencies in each of the participating nations. Participation was

inconsistent and intermittent—the U.S. essentially abandoned the project shortly before

World War I so that it could produce a 1:1,000,000 map of South America unencumbered

by international agreements. In short, there was an American reluctance to fully embrace the internationalism of a project that could affect its power in its own hemisphere.[135] For many years, the U.S. government did not even pay its dues to the I.M.W. organization; the funding was raised by private organizations like the American Geographical Society, and only four sheets out of a needed 40 were produced of America by the 1920s. By 1926, though, the federal government took up participation again in the project and a proposal was adopted in 1935 for the State Department to take over the project from the Geological Survey and the Department of Interior because it was now seen as an international obligation.[136]

In the mid-1930s, Boggs embraced the project in earnest, and he fought a losing battle to produce the I.M.W. maps until his death in 1954. In 1936, he requested that the Bureau of the Budget secure an appropriation of $250,000 from Congress, a sum that was never granted. His rhetoric regarding the I.M.W. was often sharp. In one memorandum that synopsized the project, Boggs noted that,

> The U.S. has lagged lamentably in making the map of the United States and its territories. It will require approximately 42 sheets to cover the U.S. proper...It is a matter of embarrassment that the United States has done only one sheet in the last 20 years, and that it is making no progress now. The delinquency of the United States is a matter of comment at international conferences and in important literature…International comity calls for active participation by the United States in this project.[137]

Accompanying these rebukes were "update" maps of I.M.W. progress in the United States. In a 1936 world map, for example, Boggs indexed where the I.M.W. sheets

had been produced across the globe—black squares with red shading were used to indicate what parts of each continent had been mapped according to the international specifications. Hundreds of black squares cover Asia and Europe, but only four squares mark the United States. Projecting the U.S. as mostly a blank space on the map, Boggs indicts a sense of isolationist disengagement with the world (fig. 2.11 shows a 1936 version of these periodic update maps produced by the Army Map Service at Boggs' request, while fig. 2.12 displays a 1947 update of U.S. progress in the I.M.W. project commissioned by Boggs and designed by the U.S. Geological Survey).[138] Yet, despite Boggs' critique of the U.S. lack of involvement, "international comity" could not triumph over other national objectives. World War II stalled the international cooperation needed to sustain the I.M.W. initiatives; the increasing postwar specialization of geography in the government, and the increasing primacy of intelligence and security magnified the sheer
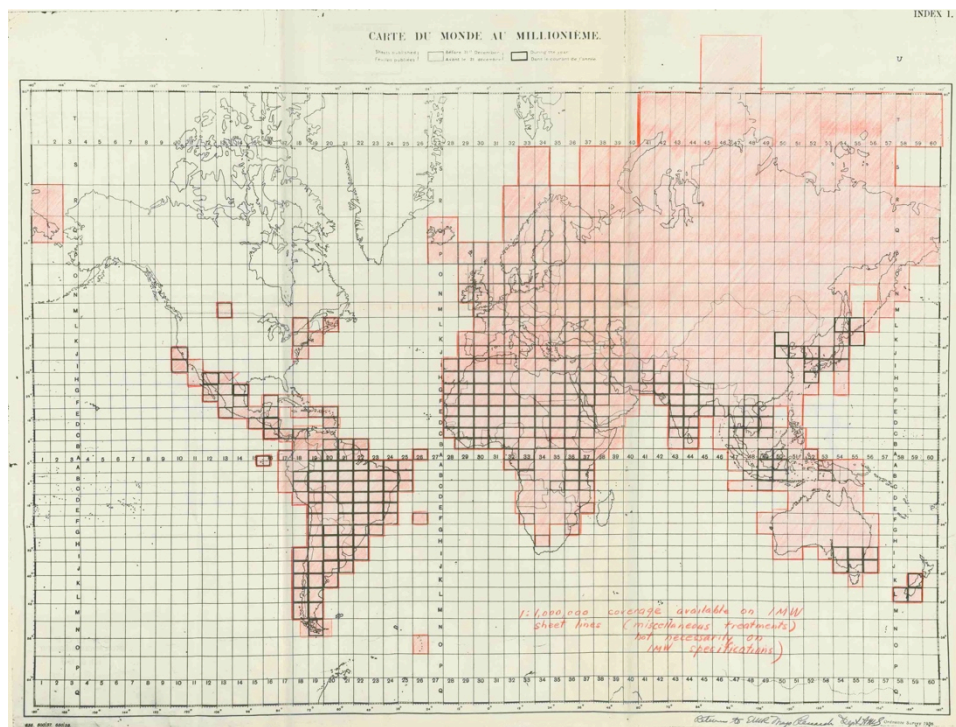
Figure 2.11. United States Army Map Service, "Index Map: Carte Du Monde De Millionieme," for S.W. Boggs, 1936 (Department of State, Cartographic & Architectural Records, National Archives II, College Park)
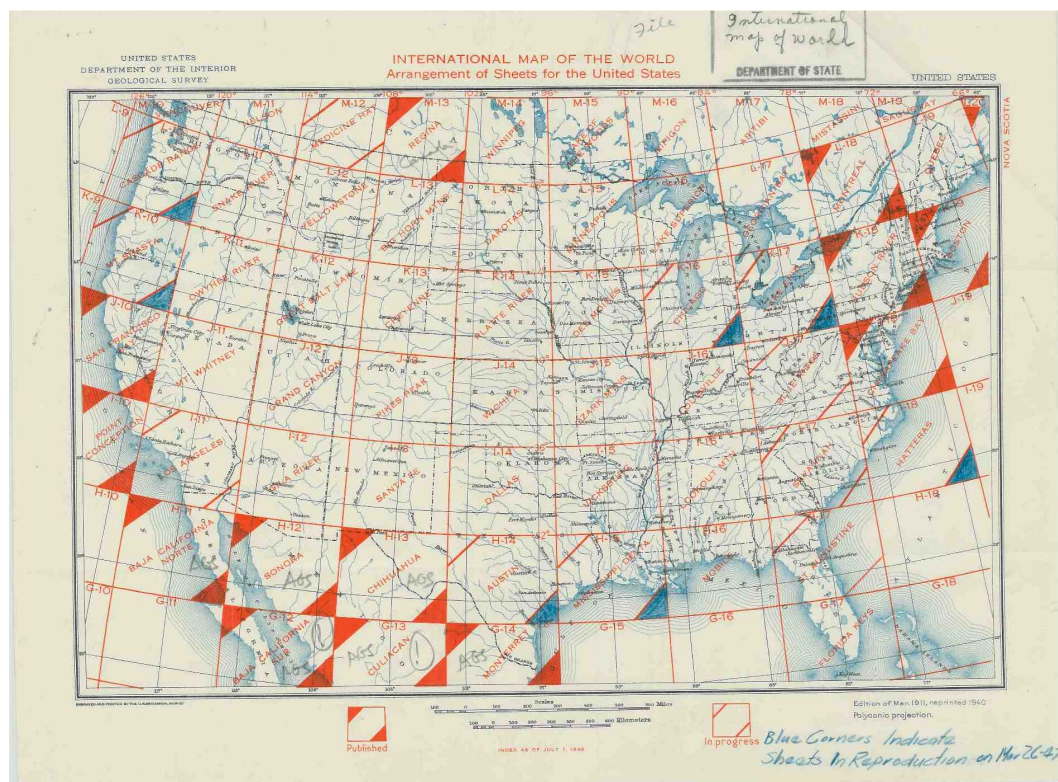
Figure 2.12. United States Geological Survey, Department of Interior, "International Map of the World: Arrangement of Sheets for the United States," June 1947 (Department of State, Cartographic & Architectural Records, National Archives II, College Park)

administrative difficulty of getting both funding and actual maps produced. Eventually,

by 1951, the formerly independent I.M.W. was transferred to a new division on

cartography at the United Nations; Boggs would continue to be the U.S. advisor on the

project, but aside from occasional updates, the project fell apart.[139] There would be

notable attempts right up to the late 1960s by international geographers, including some

in the United States, who saw value in the project, but as Pearson et al. point out, "A

number of commentators doubted whether a single global map made any sense in a

divided world where opposing superpowers controlled the cartographic agenda."[140] In

1960, geographer Richard Gardiner argued that one of the I.M.W.'s problems was that

the range after World War II of what could be globally covered topographically had

expanded dramatically. With the expansion of aerial photography and its utility in

creating maps essentially *anywhere*, the project was bedeviled by an "excess of detail" and could never cover the world substantively from such ambitious specifications.[141] Ironically, it was the innovations of the air-age itself that may have accelerated the project's demise and lessened its utility. The potential idealism of the air-age bringing "one-world" together was hamstrung by the sheer amount of knowledge produced through new technologies that could not be centralized under an international organization. Boggs and his colleagues were caught in the middle of these constraints.

The I.M.W. was never more than a minor blip on the U.S. government's radar, but from a rhetorical standpoint, the circulation of its form lived on. For example, the technical specifications of the I.M.W.'s scales and projections were adopted by the Army Map Service after 1945 in the extensive Map Series 1301, a staple of Cold War foreign mapping (see fig. 2.13 for an example).[142] Thus, it was the U.S. Army, dedicated to advancing American objectives, that became the most successful user of the 1:1,000,000 style. In amassing intelligence for the postwar world, the I.M.W.'s techniques, then, were appropriated, but not its values; the form of the I.M.W.'s project was viable in mapping the globalizing relationships, but its underlying ethic of internationalism could not be sustained. Also, the I.M.W. found itself competing with millionth scale maps produced by the International Civil Aviation Organization, whose charts were designed solely for air travel. Due to aviation's huge commercial value, nation-states (including the U.S.) were more active in this organization than they were in the I.M.W. Commercial and military objectives thus triumphed over the lofty ideals of the I.M.W.'s idea of a scientific consortium.[143] Such objectives often required a guardedness that the I.M.W. opposed. Ironically, then, the I.M.W. examples show that the new cartographic flexibility
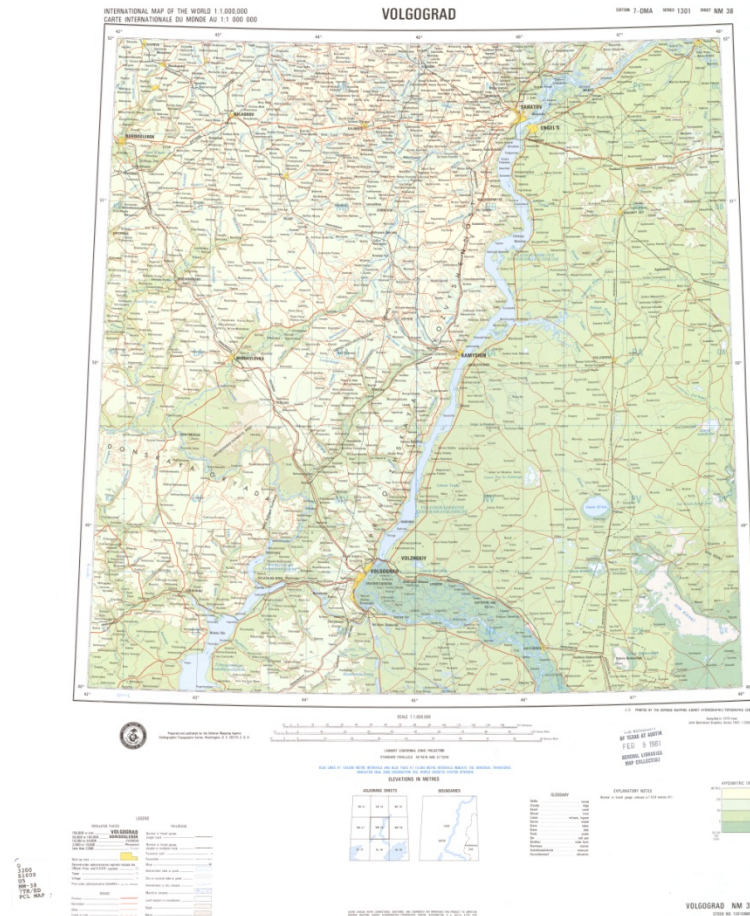
Figure 2.13. United States Army Map Service, *Volgograd: Series 1301*, 1956 (University of Texas at Austin, Perry Castañeda Library Map Collection)

in the shrinking air-age world actually helped ensure the fragmentation of mapping across nations and agencies.

A related, ill-fated mapping project of Boggs was his call for *An Atlas of Ignorance*, a comprehensive program of maps that required international cooperation, in one compendium—in other words, maps of what was currently unknown in the world and what problems needed to be addressed by the international community. The *Atlas of Ignorance* manifested Boggs' theory that even in the new globally-connected world, there were still blank spaces on the map that needed filling in—because as he plainly put it, "for the first time in history there are world problems."[144] Boggs proposed here that the

international cartographic community come together to reveal the most challenging and underdeveloped areas of study through a full atlas of about a hundred maps in areas as diverse as geology, tides, diseases, folklore, personality types, and cultural values.[145]

In a published article about the *Atlas*, Boggs includes a world map of ignorance in existing soil maps as his example (fig. 2.14). Over a Miller projection, Boggs shows a world divided into different shades based on the degree to which there are world maps adequate for agricultural interpretation.[146] While the subject is ostensibly about soil, the map fluidly frames knowledge, or lack thereof, as the key content here, and every continent is indicted for having pockets of cartographic ignorance. To Boggs, the world is brought closer through its shared gaps:
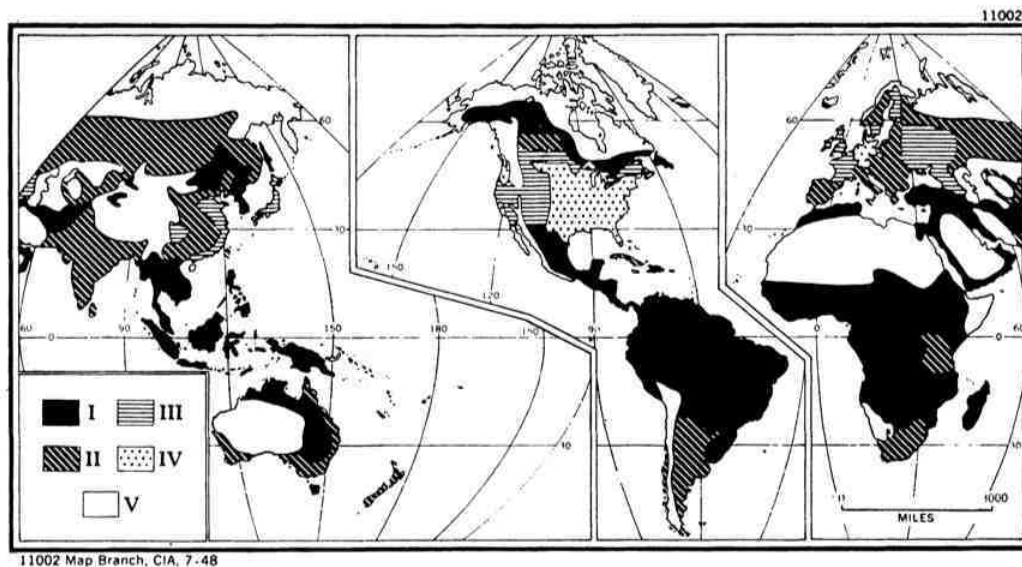
MAP 1. Adequacy of existing soil maps for agricultural interpretations. I. Areas not covered by soil maps, except highly schematic world maps wholly inadequate for agricultural interpretations, and within which soil data are important for agriculture. II. Areas largely covered by generalized soil maps, inadequate for agricultural interpretation even at a regional level. III. Areas largely covered by generalized soil maps suitable for agricultural interpretation at a regional level. IV. Areas largely covered by detailed or semi-detailed soil maps suitable for agricultural interpretation at county (or equivalent) level. V. Areas within which soil data are not important *for agriculture* except locally. Compiled in 1946 under the direction of Dr. Charles E. Kellogg, Chief, Division of Soil Survey, Bureau of Plant Industry, U. S. Department of Agriculture.

Figure 2.14. S.W. Boggs, "Adequacy of Existing Soil Maps for Agricultural Interpretation," *Proceedings of the American Philosophical Society*, **1949**

he then accompanies his seemingly apolitical soil map with calls for "orchestrated heterogeneity" and the warning that "if peace is to be conceived dynamically, on a scale commensurate with the emerging realities of the present age, we need to develop a society in which all whose minds and hearts are big enough can find their best expression as citizens of the world."[147] Together, map and text argue for a kind of "airing out" of what goes unknown in a time when global space was generally thought to be well-ordered and classified.

Projects like the *Atlas of Ignorance* are rich early Cold War artifacts because they express a hope that the postwar world could be drawn together through knowledge, and that the silences of maps could be filled in by international alliances and scientific cooperation. Yet at the same time, Boggs believed those silences and pockets of ignorance could only be addressed by the trained specialist. Boggs was clear that the *Atlas of Ignorance* required a kind of elitism, pointing out that "erudition is required of those who compile these maps of ignorance. Only those mature specialists who, individually or collectively, know the present coverage of the aggregate of human knowledge in one subject, or a selected aspect thereof, can compile one of these maps."[148] It is difficult not to see in these abandoned projects the missionary spatial zeal articulated by Luce and others of the hope that American-led ingenuity could win over the world, and that U.S. national interest was in fact synonymous with the world's interests. Boggs' work was cognizant of Cold War realities and their constraints, acknowledging that there was a fine line between ignorance and secrecy. "If in any region an 'iron curtain' were to hide from the world the knowledge of its able specialists," Boggs maintained, "the areas they know well would be, not areas of ignorance, but of

shrouded knowledge."[149] Arguably, it was this acknowledgment that ultimately destroyed

the *Atlas of Ignorance*. The prospect of a collaborative atlas demonstrating a *lack* of

knowledge during the beginning of a Cold War era when guarded knowledge was at a

premium doomed it from the start. It did gain some interest through Boggs' ties to

UNESCO, and as late as 1952, he was drafting legends for a series of ten maps to be

included in the project, but like the International Map of the World project, the new

priority of nationalistic geographic intelligence over collaboration, prevailed.[150] In Boggs'

articulation of the *Ignorance* project, he indicted "the misplaced emphasis upon static

concepts of ideologies" and insisted upon the ideal that "when we can hold a globe in our

hands and visualize the interrelationships of complete world patterns of physical and

social phenomena, we can handle world problems much more intelligently. The increased

assurance may help to overcome the 'tragedy of the timidity of statesmanship.'"[151] This

timidity of statesmanship, though, was replaced by an increasingly harder line in U.S.

foreign relations that constrained Boggs' idealism.

Boggs' sense of cooperative internationalism, for example, was not always

matched by his colleagues. In a precursor to his *Atlas of Ignorance* project, he sent

inquiries to other mapping agencies in the U.S. government in hopes of establishing a

new postwar program to coordinate the foreign mapping needs of the various agencies.

As Boggs noted,

> [P]rior to the war, the interest of most of the Government departments with
>
> reference to foreign maps and charts had been confined chiefly to nautical
>
> charts…It seems that we should consider now what will be the needs of the
>
> Government departments and agencies under peacetime conditions, in view of

developments that may be anticipated under the various international arrangements which have been made, or which are in prospect, in relation to economic and social development, food and agriculture problems."[152]

With this memorandum, he included a blank world map (on a Miller projection) so that each recipient could "draw in" where they foresaw needs for postwar foreign mapping. Included were entreaties to Walter Kotschnig, one of the State Department's main liaisons to the United Nations, to encourage the UN to cover areas "which ought to be mapped within the next few years in the interest of an 'expanding world economy'," offer technical mapping assistance to any nation in need, and to begin bilateral arrangements for cartographic cooperation.[153] Kotschnig's ensuing negative response to Boggs' appeals evidenced the fears of international cooperation: "It may be assumed that several state members of the United Nations would not be willing to have any of their territories surveyed which might make it difficult to trust the United Nations with any surveying project which would have to be confined to some limited territories" and that "any help this country may be able to offer might be given on the basis of special agreements with specific other countries."[154] This denial shows that foreign policy officials conceived of cartography as part of a national strategy, and that mapping agreements could only be entered into by the U.S. in specific cases that would benefit its interests.[155] Boggs' impulse to globalize mapping, then, was tempered by disciplinary boundaries *within* the U.S. government as well as diplomatic power relations between the U.S. government and structures like the UN.

Despite his idealism, Boggs' professional role as an intelligence gatherer for the State Department's postwar sketch of the world mitigated his cartographic activism.

During the fateful days of 1946, a banner year in the buildup of Cold War tensions, State Department special assistant Alfred McCormack circulated a memorandum that called for an establishment of an interdepartmental Planning Group to coordinate all government cartographic intelligence under one roof.[156] The memorandum pronounced geographical intelligence as "the most fundamental of all intelligence" and extensively quoted Boggs about the need for more maps to help solve economic and social problems "in order that civilization may survive and that the human race may prosper."[157] At the same time, McCormack's final recommendations indicate that the ultimate goal was to promote and facilitate foreign cartographic and geographic intelligence and to encourage "cooperation between Government departments and agencies, on the one hand, and private institutions in the United States and Governments and private agencies in foreign countries on the other, *as may be advantageous to the Government*."[158] In a sense, then, Boggs' own conceptions of "one-world" cartographies bringing nations closer together were being directly appropriated during the very design of the Cold War intelligence apparatus that would protect American interests and security above all else.

Around this same time, this new intelligence program was recruiting Boggs in other operations that were informing the character of postwar foreign policy. In August of 1945, Boggs was consulted by the State Department's Public Affairs office to provide cartographic objectives for the Special Interrogation Mission to Germany, led by DeWitt Poole, an officer in the State Department who was an expert in anticommunist propaganda and would later head the CIA-funded National Committee for a Free Europe.[159] Boggs requested that Poole's mission bring back maps containing information in regards to Nazi plans for the economic and political organization of Europe and maps

regarding the colonial occupation of foreign territories. Most importantly, though, Boggs

sought evidence regarding the extent of General Haushofer's influence (the notorious

German geopolitical theorist and mapmaker) in Germany's military and diplomatic

conduct, mentioning that "copies of maps of a geopolitical nature should be sought."[160]

Such exchanges indicate Boggs' concern about the effects of propaganda maps during the

re-organization of Europe, and demonstrate that these geopolitical maps were in the

government's interests to analyze and catalogue.

Finally, Boggs' cartographic intelligence work contributed to classified research

operations that served early Cold War objectives. In 1946-1947, Boggs would

commission "map evaluation" studies of Germany, Greece, Turkey, as well as a

comprehensive study of the Hungarian-Czech borderlands.[161] These studies were

essentially detailed and exhaustive reviews and critiques of existing map series and

atlases that covered each locale, including reviews of maps produced by cartographic

agencies *in* each of the countries. Most of the reviews related to the degree of

functionality and reliability of maps, both topographic and thematic, highlighting those

maps that provide quick and readable evidence of the strategic problem for the user. For

example, shortly after the March 1947 declaration of the Truman Doctrine, the map

studies on Greece and Turkey were completed, attempting to assess, through maps, the

quality of the reconstruction of these nations. Such projects show that the State

Department strategy for "reading the world" and its international problems was to amass

and catalog as much cartographic data as possible, and to make informed decisions on

international relations in a global world being partitioned by the Cold War. In the

increasingly walled context of security and intelligence agency research, mapping was

being closely guarded and cultivated. Knowledge of the world and its peoples was a high priority, but that knowledge required vigilance, a hallmark of the foreign policy that informed much of the Cold War.

Conclusion

In the end, it was that difficult relationship between open and closed knowledge in the cartographic construction of the world that most marked Boggs' work. It is fitting that despite his ambitions for international mapping summits and his tireless efforts for new perspectives, Boggs is perhaps best known for his 1947 *Scientific Monthly* article, entitled, "Cartohypnosis," which warned Americans of their high degree of suggestibility in consuming maps.[162] In this piece, Boggs takes the famous 1904 map of British theorist Sir Halford Mackinder, influential to both German and American geopolitics during World War II and the early Cold War, and proceeds to show how its Mercator-based assumptions look completely different when viewed through other projections.[163] Thus, Boggs believed the map exerted "hypnotic influence…with perversions of the author's original intent."[164] Typically, "Cartohypnosis" is cited as one of the main postwar salvos in a growing literature excoriating maps as propaganda, where writers and theorists worried about how simplified journalistic and even academic maps (like Mackinder's) had gained power over the geographic imagination, during a time when the specter of communist propaganda haunted American discourse.[165]

But understanding Boggs in his proper context reveals his appeals as more complex. Rather than simply black and white prescriptions on good and bad maps, he was articulating the important notion that critical interpretation of the world through maps, and a variety of new uses for those maps, was something that was destined to be

part of U.S. political culture. The idealist overtones are apparent here—that people can be de-hypnotized through better maps that offer a greater sense of humanity's interdependency throughout the world, whether through more useful projections or maps that truly account for the revolution in transport and communication. In this same vein is Boggs' strong presence in the development of powerful positivist geographies during the Cold War that prized the role of scientific knowledge, and in particular, America's power to marshal spatial knowledge to make the world in its image. Thus, whether seen through his scientific idealism or the realist "realities" of his official role in the State Department, Boggs was one producer of space who recognized the discursive power of maps and the importance of the very process of imagining them. Altogether, Boggs' articulation of cartohypnosis is a symbolic encapsulation of the rhetorical complexities of maps in a new contextual world framework, and the precarious balance between idealism and realism that he represented in a host of projects throughout his professional life.

     S.W. Boggs has been employed here as a representative nexus of intertextual discourses—a highly trained academic technician working within a policy apparatus built to define and guard American interests in the world, but also engaged in the ideologies of air-age globalism that reformed and expanded world relationships in popular media. Boggs' influence during this time should not be overstated. He managed a department that saw dwindling influence after the war, and he was essentially a mid-level bureaucrat who marshaled geographic intelligence for his superiors and provided expert advice on political boundaries throughout the world. Yet, it is precisely for these reasons that Boggs' work deserves further critical attention. In both the mundane mapping responsibilities of his behind-the-scenes machinations, and in the rhetoric of his published contributions to

various academic associations, Boggs was one architect among many of postwar

American spatial perspectives. His output becomes particularly interesting as a snapshot

of how the global conceptions of the State Department were both reflectors and shapers

of an emerging postwar visual culture, informed by the contentious disciplinary histories

of geography as well as the complex role of maps as both scientific evidence and artistic

projections of human relationships.

Assessing Boggs' role in the postwar geographic imaginary reveals, in a larger

sense, how the spatial aspects of World War II and early Cold War rhetoric provide

potential insights into the strategic design and knowledge production of globalized power.

As Bocking has written, "vision" during the Cold War era became more "synoptic and

managerial," and air-age science created a space where "geographical knowledge

becomes national authority."[166] Boggs' work, in particular, appeared during a period of

both cartographic fragmentation across many government agencies, and attempts at

consolidation to contain maps as arbiters for national objectives. To know the world was

to have a degree of control over it, and thus the potential ideal of internationalism was

complicated by the necessities for putting boundaries around knowledge and guarding it

with vigilance. As Cold War commitments grew, and the Second and Third Worlds

constrained the geographic imagination, the prospect of containing maps would become

increasingly unwieldy, as the very flexibility in perspective argued by Boggs would turn

into a possible liability for policymakers attempting to maintain one consistent image of

the world.[167] By 1988, then-Geographer of the Department of State, George Demko,

speaking to the annual meeting of the Association of American Geographers, excoriated

the geographic discipline for hiding behind an ivory tower and theorizing toward

irrelevancy. He noted,

> My own experience in Washington with members of Congress, State Department
>
> officials, and many other high-ranking members of the nation's decision-making
>
> hierarchy confirms my sense of the problem. I have been stunned at the near-total
>
> lack of an image, or, at best a hurtful and simplistic image, held of geography by
>
> these powerful people. My first reaction now is to give them something to read—
>
> geographic analyses and maps produced by my office—the Office of the
>
> Geographer. These applications of the geographical perspective to such problems
>
> as AIDS, terrorism, environmental issues and more, usually evoke surprise and
>
> requests for more….Our problems are not traceable to the art and science of
>
> geography, but to its practitioners. The solutions to our problems and our future
>
> are also in the hands of its practitioners—*all* of us.[168]

Even at the end of the Cold War, then, geographers were still facing the conundrums of

the academic/practitioner divide, as well as the challenges of translating geographic

visions for government policy-making that S.W. Boggs faced in his time.

My initial discussions, of course, are largely based around the transitions to Cold

War space in popular and U.S. government contexts, and the tensions found in both the

maps themselves as well as their production processes and accompanying policies. I now

want to build on the discursive foundations of air-age globalism, knowledge production,

and the anxious brand of internationalism found in U.S. cartographic policies, in order to

look deeper at how maps helped to fashion a bipolar international landscape—how the

Cold War became edified on the map. Through their strategic appropriation as tools of

evidence for both popular and government institutions, maps became an important medium for the waging of public opinion battles against the Soviet Union. Once the Cold War was fully formed, maps took on even more interesting roles in both the ways they "placed" American power against the Soviet Union and partitioned the world, but also in how they were "placed" into circulation for a variety of different strategic and ideological purposes. Moving forward, the actual circulation of maps as material forces in Cold War visual culture becomes even more important, as maps are situated into various contexts and produced for diverse audiences as *weapons* in the struggle between the United States and the Soviet Union.

Notes: Chapter Two

[1] John Dille, "The Missile-Era Race to Chart the Earth," *Life*, May 12, 1958, 132–33.

[2] See an account of Hough's story in Dille, "The Missile-Era Race," 124–38. Cloud's quote comes from John Cloud, "American Cartographic Transformations During the Cold War," *Cartography and Geographic Information Systems* 29 (2002): 266.

[3] Dille, "The Missile-Era Race," 135.

[4] The Hough Team Materials are available at the National Archives II in College Park. See specifically File 11, Records of the Office of Chief Engineers, RG 77, National Archives II, College Park, MD.

[5] See especially Albert C. Lieber, "International Cooperation in Mapping," *Surveying and Mapping* (1954): 71–74.

[6] For more on this "hailing" and "mangling" idea in World War II and early Cold War mapping, see Trevor J. Barnes and Matthew Farish, "Between Regions: Science, Militarism, and American Cartography from World War to Cold War," *Annals of the Association of American Geographers* 96 (2006): 807–26.

[7] John Cloud, "Imaging the World in a Barrel: CORONA and the Clandestine Convergence of the Earth Sciences," *Social Studies of Science* 31 (2001): 233.

[8] Barnes and Farish, "Between Regions," 821.

[9] For explorations of mapping and the power relations behind maker and user, see especially John Pickles, "Texts, Hermeneutics and Propaganda Maps," and J.B Harley, "Deconstructing the Map," in Trevor J. Barnes and James S. Duncan, eds., *Writing*

Worlds: Discourse, Text and Metaphor in the Representation of Landscape (London: Routledge, 1992). See also Denis Wood, *The Power of Maps* (New York: Guilford, 1992).

[10] Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (1974; Malden, MA: Blackwell, 1991), 33.

[11] Lefebvre, *The Production of Space*, 38–45.

[12] John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy* (New York: Oxford University Press, 1982). See also Ninkovich's description of "symbolic interventionism." Frank Ninkovich, *Modernity and Power: A History of the Domino Theory in the Twentieth Century* (Chicago: University of Chicago Press, 1994), xv.

[13] Neil Smith, *American Empire: Roosevelt's Geographer and the Prelude to Globalization* (Berkeley: University of California Press, 2003), 4. See also Richard White's extended review of Smith's book. Richard White, "The Geography of American Empire," *Raritan* 23 (2004): 1–19. For earlier discussions of these ideas, see David Harvey, *Social Justice and the City* (Baltimore, MD: Johns Hopkins University Press, 1973), 13–14; Henri Lefebvre, "Reflections on the Politics of Space," *Antipode* 8 (1976): 31; Edward Soja, "The Socio-Spatial Dialectic (1989)," in *Reading Human Geography*, eds. Trevor Barnes and Derek Gregory (London: Arnold, 1997), 246–47, 255.

[14] Stephen Bocking, "A Disciplined Geography: Aviation, Science, and the Cold War in Northern Canada, 1945-1960." *Technology & Culture* 50 (2009): 288–90.

[15] Paul A. Smith, "Aviation Development and Its Mapping Needs," *Surveying and Mapping* 14 (1954): 67.

[16] Lieber, "International Cooperation in Mapping," 71.

[17] For rhetorical definitions of realism, see both the introduction and conclusion in Francis A. Beer and Robert Hariman, "Realism and Rhetoric in International Relations," and "Strategic Intelligence and Discursive Realities," in *Post-Realism: The Rhetorical Turn in International Relations* (East Lansing: Michigan State University Press, 1996), 1–30, 387–414. And as Ó Tuathail and Agnew have also pointed out, to study realism and geo-strategy discursively is to study "the socio-cultural resources and rules by which geographies of international politics get written." See Gearóid Ó Tuathail and John Agnew, "Geopolitics and Discourse: Practical Geopolitical Reasoning in American Foreign Policy," *Political Geography* 11 (1992): 193.

[18] Ó Tuathail and Agnew, "Geopolitics and Discourse," 191.

[19] Bowman also wrote the introduction to Boggs' book on international boundaries. As the premier geographic policymaker and "celebrity" in this era, his endorsement of Boggs' geography certainly carried some weight and credibility. See S.W. Boggs, *International Boundaries – A Study of Boundary Functions and Problems* (New York: Columbia University Press, 1940).

[20] Isaiah Bowman, "The Geographical Situation of the United States in Relation to World Policies," *The Geographical Journal* 112 (1948): 130.

[21] Bowman, "The Geographical Situation," 130.

[22] Bowman, "The Geographical Situation," 129, 132.

[23] For example, the State Department Geographer during the 1950s and 1960s, G. Etzel Pearcy, referenced MacKinder's theory as inextricably bound up with the American concept of containment. In a series of political maps, Pearcy updates Boggs by showing the world from a number of perspectives and projections through maps to demonstrate

the extent of American commitments circa 1964, with an obvious focus on the

geopolitical aspects of Southeast Asia and their role in American interests. See G. Etzel

Pearcy, "Geopolitics and Foreign Relations," *Department of State Bulletin* 50 (1964):

318–30.

[24] See Barnes and Farish, "Between Regions," 808–12.

[25] Ninkovich, *Modernity and Power*, xv.

[26] Ninkovich, *Modernity and Power*, xiv.

[27] Alan K. Henrikson, "The Geographical 'Mental Maps' of American Foreign

Policy Makers," *International Political Science Review* 1 (1980): 496.

[28] Richard Ashley, "The Geopolitics of Geopolitical Space: Toward a Critical

Social Theory of International Politics," *Alternatives* 12 (1987): 423.

[29] Gaddis, *Strategies of Containment*, 27–33.

[30] Barnes and Farish, "Between Regions," 808.

[31] See Leonard S. Wilson, "Geographic Training For the Postwar World: A

Proposal," *Geographical Review* 38 (1948): 575–89; Leonard S. Wilson, "Lessons from

the Experience of the Map Information Section, OSS," *Geographical Review* 39 (1949):

298–310.

[32] Herbert Block to Assistant Director, Economic Studies Group, Department of

Research, "Evaluation of German Geopolitics," 3 August 1944, Box 5, Records of the

Geographer, Department of State, RG59, Cartographic & Architectural Records Division,

National Archives II, College Park.

[33] *Map 2: Haushofer's Latest Theory: Imperialist Expansion Along the Meridians*,

in "Evaluation of German Geopolitics," 17.

[34] George H.T. Kimble, "The Role of Surveying and Mapping in Developing the Economy of Nations," *Surveying and Mapping* 11 (1951): 108.

[35] Willis D. Crittenberger, "The Relationship of Mapping and Charting to the Defense and Development of the Americas," *Surveying and Mapping* 10 (1950): 8.

[36] See the quote from Colonel Robert R. Robertson: "During World War II, we learned the hard way that adequate maps just didn't exist for most parts of the globe. Even in the United States, only 37 percent of the land is covered by really accurate topographic maps. When the war ended, the President started a long-range plan to promote map making, with United States technical help, in friendly countries all over the world. The Army, Navy, and State Department were directed to cooperate." Robert Leslie Conly, "Men Who Measure the Earth: Surveyors From 18 New World Nations Invade Trackless Jungles and Climb Snow Peaks to Map Latin America," *National Geographic*, March 1956, 338. For more on inter-agency cartographic collaboration in this time, see also Crittenberger, "The Relationship of Mapping and Charting."

[37] For a critical discussion of this function of Cold War geography, see David Harvey, "Cosmopolitanism and the Banality of Geographical Evils," *Public Culture* 12 (2000): 549–55.

[38] Herbert B. Loper, "The Role of Surveying and Mapping in National Defense," *Surveying and Mapping* 11 (1951): 364.

[39] Andrew Kirby points out that eventually, the prominent political geographers who served the government like Bowman and Hartshorne became increasingly rare, and political geography and geopolitics was more practiced by international relations experts, representing "a division of academic labor between political science and geography."

Kirby writes, "Instead, their more traditional skills as cartographers for the state have been re-emphasized, albeit in dramatically different ways. The process of surveillance has been passed over to orbiting satellites, so that the panopticon is now truly global in extent. The processing of spatial imagery has become a crucial element in warfare, and the United States Department of Defense has invested heavily in this technology." Andrew Kirby, "What Did You Do in the War, Daddy?," in *Geography and Empire*, eds. Anne Godlewska and Neil Smith (Oxford, UK: Blackwell, 1994), 314.

[40] The official report, coming out of research sponsored by the Army Map Service, can be found in Bernard Chovitz and Irene Fischer, "A New Determination of the Figure of the Earth from Arcs," *Transactions of the American Geophysical Union* 37 (1956): 534–45.

[41] "It's a Smaller World," *Scientific American*, July 1956, 50; "Taping the Earth," *Time*, May 14, 1956, http://www.time.com/time/magazine/article/0,9171,808435,00.html.

[42] Conly, "Men Who Measure the Earth," 335. See also Deborah Jean Warner, "From Tallahassee to Timbuktu: Cold War Efforts to Measure Intercontinental Distances," *Historical Studies in the Physical and Biological Sciences* 30 (2000): 393–415; and Deborah Jean Warner, "Political Geodesy: the Army, the Air Force, and the World Geodetic System of 1960," *Annals of Science* 59 (2002): 363–89.

[43] U.S. Aeronautical Chart and Information Center, *Geodesy for the Layman* (St. Louis, MO: United States Air Force, 1962), 1.

[44] Some other contemporary treatments of this concept can be found in the annals of the American Congress on Surveying and Mapping. See, particularly, Kimble, "The Role of Surveying and Mapping," 104–8; Jacob Skop, "The Effects of User

Requirements on Map Design," *Surveying and Mapping* 18 (1958): 315–18; Colonel

Frederick O. Diercks, "The Role of the Topographic Map in the Missile Age," *Surveying*

and Mapping 19 (1959): 349–54.

[45] Dille, "The Missile-Era Race," 127.

[46] Sanjay Chaturvedi, *The Polar Regions: A Political Geography* (Chichester,

UK: Wiley & Sons, 1996), 104.

[47] Bocking, "A Disciplined Geography," 267.

[48] See John Cloud, "Crossing the Olentangy River: The Figure of the Earth and

the Military-Industrial-Academic-Complex, 1947-1972," *Studies in the History and*

Philosophy of Modern Physics 31 (2000): 371–404; W.W. Rostow, *Open Skies:*

Eisenhower's Proposal of July 21, 1955 (Austin: University of Texas Press, 1982); R.

Cargill Hall, "The Eisenhower Administration and the Cold War: Framing American

Astronautics to Serve National Security," *Prologue: Quarterly of the National Archives*

(Spring 1995): 59–69; R. Cargill Hall, "From Concept to National Policy: Strategic

Reconnaissance in the Cold War," *Prologue: Quarterly of the National Archives*

(Summer 1996): 107–25.

[49] Dino A. Brugioni, *Eye in the Sky: Eisenhower, the CIA, and Cold War Aerial*

Espionage (Annapolis, MD: Naval Institute Press, 2010), 1. For other historical and

critical anthologies on these technologies, see Dwayne A. Day, John M. Logsdon, and

Brian Latell, eds., *Eye in the Sky: The Story of the Corona Spy Satellites* (Washington,

DC: Smithsonian Institution Press, 1998); and Curtis Peebles, *The Corona Project:*

America's First Spy Satellites (Annapolis, MD: Naval Institute Press, 1997).

[50] Day et al., *Eye in the Sky*, 177. See also John Cloud, "Hidden in Plain Sight: The CORONA Reconnaissance Satellite Programme and Clandestine Cold War Science," *Annals of Science* 58 (2001): 203–09.

[51] Cloud, "Crossing the Olentangy River," 402.

[52] S.W. Boggs to George C. Marshall, 21 January 1947, Box 20, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[53] Boggs was often consulted by government agencies, particularly the military, about strategic uses of the "roundness" concept and how globes could be used to solve policy and intelligence problems. For a representative example, in this case some 1949 correspondence with the Air Force, where in extolling the benefits of the using globes over flat maps, he says "The one thing peculiar to the 'strategic' is that it covers the whole earth without being responsible to any commanders in the field." See S.W. Boggs, "Memorandum of Conversation," 8 March 1949, Box 3, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[54] S. Whittemore Boggs, "Global Relations of the United States," *Department of State Bulletin* 30 (1954): 910. Boggs' statement here was actually a play on words, based on the famous dictum of Sir Halford Mackinder. Mackinder was a British geopolitical theorist (and member of Parliament) who especially gained widespread attention during the air-age explosion in the late 1930s and into the Cold War. As Mackinder famously wrote in 1919:

Who rules East Europe commands the Heartland:

Who rules the Heartland commands the World-Island:

Who rules the World-Island commands the World.

It is important to note that Mackinder's oft-quoted dictum appeared after the closure of

World War I, and his prediction can be read as bristling at the rhetorical idealism of 1919

Paris and the League of Nations' high-minded hopes for world cooperation. He saw an

emerging *image* of power, conquest, and hence more war, based on these new global

relationships. And Mackinder, in many ways, was, despite his forward-thinking

prescience on world relationships and the displacement of sea power by rail and land

power, still part of a flat-map world. His influential "Heartland" maps, for example, were

based on the traditional Mercator projection. Yet Mackinder's ideas, as well as his maps,

frequently appeared in air-age discourse and were appropriated by a new generation of

geographers because his theories could also be read as a re-conception of the world as a

complex of relational spaces, with his sense that the globe could no longer be seen as a

confluence of natural geographical "givens," but instead as shapeable and moldable. See

Sir Halford Mackinder, *Democratic Ideals and Reality: A Study in the Politics of*

Reconstruction, NDU Press Classic Edition (Washington, DC: National Defense

University Press, 1996), 106. For critical readings of Mackinder's work, there are a host

of different sources, but most germane to this project come out of the "critical geopolitics"

movement that emerged at the end of the Cold War. See especially Gearóid Ó Tuathail,

Critical Geopolitics: The Politics of Writing Global Space (Minneapolis: University of

Minnesota Press, 1996), 24–38; Susan Schulten, *The Geographical Imagination in*

America, 1880-1950 (Chicago: The University of Chicago Press, 2001), 80; Francis P.

Sempa, *Geopolitics: From the Cold War to the 21ˢᵗ Century* (New Brunswick, NJ:

Transaction Publishers, 2002), 20; James Sidawar, "Overwriting Geography: Mackinder's Presences, a Dialogue with David Hooson," *Geopolitics* 14 (2009): 163–70. See S.W. Boggs' own extended criticism of Mackinder's influence in S.W. Boggs, "Cartohypnosis," *The Scientific Monthly*, June 1947, 469–72.

[55] See especially G. Etzel Pearcy, "The Air Age: Fact or Fantasy? An Evaluation of the Global Air Transportation Pattern," *The Journal of Geography* 46 (1947): 304–12; and Richard Edes Harrison, "The Face of One World: Five Perspectives for an Understanding of the Air Age," *Saturday Review of Literature*, July 1, 1944, 5. The revival of interest in these air age conceptions can be especially linked to Alan K. Henrikson, "Maps, Globes, and the 'Cold War'," *Special Libraries* 65 (1974): 445–54; Alan K. Henrikson, "The Map as an 'Idea': The Role of Cartographic Imagery During the Second World War," *The American Cartographer* 2 (1975): 19–53.

[56] Boggs, "Cartohypnosis."

[57] S.W. Boggs, Memorandum of Conversation, 4 February 1946, Box 7, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[58] James C. Scott's work on state power and the creation of space illustrates the problem of "legibility" for modern state power, and how scientific expertise is bound up in the state's attempt to "read" and order its domains. See James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Failed* (New Haven, CT: Yale University Press, 1998), 2–5.

[59] S.W. Boggs to Richard Edes Harrison, 31 August 1944, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division National Archives II, College Park, MD.

[60] Lawrence Prelli's thesis that "displays are constituted rhetorically through situated resolutions of revealing/concealing" is instructive here on how maps are rhetorical processes. As Prelli puts it, "a display's rhetorical dimension is in its concealment of alternative possibilities – a selective process that constrain a range of possible meanings." See Lawrence J. Prelli, "Introduction: Rhetorics of Display," in *Rhetorics of Display*, ed. Lawrence J. Prelli (Columbia: University of South Carolina Press, 2006).

[61] See Scott, *Seeing Like a State*, 39. For other articulations of the map and its relationship to state power, see Alexander B. Murphy, "Historical Justifications for Territorial Claims," *Annals of the Association of American Geographers* 80 (1990): 544; Benedict Anderson, *Imagined Communities*, rev. ed. (London: Verso, 1991), 171, 175; Michael Biggs, "Putting the State on the Map: Cartography, Territory, and European State Formation," *Comparative Studies in Society and History* 41 (1999): 374, 391, 392, 396; Jeremy Black, *Maps and Politics* (Chicago: University of Chicago Press, 1997), 12.

[62] John K. Wright, "Map Makers are Human: Comments on the Subjective in Maps," *The Geographical Review* 32 (1942): 527.

[63] The relationship between strategic and ideological perspectives in rhetorical studies has become a central debate especially in studying the Cold War. For perhaps the most representative critical examination of how ideologies and strategies form useful lenses in Cold War study, see Martin J. Medhurst, Robert L. Ivie, Philip Wander, and

Robert L. Scott, *Cold War Rhetoric: Strategy, Metaphor, and Ideology* (New York: Greenwood, 1990).

[64] James Anderson's landmark work on the role of ideology in geographic studies is particularly important to studying the form/content relationships in maps, wherein he posits that geography is too often seen as transmitter of ideologies, rather than as a producer of them. James Anderson, "Ideology in Geography: An Introduction," *Antipode* 5 (1973): 3.

[65] Frank E. Williams, "Lawrence Martin, 1880-1955," *Annals of the Association of American Geographers* 46 (1956): 357–64.

[66] Lewis Alexander, "Samuel Whittemore Boggs: An Appreciation," *Annals of the Association of American Geographers* 48 (1958): 237.

[67] "Obituaries: Samuel Whittemore Boggs," *Surveying and Mapping* 14 (1954): 517.

[68] See especially Boggs, *International Boundaries*.

[69] S.W. Boggs, Memorandum, "The Program of Geographical Studies and Maps," 2 February 1943, Box 20, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[70] S.W. Boggs to J.S. Dickey, Memorandum, "Activities of the Division of Geography and Cartography," 28 December 1944, Box 20, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[71] Postwar geopolitical planning was a notable focus of Boggs among other geographers, academics, and policymakers during the course of World War II,

particularly in relation to new air-age conceptions of transportation and global

connectedness. Some representative publications include George Renner, "Maps for a

New World," *Collier's* 53 (June 1942): 14–21; Nicholas John Spykman, "Frontiers,

Security, and International Organization," *Geographical Review* 32 (1942): 436–47;

Isaiah Bowman, "Geography vs. Geopolitics," *Geographical Review* 32 (1942): 646–58.

[72] Boggs, "The Program of Geographical Studies and Maps."

[73] Boggs, "The Program of Geographical Studies and Maps."

[74] Boggs, "The Program of Geographical Studies and Maps."

[75] Eagleton quoted in Christian Parenti, "The World Was Not Enough," *In These Times*, July 28, 2003,

http://www.inthesetimes.org/article/87/the_world_was_not_enough/.

[76] Alexander, "Samuel Whittemore Boggs," 242.

[77] Geographers Barnes and Farish have done historic work in evidencing the

transformation of traditional academic geography into a science that was more interested

in strategic regional problems, and the closure of Harvard's famous program was a

symptom of these changes. See Barnes and Farish, "Between Regions."

[78] Smith, *American Empire*, xviii.

[79] As Boggs noted in a piece that circulated around the State Department: "Our

fascinating little earth seems to be a 'rapidly shrinking world' only because of the ever

geographically widening outreach of communications, transport, and travel available to

individual human beings and societies…These new powers do not solve world problems;

they ameliorate a few, create new ones, and aggravate others. We recall the story of

'Benny and the Bird-dogs' by Marjorie Kinnan Rawlings: 'Now putting an automobile

under Uncle Benny was like putting wings on a wild-cat – it just opened up new territory."
Boggs, "Global Relations," 903.

[80] S. Whittemore Boggs, "A New Equal-Area Projection for World Maps," *The Geographical Journal* 73 (1929): 241–45.

[81] Boggs, "A New Equal-Area Projection," 241.

[82] Boggs, "A New Equal-Area Projection," 243.

[83] See Charles A. Thomson to S.W. Boggs, 8 February 1943, Box 20, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD; and Boggs to Charles A. Thomson, 20 February 1943, Box 20, Records of the Geographer, Department of State, RG59.

[84] Charles A. Thomson to S.W. Boggs, 8 February 1943, Box 20, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[85] Boggs to Charles A. Thomson, 20 February 1943, Box 20, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD. A noteworthy aspect of this memo, and a trend that would become part of the postwar move in State Department geography towards intelligence gathering is the call for more specific area experts. The turn to a regional geography in this era is discussed in Barnes and Farish, "Between Regions."

[86] S. Whittemore Boggs, "National Claims in Adjacent Seas," *Geographical Review* 41 (1951): 185–209; S. Whittemore Boggs, "An Atlas of Ignorance: A Needed Stimulus to Honest Thinking and Hard Work," *Proceedings of the American Philosophical Society* 93 (1949): 253–58.

[87] Boggs, "National Claims," 185.

[88] Alexander, "Samuel Whittemore Boggs," 238. See also Boggs' correspondence with the Nystrom Company through the State Department in S.W. Boggs to C.A. Burkhart, 24 August 1949, Box 4, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD. Boggs mentions the exasperation of the mapmaker in dealing with the political phenomena of independence in the developing world, referring specifically to Southeast Asia. His frustration with independence in terms of mapmaking seems somewhat at odds with his published work, where he extols the importance of accurately covering developing areas.

[89] On an interesting note, Boggs' memorandum from July 1945 talks about using the eumorphic or Miller projection on the Foreign Service posts maps that would become a staple of the State Dept. map program to produced semi-annually, and mentions "probably the United States should be somewhere near the middle of the map so that Eastern Asia is to the left and Europe to the right." In a more literal sense, here, the "placement" of America becomes of central importance in framing world relationships in the new postwar environment. S.W. Boggs, Memorandum, 31 July 1945, Box 4, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[90] Baar also noted the contributions of Charles H. Deetz and Oscar S. Adams of the United States Coast and Geodetic Survey in working with Boggs on developing the projection – showing some of the cross-agency cartographic cooperation that was part of

the State Department's outreach. Edward J. Baar, "The Manipulation of Projections for World Maps," *Geographical Review* 37 (1947): 112–13.

[91] O.M. Miller, "Notes on Cylindrical World Map Projections," *Geographical Review* 32 (1942): 424.

[92] United Nations, "A Student Map of the United Nations," Map (New York: United Nations, 1953), World-International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC; Civic Education Service Inc., "The World: Headline Focus Wall Map," Map (Washington, DC: Civic Education Service, 1965), World International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress; Scholastic Magazine "Economic Map of the World, 1966-67," Map (Springfield, NJ: Hammond, Inc.,1966), World International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress.

[93] Some examples of Boggs' Miller proselytizing can be found in S.W. Boggs, Memorandum, 12 February 1946, Box 20, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD; S.W. Boggs to Max Horn, 1 September 1943, Box 19, Records of the Geographer, Department of State, RG59.

[94] Alexander, "Samuel Whittemore Boggs," 242.

[95] A memorandum of conversation by Boggs indicates his correspondence with Boyd Crawford, an administrative officer with the House Committee on Foreign Affairs. See S.W. Boggs, Memorandum, 6 January 1948, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD. See also Crawford to Boggs, 26 December 1947, Box 19,

RG59; and Boggs to Crawford, 12 January 1947, Box 19, RG59. Also interesting to note

is that Boggs sent air route globes and plastic hemispheres over to the office of Chip

Bohlen, who would come to be one of the main architects of State Department Cold War

policy. See S.W. Boggs to Charles Bohlen, 13 January 1945, Box 20, RG59.

[96] Colonel Desloge Brown to S.W. Boggs, 24 November 1948, Box 3, Records of

the Geographer, Department of State, RG59, Cartographic & Architectural Records

Division, National Archives II, College Park, MD.

[97] Ristow, "Air Age Geography," 334.

[98] Boggs to Secretary of State Cordell Hull, 10 April 1944, Box 20, Records of the

Geographer, Department of State, RG59, Cartographic & Architectural Records Division,

National Archives II, College Park, MD.

[99] S.W. Boggs, "This Hemisphere," *Department of State Bulletin* 12 (1945): 848–

49. The article was reprinted for the educational periodical *The Journal of Geography*;

see S.W. Boggs, "This Hemisphere," *Journal of Geography* 44 (1945): 345–55.

[100] Boggs, "Global Relations of the United States," 908.

[101] In particular, historian Odd Arne Westad has offered the thesis that the study

of Cold War history is often limited by a focus on East-West directions, and instead

posits that American responsibility and commitments were projected toward the South in

new ways. See Odd Arne Westad, *The Global Cold War: Third World Interventions and

the Making of Our Times* (Cambridge, UK: Cambridge University Press, 2006).

[102] See, in particular, Lawrence J. Prelli, "Visualizing a Bounded Sea: A Case

Study in Rhetorical *Taxis*," in *Rhetorics of Display*, edited by Lawrence J. Prelli

(Columbia: University of South Carolina Press, 2006), 90–120.

[103] John K. Wright, "*Terrae Incognitae*: The Place of the Imagination in Geography," *Annals of the Association of American Geographers* 37 (1947): 1–15. Also, Denis Cosgrove does an analysis of Wright's theories and their ramifications in Denis Cosgrove, "Book Review Essay: Epistemology, Geography, and Cartography: Matthew Edney on Brian Harley's Cartographic Theories," *Annals of the Association of American Geographers* 97 (2007): 202–9.

[104] Walter Lippmann, *Public Opinion* (New York: Free Press, 1965), 11, 18.

[105] Wright, "*Terrae Incognitae*," 7.

[106] Wright, "*Terrae Incognitae*," 5, 7, 11–12.

[107] Cosgrove, "Book Review Essay," 207.

[108] Henry R. Luce, "The American Century," reprinted in *Diplomatic History* 23 (1999): 159–71. Some sources on Luce's influence in this era can be found in W.A. Swanberg, *Luce and His Empire* (New York: Scribner, 1972); James L. Baughman, *Henry R. Luce and the Rise of the American News Media* (Boston: Twayne, 1987); Robert E. Herzstein, *Henry R. Luce,* Time, *and the American Crusade in Asia* (Cambridge: Cambridge University Press, 2005).

[109] The William F. Eisner Museum of Advertising & Design in Milwaukee houses an online exhibit of Artzybasheff's work – see William F. Eisner Museum of Advertising & Design, "Boris Artzybasheff," Grassi Collection, www.eisnermuseum.org/_artzybashoff/main.html.

[110] Harrison, "The Nomograph as an Instrument in Map Making," *The Geographical Review* 33 (1943): 655–657. Harrison notes here, "It is distressing how often great circles are incorrectly drawn on maps, and it would be well if this particular

function of nomographs were used more often, especially by the great army of journalistic cartographers." He also goes on to espouse the benefits of the round projections that the nomograph is useful for, noting: "To name one example, the azimuthal equidistant is an extremely useful instrument in time of war, and our forces should be provided with these maps centered on each of our operational bases." The scale diagram can be found in Harrison to Boggs, 17 April 1946, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[111] Susan Schulten, "Richard Edes Harrison and the Challenge to American Cartography," *Imago Mundi* 50 (1998): 178; S.W. Boggs to Richard Edes Harrison, 3 March 1943, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD. Boggs to Harrison, 22 December 1943, Box 19, RG59. Boggs to Harrison, 17 April 1946, Box 19, RG59.

[112] Boggs to Harrison, 21 July 1941, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[113] Renner, "Maps for a New World."

[114] For a history and critique of this controversy, see Karen DeBres, "Political Geographers of the Past IV: George Renner and the Great Map Scandal of 1942," *Political Geography Quarterly* 5 (1986): 385–94. DeBres discusses the excoriation of Renner by popular press writers such as Lippmann, as well as the academic community. *Time* reported that a group of University of Minnesota professors even petitioned

President Roosevelt to oust Renner from his advisory position at the Civil Aeronautics Administration.

[115] Harrison to Boggs, 9 March 1943, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[116] Boggs to Harrison, 22 October 1943, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[117] An interesting side note to Boggs' and Artzybasheff's correspondence is that Boggs was working with Artzybasheff, ultimately unsuccessfully, to design the logo for the United Nations. S.W. Boggs, Memorandum of Conversation, 15 March 1945, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[118] S.W. Boggs to Boris Artzybasheff, 18 March 1942, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[119] Boggs, "Global Relations," 905–6.

[120] Boggs at this time was also employing Artzybasheff to produce a series of new world maps to be distributed through the State Department and sold to the public. S.W. Boggs to Boris Artzybasheff, 3 January 1944, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[121] Boggs to Artzybasheff, 27 May 1944, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD; Boggs to Harrison, 31 August 1944, Box 19, RG59.

[122] United States Information Agency, *Expanding World Relationships*, filmstrip, Special Media Archives Division, Records of the U.S. Information Agency, RG306, National Archives II, College Park, MD.

[123] Boggs to Artzybasheff, 27 May 1944.

[124] S. Whittemore Boggs, "Mapping the Changing World: Suggested Developments in Maps," *Annals of the Association of American Geographers* 31 (1941): 119.

[125] Boggs, "Mapping the Changing World," 126.

[126] S.W. Boggs, "Mapping Some of the Effects of Science and Technology on Human Relations," *Department of State Bulletin* 12 (1945): 187, 185.

[127] Ward L. Kaiser and Denis Wood, *Seeing Through Maps: The Power of Images to Shape Our World View* (Amherst, MA: ODT, 2001), 86.

[128] Boggs, "Mapping Some of the Effects," 188.

[129] Boggs, "Mapping Some of the Effects," 188.

[130] For two pieces from a rhetorical perspective on these notions of liberation and development theories, see Kimber Charles Pearce, "Narrative Reason and Cold War Economic Diplomacy in W.W. Rostow's *Stages of Economic Growth*," *Rhetoric & Public Affairs* 2 (1999): 395–414; Pearce, *Rostow, Kennedy, and the Rhetoric of Foreign Aid* (East Lansing: Michigan State University Press, 2001); Ned O'Gorman, "'The One

Word the Kremlin Fears': C.D. Jackson, Cold War 'Liberation,' and American Political-Economic Adventurism," *Rhetoric & Public Affairs* 12 (2009): 389–428.

[131] S.W. Boggs, "Geographic and Other Scientific Techniques for Political Science," *The American Political Science Review* 42 (1948): 223–38.

[132] Several contemporary comments on this project include G.R. Crone, "The Future of the International Million Map of the World," *The Geographical Journal* 128 (1962): 36–38; Richard A. Gardiner, "A Re-Appraisal of the International Map of the World (I.M.W.) on the Millionth Scale," *International Yearbook on Cartography* 1 (1961): 31–47. For a good general history, see Alastair Pearson, R. Fraser Taylor, Karen D. Kline, and Michael Heffernan, "Cartographic Ideals and Geopolitical Realities: International Maps of the World from the 1890s to the Present," *The Canadian Geographer* 50 (2006): 149–76.

[133] Colonel D.I. Burnett to S.W. Boggs, 15 June 1949, Box 6, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[134] Michael Heffernan, "The Politics of the Map in the Early Twentieth Century," *Cartography and Geographic Information Science* 29 (2002): 209.

[135] Pearson et al., "Cartographic Ideals."

[136] Burnett to Boggs.

[137] S.W. Boggs, Memorandum, 1 October 1937, Box 11, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[138] Army Map Service, "Index Map: Carte Du Monde Au Millionieme," to S.W. Boggs, 1936, International Map of the World Folder, Box 11, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD; United States Department of Interior Geological Survey, "International Map of the World: Arrangement of Sheets for the United States," 5 June 1947, International Map of the World Folder, Box 6, Records of the Geographer, Department of State, RG59, National Archives II, College Park. Boggs would continually solicit update maps on the progress of the I.M.W. right up into the early 1950s.

[139] Boggs' archive reveals considerable movement on his part to work with the U.N. to keep up the project. See S.W. Boggs, "Report to the Meeting of Experts on Cartography to the Secretary-General of the United Nations," 29 March 1949, Box 6, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD; United Nations Economic and Social Council, "Relations With Inter-Governmental Organization: Report by the Secretary General," 18 June 1951, Box 6, RG59; S.W. Boggs to J.D. Tomlinson, Memorandum, 3 July 1951, Box 6, RG59; Dean S. Rugg to S.W. Boggs, 20 May 1952, Box 6, RG59.

[140] Pearson et al., "Cartographic Ideals," 162.

[141] Gardiner, "A Re-Appraisal"; Crone, "The Future of the International Million Map."

[142] Pearson et al., "Cartographic Ideals," 161. For an online collection of this Cold War series of AMS maps, see University of Texas at Austin, Perry Castañeda Library Map Collection, http://www.lib.utexas.edu/maps/imw/.

[143] Also, the I.M.W. would find itself competing with millionth scale maps produced by the International Civil Aviation Organization, whose charts were designed solely for air travel – and due to aviation's huge commercial value, nation-states (including the U.S.) were more energetic in this organization than they were with the I.M.W. Commercial and military objectives thus triumphed over the lofty ideals of the I.M.W.'s idea of a scientific consortium. See Gardiner, "A Re-Appraisal," 32.

[144] Boggs, "Atlas of Ignorance." This also ties in with Harley's notions of map silences. See J.B. Harley, *The New Nature of Maps: Essays in the History of Cartography*, ed. Paul Laxton (Baltimore, MD: Johns Hopkins University Press, 2001).

[145] Boggs, "Atlas of Ignorance," 256–58.

[146] Boggs, "Atlas of Ignorance," 257.

[147] Boggs, "Atlas of Ignorance," 258.

[148] Boggs, "Atlas of Ignorance," 256.

[149] Boggs, "Atlas of Ignorance," 253.

[150] S.W. Boggs to Dr. Odegaard, American Council of Learned Societies, 18 October 1948, Box 4, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[151] Boggs, "Atlas of Ignorance," 258.

[152] S.W. Boggs to W.R. Wrather, Director of the Geological Survey, Dept. of the Interior, 29 August 1945, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[153] S.W. Boggs to O.A. Sandifer, 28 August 1945, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[154] O.A. Sandifer to S.W. Boggs, 4 October 1945, Box 6, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD; W.M. Kotschnig to S.W. Boggs, 10 September 1945, Box 6, RG59.

[155] Boggs would meet similar difficulties with the domestic cartographic agencies – in his requests for foreign mapping needs, for example, representatives at the Department of Agriculture would bristle at what they perceived as the State Department trying to push a global agenda beyond its institutional powers. One official wrote Boggs that "considerable reluctance was evidenced by all agencies of this Department to registering a 'need' for maps, when no Congressional authority existed within this Department to create such a need in foreign countries." A cartographer at the Soil Conservation Service was less tactful, writing that "it is erroneous to think that the Soil Conservation Service is isolationist and not interested in anything outside of the United States" but that they only help foreign countries on a case by case basis, not as part of some worldwide initiative from an outside agency. Marshall S. Wright to S.W. Boggs, 3 October 1945, Box 19, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD; J.M. Snyder to S.W. Boggs, 26 September 1945, Box 19, Records of the Geographer, Department of State, RG59; J.M. Snyder to S.W. Boggs, 26 September 1945, Box 19, Records of the Geographer, Department of State, RG59.

[156] The memorandum actually came six days before McCormack's resignation. He had drawn fire for trying to create a stand-alone intelligence agency that gave too much power to the State Department and did not properly address the needs of the military agencies. Much of his basic plan, though, would be filtered into Truman's eventual directive to create the CIA. See Central Intelligence Agency, "The Birth of Central Intelligence, CIA Historical Review Program, 22 September 1993, https://www.cia.gov/library/center-for-the-study-of-intelligence/kent-csi/vol10no2/html/v10i2a01p_0001.htm.

[157] Alfred McCormack, Memorandum for the Director of Central Intelligence, 16 April 1946, Box 2, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD.

[158] McCormack, Memorandum for Director of Central Intelligence, emphasis added.

[159] Poole, interestingly enough, was also a founder of *Public Opinion Quarterly* and had worked for the Foreign Nationalities Branch of the OSS during the war.

[160] S.W. Boggs to Dangerfield, 6 August 1945, Box 20, Records of the Geographer, Department of State, RG59, Cartographic & Architectural Records Division, National Archives II, College Park, MD. See also how Boggs' suggestions were included in the final memo to Poole from John Sloan Dickey, the head of the State Department's Office of Public Affairs. Dickey to Poole, "Interrogation Mission to Germany," 19 August 1945, Box 20, RG59.

[161] The Records of the Geographer of the Department of State in the Cartographic Branch of the National Archives II holds an assortment of these cartographic intelligence

reports from 1946-47. Each were produced under Boggs' direction through the Office of

Intelligence Collection and Dissemination. See "The Borderlands of Hungary and

Czechoslovakia, Including Carpatho-Ukraine," 31 January 1947; "Evaluation of Maps

Pertaining to Reconstruction in Greece," 1 May 1947; "German Cartographic and Map

Collecting Agencies: The Geodetic Bases of German Cartography," 17 July 1947;

"Evaluation of Map Coverage of Spain," 30 December 1946; "Hatay Province, Turkey –

An Evaluation of Map Coverage," 4 August 1947. All can be found in Records of the

Office of the Geographer, RG59, Cartographic & Architectural Records Division,

National Archives II, College Park, MD.

[162] Boggs, "Cartohypnosis."

[163] Boggs, "Cartohypnosis," 472.

[164] Boggs, "Cartohypnosis," 471.

[165] For contemporary air-age literature on cartography as propaganda, see Chapter

One. Some of the later pieces that theorized on maps and propaganda include John Ager,

"Maps and Propaganda," *Bulletin for the Society of University Cartographers* 11 (1979):

1–15; Alan Burnett, "Propaganda Cartography," in *The Geography of Peace and War*,

eds. David Pepper and Alan Jenkins (New York: Blackwell, 1985), 60–89; Derek R. Hall,

"A Geographical Approach to Propaganda," in *Political Studies From Spatial*

Perspectives, eds. A.D. Burnett and P.J. Taylor (Chichester, UK: John Wiley & Sons,

1981), 313–330; Judith A. Tyner, "Persuasive Cartography," *Journal of Geography*

(1982): 141–44; and most recently, Edoardo Boria, "Geopolitical Maps: A Sketch

History of a Neglected Trend in Cartography," *Geopolitics* 13 (2008): 278–308.

[166] Bocking, "A Disciplined Geography," 272, 288–89.

[167] The Arno Peters controversy of the early 1970s is a good example of the challenges to Cold War political cartography – a German historian untrained in technical cartographic methods created a new projection (based on some long forgotten ones) that reshaped the Third World as a significant force on the map, dramatically elongating shapes to take the focus off the so-called Northern hemisphere. His projection was taken up by a host of progressive social groups, but was excoriated by geographers for the crudeness and overt subjectivity of his message. A place to start on this controversy includes Jeremy W. Crampton, "Cartography's Defining Moment: The Peters Projection Controversy, 1974-1990," *Cartographica* 31 (1994): 16–32. See Chapter Four for a more in-depth exploration of this projection and its implications.

[168] George J. Demko, "Geography Beyond the Ivory Tower," *Annals of the Association of American Geographers* 78 (1988): 577, 579.

CHAPTER THREE

THE *PLACE* OF IDEOLOGY: MAPS AS EVIDENTIARY
WEAPONS IN THE VISUAL CONSTRUCTION OF THE SOVIET UNION

On December 18, 1950, the *New York Times* featured a curious collection of

front-page headlines. Most of the headlines announced the unfolding Cold War's

increasingly global reach: "Red Chinese Punch at U.S. Beachhead"; "U.S. Will Speed

Forces to Europe"; "Russia Fails to Jar Atlantic Allies"; "U.S. F-86 Jet in First Fight

Fells Enemy Plane in Korea." Another nearby headline, almost as prominent as these

telegraphs of foreign war and high-stakes diplomacy, read: "Geography Almost Ignored

in Colleges, Survey Shows."[1] The accompanying article decried both the lack and poor

quality of geography education in both colleges and secondary schools across America.

The text also connected geography to the question of "good citizenship." Experts quoted

in the article concluded that a geographic understanding of the globe, along with an

appreciation of American history "should go hand-in-hand as a foundation for

citizenship." "The position of the United States as world leader and protector of

democracy," the article claimed, "can only be effective if the American citizen, especially

if he has a college education, has some geographical knowledge of the rest of the

world."[2] The survey mentioned in the article asked educators why geography should be

taken more seriously by students, and the statement the majority of respondents chose

was "A better knowledge of the world and its people will lead to a better appreciation of

foreign policy and will help the United States in its efforts to retain the leadership so

suddenly thrust upon us."[3]

Why is this anxiety about geography's plummeting status front-page news? Why

does this particular worry rank so highly among a host of headlines highlighting the

intensely geographical nature of the Cold War conflict? The *Times* geography survey compellingly symbolized the new connections between international political space and public opinion in America. To *know* the world involved consenting to (and participating in) America's new power as world leader, and this new power was also accompanied by an anxiety about how to shape, classify, and border such space. In other words, there was an emerging concern in Cold War popular and institutional discourse that if the U.S. lost the security of its "place" on the map, it may lose its place as a world power against the Soviet Union.

The emergence of an air-age globalism brought a newfound flexibility in ways of viewing the world and a sometimes idealistic hope that the shrinking world would bring the world powers into clearer focus on similar goals.[4] As the ideological conflict with the U.S.S.R. took shape, geography (and its expression in maps) took on the role of an abstract manager of spatial facts. It is noteworthy that the *Times* chose to say that the United States was working to "retain the leadership so suddenly thrust upon us," as if the speed of America's post–World War II rise to international power was something that geographic knowledge could (and must) help manage.[5] Maps visually represented this management process, the ways these anxieties and tensions were drawn out. The immense apparatus of knowledge production in foreign policy, military, academic, and popular discourse was often articulated through cartography both as a medium and as a technology.

In 1951, the same year that the *New York Times* released its survey results, the *National Geographic* put out its first world map since the Cold War began.[6] Since 1909, the *Geographic* published eight world maps, and their 1951 edition would serve as the

ninth. The map is a massive display on the Van der Grinten projection, which the National Geographic Society (NGS) had been using since 1922 (and would drop in 1988 as the Cold War waned). The Van der Grinten projection is similar to the Mercator projection in that it chooses the accuracy of shape over area, but it uses curved meridians and parallels in order to create the more appropriately air-aged aura of roundness.[7] The Van der Grinten greatly exaggerates size toward the poles, making Canada, Greenland, and particularly the Soviet Union much bigger—as much as 223% larger than its actual size.[8] Insets on the top left and right use a polar projection to accurately portray those parts of the map that are too distorted on the larger map. Moreover, in the left corner sits a political map of all UN nations, NATO nations, and Warsaw Pact/Soviet satellite countries.

The NGS map is in some ways the archetypal representation of American Cold War cartography. There is no overt kind of ideological message (there are no Soviet tentacles or bears), as the map disinterestedly displays world relationships with an immense amount of geographic information. At the same time, it offers a self-evident kind of simplicity. The map cleanly contains the world in a frame centering on the United States, and its spatial relationships with the world appear to flow out of the country. In an accompanying introductory article to the map, the editors justify the choice of America as the center because it is the "source of so much of the leadership and aid, so many of the men, machines, and raw materials needed for the preservation of freedom in older lands."[9] Like the *Times'* arguments about the waning of geographic education, the connection is made between space, nationhood, and citizenship. As the NGS editors put it, "Ignorance of the geography of nations was perhaps excusable a generation ago, but

today knowing and understanding the many diverse countries of the world has become

urgent and vital for our national survival…what happens in Moscow or Peiping today, or

in Korea or divided Berlin, can affect the lives and fortunes of Americans more quickly

than the firing on Fort Sumter in South Carolina did 90 years ago."[10] Thus, in a sense, the

map asks its readers to *participate* and give consent to America's world leadership. Once

again, cartography supported the new internationalism; to know *where* the Cold War was

being waged, and on what fronts, was to be part of a contributing citizenry.

In addition, the inset of a political map displaying the standoff between UN forces,

NATO nations, and Soviet-influenced nations shows how the popular spatial metaphors

of the Cold War were concretized on the flat page. The editors write of this inset, "On it

one can trace the iron curtain, Communism's 2,000 mile long barrier against free

information, travel—and escape." The color contrasts and deep shading on this border

fuse a geographic line with an ideological one—the iron curtain is now a traceable barrier

and a rigid one that is long enough to partition the world into bipolar camps, actualized as

an accurate boundary in the geographic imagination of the Cold War.

The 1951 NGS map is noteworthy not just for what it presents on the page, but

the modes of production by which it was compiled. In combination with its text, the

entire map is a celebration of Cold War technologies, making the sophistication of its

methods part of the actual display. The map itself may appear to hide its origins, but the

editors complicate this process, writing that, "although little larger than an opened

newspaper, the 41-by-26½ inch map compresses shelves of geographic knowledge. It

represents the ripe fruit of some 23 centuries of restless man's investigation of his

earth."[11] The NGS map is a culmination, then, of geography and history, coming together

in the early Cold War.[12] The editors also laud the explorers, the oceanographers, and the "aerial camera explorations by the United States and Canadian Air Forces" that "have greatly altered the mapped outlines of lands in the Arctic since the war."[13] In the Cold War, the professional and academic geographer was bound up with the U.S. government's military and foreign policy institutions, and their attendant technologies; the NGS map is a reminder of the fluidity of cartographic knowledge. In one comprehensive map resides a host of interweaving interests, institutions, and assumptions *compressed* (in the words of its editors) into one visual package. These references are also important because they represent the increasing power (and heroism) of cartographic science. More so than journalistic maps that simply serve the function of the accompanying story, an NGS map must make its presence known as a *National Geographic* product; its professional and academic connections to the geographic discipline make the production of cartography just as important a subject on the map as what the map actually depicts. This host of interests and technologies triangulate into a portable document that permeated Cold War culture, as the editors proudly point out that the NGS map has been "distributed to 160 countries to schools, library, and government agencies."[14] The actual finished map circulates and becomes embedded into various contexts for various audiences.

The NGS map is a fitting introduction into how the tensions and tenets that emerged from the discourse of air-age prophets like Richard Edes Harrison and government cartographic policymakers like S.W. Boggs gave way to the cartographic bipolarities of Cold War mapping.[15] Air-age flexibility in the maps that emerged from World War II created the kind of geographic anxiety that allowed space to be seen as

alarmingly fluid. Throughout the 1950s, much of the popular and government mapping based around U.S. foreign policy typically accounted for the world in terms of how to "place" American power against the Soviet Union. In other words, maps helped *commit* the U.S. to its ideological conflict with the Soviet Union during the early years of the Cold War. Maps offered compelling ways for policymakers, military strategists, newspaper and magazine cartographers, and citizens to partition and "carve" out the international landscape.

Cartographic Constructions of the Cold War: Mapping the Bipolar 1950s

This chapter highlights the *functionality* of maps in the early Cold War—how they were used and circulated as active forces in the waging of an ideological (and material) conflict. I proceed first by briefly discussing, with representative cartographic examples, two major contextual uses of maps during the solidification of the early Cold War period of the 1950s. The first use concerns how maps provided *images of commitment,* whereby the various pacts and bloc alliances constructed out of Cold War hostilities and friendships became important spatial markers in popular and institutional maps. Such maps "placed" the Soviet Union in relation to the United States in specific ways, drawing and bounding how Americans were oriented to Cold War space. Second, the maps of the evolving Cold War were increasingly used as *evidentiary weapons*. In other words, they were materially drawn into diplomatic exchanges and embedded into government reports as evidence of the capacities and potentialities that the Cold War superpowers possessed. After discussing these broad themes, I discuss one particular map that unites these various tensions: the "Gulag—Slavery, Inc." propaganda map produced

by the American Federation of Labor and sponsored and distributed by the Department of State.

While mapping during this period covers an inexhaustible amount of different purposes, contexts, and visual techniques, I limit the discussion here to international political maps produced in the United States, and those that specifically posit particular spatial relationships between America and the Soviet Union. In these discussions, the theme of "placement" recurs in that both the rhetoric of a map's visual display (and its various uses) is constrained by cartography's unique ability to use art and science to *locate* political power and edify it on the flat page. If the cases of actors like Harrison and Boggs show how an "interpretive ground" for the Cold War was laid, then this chapter shows how these interpretations were made, disseminated, and circulated.

Images of Commitment: Journalistic Maps and Cold War Internationalism

The emerging modern, liberal internationalism at the base of Cold War ideology increasingly involved the symbolic *perception* of power as critical to the enactment of foreign policy and the cultivation of public opinion.[16] The entire globe was more flexible and "readable" as a text. With this flexibility came anxiety; America's standing as world power relied on its ability to manage such perceptions. Maps provided a compelling vehicle, making spatial sense out of a rapidly changing and potentially volatile international landscape. In particular, political maps accounted for America's commitments in the United Nations and NATO, and the anxieties over such responsibilities often cleaved the United States to an image of bipolarity that would help guide Cold War ideologies throughout the early days of the conflict.

The journalistic cartography of the early Cold War best encapsulated these notions of maps as images of commitment. Following in the wake of popular cartographers like Richard Edes Harrison, magazines and newspapers began to develop their own graphic styles that subverted cartographic tradition in order to account for the new global reach of America. As geographer Mark Monmonier writes, "the news media are society's most significant cartographic gatekeeper and its most influential geographic educator"—they performed a key public opinion function in shaping the Cold War geographic imagination.[17] Walter Ristow noted how the journalistic maps of the era suggest a dynamic and active conflict because of their greater likelihood for experimentation with symbolization.[18] Because of their embeddedness into particular stories and their unique abilities to focus on strategic problems, journalistic maps were prime "placers" in creating Cold War spatial relationships between the United States and the Soviet Union.

For example, the Associated Press "Background Maps" series that ran from the late 1940s well into the 1960s provides a compelling visual history of America's increasing responsibilities on the world stage vis-à-vis the Soviet Union. After establishing their innovative wire photo service in 1928, AP artists also began to supply maps and other graphic drawings, and such products became particularly important in placing the spatial relationships of World War II onto newspaper pages all over America.[19] The service became the AP Newsfeatures during the 1940s. AP mailed member newspapers two maps every week, together with a 600-word article, a service that continued throughout the 1950s.[20] The "Background Maps" syndicated series maps were most often drawn by G.W. Braunsdorf and William Rowley, and they were

extremely pictorial in style, simplifying typical "scientific" cartographic expectations of shape and size, and converting nation-states into emblematic units. This style made the AP maps particularly useful at projecting international political relationships between Cold War powers, in often provocative ways. With their simple black and white line drawings and uses of shading, they created "political shorthand" for displaying American commitments across the globe and offering stark constructions of the Soviet Union's political space.

AP Cold War–era maps often centered on the United States and cast the nation anxiously into a world of burgeoning skirmishes and entangling alliances. "The Sun Never Sets on World's Problems," from 1947, offers a standard, Mercator-style projection centered almost exactly on New York City as the "United Nations Capital," while the rest of the map uses iconic badges with letters on them to indicate where crises are taking place (e.g., "P" for political disputes, "I" for internal conflicts, "C" for colonial struggles), accompanied by terse, bolded explanations on placards near major Cold War hot spots (e.g., "TENSION: between U.S. and Soviet Union finds expression in U.N. dispute over atomic arms control").[21] America is visually projected as the eye in a swirling mass of entanglements. Other typical AP maps in this series followed events at the United Nations by continually placing America as the central leader and the focus of the viewer's eye. For example, "The United Nations Lends a Hand" again centers on the United Nations, and a series of arrows protrudes outward to connote an almost overwhelming over-extension across the globe.[22] In such maps, the United Nations becomes synonymous with the interests of the United States, thus posing America as *the* steward of internationalism.[23] At the same time, the maps were often used to question

whether America *should* lead the United Nations. In 1953's "The U.S. Foots the Biggest

Bill," the familiar map logo of the United Nations provides the center of the map, with its

branches of peace surrounding a polar-projected globe.[24] But the peace logo of the United

Nations is subverted, and next to the United States in the center is a number reading

"35.12%," indicating how much America contributes financially to the organization.

Along the outer margins of the globe are the much smaller percentages of the various

member contributions (e.g., "U.S.S.R.: 12.28%"; "Mexico: .70%"). Such a map

repurposes recognized cartographic icons in order to question the potential burden of

America's economic commitments across the globe.

     AP also used its signature pictorial style to cover the emergence of the "bloc"

spatial logic between NATO and the Soviet satellites, helping to create the classic Cold

War propaganda image of world bipolarity. "Lineup for Two Worlds" from 1949, for

example, shows two rounded tops of a globe: on one is the Western Hemisphere, centered

on the United States, and on the other the Soviet Union is at the center.[25] Both globes

simply indicate which are NATO countries, and which are "Soviet Union & Satellites"; a

small info-graphic next to the maps indicates that the area and population of all the

countries in the Soviet Union's camp outweigh the area and population of all the

countries in the NATO realm. Nowhere in either map does the viewer see the real

existence of a southern hemisphere; thus the two essential worlds are cast as resolutely

northern in character.

     Other AP maps focus specifically on the extension of the Soviet Union onto the

international landscape. The 1950 map, "Russia Thrusts Out From the Center," plants an

"X" right in the middle of the Soviet Union, with three flowing arrows (resembling

tentacles) that stretch toward Australia and Oceania, to the bottom tip of Africa, and through Europe over North America and to the bottom of South America.[26] The map disorients the viewer by placing Australia as the northern point on the map, Africa as the East, and so on, such that the globe appears helpless at the hands of the arrows. Essentially, the entire globe is covered by what the map calls the Soviet's "supposed routes of past migrations," suggesting a natural, historical expansiveness in the Russian people.[27] The thrust metaphor would be a continual cartographic trope, especially through the use of arrows that transcend political borders and traverse bounded spaces. Other maps depicting Soviet aims broke away from the strictly cartographic, and integrated cartoon caricatures and other unconventional elements: in 1953's "Are the West's Defenses Against Communism Weakening?," a map of Europe is crossed by a long, winding iron wall, and a cartoon Vyacheslav Molotov (the Soviet Foreign Minister) behind the wall, with his feet up at his desk.[28] Of course, such fluid relationships between cartoon graphics and mapping have long relegated these styles to the status of "propaganda maps," since the interpretation of the mapmaker is overtly foregrounded. Unfortunately, the "propaganda" label distracts from the fact that these widely circulated newspaper maps were an important part of spatializing the Cold War for citizens and committing American power and responsibility to particular places on the globe.

The AP's maps were constrained by the limitations of the newspaper production processes, while the popular newsmagazines of the time had more freedom for elaborate design in color and iconography. In particular, Henry Luce's journalistic empire at *Time*, *Life*, and *Fortune* created some of the most indelible images of the Cold War.[29] Richard Edes Harrison's work in these periodicals would continue sporadically after his World

War II heyday, and another crop of cartographers and graphic designers would also take up his mantle. With the increasing commitments of America in the Cold War, their newsmagazine maps became especially important in communicating particular constructions of the Soviet Union.

At *Time*, for example, house cartographer Robert M. Chapin developed a signature style that was embedded into the magazine's Cold War offensives. While Harrison used more innovative projections and perspectives, Chapin's novel contribution was his stylistic airbrush techniques. Publisher Luce called Chapin's airbrush "a sort of highpower atomizer with which he sprays paint over his maps in an infinite number of shadings."[30] In addition, Chapin used two large floating globes suspended from the ceiling by pulleys so that they could be photographed from any angle and "strategy can then be traced from the photos," as well as a "library of celluloid stencils—bomb splashes, flags, jeeps, sinking ships" to create a standardized style.[31] But what most marked *Time*'s cartography was the use of bright, bold reds for lettering and symbols, layered over the black outlines of continents and borders. The red motif became ubiquitous in *Time*: in countless Chapin maps (and others by graphic artist Vincent Puglisi), the color becomes a stand-in for militant infiltration and expansion.[32] In 1951's "Paths to Power," a bright red Soviet Union is depicted at the top of the frame, while seeping ribbons of red flow through Syria, Iraq, and Iran.[33] In "Red Rash (After Treatment)" from 1949, the coverage of the Greek civil war shows a grey and white Greece landscape covered in irregularly shaped, blood-red splotches.[34] The reliance on red as a universal symbol of Cold War hostility gave the journalistic maps of the era a master trope that could unite a disparate set of political problems and international

conflicts into a cohesive argument against Communist ideology: particularly in these newsmagazine maps, the power of the reader to absorb complex international issues in one visual glance was pivotal.

The red theme also speaks to the increasing militancy of journalistic cartography in committing America to its place in the Cold War. Cartographers like Chapin also covered World War II strategic fronts and battles and carried over many of those themes into maps documenting Cold War skirmishes. This militarization could be especially seen through a frequent trope of Cold War journalistic maps: the use of simple visual metaphor to reduce the spatial information in the map to one striking idea or argument.[35] In covering the Korean War, for example, a 1950 *Time* map used the image of a large c-clamp over a map of the Korean landscape to show the enormous constraints facing forces in the South; in "Korea's Waistland," a red belt crosses the land, to connote a "waist" that is about to burst.[36] Maps like the "Eleventh Hour" placed a large clock over the whole of Manchuria with hammers as the hands of the clock, and "Eurasian Heartland" used two sickles facing each other as a kind of eye-glass to focus on the Soviet Union's recent conquests and current battlefields.[37] "Clearing & Colder" from 1948 uses an elaborate weather metaphor for the entire Cold War itself, showing the "Russian High" versus the "Western High" with red thunder and lightning in Berlin, steady red drizzle in Greece, and a cartoon red Stalin blowing "cold easterly winds" onto Finland.[38]

While *Time*'s signature red and grey style provided a consistent cartographic image of new international commitments into the 1960s, the other major newsmagazines of the era also made important contributions to Cold War visual culture. Many of the same kinds of militant themes of invasion and encirclement surfaced in magazines such

as *Life*, *Fortune*, and *Newsweek*, and a commitment to a bipolar international framework remained. For example, *Life*'s "Nation's Commitments All Around the Earth" detailed an overextended America bound by scores of international treaties and constrained by Cold War alliances.[39] The use of visual metaphors was also a continuing trend. *Newsweek*'s "Western Defense: Where and What NATO Links are in Danger" dramatically strings a metal chain across the center of Europe with a series of broken links to demonstrate serious breaks with America in Cold War foreign policy.[40] "Red Web: Return of the Refugees" from 1956 places an ominous black hammer-and-sickle at the center of a giant spider web spreading across Europe. Arrows all over the map point out the numbers of refugees that have been sent back to the Soviet Union's "spider" from various countries such as Austria, Italy, and Greece.[41]

One of the Cold War's most striking metaphor maps is *Life*'s "How Strategic Material Circulates," from 1953.[42] Here, a large curious hybrid between an industrial pump and an octopus, rendered in flame red, hovers over Europe (a hybrid that geographers Cyndy Hendershot and Antony Oldknow call an "impossibly surreal combination").[43] The octo-pump sits over Antwerp, as a defining symbol of the "West," and the pump proceeds to feed icons of bombs, missiles, and other types of arms over a barbed wire fencing running through the center of the continent. Behind the fence lie graphics of factories in East Germany alongside tanks, and small silhouettes of men in trench coats and fedoras next to a cartoon of two shady males whispering. Through this depiction of clandestine East-West relationships and arms smuggling, the map is able to instantiate Cold War fears by warning the reader that capitalist gain is contributing to Communist military might in a vicious cycle. The map also proclaims that Communist

infiltration of European space is part of a machine-like system involving Western consent, rather than simply a monstrous, alien-like octopus.

As the Cold War wore on, these newsmagazines also used cartography to make future predictions of nuclear stand-offs with the Soviet Union, going beyond maps' propensities to show space merely "as is," and venturing into the realm of "what could be." *Life*'s multimap spread "How Could Soviet Attack Come?" continues the politicization of the air from 1940s air-age globalist maps but now projects the ways in which the Soviet Union would descend upon America and the rest of the world by bomb-carriers in the air.[44] The main map is a spherical, orthographic projection with criss-crossing air routes emanating from the Soviet Union in all directions, and inset maps covering particular regions prime for Soviet infiltration.[45] *Newsweek* maps like "Turning the Tables" also looked to the future with a polar projection of a black Soviet Union hovering over the United States with a series of red arrows thrusting toward cities like New York, Chicago, and Seattle and quantifying the miles it would take to reach and destroy them.[46] Such future-oriented, predictive projections went both ways, and later magazine maps would visualize America's ability to penetrate the Soviet Union. *Newsweek*'s 1954 "Striking Back" map optimistically graphs the ability of American planes to head straight to the industrial centers of the Soviet Union.[47] Maps in *Fortune*, by the innovative technical designer Max Gschwind, also project the potential vulnerabilities of the Soviet Union in the face of a future U.S. attack: "Massive Retaliatory Power," for example, is an intricate and provocative map that places a large Red Soviet Union in the center, overwhelmed by an army of arrows.[48] The arrows represent missile and bomb trajectories that correspond to points all over the earth

surrounding the Soviet Union where the U.S.–led Strategic Air Command could attack it. Gschwind, thus, plays with a map's inherent abstractions and reduces world space to one overwhelming field of nuclear arms. Altogether, the importance of these future-oriented magazine maps lies in how America was navigating Cold War anxieties in trying to "place" its knowledge of the Soviet Union's increasing capacities (and its own) into a manageable visual field.

My discussion here only hints at the massive amount of popular, journalistic maps that framed the Cold War for millions of American readers during the late 1940s and 1950s.[49] Newspapers and newsmagazines could break out of the technical, formal expectations of cartographic science and geographic objectivity, yet still borrow from the historical authority of the map to place "true" relationships on the page.[50] Because of their graphic simplicity and reductionistic view of space as equal to pacts, blocs, alliances, and ideologies, they lent themselves well to the bipolar constructions of Cold War discourse. Despite the fact that these maps helped to edify a tense, two-world universe, they were, above all, active and restless, and they dispute that mapping was somehow a static medium that simply "represented" on-the-ground realities.[51] The sum total of these "images of commitment" in newspaper and magazine maps connotes an America continually adapting and envisioning its place in the abstract spaces of international conflict.

Cartography as Evidence: Maps and the Depiction of Cold War Capacities

From their journalistic platform and context, maps were important reflectors of Cold War spatial anxieties. Additionally, such maps helped to actually shape Cold War policy and diplomacy. For S.W. Boggs at the State Department, cartography took on a

more serious role in the waging of foreign policy than it had previously. As the Cold War commenced, the conflict was marked by a kind of material ubiquity in maps that went beyond their use in popular newspapers and magazines, as they were also frequently embedded into committee reports, used as testimonial support, and invoked as mediators in diplomatic exchanges between the United States and the Soviet Union. In these various uses, Cold War cartography functioned as *evidential weaponry*: a piece of visual evidence marshaled for the strategic purposes of Cold War actors.

The Congressional Serial Set maps provide a representative example of cartography's increasing embeddedness into Cold War policymaking.[52] Historically, maps were a frequent presence in House and Senate reports since the founding of the Republic, as evidence for districting, population, land use, and a host of other pertinent spatial relationships. In the Cold War, given the pervasiveness of the new internationalism, many foreign policy maps were also circulating in their attachment to various bills, treaties, and committee reports. These foreign policy maps were produced and appropriated from a host of different sources: many were produced in-house by the Library of Congress' Legislative Reference Service, others were imported from the Department of State and the Central Intelligence Agency, still others were brought in from the *New York Times* and entered into the record, or even produced by private commercial entities like the Research Institute of America. Congressional reports became a unique medium for the diversity of Cold War mapping; these maps were divorced from their original contexts and producers, and were re-appropriated and streamlined as evidence to serve legislative agendas in the international arena.

Congressional maps were especially noteworthy for projecting the *capacities* of

America's commitments in the Cold War. For example, one of the Cold War's essential

policy initiatives, the 1951 Mutual Security Act (renewed every year until 1961), which

replaced the Marshall Plan and provided billions of dollars in technical, military, and

monetary aid to Cold War allies, contained a host of maps in its annual reports to

Congress throughout the 1950s. These maps were more technical in style than their

contemporary journalistic counterparts but no less provocative in their ability to reduce

"places" all over the globe into directional spaces for American economic and military

power. Cartographic conventions were used, then, to symbolically assess the full *scope* of

where the United States was committed. Maps like "Regional Security" from 1949

portray a treaty-carved world with pacts like the Rio Treaty that partitioned entire

continents, reducing international space to individual security agreements with the United

States.[53] The *New York Times* map embedded into the 1949 Mutual Defense Assistance

Act takes this notion further: the entire "Atlantic Pact Area" and "Rio Pact Area" is

indicated by lines and shadings that form a kind of force field against the Soviet Union

and its satellites. With a host of bolded "M" icons to indicate Marshall Plan recipients,

the Soviet Union appears almost encircled by a united world solidified by pacts.[54] A map

that recurs multiple times in the Mutual Security Act reports of the 1950s is "United

States Collective Defense Arrangements" (fig. 3.1), designed by Robert Bostick at the

Legislative Reference Center at the Library of Congress.[55] The defense arrangement map

extends the partitioning theme of the earlier maps and sketches the ultimate spatial

argument for containment: circular placards with the name of each major world treaty are

connected by pointed lines to their respective members all over the world. The overall

UNITED STATES COLLECTIVE DEFENSE ARRANGEMENTS

NORTH ATLANTIC TREATY

RIO TREATY

NORTH ATLANTIC OCEAN

Washington

REPUBLIC OF KOREA TREATY

JAPANESE TREATY

REPUBLIC OF CHINA TREATY

PHILIPPINE TREATY

SOUTHEAST ASIA TREATY

ANZUS TREATY

NORTH PACIFIC OCEAN

SOUTH PACIFIC OCEAN

SOUTH ATLANTIC OCEAN

INDIAN OCEAN

INDIAN OCEAN

U.S. and countries with which it has mutual defense treaties

Communist bloc

NORTH ATLANTIC TREATY
(15 NATIONS)

1 UNITED STATES
2 CANADA
3 ICELAND
4 NORWAY
5 UNITED KINGDOM
6 NETHERLANDS
7 DENMARK
8 BELGIUM
9 LUXEMBOURG
10 PORTUGAL
11 FRANCE
12 ITALY
13 GREECE
14 TURKEY
15 WESTERN GERMANY*

RIO TREATY
(21 NATIONS)

1 UNITED STATES
16 MEXICO
17 CUBA
18 HAITI
19 DOMINICAN REPUBLIC
20 HONDURAS
21 GUATEMALA
22 EL SALVADOR
23 NICARAGUA
24 COSTA RICA
25 PANAMA
26 COLOMBIA
27 VENEZUELA
28 ECUADOR
29 PERU
30 BRAZIL
31 BOLIVIA
32 PARAGUAY
33 CHILE
34 ARGENTINA
35 URUGUAY

ANZUS (Australia–New Zealand–United States) TREATY
(3 NATIONS)

1 UNITED STATES
36 NEW ZEALAND
37 AUSTRALIA

PHILIPPINE TREATY
(BILATERAL)

1 UNITED STATES
38 PHILIPPINES

JAPANESE TREATY
(BILATERAL)

1 UNITED STATES
39 JAPAN

REPUBLIC OF KOREA (South Korea) TREATY
(BILATERAL)

1 UNITED STATES
40 REPUBLIC OF KOREA (SOUTH KOREA)

SOUTHEAST ASIA TREATY*
(8 NATIONS)

1 UNITED STATES
5 UNITED KINGDOM
11 FRANCE
36 NEW ZEALAND
37 AUSTRALIA
38 PHILIPPINES
41 THAILAND
42 PAKISTAN

REPUBLIC OF CHINA (Formosa) TREATY*
(BILATERAL)

1 UNITED STATES
43 REPUBLIC OF CHINA (FORMOSA)

Figure 3.1. Robert L. Bostick, "United States Collective Defense Arrangements," Senate Committee on Foreign Relations, *Studies on Review of United Nations Charter***, 1954**

effect shows a world that creates a perimeter of alliances to isolate the Soviet Union from

the rest of the world. While each treaty (NATO, Rio, Southeast Asia, ANZUS) has

different members for different reasons, the map reduces all of the U.S. collective defense

agreements into one, bipolar Cold War purpose: keep the Soviet Union in its place.

These Congressional Serial Set maps not only partitioned the world into pacts and

alliances that could be more easily managed, but they also detailed the nature of aid the

United States was providing, and the accompanying anxieties of overextension. The "U.S.

Postwar Foreign Aid" map centers on the United States, with the statistic "$35.6 Billion"

filling the nation's midsection and arrows directing the viewer to all continents with

proportional-sized circles, indicating how much military and economic/technical aid each

area receives. World geography becomes equated with the power of the dollar.[56] Another

frequently used map in the Mutual Security Act reports was the "Cost Per Soldier" graphic (fig. 3.2). The background is a conventional Mercator-style world map, with no political boundaries. But superimposed onto the international landscape is a line of silhouetted black soldier icons holding guns.[57] Like Russian nesting dolls, the line of soldiers goes from tallest to shortest, the last soldier icon being almost too minuscule to discern. The tallest soldier represents the United States, with the cost-per-soldier at more than $3800, dwarfing the next soldier icon of the United Kingdom at $1800, all the way down to Korea at $390, and Taiwan at $167. "Cost Per Soldier" starkly arranges America as the towering world military power. At the same time, it connotes a lonely, ambivalent power—asking implicitly, "at what cost do we maintain the stewardship of the world?"— a sentiment that was often raised in the Mutual Security debates in Congress at the time. The simple juxtaposition of a soldier icon over a flatland of empty continents is a
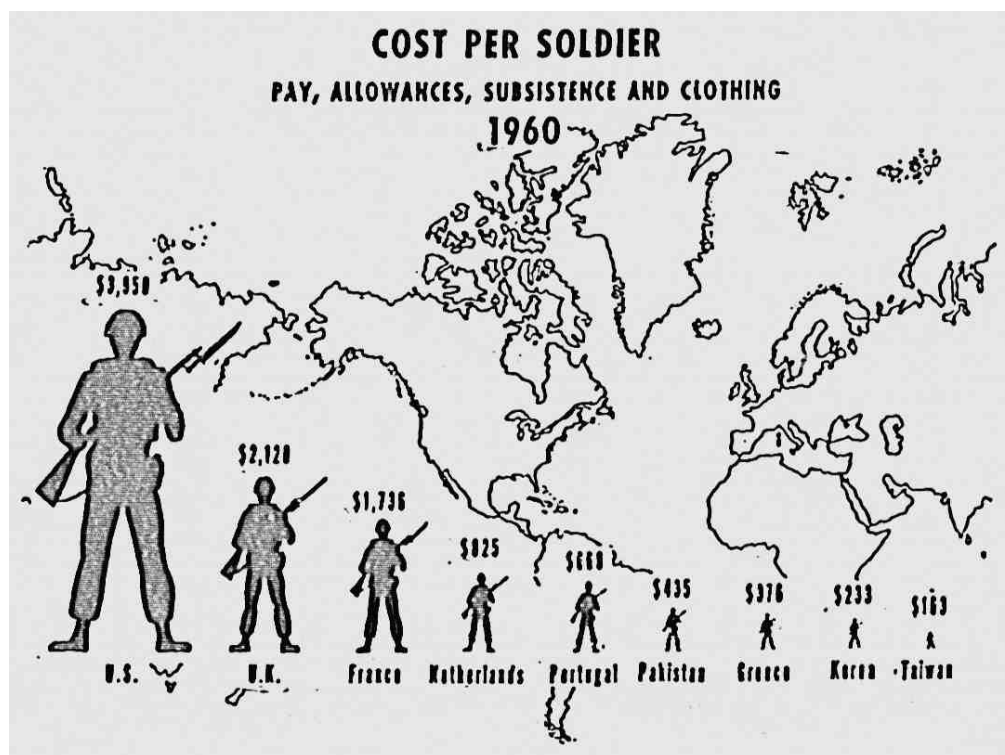
Figure 3.2. "Cost Per Soldier 1960," House Committee on Foreign Affairs, *Mutual Security Act of 1961*, 1961

powerful Cold War visual symbol; certainly, the ominous placement of the American

soldier over Indochina was an eerie representation of the ensuing overextension that

would haunt Congress in the years to come.

Finally, Congress also marshaled maps to visually render arguments about how

the Soviets were planning an aggressive global-sized war, both militarily and

ideologically. The House Un-American Activities Committee (HUAC) released the

Soviet Total War report in 1956, and its substantial collection of maps includes simple

location sketches of Communist-influenced regions to show international boundaries

(produced by the State Department), as well as more elaborate maps arguing that the

Soviet Union was becoming "uncontainable."[58] "How Communists Menace Vital

Materials" (fig. 3.3), for example, is a quintessential use of the map as an evidentiary

weapon: produced by the Research Institute of America, HUAC used this map to offer
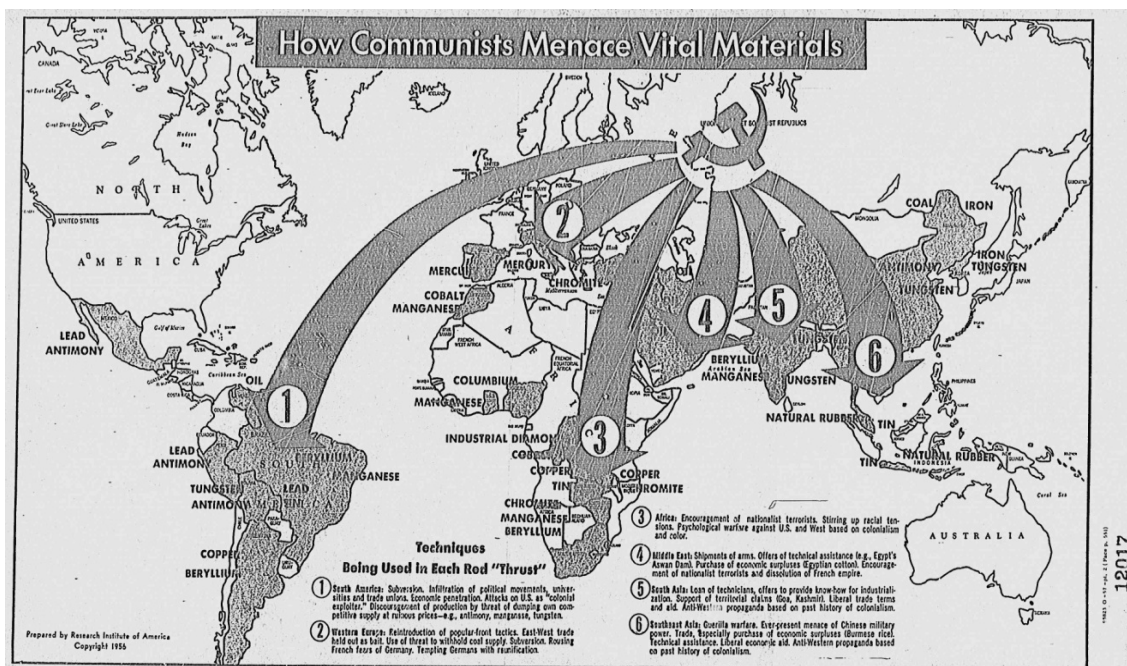
Figure 3.3. Research Institute of America, "How Communists Menace Vital Materials," House Committee on Un-American Activities, *Soviet Total War***, 1956**

the ultimate penetration/thrust metaphor.[59] A black sickle hovers over Moscow, with militant arrows reaching each continent. Each arrow corresponds to a number in the legend, which indicates "Techniques Being Used in Each Red 'Thrust'," and how the Soviet Union is contaminating valuable resources across the globe. Other maps in HUAC's report point to an increasing anxiety over the so-called "Third World" spaces, going beyond the European focus of many of the earlier Congressional maps and looking increasingly at infiltration into Africa and Southeast Asia.[60]

Altogether, the medium of the "report" itself is significant to the way Cold War Congressional maps were interpreted as evidence. The flat surface limitations, and their mostly conventional projections, are important to their strategic uses. To be effective as evidence, the map had to conform to the expectations of its users—rather than challenge members of Congress with novel perspectives, these maps needed to provide simple spatial relationships and arguments about capacity that could be absorbed in quick, visual glances. The world, as seen through Congressional reports, thus, is often shown as a field of simple surfaces that render foreign policy a process of abstract management.

While the Congressional Serial Set maps demonstrate how cartography was used to measure government capacities for waging the Cold War, what becomes perhaps even more interesting is how cartographic evidence was marshaled in the realm of diplomacy. The map often functioned as supplementary evidence in well-publicized exchanges between the United States and the Soviet Union. Both sides certainly deferred to the map's use as a political weapon. In such cases, the map was employed more as a kind of weapon for provocation and response—a way to *perform* the Cold War with the map as a material aid.[61]

In 1948, for example, Andrei Vyshinsky, the Soviet Deputy Minister for Foreign Affairs, held in his hands a map he saw as proof that America was a plotting belligerent. During a UN General Assembly speech, he said:

> The map published by the Esso Company of New York is of…insolently arrogant and war-inciting nature…It is called, quite provocatively "The Map of the Third World War"…They are handing them out to motorists. This map, with provocatively militant appeals, carries the heading: "Pacific Theater of Military Operations." The map is an example of malicious war propaganda against the Soviet Union…[62]

Time ridicules Vyshinsky's accusations, pointing out that the map he saw as pernicious war-mongering was actually based on a research mistake: the map he referred to was an Esso Map of Pacific operations in *World War II*, available at local gas stations. The map was the *third* in a series of World War II historical maps for collectors but was mistakenly appropriated or mistranslated as a map of an American-conceived World War Three in the backyard of the Soviet Union. *Time*, of course, called the incident a "prize boner" and used it to trivialize Vyshinsky's concerns about the violations of international space.[63] More than simply a Cold War diplomatic joke, the strategic use of a seemingly inconsequential road map in an international assembly speaks to the real fears in this era of a map's ability to project and spatialize commitment. The map has a power to locate the values and interests of both its makers and users and cast them across a field of relationships on the flat page. In the Cold War, maps became evidentiary locators of commitments to an ideological cause. Vyshinksy was, however misguidedly, responding and acting to this felt power of the map.[64]

Vyshinky's map gaffe in an international speech is laughable, but these anxieties over the mapping of international space by the enemy had more serious connotations. A compelling demonstration of cartography's higher stakes as diplomatic evidence came in July 1960. In New York, the U.S Ambassador to the United Nations, Henry Cabot Lodge, testified to the UN Security Council in response to the Soviet destruction of an American RB-47 aircraft that had supposedly crossed into Soviet airspace.[65] Particularly remarkable is how Lodge employed cartography to prove his point that the United States was not violating international air space and that the Soviets, in fact, tried to lead the plane off course so that it could be shot down. The Hearst-owned newsreel *News of the Day* covered the speech, and shows one of Lodge's aides pulling out a large poster-sized map, with Lodge proceeding to take the audience through the spaces of the map.[66] As the newsreel narrator points out, "Mr. Lodge dramatically produces two maps to show that the plane engaged on a peaceful scientific mission for mapping magnetic fields in the Arctic was shot down over *international* waters."

More noteworthy than how these fairly straightforward and technical topographic maps actually look (fig. 3.4) is the striking way that Lodge's use of the maps aesthetically dramatizes the cartographic form as a vehicle for accuracy and an emblem of technology for Cold War purposes.[67] The whole reason Lodge can dispute the Soviet Union's claims is because of the sophistication of American science. The RB-47, as Lodge points out, "was equipped with the most sensitive available radar to tell them—with the degree of accuracy only possible through electronic means—how near they were to any land mass."[68] Lodge's maps and their abilities to trace the Soviets' "astonishing and criminal" act make cartographic technology itself a central part of the display—the map is not
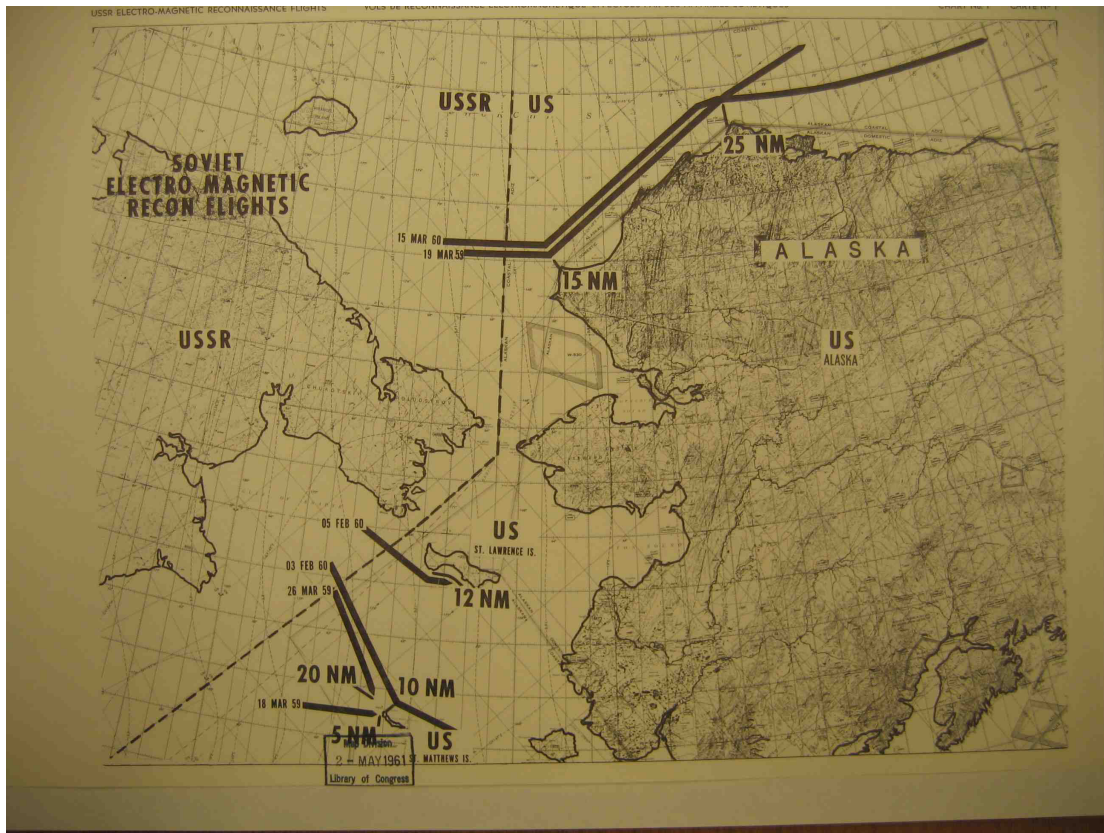
Figure 3.4. Map Used by Ambassador Lodge in U.N. Speech, July 1960, "USSR Electromagnetic Reconnaissance Flights," 1960 (Geography & Map Division, *Title Collection*, Library of Congress)

simply a visual aid for Lodge's accusations, it *is* the accusation. Here, the United States

argues that the act of producing knowledge about Soviet actions and being able to

commit that knowledge spatially to the page is a powerful weapon; to chart the upper

reaches of the Soviet Union with technological sophistication is to anchor and place

"truth" on the flat page. The supremacy of technology to fight the Cold War thus is

upheld. And the incident politicizes the act of mapping itself as a peculiarly Cold War

action: here, the Soviet interpretation of what the United States called a "peaceful"

mapping mission has deadly material consequences: some members of the flight crew are

dead, and others have been captured or gone missing.

What Lodge's use of map evidence as a response to "aggression" does, then, is validate America's capacity to cross into forbidden spaces; his maps affirm America's very ability to trace Soviet actions with absolute precision. In addition, the incident reaffirms the politicization of the air (and cartography itself), which had been a factor in maps since at least World War II.[69] The air becomes a contested space in a tense war of perceptions. In this way, the volley between the United States and the Soviet Union could be seen cartographically as attempts to place and define the world with authority before the other side could. Beyond merely sitting in a committee report, in the hands of actors like Lodge, maps were brought into active duty and performed in the contested spaces of the Cold War.

Altogether, during the heightening of Cold War tensions, cartography visualized the commitment of the United States to the Cold War by offering international visions of new alliances, partitions, and entanglements. At the same time, maps were also marshaled as evidence into both popular media and diplomatic circles, and were relied on to classify and order what was known (and not known) about the Soviet Union. I now will examine a specific case of one map's entry into Cold War culture, amidst all of these swirling contexts of journalistic, diplomatic, and military uses of cartography. The story of this particular collaboration between private and government institutions provides an opportunity to see how maps were used to produce knowledge about the Soviet Union for a variety of different audiences, committing particular relationships between the United States and the Soviet Union to the spatial consciousness of the Cold War, and acting as evidential weapons in public diplomacy. In addition, the case shows the circulation of maps in both the domestic and international fronts of the Cold War conflict.

**"Gulag—Slavery, Inc.": The Power of Place
and the Rhetorical Life of a Cold War Map**

Time's September 17th, 1951, issue featured a peculiar and striking image over a

two-page spread in its "News in Pictures" section—a map of the sprawling Soviet

Union.[70] On first glance, this map may not have caught the attention of an undiscerning

reader. After all, early Cold War popular magazines were filled with journalistic

cartography documenting the conflict, especially maps that showed the essential

bipolarity of the relationship between the United States and the Soviet Union. But a

closer look reveals a network of red circles, shaded areas, and pink hammer-and-sickle

icons dotted all over the topography of a stark grey and white Soviet landscape. The red

dots indicate the location of government-administered "Gulag" system prison camps and

the hammer-and-sickle icons represent those camps that were under control of local

authorities. At the bottom center of the map, entitled "Gulag—Slavery, Inc." (fig. 3.5) sit

three photos of emaciated bodies, with the caption "'Gulag' Children" labeling the

pictures. The short accompanying text tells how the map provoked an ideological volley

between the United States and the Soviet Union—at the 1951 San Francisco conference

to inaugurate a Japanese peace treaty, "Gulag—Slavery, Inc." became a cartographic

weapon:

> Would the Soviet delegate to the San Francisco conference like to see a map of
>
> Russia? "I'd be delighted," said Gromyko. Unfolding the map, Missouri's
>
> Congressman O.K. Armstrong helpfully explained: "It happens to contain an
>
> accurate portrayal of every slave labor camp in the Soviet Union." Gromyko
>
> blinked at the map, mumbled "No comment," and handed it to an aide who tossed
>
> it into the aisle.[71]

Figure 3.5. American Federation of Labor Free Trade Union Committee, "Gulag—Slavery, Inc.," 1951 (Graphics Collection, George Meany Archives)

Indeed, below the imposing map are before/after-style photos of the "incident"—on the left is Republican Representative Armstrong unfolding the map before a sitting Andrei Gromyko, the Soviet deputy minister of foreign affairs and representative of the U.S.S.R. to the United Nations; on the right is a stone-faced Gromyko staring ahead, as the map sits beside him on the floor of the conference room.[72] The combination of map, labor camp photos, text, and pictures of the conference on the two-page magazine spread makes for a rich display of intertextual relationships and appeals, enveloping the reader in its Cold War bipolar narrative with both word and image.

Of course, the Armstrong-Gromyko exchange can be added to a long list of the minor anecdotes in the history of chilly Cold War diplomatic relations. The map in question, moreover, can be seen as simply one small instance of the propaganda battles

waged by both sides. A deeper exploration of the active rhetorical life of this map, however, arguably makes a compelling case about both the strategic and ideological functions of mapping during the Cold War. Before the map became a kind of diplomatic prank in the hands of Congressman Armstrong, it began as a collaboration in a global labor research project between the AFL-CIO and the United Nations Economic and Social Council, authored by a Russian emigrant ghostwriting journalist and underwritten by the Department of State and a nascent CIA. After the map's publication in *Time*, Voice of America broadcasts publicized it internationally, leading to frequent requests for reprints from across the world. The map would later be used as a training case in psychological warfare for army personnel. The Gulag map also circulated in different versions, sometimes with its camp bodies omitted, sometimes with photocopies of inmates' "official" release certificates to the margins, and often including different iterations of accompanying captions and interpretive text. The many uses and appropriations of the piece allowed one commentator to note that this map was "one of the most widely circulated pieces of anti-Communist literature."[73]

The story of "Gulag—Slavery, Inc." goes well beyond the borders of the map's frames or its inclusion in a magazine article, as it represents a nexus of institutional interests, audience values, and multimediated usages that adds texture to the actual display of the map itself. In addition, the story offers an opportunity to assess the rhetorical choices of selection and omission, and revelation and concealment, in the production and presentation of cartographic evidence.[74] With this, the Gulag map has important rhetorical implications beyond what it actually contains on the flat page. Equally important are the rhetorical implications of its movement in Cold War culture. In

her study of FSA photographs in the 1930s, Cara Finnegan points to the "eventfulness" of images, which involves consideration of "their *specificity* as rhetorical documents, while accounting for circulation asks us to pay attention to their *fluidity* as material traces of history."[75] Attending to the specificity and fluidity of images, I believe, is also essential to critically assess the meaning-making process of a map such as "Gulag—Slavery, Inc." The Gulag map is not merely a map, but a network of relationships between cartographic forms, accompanying text, photographs, and the map's "embeddedness" into the medium in which it appears, whether an AFL-CIO pamphlet, a radio broadcast, an army manual, or a *Time* article. "Gulag—Slavery, Inc.," then, deserves both a close analysis of its visual display and an assessment of its circulatory power.

Doreen Massey argues that the act of establishing a fixed place is always an attempt "to stabilize the meaning of particular envelopes of space-time" and is "constantly the site of social contest, battles over the power to label space-time, to impose the meaning to be attributed to a space…"[76] In this sense, the Gulag map evidences the locatory power of place in the Cold War, as an attempt by its various producers and circulators to give America the power to label, and thus control, Cold War space.[77] This ability to "locate" with authority is an extension of the map's function of providing an image of commitment. The mere act of affixing the specific location of a forced labor camp to a map is a powerful political act.[78] In the increasingly abstract space of the U.S./Soviet conflict, with its missile trajectories and pacts and blocs, each side struggled to marshal "authentic" knowledge of the other's potentialities.[79] In this struggle, the power to place came at a high premium. For the United States, maps were a mode of attaining such power, amassing and displaying knowledge about Soviet influence in

global spaces. Historian Susan Carruthers invokes the phrase "transatlantic politics of knowledge" to characterize how the Gulag came to be a subject of discussion in public opinion and policy circles.[80] Here, I would appropriate this term to more broadly include Cold War cartography itself: knowledge of *where* the Cold War was happening, not simply *what* was happening, was a politicized process involving the creation, display, consumption, and circulation of maps.

In this process, the Gulag map reveals less about the plight of camp victims and more about America's anxieties around its ability to strategically use its knowledge of the enemy. Cartographic forms and technologies were marshaled as evidence by various Cold War institutions to *contain* Soviet power—and this involved visualizing and spatializing the capacities of that power so that it could be better classified and managed. Because of this, a map of the Soviet Union could say just as much (if not more) about the placement of America on the global stage as it could about the place of Soviet labor camps across Eurasia. Like many of the journalistic, diplomatic, and Congressional maps of the era, the Gulag map served to both (re)commit the United States to the Cold War and provide evidential power for particular American constructions of Soviet space. The Gulag map, then, is a rich example of how "place" was used in this era to say "we know what you're doing *over there*," and how the increasing importance of cartographic accuracy and authenticity came to dominate that knowledge process. A few months after embarrassing Minister Gromyko, it was Congressman Armstrong, speaking at a keynote in front of the Conference on Psychological Strategy in the Cold War, who pointed out that, "Our primary weapons will not be guns, but ideas…and truth itself."[81]

How the Gulag map became a weapon of truth is best understood through its origins, production, and strategically mediated uses in popular, government, military, and academic settings. The map also manifests the tensions between the internal codes of the map (its colors, icons, choice of projection, etc.) and the accompanying texts, photos, and other supporting evidence. In these ways, "Gulag—Slavery, Inc." evokes "place" in more than one sense—certainly, in how America "placed" its knowledge of the Soviet Union to make sense of its own placement as a fully emerged global power; but also in how a map becomes an active document "placed" by various powers into a variety of strategic contexts. Thus the map's material and discursive dimensions must be held in suspension together. Altogether, this section uses the Gulag map case as a site for exploring the larger project's focus on how the Cold War constrained both the cartographic *product* and its modes of production, and conversely, how the products and processes of cartography constrained the ways the Cold War was visualized.

The Origins and Production of "Gulag—Slavery, Inc."

To read "Gulag—Slavery, Inc." is, in a sense, to also read the Cold War culture in which it circulated. Such an approach is consonant with Robert Hariman and John Lucaites's "sense in which visual images are complex and unstable articulations, particularly as they circulate across topics, media, and texts, and thus are open to successive reconstitution by and on behalf of varied political interests, including a public interest."[82] While Hariman and Lucaites were concerned specifically with the role of photojournalistic images, a map shares this complex ambivalence because it can visually represent political crises and motivate publics, yet still be determined by media and institutional elites and serve their "grand narratives of official history."[83] A map, though,

works differently than a photograph in both its internal architecture and in its external circulatory movement. Both the map and the photograph share tensions with their expectations to present "reality," but a map is more obviously an abstract creation, an information graphic used to place aggregate information about the earth into a recognizably compressed and simplified emblem of what the world looks like (the familiar shapes of coastlines, political borders, and area capacities that make the world register to us visually as "the world").[84]

Denis Wood and John Fels' approach to map criticism attends to these unique qualities of maps: the map continually advertises itself as authoritative, and becomes, thus, a *paramap*. The paramap is a construction that goes beyond the map itself and includes all of "the verbal and other productions that surround and extend" a map's presentation (dedications, inscriptions, epigraphs, prefaces, notes, illustrations, etc.).[85] In addition, the paramap includes all of the elements not just appended to the map, but circulating in the social space around the map (advertisements for the map, reviews, production information). Thus, full engagement with the "Gulag—Slavery, Inc." map must take into account these functions of the paramap: looking at the full display of the map itself but also the ways it was presented in various contexts and for various audiences, and the ways it was received and commented on in its Cold War context. With this in mind, I begin by exploring the map's origins and production.

Aleksandr Solzhenitsyn's *Gulag Archipelago* made the word "gulag" a global household term upon the book's sensational 1973 publication.[86] But twenty-six years before its popularization, Russian émigré turned crusading anti-Communist journalist Isaac Don Levine was trying his best to bring the phrase to public consciousness. Levine

had left Russia as a young boy before World War I and became a prominent name at the

New York Tribune as the leading correspondent on the Revolution. He is credited with

publishing the first book on the subject in English. Levine would go on to pen some of

the earliest biographies of Lenin and Stalin, while also traveling back to Russia to cover

the Civil War for the *Chicago Daily News* syndicate. In the late 1930s, Levine

collaborated with the famed defector Walter Krivitsky, the Soviet general and chief of

military intelligence in Western Europe, ghostwriting a series of Krivitsky's stories about

his escape in the *Saturday Evening Post*.[87] Perhaps most famously, Levine introduced

Whittaker Chambers' story of Communist infiltration to the world, bringing him to a

meeting with Adolf Berle, the Assistant Secretary of State in charge of security in 1939,

and setting off a chain reaction of events that would reach their full effect in the Hiss

trials that set the tone for the early Cold War.[88] Isaac Don Levine, arguably then, was the

exposé extraordinaire for anti-Communism—a celebrity journalist with government

contacts who helped make the "reveal" a staple of popular literature on Communism,

calling himself "an inveterate truth seeker…in the fleeting show we call history."[89]

According to Shawn J. Parry-Giles, the use of defector credibility and journalistic "truth"

about communism was consonant with the move toward "doctrinal warfare" in the

informational weapons of the Truman era's strategic propaganda.[90]

For the purposes of this project, though, it is Levine's editorship of the

anticommunist magazine *Plain Talk* from 1945 to 1950 where cartography becomes a

factor in this "revelation" project. Journalist Eugene Methvin makes the claim that

Levine "published for the first time in English the word *gulag*."[91] In the May 1947 issue

of *Plain Talk*, Levine introduced the first version of "Gulag—Slavery, Inc.," at this stage

more simply titled "The First Comprehensive Map of Slave Camps in U.S.S.R."[92] The left-hand margin attributes the cartographic design to "Sigman-Ward," a technical illustration and architectural firm in New York City; yet the copyright is attributed to Levine, thus giving him a kind of authorship over the map. The agency of the actual cartographers themselves is, then, downplayed here in favor of Levine's journalistic purposes. Levine's text refers to (and promotes) it as a "Docu-Map" that "is one of the most remarkable compilations of our day, and affords a graphic insight into what has been until now the most carefully guarded secret of current life in Soviet Russia."[93] The labeling as "Docu-Map" is also a pointed rhetorical choice, heightening the focus on authenticity, as if the map was simply but dutifully bearing witness to secret atrocities across a vast continent. Rather than the human eyewitness that a photograph can provide, the map more closely resembles the expert witness, called for an impartial opinion that studiously manages facts for the prosecutorial argument at hand. In this sense, the map packages itself as an *evidentiary* instrument for fighting the Cold War, a role it would play often in the duration of the conflict.

1947 was the same year that David Dallin and Boris Nicolaevsky released the influential *Forced Labor in Soviet Russia*. The forced labor issue had certainly permeated foreign policy circles, Congress, and some popular literature even before the outbreak of World War II, but Dallin and Nicolaevsky's book was one of the first extended offensives in the English language against the Soviet Union's prison system.[94] Like Levine, David Dallin was a Russian émigré, journalist, and frequent government consultant, and would be a constant force in America's strategic revelations of the gulag in the early Cold War.[95] Dallin's book also included maps of the reported camps; they

were much barer in execution than Levine's map, with simple line drawings of the Soviet

landscape featuring black and white dots and place names, without positioning of the

Soviet Union within the larger Eurasian continent. Unlike Levine, Dallin also uses a

progression of several maps to show the growth of the camp system, with maps of the

system in 1930, 1936, 1942, and 1947.[96] Yet, the act of naming each camp was just as

important here as in Levine's map, as the placards next to each dot-symbol became the

prominent focus. The locatory function of place, then, takes the central stage and

becomes a driving theme.

It is difficult to say whether Dallin or Levine influenced each other's maps, or if

they were working from the same set of sources, but it is clear that both are based around

the map in the 1945 volume *La Justice Sovietique* by two Polish military officers,

Sylvester Mora and Pierre Zwierniak. *La Justice Sovietique* was one of the first books to

bring in firsthand accounts by prisoners and featured some of the first attempts at

quantifying slave labor.[97] Their map was a stylized red, black, and white rendering of

camp locations, with a tiny margin made of prisoner release certificates, but without the

photos and captioning that would mark "Gulag—Slavery, Inc."[98] The appearance of both

Dallin's and Levine's adaptations around the same time, and the attendant popular

response to them, marks concerted efforts to put the gulag onto the map of American

consciousness with convincing specificity and, above all, dramatic authenticity. A *New*

York Times review of *Forced Labor* noted that "facts are sometimes fearful things," and

thus praised Dallin's courage in itemizing "the conditions which many deluded men insist

on ignoring at the price of their own intellectual honesty" and warned that "the inevitable

conclusion which any reader must draw from the facts presented here is that the term

'slave state' is not mere abuse, but a precisely accurate description."[99] This last point about a "slave state" is particularly important, as both Levine and Dallin make a crucial (re)labeling of Soviet forced labor as "slavery," a frame that took on more and more significance and dramatic weight as the Cold War progressed (and which the American Federation of Labor would emphasize even more overtly).[100] As the architects of NSC-68 famously put it in 1950,

> The implacable purpose of the slave state to eliminate the challenge of freedom has placed the great powers at opposite poles. It is this fact which gives the present polarization of power the quality of crisis…The antipathy of slavery to freedom explains the iron curtain, the isolation, the autarchy of the society whose end is absolute power….The idea of slavery can only be overcome by the timely and persistent demonstration of the superiority of the idea of freedom.[101]

The Gulag map provides an important instantiation in this institutional commitment to the Cold War's rhetoric of slavery. It served to uniquely organize slavery into a cartographic spatial system that transmitted the kind of precision that the *New York Times*, for example, valued. In addition, it offered a visual salvo in the freedom offensive that NSC-68 edified into policy. "Gulag—Slavery, Inc.," then, proved beneficial to a host of Cold War government and popular institutions, as it had the power to disquiet the isolation that the iron curtain created and could effectively infiltrate those spaces that had usually been shrouded in darkness. The Gulag map also implicitly argues that a slave system is always seeking to expand itself to stay alive; the camps contained within Russia's borders could become, in only a matter of time, a reality in the Eastern Europe satellites and wherever else the Soviet Union would spread its might.[102]

The potential of this map to participate in such an ideological contest quickly became apparent, as Levine's map spread out from its *Plain Talk* origins shortly after its publication. The leftist UK *Tribune* magazine placed it prominently on its back cover in October of 1947.[103] Next, a November editorial in the *Chicago Tribune* noted the map's appearance overseas and praised its circulation, as it "exposed more perfectly than a million words could do the essential character of the rulers of Russia and the creed which they espouse."[104] By comparing the use of maps to language, the editors were connecting cartography's function as a stand-in for a traditional argument that is able to compress political issues into one comprehensive visual field. The editors were thus pointing out a map's complex ability to *locate* ideologies and values—the camp icons on the map come to self-evidently "place" the values of Soviet leadership for various audiences to absorb as part of the display. In addition, the *Tribune* editorial valorizes the authentic production process of the map, highlighting that the *Plain Talk* editors "based their study on nearly 14,000 affidavits and other documentary material obtained from liberated slaves."[105] Finally, the editorial also sustains the "slavery" label of Dallin and Levine, ensuring that the theme of "human material" continued to frame the issue, as well as reminding the audience of the Soviet Union's profit from such a system. Altogether, the Chicago editorial represents the main themes that would be highlighted throughout the rhetorical life of the Gulag map, situating it in a powerful narrative about visuality, authenticity, bipolarity, and placement, which all could be seen as necessary tools in the war against Soviet ideology. What *they* hide, *we* are able to display and to locate—a powerful claim to authority over the spaces of the Cold War.

With these rumblings about the specific location of labor camps, the issue began to gather greater attention. It was also in November of 1947 that the American Federation of Labor made a formal proposal to the United Nations Economic and Social Council (UNESCO), in hopes that the Council would begin an international investigation of forced labor.[106] For a full year before that, the AFL had been issuing various manifestos and editorials protesting Soviet labor camps at its various conferences and in several of its publications, also working on a controversial "International Bill of Rights" for the United Nations to outlaw involuntary servitude and concentration camps all over the globe.[107] In early 1949, at the UNESCO convention in Chile, the AFL's Toni Sender made the official presentation of the AFL's case against the U.S.S.R., claiming to have volumes of testimony from escapees and evidence that "some of these labor camps are reported to be grouped together in huge clusters, with hundreds of thousands of inmates."[108]

Later that year, the AFL collected its various publications and testimonies into a full-length volume called *Slave Labor in Russia*. It contained firsthand testimonies of camp victims alongside statements from UN debates where Soviet officials denied the scope of the AFL allegations as a "desire to slander" and to interfere in internal Soviet affairs. AFL President William Green's introduction to the volume affirms the values of the AFL's work, noting that it "arous[es] world opinion to the growing danger of slave labor."[109] He went on to argue that such statements by Soviet leaders are included because they show that the Soviet Union never actually answered the accusation that "the Soviet system is based on human slavery," which is backed up by "detailed and irrefutable evidence."[110] Once again, a premium was placed on the accuracy and

authenticity of evidence as well as the systemic nature of slave labor. In addition, the notion that the impact of such arguments against forced labor could be measured by the Soviet response (or lack thereof) would become an especially prevalent rhetorical theme as the AFL turned to cartography to make its case. The map was appropriated in various ways as a weapon designed to provoke these comments and responses, and thus "Gulag—Slavery, Inc." began to take on its dual function as it circulated: 1) to display the extent of forced labor in the Soviet Union, and 2) to be used as a strategic instrument in Cold War diplomacy and international and domestic public opinion.

Ultimately, while the AFL's UNESCO project garnered much attention, months passed and no official report or response came.[111] The AFL began to then reform its efforts away from strictly persuading the United Nations to launch a full investigation. Instead, through their Free Trade Union Committee (FTUC), the union decided to wage a specific campaign galvanizing both domestic and international public opinion in a more innovative way, and the Gulag map offered that kind of innovation.[112] The FTUC was covertly funded by the CIA, according to historian Russell Bartley, as a "cold war foreign relations arm of the AFL used by successive U.S. administrations to combat communist influence in the international labor movement."[113] The AFL's head of the FTUC, Jay Lovestone (whose biographer said was playing "a board game on the map of the world that made him one of the masterminds of the Cold War"), had been a CIA operative since 1948, and was specifically using agency money to fund the research for the map.[114] Around this same time, the State Department's ongoing campaign since the end of World War II to combat Soviet forced labor converged with the AFL's, and behind the scenes, the State Department also threw their efforts into supporting the production of the map.[115]

To downplay these official government interests became an important part of the map's strategic influence. As Young points out in his case study of the Gulag map as psychological warfare, the public authorship of the AFL, despite its connections to official American information channels, was central to the map's circulation:

> [T]he authority of the AFL in many ways would probably outweigh the name of the US government, should it have attached its name to the document. It might then have been shrugged off as just another round in the propaganda battle between two governments. But here is a free trade union, the recognized spokesman for millions of American workingmen and associated internationally with many foreign labor organizations, presenting the laboring man's case against the nation that presents itself as the sole international champion of labor.[116]

Outwardly, then, the labeling of the Gulag map as a labor project provided powerful symbolic weight and credibility. That label also allowed the map to have a more fluid movement through the culture, divorced from the top-down elite objectives of overtly government-sponsored propaganda.

With State Department support, the actual production and distribution of the map's new edition began in earnest. Throughout 1950, Jay Lovestone (and FTUC coordinator and AFL executive Matthew Woll) corresponded with Isaac Don Levine, and paid him to commission a new and improved update of "Gulag—Slavery, Inc."[117] The new edition included current information and statistics from the New York Association of Former Political Prisoners of Soviet Labor Camps, as well as new testimony originating through the AFL's UNESCO research. The map was finished in early 1951, and was first sent out to national and local union newspapers and newsletters—and the accompanying

text advertised that copies of the map could be distributed on a request basis. A version of the map was also featured in an AFL pamphlet that began to circulate around this same time.

Altogether, then, the origins of the Gulag map reveal an image-text breaking out of the contextual confines of magazine cartography and becoming part of a productive rapprochement between private institutional goals, government objectives, and the public opinion function of Cold War popular media. The interests and conventions of each of these sources found their way into the lines of the map, and constrained the powerful ways in which the map employed the concept of place.

Power and Placement: Reading "Gulag—Slavery, Inc."

The power of "Gulag—Slavery, Inc" lies in its use of placement to anchor the existence of slave labor camps into Cold War consciousness. To borrow from Wood and Fels, a map has spatial authority because of its use of "postings," or "the fundamental cartographic proposition that *this is there*."[118] The map becomes an index of signs, then, that makes existence claims and asks for validation and social assent from its users. The Gulag map is an especially potent example of the power of posting: to be able to infiltrate enemy Soviet spaces and claim that "this is there" carries an immense weight. The ability to "place," in a sense, becomes a way of vying for control through the use of spatial knowledge. The very spatiality of this campaign against forced labor was fundamental. As Carruthers writes, "Bound tightly to new geopolitical exigencies, awareness of the Soviet camp system expanded during the early 1950s, encouraged by a state keen to spectacularize knowledge production through dramatic trials, witness testimony, and graphic representations."[119] The "spectacularization of knowledge production" is a fitting

name for this activity, as the map provided the appropriate aesthetic drama to the statistical information being presented.[120]

The most obvious visual theme to note in "Gulag—Slavery, Inc." is simply the choice to fill the entire frame of the map with the whole Soviet Union. What impresses the viewer on first viewing is, perhaps, the sprawling nature of the landmass. Levine's early version and the stand-alone second edition that the AFL sent out for distribution feature the Soviet Union and its connection to Eastern Europe and Asia, thus offering the viewer the context of the Soviet Union's placement within the eastern hemisphere. The forced labor problem is drawn on the map as spilling over into the spaces of Poland, contributing to the popular Cold War cartographic argument that the Soviet Union is a continually expanding power. The Soviet landmass is slightly rounded so that the country appears uncontainable and, in Levine's early version, even spilling off the left side of the frame. The overall effect contrasts the stretch of the Soviet Union with the networks of the camps inside, coalescing together in various sizes on the map. Labor camps as far north as Franz Joseph Land in the Arctic, bordering in the south on Iran and Afghanistan, penetrating into the Mongolian Republic, and stretching all the way to the Chukotsk Peninsula where Alaska juts into the frame are all featured. As Levine explained in *Plain Talk*, "The boundaries of the slave labor regions have been drawn here with a view to understatement. All the territory controlled by GULAG, if consolidated, would make a submerged empire exceeding in area the boundaries of Western Europe."[121] Such a comparison showcases the enormity of the forced labor system and hints that the Soviet Union is potentially about to spill into the spaces of Western Europe, among other areas. In addition, there is a higher density of dots and sickles in the western part of Russia,

which divorces the camps from their often perceived isolation in the wastelands of

Siberia and instead *places* the camps right inside the highly populated West. This makes

the implicit argument that forced labor was a holistic phenomenon and one waged in the

so-called civilized spaces of the European side of Russia.

In addition, the Gulag map is not just about the "dots," but also about where the

dots are *not*. In other words, part of the power of the presentation is in the white blank

spaces where there are no camps. The first version of Levine's map has a caption to

reinforce this, noting: "A number of new projects are known to have been launched by

GULAG since the end of the war…the locations of which have not been verified by

documentary evidence…For this reason we have omitted them from the Docu-Map. It

usually takes some years to authenticate the existence of a slave labor area behind the

triple iron curtain shielding GULAG operations."[122] Thus, this map makes provocative

use out of its "silences," arguing implicitly to the reader that the map is only as good as

its ability to authenticate sources, and that those empty spaces could very well be filled

by camps (and other unspeakable activities) about which there is no "produced

knowledge."[123]

A State Department memorandum from Sovietologist Bertram Wolfe sums up

the importance of involving the Soviet Union as a *whole* entity on the map. As Wolfe

commented to the State Department's Walter Kotschnig, "The entire propaganda appeal

of Soviet Communism vanishes if we can show that 'The Worker's Paradise' is really a

vast forced labor camp…If this can be proved with human, graphic and statistical

evidence—and it can—then the hypocrisy of all the claims…of the Kremlin become self-

evident."[124] Such a comment reinforces the ability of "Gulag—Slavery, Inc." to become a

map-as-logo in Benedict Anderson's terms and associate *all* of Russia and Soviet Eastern Europe as one emblematic camp.[125] A map has the ability to abstractly iconize statistics and "fill" a nation's territory with that symbolic power. The sheer scope of the forced labor problem, by way of using the familiar shape and size of the Soviet Union becomes a defining character in the visual presentation.

This kind of choice to frame the Soviet Union as the focal center in maps relates to the larger Cold War foreign policy problem of how to visually depict space. International relations scholar Alan K. Henrikson's characterization of the inherent spatial anxieties of the "containment" turn in Cold War foreign policy is important here. As Henrikson writes, "by focusing on the outer margin of the Soviet bloc rather than on the Western sphere, American officials might shift the 'center' to Moscow, leaving the West 'centerless.'….This perceptual switch has its counterpart in the ideological realm: The 'Free World' becomes a mere anti-'Slave World,'" much as 'America' had once been a mere anti-'Europe.'"[126] The Gulag map becomes a literal representation of this "slave world," and thus, even though the map makes a strident argument against forced labor, it also affirms the essential negativity of the containment policy and speaks to the anxieties that faced American power in its new global reach.

In addition to these themes of size and scope, the use of iconography across the spread of the landmass marks an important rhetorical choice. Particularly noteworthy is the evolution of the use of icons and colors through different versions of the Gulag map. For example, Levine's early map in *Plain Talk* noticeably differs in some pivotal ways from the AFL edition that would gain wider circulation in 1951. Levine's version focuses more on the constellations of camps and less on the individual camps themselves.

Levine's map uses larger, darker circles to associate certain networks of administrative camps together. The hammer-and-sickle icons are conspicuously absent, as only standard, colored dots are used to "place" the camps. Arguably, the hammer-and-sickle icons are used in the later AFL map to more appropriately "nationalize" the Soviet gulag as a state system. Levine's map almost suggests the camps as more localized by area administrations, cohering together in more isolated systems. But with the AFL map, the map user lets the camp "stand in" for the nation by mediating it with an iconic Cold War symbol.[127] By the 1951 second edition, with its updated information, the AFL map is substantially more "filled" with dots and sickles, making an argument through the cartographic frame that forced labor is continuing to grow; with maps often serving as vehicles for "density," the case is made rhetorically that if this map were to be updated the next year, there would be a continuing proliferation of "dots" filling the landscape. The pink and red colors pockmarking the gray background connote a potential rash, compounded by the sickness displayed in the photographs of the Gulag children.

The overall presentation uses such simple color contrasts and icon shapes and shadings to create a kind of artificiality in the Gulag map that is critical to its visual arguments. The camps are not represented as naturally occurring, but are visualized as *imposed* by Soviet power on the land. The stark color contrast featuring the bold and bright red on the grays and whites contributes to the wider claim that the Soviets have an unnatural kind of ideology. Also, one of the most important subtle differences between Levine's early version and the more widely circulated AFL version is that the AFL map emboldens railroad lines in deep black, with the dotted camps adhering in a formation to these lines. The AFL map heightens the focus on the corporate nature of Soviet labor by

subtly emphasizing the industrial system that relies on forced labor to perpetuate it. In a sense, these choices represent an American attack on Soviet ideology as a top-down project that forces itself onto a natural landscape. The emphasis on the systemic nature of forced labor in the title "Gulag—Slavery, Inc." itself thus finds visual parallel on the page.

In addition, the choices and placement of accompanying text support these themes of artificiality. In Levine's *Plain Talk* version, for example, the captions feature facts about the types of industries and products that individual camps produce: Sorokski produces light metal from nearby mines, Ussolski contributes to war industries and "construction of underground airfields," Yakutsk's output is in the timber industry, fisheries, and canneries, etc.[128] The inclusion of these details about slave labor's industrial products serves, in a way, as a parody of a typical geographic map (and accompanying text) of industries and natural resources. A typical map would conceal the sources of production for such resources, but the Gulag map subverts those kinds of expectations with its revelation that it is slave labor that motors these engines of industry. The proximity of camp victims' photographs to these words and the contrast to the staid description of the camp products contributes to the ideological style of the map. Parody often works visually as a double-voiced discourse that adheres to the formal conventions of the original text while offering simultaneous, pointed social comment on that original.[129] Here, the Gulag map's use of parody reveals cartographic form as almost inhuman—that the effects of these places (camps) all over the map is the prizing of communist ideology over real, human cost.

Despite these subversions of form, what the Gulag map demands most from its user is an affirmation of its authenticity. The map's postings of 175 camps all over the

sprawling Soviet Union beg for an acceptance of accuracy and precision—that these abstract dots will correspond to real camps on the ground. Thus, the map producers, like Levine and the AFL, are promoting their very ability to map such places. A map's relationship with authenticity, then, is complex: it clearly does not look at all like the space it renders, as it is a reduction, quantification, and abstraction of lived and *felt* places.[130] Its propositional power of place, however, allows the viewer to accept that the information constituting the map must be authentic and verifiable. But the producers of "Gulag—Slavery, Inc." are careful not to arrange their facts in a way that is overly scientistic—there is an essential crudeness here that makes it different than most government and institutional maps of the era. The map's hand-drawn place names, the simple use of icons, and its lack of other geographic information about the Soviet Union, along with the use of photos and camp documents in the margins, mean that the overall presentation lacks the emphasis on cartographic technique and technology found, for instance, in the National Geographic's Cold War–era maps. Levine's early version, for example, adorns some of the camp areas with the title "Camps of Complete Isolation," in a sense suggesting an amateur mapmaker lacked the proper place names and had to improvise. In fact, the professional origins of the map are concealed; it looks almost as if it had been produced *by* a camp survivor. In this way, the collection of information is made to appear more experiential in its production, rather than a project compiled by government and labor institutions with large financial resources and state-of-the-art cartographic technologies. Thus, "Gulag—Slavery, Inc." appears as an authentically grim tour map on a death trail from camp to camp.

The map especially supports these arguments for authenticity through its use of the passports, photographs, and the captions in the marginalia. "Gulag—Slavery, Inc." cannot simply rely on its abstract rendering of Russia and the camp icons—it must fill its margins with reinforcements to create a viable image of a forced labor network. Medieval maps used to feature fantastical sea monsters and allegorical references in the margins; here, the Gulag map builds an architecture around the frame of the map that attempts to affirm the material "truth" of forced labor. Thus, the map's production itself becomes a subject of the presentation. The Gulag map actually reveals the apparatus of evidence that allowed the map to be made. Particular versions of the map emphasize this connection even more overtly. For example, the AFL widely distributed a pamphlet in 1951, *Slave Labor in the Soviet World*, featuring a pitch black cover with red writing and a stark barbed wire graphic running throughout the pages. A version of the Gulag map provided the centerpiece of the pamphlet (fig. 3.6); yet unlike the full, stand-alone version that was being distributed to schools and labor halls, this version pitted the map of the Soviet Union against a black background, divorcing it from its placement in the wider world.[131] In addition, the photos of the camp children are absent from the display. Here the main focus resides on the "passports" of the survivors—three of these certificates are connected by black lines to *where* they came from on the landscape. The focus shifts in this pamphlet from sheer scale and the numbers of camps and instead foregrounds the authenticity of the evidence that produced the map. This version of the Gulag map, especially, is arguing for *belief* from a wide audience—the use of cartographic placement to actualize and specify forbidden knowledge. This focus is consonant with the AFL's stated claim in the pamphlet, "These bare documents, statistics, and affidavits are not

Figure 3.6. American Federation of Labor, "Location of Forced-Labor Camps in the Soviet Union," *Slave Labor in the Soviet Union***, 1951**

addressed to scholars alone. They are addressed to the conscience of the free world. This time the world must believe."[132] That bareness, simplicity, and starkness in the *form* of the map's design becomes the map's content itself: the pernicious nature of Soviet ideology is a stark, self-evident truth.

In the most widely distributed version of the AFL map, there are photostatic copies of twelve passports that provide a kind of border to the map.[133] While individual details on each passport are difficult to make out, the documents work together as a whole to make claims of existence—that these official state documents have been acquired at great peril and contribute the knowledge of what the Soviets are doing. The notes about these passports in the caption supplement this notion, focusing on very specific details:

A typical 'passport' in the center of the upper left section is of the Sorokski

Administration, adjoining northern Finland. It reads: 'USSR—People's

Commissariat of Internal Affairs (NKVD)—Administration of Railroad

Construction and Sorokski Correctional Labor Camp—December 15, 1951—

number 4/58024/16—City of Belomorsk.' The seals and signatures of the

commanders, Kliuchkov and Georgeyev, are appended.

These mundane details of state bureaucracy on the release certificates are strategically

used not only to once again support the authentic, material existence of Soviet forced

labor, but also to contribute to the map's arguments about the autocratic nature of Soviet

state power. Highlighting commander signatures, for example, assigns ownership of

forced labor to the Soviet leaders. Once again, the very existence of these documents, and

their placement into American readers' hands, affirms that the iron curtain can be broken

through and places the United States in the position of being able to infiltrate Soviet

space with the power of precise and accurate knowledge itself.

The other striking piece of marginalia, of course, is the use of the photos of camp

children, which adds yet another dimension of authenticity. In most editions of the Gulag

map, the viewer sees a half-circle marked by a thick red line, containing three pie-slice

shaped photographs of what look to be camp prisoners, with the simple title "'GULAG'

Children" above the center photo.[134] That central photo features the face of an emaciated

child staring straight at the viewer, and the child is wearing a crucifix. The surrounding

two photos feature similarly emaciated children. In very small print below the photos is a

caption with more information about the photo's young subjects: "The photographs in the

insert, taken in Teheran in early 1942, show typical examples of thousands of children

upon their release from Soviet concentration camps. Left to right: Barbara Sliwinska, aged 2; Jan Gorski, 14; Monek Finkelstein, 12." The choice of children is particularly important: these are not men who could have been encamped for political purposes or for petty crimes—they are innocents who are potentially still free of Soviet ideology, which eases American users' ability, in particular, to identify with their victimage. The focal point of the crucifix buttresses this identification, infiltrating an identifiable religious symbol into what is seen as an atheistic space. Once again, the subversion of map form is important: the uncomfortable corporeality of the photos disrupts the expected clean and abstract lines of the map.

The choice of where to place these photographs in the display of the map, though, is also a central piece of rhetorical selection. The half-circle of photos sits within the map itself, but outside the confines of the Soviet Union, slightly below center and to the right. In this way, the images do not distract from the map's main focus in making an aggregate placement of the camps; yet, the photos are so striking that they cannot be merely supporting evidence. Thus the map and the photos strike a tense interplay. With the caption featuring the names of each child so small, the photos become more of a general symbol of oppression. In fact, many of the circulated versions of "Gulag—Slavery, Inc.," such as the one published in *Time*, simply omitted the caption about the photos altogether, with the photos standing alone in the display of the map. The Gulag map, then, argues that these bodies can be located anywhere in this landscape, thus equating the entire Soviet landmass with the anonymous, oppressed bodies. While the photos add specificity and a human connection to the layout, at the same time, they are providing evidence for the vast, impersonal system that the Soviets have created in their bounded spaces.

The real power in these photos is how they draw on the capacities of atrocity images to employ the culture's collective memories. Collective memory, if viewed in the tradition of sociologist Maurice Halbwachs, is a social process built on a shared consciousness of the past that is being (re)presented for a present agenda.[135] Barbie Zelizer has written that,

> Unlike personal memory, whose authority fades with time, the authority of collective memories increases as time passes, taking on new complications, nuances, and interests. Collective memories allow for the fabrication, rearrangement, elaboration, and omission of details about the past, often pushing aside accuracy and authenticity so as to accommodate broader issues of identity formation, power and authority, and political affiliation.[136]

Certainly, "Gulag—Slavery, Inc." employs the truth-value of a photograph to document and provide witness, but it also complicates this value by politicizing the very recent collective memories of Holocaust visuality for Cold War purposes.

As Levine has pointed out, most of the data for the map's compilation came from the affidavit testimonies of Polish prisoners upon their discharge from the camps in late 1941.[137] This "Polishness" of both the map's data and the bodies of the children in the photographs draws on recent World War II memories that link the Polish nationality with genocide's enactment, as depicted in the popular photographs that permeated domestic and international media. In both production and presentation, "Gulag—Slavery, Inc." uses temporal authority to unite the Nazi camp system with the Soviet gulags.[138] This transposition of the two wars in the map is an important argument, since the collective memories of appeasement, global aggression and expansion, genocide, and military

heroism in World War II weighed so heavily in the development of Cold War discourse. The juxtaposition of the photos with the map's system of camps suggests that the horrors of World War II are still ongoing: the enemies may have changed, but there is still an enemy.[139]

Ultimately, this perpetuation of a wartime mentality is a central part of the whole presentation of the map. In many ways, all of these sign indexes in the map and its marshaling of multimediated sources together in one package create an argument about America's own anxieties around its abilities to "invade" Soviet space and produce knowledge of what happens behind the iron curtain, in order to move toward ultimate victory. Parry-Giles' rhetorical analysis of Cold War propaganda in the Truman and Eisenhower administrations notes a shift from a journalistic paradigm, where propaganda is posited as "news," toward a centralized, militaristic paradigm, where propaganda is waged in the visual and linguistic frames of military crisis with the Soviet Union.[140] The Gulag map provides an interesting cartographic extension of this paradigm shift. The producers of the map have worked hard to present the map as a journalistic "eye-witness" to the reality of forced labor, and the painstaking detail of its claims to authenticity support this rhetorical work. At the same time, the Gulag map's power of place to cross and invade the Soviet borders to map the "unmappable" marks, however subtly, a more militant infiltration of Soviet space. Additionally, the powerful use of emaciated bodies in the photographs serves a symbolic function—employing Holocaust memory to present them as wartime victims and the end results of Soviet aggression. The map goes beyond the "reveal" function of news propaganda and engages in a more militarized discourse. Still, the map is ultimately limited in its ability to argue for full liberation of these camps,

but its attempts to go beyond visualizing a mere containment of Soviet space mark it as a noteworthy transitional piece of propaganda.[141]

Finally, what compounds these connections between the elements of photographs, documentary evidence, and the captions is a foundational piece of the "paramap": the centered bolded statement at the bottom of the 1951 edition of the map, which reads: "A Reward of $1,000 Will Be Paid by the Free Trade Union Committee for Evidence Disproving the Authenticity of the Soviet Documents Here Reproduced."[142] The "reward" notice, in a sense, redirects the map away from the merely informational and gives it a more overt propositional power. In other words, the map now *demands* a response and a challenge to engage with its claims of authenticity. The map-using audience is asked for its involvement, and this request, this interpellation, strengthens the map's instrumental function as an arbiter of public opinion. Still, because of the map's bounded completeness and claims to authority and knowledge, the engagement with public opinion is less about interactivity, and more about consensus and social assent.[143] The large amount of the reward, combined with the authoritative authenticity of the map's postings that "*this is there*," remind the viewer that this visual display is essentially inarguable. Altogether, the complex visual presentation of "Gulag—Slavery, Inc." creates a kind of weapon function for the map, wherein it could be used in a variety of contexts to fight Cold War skirmishes.

The Circulation of "Gulag—Slavery, Inc."

While an interpretive reading of the Gulag map can assess its ideological values and visual codes, to stop there is to fall prey to the age-old conception of maps as mere products, to assume that they are somehow finished and stable. But, as John Pickles

writes, "the whole map is a study in suggestion, in which cartographic techniques are used to depict a particular situation in such a way that both the intrinsic meaning and the suggested meaning resonate with other texts and images beyond [the] single map."[144] Maps are processes of meaning-making that are "discursively embedded within broader contexts of social action and power" and constrained by their relationships with other texts.[145] "Gulag—Slavery, Inc." is an outstanding example of cartography as this kind of living medium, reaching a wide array of audiences and molded and marshaled for a host of uses.

Initially, the finished second edition of the Gulag map by Levine for the AFL was promoted through union channels to provide information about Soviet forced labor to members. After newspapers like the *Minneapolis Star Tribune* and the *Baltimore Sun* began to feature it prominently, the demand for the map, and the diversity of that demand, grew heavily.[146] Particularly in these early appearances of the map, the "Gulag—Slavery, Inc." title was often subsumed beneath headlines like "Russia's Slave Labor Camps Hold 14 Million."[147] These strategic uses of the map accentuated the vastness and sheer numbers in the scale in the slave labor system; text and visual combined together to communicate a sense of capacity and volume, thus consolidating the map's ability to abstractly project statistics across a provocative aesthetic image.[148] In addition, publications like the *Christian Science Monitor* or the *NEA Daily News* would take the basic Gulag map and then reproduce it in their own particular graphic style. For instance, the NEA "newspaperizes" the map into simple dots, lines, and gradient shading in order to fit the conventions and constraints of its format.[149] In this, "Gulag—Slavery, Inc." was becoming an ever more fluid text, not simply a finished and bounded visual image, but

adaptable and contestable depending on the form and content requirements of its producers and circulators.

Of course, the circulation of the map reached its zenith after *Time*'s publication of the map alongside the sensational reports of the showdown between Congressman Armstrong and Andrei Gromyko at the San Francisco conference. The *Los Angeles Times* features an even more detailed photograph than *Time* magazine of the incident, with Armstrong shaking Gromyko's hand, and the map held in the other.[150] The use of photos of the Gromyko-Armstrong exchange in venues like *Time* and the *Los Angeles Times* suggests that the map not only was making a pointed argument for American readers about the existence of Soviet camps, but it also had concrete effects in the "real" relations of the Cold War. In addition, publications like the *New York Times* would also prominently highlight Gromyko's verbal response, quoted as "It would be interesting to know what capitalist slave is the author of this map," adding new complications to the slave theme.[151] These uses of the map speak once again to its instrumental uses as a Cold War weapon, designed to provoke response and counter-responses, thus re-circulating the map and perpetuating its powerful ability to infiltrate multiple contexts and media.

The domestic response to "Gulag—Slavery, Inc." wildly exceeded expectations. The AFL was inundated with requests for reprinted maps from a wide variety of institutions—particularly labor unions, high schools, universities, and churches, but also government and military affiliations like the diplomatic mission in the Netherlands, the U.S. Air Defense Command, and even the mayor of Atlanta.[152] The superintendent of the Minneapolis Public Schools pointed out to the AFL that the map "would be used and viewed by upwards of 1100 pupils and teachers."[153] A pastor at a Methodist Church in

Flemington, Pennsylvania, requested the map "to use it with several study groups in the local church as we study the evils and dangers of communism to our way of life."[154] A Massachusetts high school debate club wrote to the AFL asking to use "Gulag—Slavery, Inc." in building their negative case on "Wartime Citizen Conscription."[155] Even individual citizens requested maps: Martin Berach of Barberton, Ohio, wrote that "my interest in it is to show it to some of my friends who argue that such a thing does not exist in Soviet Russia"; A.D. Kuzow of Los Angeles asked politely of the AFL, "Would you kindly send me your map of slave labor camps of the atheistic Soviet Union?"; and William Chamberlain of Dayton justified that "I would like very much to have a copy for several reasons; one of the best of these is that it is a very clever way of building up American patriotism."[156]

This diverse array of requests posed a new role for "Gulag—Slavery, Inc."—an emblem for Cold War citizenship. The educational and civic functions of the Gulag map emerged from these different audiences' appropriations of the map into their own conceptions of the Cold War, as many of these requests reiterated the Gulag map's status as a revealer of stark truths in a necessarily bipolar world. Engaging with the map, then, was seen as a public duty by many to spread awareness of where exactly oppressive Soviet ideology was making itself apparent. For example, the 1951 AFL pamphlet *Slave Labor in Soviet Russia*, which was continually requested specifically by schools and civic groups, activated the map as a living document that was meant to be passed around and displayed. The pamphlet urged the reader to "show this pamphlet to your friends, especially to those who are not aware of the existence of slave-labor camps" and "show this pamphlet to anyone you know who talks of or believes in Soviet 'democracy' and

Soviet 'socialism.'"[157] Once again, this involved the map's ability to showcase the knowledge production that was central to the Cold War—to *know* (and to quantify) the spaces of the enemy in the Cold War is to be a consenting participant in that conflict. These various uses of the map suggest that mere knowledge production was not enough; the map's arguments actually needed to be understood, taught, and disseminated by citizens themselves in meaningful social exchanges.

Adding texture to the map's strategic function as a Cold War weapon was its growing utility as an international instrument. Not only would it find use in "official" diplomacy between actors like Armstrong and Gromyko, the Gulag map also became a representative example of "public diplomacy," defined by Nicholas Cull as "an international actor's attempt to conduct its foreign policy by engaging with foreign publics" and characterized especially in the Cold War as "a top-down dynamic whereby governments distributed information to foreign publics using capital-intensive methods such as international radio, exhibitions, and libraries."[158] For example, *Voice of America* broadcasts picked up the Gromyko story and proceeded to describe the map to viewers on the air and offer to mail it out by request. The VOA story of the map circulated widely in Latin America and received 400 air-mail requests in the first 24-hour period alone after the broadcast. The Government Printing Office then printed thousands of Spanish-language versions for distribution through U.S. Information Service offices.[159] As a Chilean miner wrote to the VOA, "Please send me the map you offered so that I may show it to my co-workers, who, unfortunately, are influenced by the poison of Communism."[160] Thus the Gulag map could serve official government objectives in Latin

America by creating the appearance of a public service function offered by the radio broadcasts.[161]

The map also served such purposes throughout Cold War Europe. The International Confederation of Free Trade Unions in Brussels, on organization covertly subsidized by the Central Intelligence Agency, produced a 100-page booklet for distribution entitled *Stalin's Slave Camps: An Indictment of Modern Slavery*, which used the Gulag map as its cover.[162] In West Berlin, the map was plastered strategically so that it could be seen by people crossing the zonal boundary during a Communist youth festival.[163] The AFL contracted for German translations, and 5,000 were specifically pressed in Germany, through the Department of State, to be posted on factory bulletin boards.[164] A French language version was also produced for distribution (fig. 3.7), and the Swiss weekly *Die Nation* published the map.[165] In May 1951, the president of the Danish Federation of Labor, Eiler Jensen, gave a radio speech about the scourge of slave labor in Eastern Europe, describing the map to the audience and decrying especially the plight of the Polish "skeletons" depicted in the map's margins.[166] A commissioner for the U.S. Economic Cooperation Administration's (ECA) Special Mission in Iceland was "anxious to use this [map] as information for propaganda in that country where there has been communistic activity" and commented editorially that "personally I think the whole thing is the best piece of propaganda against communism that I have seen."[167] The ECA's Office of the Special Representative in Europe also referred to the map in a widely circulated report asking "Are There Slave Camps In Eastern Europe?" This government study reinforced an important part of the visual display in "Gulag—Slavery, Inc."—that the map does not just contain forced labor within Russia's borders but instead spreads

CARTE DE L'ESCLAVAGE EN U.R.S.S.

Figure 3.7. American Federation of Labor Free Trade Union Committee, *Carte De L'Esclavage En U.R.S.S.*, **1951 (George Meany Memorial Archives)**

into nations such as Poland and Czechoslovakia, bringing it right to the border of

Western Europe.[168] Behind the iron curtain, groups like the Hungarian National Council

requested thousands of reprints, and the Yugoslav Trade Unionists sought copies as well,

although they had to make their request clandestinely through the Norwegian Federation

of Trade Unions out of fear of police action.[169]

Soviet reaction of the map's spread throughout Europe rose to a new level of

intensity shortly after the Gromyko incident. In October 1951, Soviet military police

seized 500,000 copies of the map, which were printed through USIS channels in Vienna

for the German language paper *Wiener Kurier*.[170] Officials reportedly called the map a

"filthy pamphlet" and "an effort to slander," which started a war of words with Walter J.

Donnelly, the U.S. High Commissioner for Austria, who argued for the map's "prompt release" and called the Soviet response "an uncultured piece of sophistry."[171] Interestingly enough, the contracted printer for the USIS lived in the U.S. sector of Vienna but sent it across town to be finished by a binder and his wife, who lived in the 10th district of the Soviet sector. The ability of the map to penetrate Soviet space was more literalized here; the map makes its visual arguments, but it also exists as a material force, as the processes of its production and even its printing become part of a Cold War offensive.[172] A *New York Times* editorial about the Vienna incident spoke to this strategic use of "placement" in the circulation of the map to engineer a Soviet response: invoking the Gromyko affair in San Francisco, the editors point out that up to now "there has been no effort at refutation, no denial of the map's accuracy, no invitation to foreigners or U.N. observers to visit these places and check for themselves."[173] With the seizure in Vienna, that original silence now was disrupted by the "brute force of police," which was, as the *New York Times* argues, "the most eloquent proof that the map was irrefutable with logic or with facts."[174] Thus, not only was the premium on authenticity drawn into the frames of the map, it was part of the map's ability to circulate and infiltrate spaces it was supposedly prohibited from entering. The binders' subsequent arrest (and the ensuing confiscation of the half million copies across the city) prompted a letter from AFL's Matthew Woll directly to Dean Acheson at the State Department to protest the unfair treatment of international workers and the suppression of free speech.[175] Such an exchange demonstrates the map's role in complicating relationships between the government and the lobby of private organizations like the AFL. In keeping with

propaganda's increasingly militaristic usages in the early 1950s, the map was being mobilized in more systematic efforts to combat the Soviet Union.[176]

As if the map had not penetrated enough various foreign policy initiatives and international incidents, there were even attempts to take the map's mediated reach further. The AFL Weekly News Service reported in October that a Hollywood motion picture studio was preparing a short film on the map to be released in commercial houses nationally.[177] In addition, the public relations director for the American Federation of Musicians actually proposed to the AFL a project run jointly with Voice of America to record an album of Russian "slave labor songs" to raise awareness of the issue, complete with the suggestion that the "album should carry the famous AFL slave labor map, as a background."[178] The AFL would continue to internally draw on the map as a testament to its members that the union deserved their loyalty and patronage; by the end of 1951, the standard fundraising letter for the Free Trade Union Committee contained the reminder: "And, of course, you know that it is the Free Trade Union Committee's Slave Labor Map of Russia which has won world-wide acclaim for the A.F. of L. as the initiator and dynamic leader of the international struggle against forced labor."[179] Finally, it was reported that copies of the map were being used by the AFL Amalgamated Meat Cutters and Butcher Workmen in Bakersfield, California, to organize a drive against the supposedly Communist-led International Longshoremen's Union, which was headed by the controversial labor activist Harry Bridges.[180] "Gulag—Slavery, Inc.", then, was used not just in a battle against an "alien" Soviet ideology, but against what AFL leaders saw as a homegrown problem in the labor movement, thus representing how a map could be used to fight the Cold War inside the borders of the United States as well.

The public engagement with the Gulag map died down by early 1953, but the forced labor issue continued to be a frequent public and government concern during the Cold War, sparking a series of reports and hearings.[181] Education and civic groups continued to highlight the issue, with some even creating their own adaptations of the Gulag map.[182] The AFL also used maps in its ensuing campaign against forced labor in China, drawing on the style of "Gulag—Slavery, Inc.," but not reaching the same kind of international attention.[183] Still, the map itself continued to leave traces long after its initial remarkable circulation. The U.S. Army included the map in its periodical "surveys of literature" in training its officers about the Soviet Union, even into the 1970s, and it was also used by academics to teach effective methods in psychological warfare.[184] After winning the Nobel prize, Aleksandr Solzhenitsyn toured Washington, DC, in June 1975, and his famed speech brought "Gulag—Slavery, Inc." back into public memory: "In 1947, when liberal thinkers and wise men of the West, who had forgotten the meaning of the word 'liberty,' were swearing that there were no concentration camps in the Soviet Union at all, the American Federation of Labor, published a map of our concentration camps, and on behalf of all of the prisoners of those times, I want to thank the American workers' movement for this."[185] Here, Solzhenitsyn's gratitude recasts and re-remembers the map as a protest document from "brothers in labor," dissociating the hand of American state power that sanctioned the map. Isaac Don Levine himself would continue to take ownership and pride in his connection to the map; Methvin's interviews with Levine before his death in the late 1970s revealed that he "kept a copy of that map hanging on the wall of his study in his Maryland home, and often pointed it out to the stream of

distinguished visitors who came to enjoy his company and hospitality and conversation."[186]

Finally, as the so-called Second Cold War ignited in the early 1980s, with renewed institutional focus and rhetorical sharpening by the U.S. government against the Soviet Union, "Gulag—Slavery, Inc." would continue its flow through Cold War culture. In 1982, the U.S. Senate adopted Resolution #449, which expressed fears that human rights violations were being committed in the construction of the trans-Siberian pipeline, and sanctioned the State Department to conduct a study of these violations.[187] The November report by the State Department included a map detailing the extent of the camps in the Soviet Union; that original ideological zeal of the Levine and AFL maps was subdued and subverted into the familiar State Department cartographic style, resulting in a more staid, "scientific" political map of the Soviet Union (fig. 3.8). The report also featured an aerial perspective blueprint style map of the inside of a forced labor camp (fig. 3.9). Thus in the evolution of the Gulag map, the State Department could now dramatically hyper-focus on infiltrating Soviet space with more sophisticated and precise technologies. The map could now envelop the audience in its depiction of the camp, a stark departure from the crude but effective hammer-and-sickle propaganda of the old AFL map. The AFL-CIO's *Free Trade Union News* from November 1982 devoted its full issue to the State Department report, reprinting both the State Department map of Russia with the location of the camps and the layout map of the typical camp. Coming full circle, the AFL-CIO also devoted a spread to its old classic "Gulag—Slavery, Inc.," reprinting the map and reminding its readers that "American Labor was first to raise its voice against the slave labor system in the U.S.S.R."[188] In one of its final public
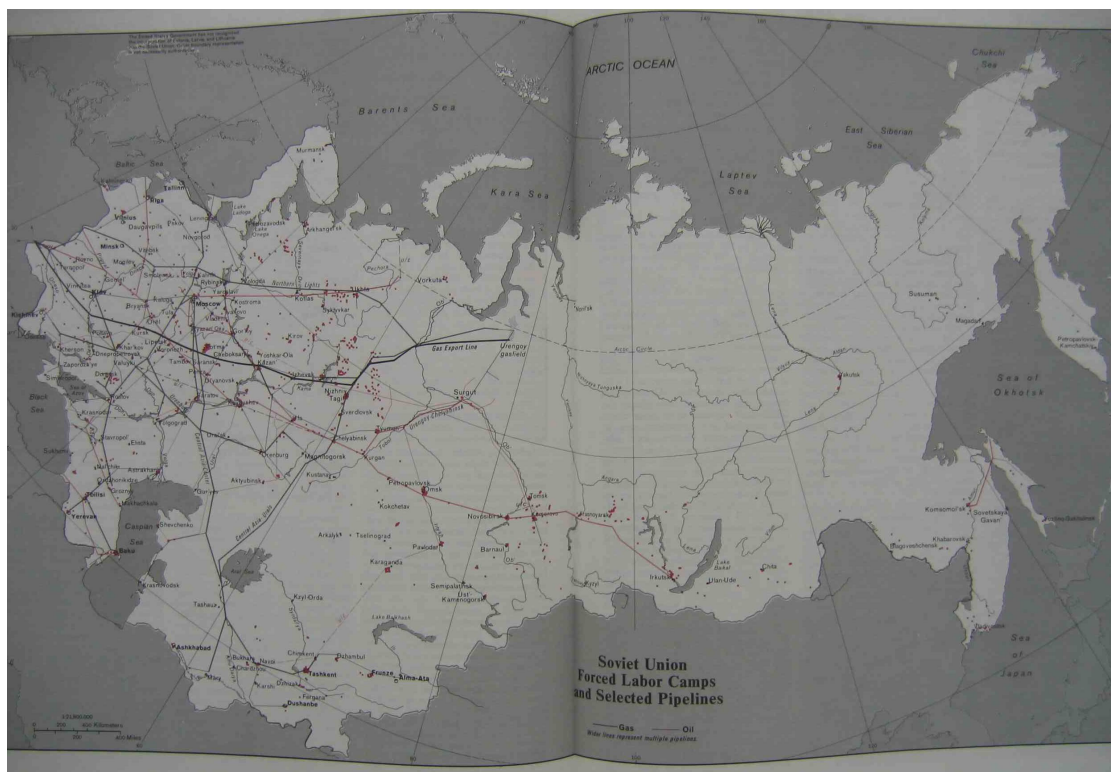
**Figure 3.8. United States Department of State, "Soviet Union Forced Labor Camps and Selected Pipelines,"
1982 (Reprinted in *AFL-CIO Free Trade Union News*, George Meany Memorial Archives)**
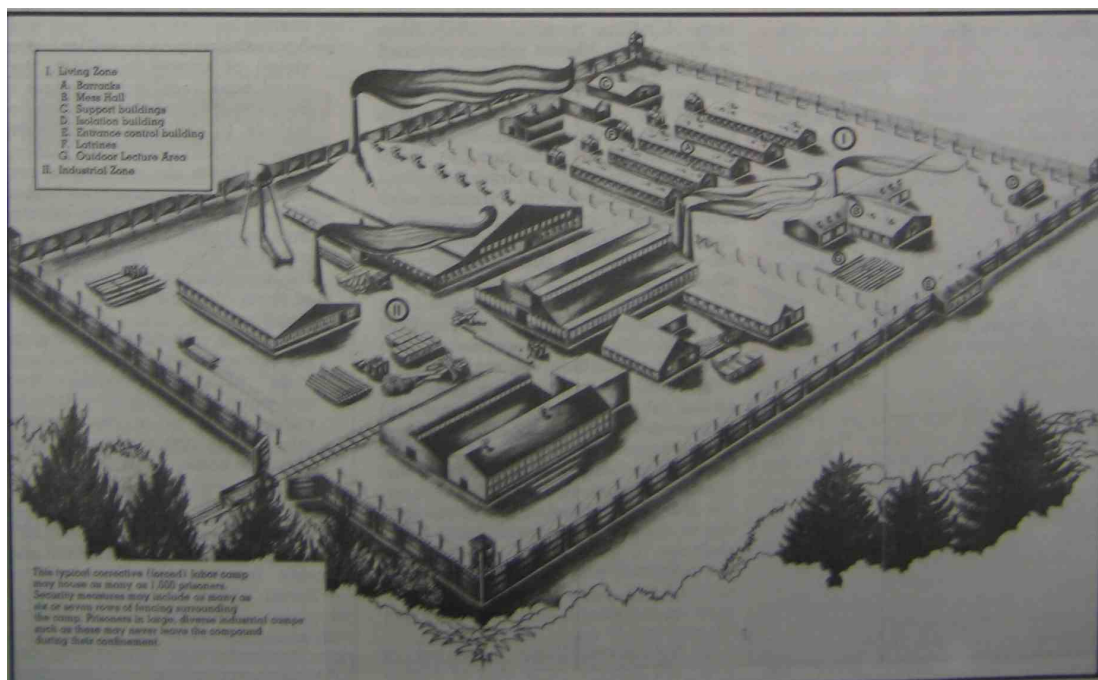
**Figure 3.9. United States Department of State, "Typical Forced Labor Camp," 1982 (Reprinted in *AFL-CIO
Free Trade Union News*, George Meany Memorial Archives)**

appearances, then, the Gulag map was appropriated for a new purpose, not dissimilar to

Solzhenitsyn's 1975 tribute—writing the mapping efforts of the AFL into history as a

prime locator and placer of global forced labor in the Cold War.[189] The AFL reclaims the

map as part of its institutional memory, and the map becomes evidence not just of the

existence of Soviet camps, but of the existence (and remembrance) of institutional labor's

role in waging Cold War.[190]

Conclusion

Ultimately, the story of "Gulag—Slavery, Inc." is a heightened representation of

maps as tense, often contradictory visual containers of both hard, spatial "truths" and

flexible arguments, contingent on the medium in which the map is serving, and marked

by intertextual relationships among a host of Cold War institutions. But it is the "footnote

status" of "Gulag—Slavery, Inc." that makes it a compelling case. The map has long

been buried as a curio in the cultural propaganda exchange between the United States and

the Soviet Union. A revisiting of the often-overlooked map, however, allows an entry

into the everyday flow of Cold War culture. In a sense, it is this culture that actually

draws the map and gives it meaning beyond what the map simply displays on the page.

The State Department could use the Gulag map as a material, diplomatic weapon in its

mission to cultivate international opinion, the AFL could use it as evidence of its

commitment to anti-Communism around the world (and in its own ranks), while citizens

and civic groups could use it as a frame for Cold War citizenship. To paraphrase

Finnegan, the Gulag map was an "eventful image," materially working its way through a

multitude of contexts and being marshaled into Cold War skirmishes both public and

private.[191] This case reveals how any reading of a map must negotiate the nature of maps

as both product and process—that tension is what gives mapping an explosive dimension in a highly spatialized conflict such as the Cold War.

"Why a map?" remains a viable question in this case. In other words, if the focus is on having the authentic evidence to prove the existence of forced labor camps, then why not make the camp photographs or the release certificates the main subject of the display? A plausible answer lies in this competition for the locatory power of placement between the United States and the Soviet Union in this era. The photos and the release certificates need the map to anchor them in a particular spatial network—that act of mapping commits the existence of forced labor, as authenticated through photos and documents, into the international, bipolar geopolitics of the Cold War. What were propagandistic rumors were now frozen into a cartographic image, and in an era when an ideological conflict between two nuclear superpowers became so heightened, the need for scientific abstraction and management grew as well. A map, arguably, could manage facts with efficiency and cleanliness in ways that photographs could not, and could "place" its information through the use of aggregate forms. William Young, a consultant for the Operations Research Office (a civilian military research center at Johns Hopkins and founded by the U.S. Army), wrote in 1958 of the Gulag map's utility in presenting a persuasive case:

> [The map] contains no vigorous and generalized indictment, no direct call for righteous indignation, no appeal to forswear communism or close one's ears to the siren call of the Soviet. Instead, it is largely almost placidly informative. The reader may draw his own conclusions as to whether he is for or against such a

system. Thus it is not surprising that the Gulag map has been one of the most

widely circulated pieces of anti-Communist literature.[192]

Young, thus, directly attributes the map's commitment to measured authenticity as

fundamental to its circulation. The Gulag map's power of placement in making an

incendiary argument necessarily draws on cartography's own perpetual story of itself as a

self-evident reflection of truths about the world. As Wood and Fels write, "The most

fundamental cartographic claim *is to be a system of facts*, and its history has most often

been written as the story of its ability to present those facts with ever increasing

accuracy."[193] Particularly in a Cold War context, America set cartographic accuracy as a

high-stakes priority. The Gulag map case is an early representation of that premium on

accuracy. The dots, sickles, and other elements of the map go beyond merely representing

labor camps and become an instantiation of Cold War ideology to absorb in one visual

glance.[194] In the end, what this approach seeks to prove is that a map is never just a map,

but a confluence of social forces that cohere to constrain a culture's sense of its space, for

as Wood and Fels point out, "ultimately it is the *interaction* between map and paramap

that propels the map into action."[195]

The Gulag map's representation of the anxieties around America's production of

knowledge about the Soviet Union, and its ability to *place* that knowledge with authority,

is arguably its most enduring contribution. America is nowhere to be seen on this map,

but outside the margins, the map's content, its production, and its circulation very much

concern the *placement* of American values in the Cold War—the power of knowledge in

the *where* of the Cold War. The Gulag map (and its various versions) starkly reveals *what

was not supposed to be known*, a visual rendering of forbidden and lurid knowledge; in

this way, the map attempts to spatially infiltrate the usually impenetrable landscape of the Soviet Union. The archetypal Cold War map of the early 1950s, often found in magazines such as *Time*, *Life*, and *Newsweek*, shows an expanding Soviet Union with arrows (or, infamously, tentacles) tracing its "reach" across the earth. Typically, the Soviet Union is presented in these maps as one homogenous mass, with legends and captions admitting that there exists a lack of knowledge in what its borders contain. The Gulag map, instead, subverts this homogenization by locating the Cold War within the borders of the Soviet Union, and this marks a kind of rhetorical coup for the United States.

Still, this subversion can only go so far. Geographer Sanjay Chaturvedi points out that in Cold War geopolitics, often "the singular attributes of a particular place were subordinated to its perceived position in the abstract spaces of the Cold War."[196] The Gulag map remains an interesting case because while it emphasizes the placement of particular camps and even includes the human connection to those places (e.g., children's bodies, signatures on passports), it still serves the abstract objectives of the Cold War, allowing the Soviet Union to become "pure negative space" on the map, and blunting its ability to socially protest against forced labor. Despite its provocative arguments, the map is still structured by a cartographic grammar that conforms to the map's formal expectations to reveal spatial "truth." Much of cartography's service during the Cold War was for strategic management of increasingly abstract and technologized international spaces, and the Gulag map was inextricable from this context. "Gulag—Slavery, Inc." might poignantly protest the plight of prisoners, but the map is equally situated as a tool of surveillance that affirms the Cold War era's essential bipolarity.

This chapter has explored the active natures of Cold War maps in a variety of contexts, particularly in how cartography evolved from the air-age globalism of World War II into a more anxious and bipolar internationalism, driven by a partitioned world full of blocs, pacts, and commitments. Cartography was strategically hailed to manage these new anxieties, whether in a newsmagazine, a Congressional report, an Air Force manual, or a Voice of America broadcast. The need for America to possess the power of placement in abstract spaces—the stabilization of meaning that Massey defined—would become even more crucial as the contested, unstable spatial concept of the "Third World" changed the way the bipolar landscape was constructed and acted upon.

Notes: Chapter Three

[1] Benjamin Fine, "Geography Almost Ignored in Colleges, Survey Shows," *New York Times*, December 18, 1950.

[2] Fine, "Geography Almost Ignored."

[3] A similar study was reported on (again as front page news, and again alongside headlines about American power in Europe and the Pacific) by the *Times* in June of 1951, except this survey more specifically revealed the inadequacy of college students being able to place certain areas across the world map and the lack of basic spatial facts about the international landscape, as "appalling misstatements were found concerning the Soviet Union" and that "despite the role that this country is now taking in world leadership, the college students know very little about the world beyond their own borders." See Benjamin Fine, "U.S. College Students 'Flunk' in Knowledge of Geography," *New York Times*, June 11, 1951.

[4] Again, for discussions of the "shrinking world" concept, see Hans W. Weigert, "Maps are Weapons," *Survey Graphic* 30 (1941): 528–30; and Derwent Whittlesey, "The Horizon of Geography," *Annals of the Association of American Geographers* 35 (1945): 1–36.

[5] Fine, "Geography Almost Ignored," 28.

[6] National Geographic Society, "World Map 1951," Map (Washington, DC: National Geographic, 1951), World-International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC.

[7] Mark Monmonier, *Rhumb Lines and Map Wars: A Social History of the Mercator Projection* (Chicago: University of Chicago Press, 2004), 138.

[8] Historical geographer Jeremy Black writes of the influence of the *Geographic*'s important choice of projection: "The Society's maps were the staple of educational institutions, the basis of maps used by newspapers and television, and the acme of public cartography, for the period when the USA was the most powerful nation in the world…In [the Van der Grinten] projection a large U.S.S.R. appeared menacing, a threat to the whole of Eurasia, and a dominant presence in the world that required containment. It was a cartographic image appropriate for the Cold War." Jeremy Black, *Maps and Politics* (Chicago: University of Chicago Press, 1997), 31.

[9] "Our Narrowing World: The Story of the New National Geographic Map," *National Geographic*, December 1951, 751.

[10] "Our Narrowing World," 751.

[11] "Our Narrowing World," 752–53.

[12] For more on the important relationship between geography and history in this era, see Susan Schulten, *The Geographical Imagination in America, 1880-1950* (Chicago: University of Chicago Press, 2001), 240. See also John Agnew, *Geopolitics: Re-Envisioning World Politics* 2nd Edition (New York: Routledge, 2003), 36.

[13] "Our Narrowing World," 752.

[14] "Our Narrowing World," 751.

[15] Commercial map companies like A.J. Nystrom and Denoyer-Geppert also provided this function through their extensive educational maps. See especially A.J. Nystrom, "The Cold War and the Search for Security 1960," Map (Chicago: A.J. Nystrom, 1960), World-International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC; Denoyer-Geppert, "World

Relationships Today," Map (Chicago: Denoyer-Geppert, 1958), World-International Relations Folder, *Title Collection*.

[16] See Ninkovich's introduction in Frank Ninkovich, *Modernity and Power: A History of the Domino Theory in the Twentieth Century* (Chicago: University of Chicago Press, 1994).

[17] Mark Monmonier, *Maps With the News: The Development of American Journalistic Cartography* (Chicago: University of Chicago Press, 1989), 19.

[18] Walter W. Ristow, "Journalistic Cartography," *Surveying and Mapping* 17 (1957): 369.

[19] For an early history of the Associated Press, see Oliver Gramling, *AP: The Story of News* (New York: Farrar and Rinehart, 1940).

[20] Monmonier, *Maps With the News*, 85.

[21] *Associated Press*, "Background Map: Sun Never Sets on World Problems," Map (New York: Associated Press, 1947), World-International Relations Folder, *Title Collection,* Geography and Map Division, Library of Congress, Washington, DC.

[22] *Associated Press*, "Background Map: The United Nations Lends a Hand," Map (New York: Associated Press, 1948), World-International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC. See also *Associated Press*, "Background Map: United Nations Commencing Third Year," Map (New York: Associated Press, 1947); and *Associated Press*, "Background Map: UN Assembly to Consider Myriad Far-Flung Problems," Map (New York: Associated Press, 1952). Both can be found in the World-International Relations Folder from the *Title Collection*.

[23] For another textual example of this, see *Associated Press*, "Background Map: World Wide Treaties Bolster America," Map (New York: Associated Press, 1951), World-International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC.

[24] *Associated Press*, "Background Map: The U.S. Foots the Biggest Bill," Map (New York: Associated Press, 1953), World-International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC.

[25] *Associated Press*, "Background Map: News 1949 Lineup for Two Worlds," Map (New York: Associated Press, 1949), World-International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC.

[26] *Associated Press*, "Background Map: Russia Thrusts Out from the Center," Map (New York: Associated Press, 1950), World-International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC.

[27] Ninkovich's discussion of Kennan's essential containment concept is instructive on this point about Russia's cultural tradition. See Ninkovich, *Modernity and Power*, 140.

[28] *Associated Press*, "Background Map: Are the West's Defenses Against Communism Weakening?," Map (New York: Associated Press, 1953), World-International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC.

[29] For a history of Luce's impact on Cold War culture, see especially W.A. Swanberg, *Luce and His Empire* (New York: Scribner, 1972); and Robert E. Herzstein,

Henry R. Luce, Time, and the American Crusade in Asia (Cambridge, UK: Cambridge University Press, 2005).

[30] "A Letter From the Publisher," *Time*, December 14, 1942, http://www.time.com/time/magazine/article/0,9171,774067,00.html.

[31] "A Letter From the Publisher."

[32] Ristow offers an extended discussion of *Time*'s cartographic style in Ristow, "Journalistic Cartography," 384–85.

[33] "Paths to Power," Map, *Time*, February 5, 1951, 20.

[34] "Red Rash (After Treatment)," Map, *Time*, May 23, 1949, 27.

[35] For a discussion of Cold War metaphors in cartography, see Cyndy Hendershot and Antony Oldknow, *Virtual Slide Set #1: Cold War Popular Magazine Cartography*, (Chicago: Hermon Dunlap Smith Center for the History of Cartography, 2002), slides and commentary, http://www.newberry.org/smith/slidesets/vs1.html.

[36] "Squeeze," Map, *Time*, October 2, 1950, 15; "Korea's Waistland," Map, *Time*, October 16, 1950, 26.

[37] "Eleventh Hour," Map, *Time*, October 20, 1947, 34; "Eurasian Heartland," Map, *Time*, September 22, 1947, 28.

[38] "Clearing & Colder," Map, *Time*, April 19, 1948, 27. Even in maps that were not about military confrontations, *Time* and other magazines would rely on visual concepts of "encirclement" and "invasion" when covering diplomacy, economics, and the spread of international communication. In 1949's "Weather Eyes," for example, red cartoon eyes are used as icons to indicate where Soviet "radiosonde weather stations"

exist, adding a Cold War military surveillance motif into an innocuous weather map. See

"Weather Eyes," Map, *Time*, March 17, 1947, 36.

[39] "Nation's Commitments All Around the Earth," Map, *Life*, December 23, 1957,

20–21.

[40] "Western Defense and What NATO Links Are in Danger," Map, *Newsweek*,

December 17, 1956, 28–29.

[41] "Red Web: Return of the Refugees," Map, *Newsweek*, March 12, 1956.

[42] "How Strategic Material Circulates," Map, *Life*, January 26, 1953, 27.

[43] Hendershot and Oldknow, *Virtual Slide Set #1*. For more specifically on

octopus imagery in Cold War map, see John Pickles, "Text, Hermeneutics and

Propaganda Maps," in *Writing Worlds: Discourse, Text & Metaphor in the

Representation of Landscape*, eds. Trevor J. Barnes and James S. Duncan (London:

Routledge, 1992), 211–17.

[44] "How Could Soviet Attack Come?," Map, *Life*, February 27, 1950, 20–22.

[45] See also *Life*'s "Attack on U.S.," which inverts this by making the spherical

projection focus on the U.S., and showing potential airborne attacks from all sides of the

earth. "Attack on U.S.," Map, *Life*, January 22, 1951, 78–79.

[46] "Turning the Tables: How Far the Russians Must Fly to Hit U.S. Cities," Map,

Newsweek, October 3, 1949, 26.

[47] "Striking Back: We Can Hit the 'Heart' of Russia," Map, *Newsweek*, April 5,

1954, 36.

[48] "Massive Retaliatory Power," Map, *Fortune*, May 1954, 105.

[49] The magazines also offered other innovations. Harrison's polar-projecting influence reached into the frequent depictions of the Arctic as an important Cold War front for strategic security purposes. *Life*'s "Arctic Strategy" departs from *Time*'s blood red for icy blues on a spherical Northern hemisphere to bring East and West into a kind of stare-off over the polar divide, while *Newsweek*'s often more technical and detailed style, as seen in 1954's "The Coldest Cold War," show the Arctic as a complex, contested landscape of intertwining sovereignties and military surveillance. "Arctic Strategy," Map, *Life*, January 20, 1947, 55–56; "The Coldest Cold War," Map, *Newsweek*, November 15, 1954, 54.

[50] A good source of the "social role" of newspapers and magazines in this era can be found in Patricia Gilmartin, "The Design of Journalistic Maps/Purposes, Parameters and Prospects," *Cartographica* 22 (1985): 1–18.

[51] See also William Davies, "Interpretative Cartography," *Surveying & Mapping* 11 (1951): 121–22.

[52] The Serial Set has collected and published all House and Senate documents and addenda to bills and reports since 1817.

[53] "Regional Security," Map, Committee on Foreign Relations, *Foreign Assistance Act of 1949*, 81st Congress, 1st sess., 1949, S. Rep. 1068, serial 11294, 8.

[54] "As the U.S. Bolsters the Position of the Western World," Map, Committee on Foreign Affairs, *Mutual Defense Assistance Act of 1949*, 81st Congress, 1st sess., 1949, H. Rep. 1265, serial 11301, 24.

[55] "United States Collective Defense Arrangements," Map, Committee on Foreign Relations, *Studies on Review of United Nations Charter*, 83rd Congress, 2nd sess., 1954, S. Doc. 164, serial 11760, 204–5.

[56] "U.S. Postwar Foreign Aid," Map, *Mutual Security Act of 1952*, 82nd Congress, 2nd sess. 1952, S. Rep. 1490, serial 11567, 15.

[57] For a few examples of these, see "Cost Per Soldier 1960," Map, Committee on Foreign Affairs, *Mutual Security Act of 1961*, 87th Congress, 1st sess., 1961, H. Rep 851, serial 12341, 56; "Cost Per Soldier 1959," Map, Committee on Foreign Affairs, *Mutual Security Act of 1960*, 86th Congress, 2nd sess., 1960, H. Rep. 1464, serial 12244, 20; and "Cost Per Soldier – Pay, Allowances, Subsistence and Clothing," Map, Committee on Foreign Affairs, *Mutual Security Act of 1959*, 86th Congress, 1st sess., 1959, H. Rep. 440, serial 12160, 12.

[58] Committee on Un-American Activities, *Soviet Total War*, 85th Congress, 1st sess., 1956, H. Doc. 227, serial 12017.

[59] Research Institute of America, "How Communists Menace Vital Materials," Map, Committee on Un-American Activities, *Soviet Total War*, 85th Congress, 1st sess., 1956, H. Doc. 227, serial 12017, 550.

[60] See "Africa," Map, Committee on Un-American Activities, *Soviet Total War*, 85th Congress, 1st sess., 1956, H. Doc. 227, serial 12017, 587; "Areas of Communist Influence," Map, Committee on Un-American Activities, *Soviet Total War*, 85th Congress, 1st sess., 1956, H. Doc. 227, serial 12017, 561.

[61] Historian Walter LaFeber recounted a particularly salient 1951 incident at a Japanese peace treaty signing with John Foster Dulles. At the conference, Dulles had

attempted to exclude Russia from the early negotiations. When the Soviets were

eventually allowed to participate, Dulles interpreted their proposal as an attempt to

dominate the area around Japan. Dulles gave a speech and demonstrated this effect of the

Soviet plan on a large map—as one participant recalled, he "took the map dramatically

and held it up…and then threw it on the floor with the utmost contempt. And that made a

tremendous impression." Here, Dulles was reacting to and drawing upon the felt power of

the map as an evidentiary weapon, a flexible and potent discursive instrument to provoke

reaction and establish America's superior knowledge of enemy space. In such an incident,

the power lies less in how the map looked, but more in how it was drawn into the context

of an increasingly chilly Cold War. This eyewitness anecdote comes from C. Stanton

Babcock, which LaFeber unearthed from the Dulles Oral History Project in the Dulles

Papers at Princeton. See Walter LaFeber, *America, Russia, and the Cold War, 1945-1996*,

8th ed. (New York: McGraw-Hill, 1997), 120.

[62] "The Warmongers," *Time*, October 11, 1948, 29–30.

[63] "The Warmongers," 30.

[64] Another good example of this function concerns the *New York World-Telegram
and Sun*'s printing of an interview with Senator William Benton of Connecticut, who was

outraged at what he claimed was the increasing superiority of Soviet maps. To illustrate

his displeasure, Benton used cartographic evidence of how a prominent New York

publisher relied on a *Soviet* map of Westchester County rather than an American-made

one. Popular cartographer Richard Edes Harrison, in fact, used Benton's complaint to

frame the introduction to an article in *Harper's*, entitled "Why Our Maps Aren't Good

Enough," a title that speaks well to the high stakes that maps increasingly faced. Richard

Edes Harrison, "Why Our Maps Aren't Good Enough," *Harper's*, July 1958, 83–84.

[65] "Security Council Rejects Soviet Complaint Against U.S. in RB-47 Incident;

U.S.S.R. Casts 88th and 89th Vetoes," *Department of State Bulletin* 43 (1960): 235–44.

[66] British Pathé, "U.S. Declares Reds Pushed RB-47 Off Course," newsreel, 2 min.

(New York: News of the Day, 1960), http://www.britishpathe.com/record.php?id=67796.

[67] The Library of Congress houses copies of the actual maps that Lodge used in

the presentation. See "Detailed Flight Path (Planned and Actual) of the RB-47 Aircraft, 1

July 1960," "Planned Route of the RB-47 Aircraft," "Vega Incident," and "USSR

Electromagnetic Reconnaissance Flights," Maps (New York: United Nations, 1960),

U.S.-International Relations Folder*, Title Collection*, Geography and Map Division,

Library of Congress, Washington, DC.

[68] "Security Council Rejects," 236–37.

[69] For a good source on this politics of the air in the Cold War, see Walt Rostow's

account of his involvement in Eisenhower's Open Skies proposal, also containing a great

collection of primary documents surrounding the matter. W.W. Rostow, *Open Skies:*

Eisenhower's Proposal of July 21, 1955 (Austin: University of Texas Press, 1982).

[70] "News in Pictures: Gulag—Slavery, Inc.," *Time*, September 17, 1951, 28–29.

[71] "News in Pictures," 29.

[72] See photo in "Gromyko Given Russ Map With Slave Camps," *Los Angeles*

Times September 7, 1951, 2.

[73] William R. Young, "Gulag—Slavery, Inc.: The Use of an Illustrated Map in Printed Propaganda," in *Psychological Warfare Casebook*, ed. William E. Daugherty (Baltimore, MD: Johns Hopkins University Press, 1958), 601.

[74] See Prelli, *Rhetorics of Display*.

[75] Cara Finnegan, *Picturing Poverty: Print Culture and FSA Photographs* (Washington, DC: Smithsonian Books, 2003), xii.

[76] Doreen Massey, *Space, Place and Gender* (Minneapolis: University of Minnesota, 1994), 5.

[77] For a discussion of "place" as locatory power, see Edward S. Casey, *Getting Back Into Place: Toward a Renewed Understanding of the Place-World* (Bloomington: Indiana University Press, 2009).

[78] For a concise discussion of the importance of modern conceptions of place, see Marwyn Samuels, "To Rescue Place," *Progress in Human Geography* 16 (1992): 597–604.

[79] Agnew, *Geopolitics*, 108.

[80] Susan Carruthers, *Cold War Captives: Imprisonment, Escape, and Brainwashing* (Berkeley: University of California Press, 2009), 101.

[81] Representative O.K. Armstrong of Missouri, "A Crusade of Truth and Freedom," *Congressional Record*, 82nd Congress, 2nd sess., 1952, vol. 98, pt. 8, A1237.

[82] Robert Hariman and John Louis Lucaites, "Public Identity and Collective Memory in U.S. Iconic Photography: The Image of 'Accidental Napalm'," *Critical Studies in Media Communication* 20 (2003): 37–38.

[83] Hariman and Lucaites, "Public Identity," 38.

[84] Pickles, "Texts, Hermeneutics," 217; Alan K. Henrikson, "Power and Politics of Maps," in *Reordering the World: Geopolitical Perspectives on the 21st Century*, eds. George J. Demko and William B. Wood (Boulder, CO: Westview Press, 1994), 51.

[85] Denis Wood and John Fels, *The Natures of Maps* (Chicago: University of Chicago Press, 2008), 8–9.

[86] Isaac Don Levine, "Gulag—Slavery, Inc." in *Plain Talk: An Anthology From the Leading Anti-Communist Magazine of the 40s*, ed. Isaac Don Levine (New Rochelle, NY: Arlington House, 1976), 235. See also Aleksandr Solzhenitsyn, *Gulag Archipelago, 1918-1956: An Experiment in Literary Investigation*, trans. Thomas P. Whitney (New York: Harper & Row, 1974).

[87] Eugene H. Methvin, "Isaac Don Levine: Herald of Free Russia," *Modern Age* (1995): 247.

[88] Levine would also provide character testimony on Chambers' behalf during the Hiss hearings. See Whittaker Chambers, *Witness* (Washington, DC: Regnery Gateway, 1952), 457–66; Isaac Don Levine, *Eyewitness to History: Memoirs and Reflections of a Foreign Correspondent for Half a Century* (New York: Hawthorn Books, 1973), 179–212.

[89] Levine, *Eyewitness to History*, xii.

[90] In particular, Parry-Giles' chapter on "Militarized Propaganda" details the appropriations of defector narratives in journalistic contexts and autobiographies, and how such narratives were built on the eye-witness experiences of communism, especially by former elites. Also key, though, is what Parry-Giles calls the "hidden hand of the U.S. government," wherein these seemingly journalistic accounts were orchestrated by an

increasingly systematic set of collaborations between the Department of State, the CIA, and Truman's office. Shawn J. Parry-Giles, *The Rhetorical Presidency, Propaganda, and the Cold War, 1945-1955* (Westport, CT: Praeger, 2002), 75–96.

[91] Methvin, "Isaac Don Levine," 247.

[92] Isaac Don Levine, "'Gulag'—Slavery, Inc.," *Plain Talk*, May 1947, 23–26. The map itself is on page 24–25. The foldout, distributed version of Levine's *Plain Talk* map can be found at the George Meany Archives, which houses the historical records of the AFL-CIO. See "Gulag—Slavery, Inc.: *Plain Talk* Version," Map, 1947, Box 55, folder: Slave Labor 1919-1950, Vertical Files 1881-1999, RG98, George Meany Memorial Archives, Silver Spring, MD.

[93] Levine, "'Gulag'—Slavery, Inc.," 25.

[94] David J. Dallin and Boris I. Nicolaevsky, *Forced Labor in Soviet Russia* (New York: Octagon, 1974).

[95] Carruthers, *Cold War Captives*, 76, 109, 117.

[96] Dallin and Nicolaevsky, *Forced Labor*, 55–57, 60, 64–65. Also see the review of the book in Orville Prescott, "Books of the Times," *New York Times*, August 26, 1947.

[97] The only available copy is the Italian translation and can be found at the Law Library of the Library of Congress. The map is a fold-out inset in the back cover. Silvestro Mora and Pietro Zwierniak, *Giustizia Sovietica* (Rome: Magi-Spinetti, 1945).

[98] The etymology of the Polish map's origins and how it came to influence Levine is unclear. Dallin directly cites *La Justice Sovietique*—his map of "The Corrective Labor Camps, 1942" contains a note that simply says, "After Mora and Zwierniak, *La Justice Sovietique*." And in his suggestions for further reading, Dallin mentions *La Justice* as

"one of the most important books ever to appear on Russian prison camps" and that "the map attached to the book is of great interest and value." Levine never explicitly cites Mora and Zwierniak, but does mention that most of his sources are Polish. To make the matter more confusing, a *Catholic Digest* article from 1952 says that the "map had been compiled by a former Soviet citizen and was first published in Rome in 1945 in a book, *La Justice Sovietique*. American Federation of Labor investigators revised it the next year to include information obtained by questioning inmates and officials." This article makes no mention of Levine at all. And none of these sources indicate how the design firm Sigman-Ward compiled and drew their version of the map that ended up in *Plain Talk*. See Dallin and Nicolaevsky, *Forced Labor*, 60, 313; Paul Wohl, "Seven Million Soviet Slaves," *Catholic Digest*, March 1952, 44.

[99] Prescott, "Books of the Times."

[100] A good example of the cross-flow between popular and government perspectives on the forced labor issue is in Rep. John E. Rankin of Mississippi speaking on April 15, 1947 in the House of Representatives about the need to make a complete break with Communist Russia, where he also inserts Max Eastman's 1947 *Reader's Digest* article "The Truth About Soviet Russia's 14,000,000 Slaves," one of the earliest exposes, along with Levine, in American popular journalism. See Representative John E. Rankin of Mississippi, "Break With Communist Russia," *Congressional Record*, 80th Congress, 1st sess., 1947, vol. 93, pt. 11, A1684–87.

[101] "NSC-68: A Report to the President Pursuant to the President's Directive of January 31, 1950," Department of State, *Foreign Relations of the United States: 1950*, vol. 1, 239, 240, 243.

[102] For a critical analysis of NSC-68 and its slave language, see Robert P. Newman, "NSC (National Insecurity) 68: Nitze's Second Hallucination," in *Critical Reflections on the Cold War: Linking Rhetoric and History*, eds. Martin Medhurst and H.W. Brands (College Station: Texas A&M University Press, 2000), 56–90.

[103] Carruthers, *Cold War Captives*, 267.

[104] "Slavery in Russia," *Chicago Daily Tribune*, November 14, 1947, 20.

[105] "Slavery in Russia," 20.

[106] On the "scientific internationalism" of UNESCO during the Cold War, particularly in reference to mapping, see Ronald E. Doel, "Constituting the Postwar Earth Sciences: The Military's Influence on the Environmental Sciences in the USA After 1945," *Social Studies of Science* 33 (2003): 635–66.

[107] Young, "Gulag—Slavery, Inc.," 599. See the collected materials in Box 55, folder: Slave Labor 1919-1950, Vertical Files 1881-1999, RG98, George Meany Memorial Archives, Silver Spring, MD.

[108] American Federation of Labor, *Slave Labor in Russia: The Case Presented by the American Federation of Labor to the United Nations* (Washington, DC: American Federation of Labor, 1949), 32.

[109] *Slave Labor in Russia*, x.

[110] *Slave Labor in Russia*, ix–x.

[111] Young, "Gulag—Slavery, Inc.," 599.

[112] For more on the Free Trade Union Committee and its work during this time, see Series 1, Box 35, folders 19–27, RG 18, George Meany Memorial Archives, Silver Spring, MD.

[113] Russell H. Bartley, "The Piper Played To Us All: Orchestrating the Cultural Cold War in the USA, Europe, and Latin America," *International Journal of Politics, Culture, and Society* 14 (2001): 585. For a comprehensive history of the so-called cultural Cold War waged by the CIA, see Frances Stonor Saunders, *Who Paid the Piper? The CIA and the Cultural Cold War* (London: Granta, 1999). From a rhetorical perspective, see Parry-Giles, *The Rhetorical Presidency*, 92–96.

[114] Ted Morgan, *A Covert Life: Jay Lovestone – Communist, Anti-Communist, and Spymaster* (New York: Random House, 1999), 144, 196–99. Lovestone's main contact for funding was through Frank Wisner's Office of Policy Coordination, the covert action arm of the CIA. See also John Ranelagh, *The Agency: The Rise and Decline of the CIA* (London: Weidenfeld and Nicolson, 1986), 248–49. Free Trade Union Committee member Irving Brown was also working with the CIA at the time, an important figure in the agency's Congress for Cultural Freedom. See Michael Warner, "Origins of the Congress for Cultural Freedom," *Studies in Intelligence* 38 (1995), https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/csi-studies/studies/95unclass/Warner.html.

[115] Department of State Decimal Files 1950-1954, 861.064, Box 5157, RG59, Textual Records Division, National Archives II, College Park.

[116] Young, "Gulag—Slavery, Inc.," 601.

[117] The Free Trade Union Committee's correspondence with Levine can be found in Box 47, folder 11, International Affairs Department, Jay Lovestone Files, 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[118] Wood and Fels, *The Natures of Maps*, xvi.

[119] Carruthers, *Cold War Captives*, 133.

[120] For a good theoretical discussion of a map's aesthetic codes, see Christian Jacob, *The Sovereign Map: Theoretical Approaches in Cartography Throughout History*, trans. Tom Conley (Chicago: University of Chicago Press, 2006).

[121] Levine, "'Gulag'—Slavery, Inc.," 23.

[122] Levine, "'Gulag'—Slavery, Inc.," 26.

[123] See Harley's theory of "map silences" in J.B. Harley, "Deconstructing the Map," in *Writing Worlds*, 233.

[124] Carruthers, *Cold War Captives*, 101. The memo can be found in Bertram Wolfe, International Broadcasting Division, to Walter Kotschnig, UNE, memo, "Research on Forced Labor from the Propaganda Point of View," November 29, 1951, US Mission to the UN, NYC, Box 18, Folder: Labor: Compulsory, RG84, Textual Records Division, National Archives II, College Park.

[125] Benedict Anderson, *Imagined Communities*, rev. ed. (London: Verso, 1991), 175.

[126] Alan K. Henrikson, "America's Changing Place in the World: From 'Periphery to 'Centre'?," in *Centre and Periphery: Spatial Variation in Politics*, ed. Jean Gottmann (London: Sage, 1980), 88.

[127] For a discussion of how iconography works in the internal "codes" of maps, see Denis Wood and John Fels, "Designs on Signs/Myth and Meaning in Maps," *Cartographica* 23 (1986): 73–78.

[128] Levine, "'Gulag'—Slavery, Inc.," 24–25.

[129] For a discussion of how parody has been used in maps of social change, see Timothy Barney, "Power Lines: The Rhetoric of Maps as Social Change in the Post-Cold War Landscape," *Quarterly Journal of Speech* 95 (2009): 421–22.

[130] Pickles, "Texts, Hermeneutics," 217–19.

[131] American Federation of Labor, *Slave Labor in the Soviet World* (Washington, DC: American Federation of Labor, 1951), 16–17.

[132] AFL, *Slave Labor in the Soviet World*, 30.

[133] The George Meany Archives contains a sizable amount of these original documentary passports and testimonies from former prisoners. For example, see Box 59, Folders 14 and 15, International Affairs Department, Irving Brown Files 1943-1989, RG18, George Meany Memorial Archives, Silver Spring, MD.

[134] The pictures of the camp victims were omitted from the AFL *Slave Labor in the Soviet World* pamphlet, and a few of the newspaper reprints would also omit the photos.

[135] See Maurice Halbwachs, *The Collective Memory* (New York: Harper & Row, 1980).

[136] Barbie Zelizer, *Remembering to Forget: Holocaust Memory Through the Camera's Eye* (Chicago: University of Chicago Press, 1998), 3.

[137] Levine, "'Gulag'—Slavery, Inc.," 26.

[138] For more information on maps and their use of temporal authority, and the complications of geography and history, see Wood and Fels, "Designs on Signs," 82–86.

[139] A story from the AFL *Weekly News Reporter* from 1953 extends this Polish connection to slave labor even further, noting that the International Federation of Free

Journalists had created a map showing the location of 74 forced labor camps in Poland, and noted that "escaped Poles said the food and organization of the camps are very similar to the original Nazi system." The actual map, though, in reference, could not be found. See "Modern Slave Camps Exposed," *AFL Weekly News Reporter*, January 2, 1953, Box 55, Folder: Slave Labor 1951-1984, Vertical Files 1881-1999, RG98, George Meany Memorial Archives, Silver Spring, MD.

[140] Parry-Giles, *The Rhetorical Presidency*, xx–xxi, 49–51.

[141] For more on the dualities of containment and liberation, see Robert L. Ivie, "Cold War Motives and the Rhetorical Metaphor: A Framework of Criticism," in *Cold War Rhetoric: Strategy, Metaphor, and Ideology*, eds. Martin J. Medhurst, Robert L. Ivie, Philip Wander, and Robert L. Scott (New York: Greenwood, 1990), 74–75; Ned O'Gorman, "'The One Word the Kremlin Fears': C.D. Jackson, Cold War 'Liberation,' and American Political-Economic Adventurism," *Rhetoric & Public Affairs* 12 (2009): 389–428.

[142] American Federation of Labor Free Trade Union Committee, "Gulag—Slavery, Inc.," Graphics Collection, George Meany Archives, Silver Spring, MD. Some versions of Levine's *Plain Talk* map also included a reward, except, of course, to be provided by *Plain Talk* instead of the AFL.

[143] Wood and Fels, *The Natures of Maps*, xvi.

[144] Pickles, "Texts, Hermeneutics," 209.

[145] Pickles, "Texts, Hermeneutics," 193.

[146] "Workers of Free World 'Spotlight' Red Slave Labor," *Minneapolis Star*, March 7, 1951, Box 59, Folder: Slave Labor, Newspaper Reactions, 1951, International

Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[147] "Russia's Slave Labor Camps Hold 14 Million," *The Labor Review: Portsmouth Ohio*, Box 59, Folder: Slave Labor, Newspaper Reactions, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[148] An early discussion of the power of geographic images to connote capacity and volume can be found in Whittlesey, "The Horizon of Geography," 20–23.

[149] "Gulag Map," *Christian Science Monitor*, December 13, 1951, Box 59, Folder 6, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD; "Daily News Page," *NEA News*, June 6, 1951, Box 59, Folder 6, International Affairs Department, Jay Lovestone Files 1939-1974, RG18. For an in-depth exploration of "newspaper style" in cartography, see Monmonier, *Maps With the News*.

[150] "Gromyko Given Russ Map With Slave Camps," *Los Angeles Times*, September 7, 1951.

[151] "Gromyko Gets Answer on Map of Slave Camps," *New York Times*, September 9, 1951.

[152] See Box 59, Folder: Slave Labor-Maps, Requests For, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[153] Box 59, Folder: Slave Labor-Maps, Requests For, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[154] Box 59, Folder: Slave Labor-Maps, Requests For, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[155] Box 59, Folder: Slave Labor-Maps, Requests For, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[156] Box 59, Folder: Slave Labor-Maps, Requests For, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[157] AFL, *Slave Labor in the Soviet World*, 31.

[158] Nicholas J. Cull, *The Cold War and the United States Information Agency – American Propaganda and Public Diplomacy 1945-1989* (Cambridge: Cambridge University Press, 2008), xv.

[159] Young, "Gulag—Slavery, Inc.," 601.

[160] Young, "Gulag—Slavery, Inc.," 602.

[161] A government-printed version of "Gulag—Slavery, Inc." is housed at the Meany archives. The map does not differ at all from the AFL version, except that there is a Government Printing Office number at the bottom. See Box 59, Folder 1, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[162] International Confederation of Free Trade Unions, *Stalin's Slave Camps: An Indictment of Modern Slavery* (Brussels: ICFTU, 1951), Box 8, Folder 15, International Affairs Department, Country Files 1945-1971, Soviet Union Printed Materials 1942-1970, RG18, George Meany Memorial Archives. Also see Arthur H. Koonce, "One Out of Every Ten Stalin's Slave?," *Washington Evening Star*, October 19, 1951, Box 59, Folder – Slave Labor: Newspaper Reactions, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD. The fact about the CIA's sponsorship can be found in Akira Iriye, *Global Community: The Role of International Organizations in the Making of the Contemporary World* (Berkeley: University of California Press, 2002), 53.

[163] See Young, "Gulag—Slavery, Inc.," 601; "News in Pictures," 29.

[164] Memorandum, Wolf Von Eckardt to Free Trade Union Committee, Box 59, Folder: Slave Labor in Russia 1949-1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD. Also, the archive indicates that the International Graphical Federation was being contracted for German translations of the map from a June 28, 1951 memo. Box 59, Folder: Slave Labor-Maps, Requests For, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18.

[165] The French translation of the map can be found in: Box 59, Folder: Slave Labor – Newspaper Reactions 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD. The Swiss version in *Die Nation* was included in their July 29, 1951 issue—see Box 59,

Folder: Slave Labor-Maps, Requests For, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18.

[166] Copy of Jensen's speech can be located in Box 55, Folder: Slave Labor 1951-1984, Vertical Files 1881-1999, RG98, George Meany Memorial Archives, Silver Spring, MD.

[167] Letter, M.H. Hedges to Jay Lovestone, March 21, 1951, Box 59, Folder: Slave Labor-Maps, Requests For, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[168] Box 55, Folder: Slave Labor 1951-1984, Vertical Files 1881-1999, RG98, George Meany Memorial Archives, Silver Spring, MD.

[169] Bela Fabian to Free Trade Union Committee, September 19, 1951; and Alfred Skar to Free Trade Union Committee, July 6, 1951 – Box 59, Folder: Slave Labor-Maps, Requests For, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[170] "Soviet Map Seizure in Vienna Protested," *New York Times*, October 20, 1951.

[171] "Soviets Seize Map of Labor, Call It Filthy," *Washington Post*, October 22, 1951.

[172] For a discussion of the act of "printing" as Cold War social protest, see Kerry Kathleen Riley, *Everyday Subversion: From Joking to Revolting in the German Democratic Republic* (East Lansing: Michigan State University Press, 2009).

[173] "Moscow Finds an Answer," *New York Times*, October 23, 1951.

[174] "Moscow Finds an Answer," 28.

[175] Letter, Matthew Woll to Dean Acheson, October 19, 1951, Box 59, Folder: Slave Labor – Newspaper Reactions, 1951, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[176] Parry-Giles, *The Rhetorical Presidency*.

[177] "Russians Arrest Austrian Binder of AFL Slave Map," *AFL Weekly News*, October 19, 1951, Box 55, Folder: Slave Labor 1951-1984, Vertical Files 1881-1999, RG98, George Meany Memorial Archives, Silver Spring, MD.

[178] Letter, Arnold Beichman to Matthew Woll, May 15, 1952, Series 1, Box 35, Folder 22, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[179] Fundraising Letter, Matthew Woll, December 1951, Series 1, Box 35, Folder 27, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[180] "Russians Arrest Austrian Binder of AFL Slave Map," *AFL Weekly News*, October 19, 1951, Box 55, Folder: Slave Labor 1951-1984, Vertical Files 1881-1999, RG98, George Meany Memorial Archives, Silver Spring, MD.

[181] See, especially, the Senate Committee of the Judiciary, *U.S.S.R. Labor Camps: Hearings Before the Subcommittee to Investigate the Administration of the Internal Security Act and Other Internal Security Laws*, 93rd Congress, 1st sess., February 1, 1973.

[182] See, for example, the map that *Catholic Digest* reprinted from the *Christian Science Monitor* in "Seven Million Soviet Slaves," March 1952, 45.

[183] The archives reveal several references to Chinese slave labor maps, but could not locate any copies. Press Release, Free Trade Union Committee, June 25, 1952, Box 59, Folder 6, International Affairs Department, Jay Lovestone Files 1939-1974, RG18, George Meany Memorial Archives, Silver Spring, MD.

[184] Department of the Army, *U.S.S.R.: Analytical Survey of Literature 1976 Edition* (Washington, DC: Government Printing Office, 1976). On the use of the map as psychological warfare, see Young, "Gulag—Slavery, Inc."

[185] See Aleksandr Solzhenitsyn, *Warning to the West* (New York: Farrar, Straus and Giroux, 1976), 10.

[186] Methvin, "Isaac Don Levine," 247.

[187] *AFL-CIO Free Trade Union News* 37, November 1982, Box 55, Folder: Slave Labor 1951-1984, Vertical Files 1881-1999, RG98, George Meany Memorial Archives, Silver Spring, MD.

[188] "American Labor Was First to Raise Its Voice Against the Slave Labor System in the USSR," *AFL-CIO Free Trade Union News* 37, November 1982, 10–11, Box 55, Folder: Slave Labor 1951-1984, Vertical Files 1881-1999, RG98. George Meany Memorial Archives, Silver Spring, MD.

[189] "Forced Labor Remains on the Map in the Soviet Union," *AFL-CIO Free Trade Union News*, April 1968, 4–5, Box 55, Folder: Slave Labor 1951-1984, Vertical Files 1881-1999, RG98. George Meany Memorial Archives, Silver Spring, MD.

[190] And around the same time, publications like *US News & World Report* were drawing their own maps of the Gulag camps, continuing to emphasize the spatiality of forced labor and circulating the importance of being able to invade Soviet borders with

the power of knowledge. See "A New Report: Soviets' Record on Slave Labor," *US News & World Report*, November 22, 1982, 31.

[191] Finnegan, *Picturing Poverty*, xii.

[192] Young, "Gulag—Slavery, Inc.," 601.

[193] Wood and Fels, "Designs on Signs," 63.

[194] For a discussion of this "totality of vision" in geographic representations of the world, see the introduction in Denis Cosgrove, *Geography and Vision: Seeing, Imagining and Representing the World* (New York: I.B. Tauris, 2008). For a more philosophical look at the idea of the visual "glance," see Edward S. Casey, *The World at a Glance* (Bloomington: Indiana University Press, 2007).

[195] Wood and Fels, *The Natures of Maps*, xvi.

[196] Chaturvedi, *The Polar Regions: A Political Geography* (Chichester, UK: John Wiley & Sons, 1996), 84.

CHAPTER FOUR

**PLACING THE THIRD WORLD:
AMERICAN VISIONS OF "THE SOUTH" AND
THE CARTOGRAPHY OF DEVELOPMENT AND MODERNIZATION**

In 1885, a Scottish evangelist minister of the "Sunday School movement," James

Gall, published a short treatise on map projections, buried in an issue of the *Royal*

Scottish Geographical Magazine.[1] For thirty years, Reverend Gall moonlighted as a map

dilettante and "gentleman scientist" in addition to his missionary work.[2] The 1885

magazine piece was the first publication of his new, peculiar projections—but one, in

particular, stood out. Called the Orthographic projection, Gall offered this map as an

equal-area projection that rectified latitude lines at the 45th parallel and was ideal for

statistical distribution. He commented that this was "a valuable map for showing the

comparative area occupied by different subjects, such as land and water, as well as many

other scientific and statistical facts."[3] Indeed, the map startles with its stretched shapes—

Europe is now significantly smaller than in its prominent treatment in the Mercator, and

Africa and South America become elongated, with Africa, in particular, becoming a

defining center of vision (fig. 4.1). The so-called South all of a sudden takes a visual lead

over a shrunken North.

Almost one hundred years later, in May 1973, a West German historian named

Arno Peters called a press conference in Bonn in order to introduce a world map that bore

eerie similarity to the stretched shapes found in Gall's nineteenth-century projection (fig.

4.2).[4] Peters assembled a group of 300-plus academics, government and NGO

representatives, and journalists to unveil what he and his publishers would later tout as

"the greatest single advance in map-making in over 400 years."[5] According to Joe Alex
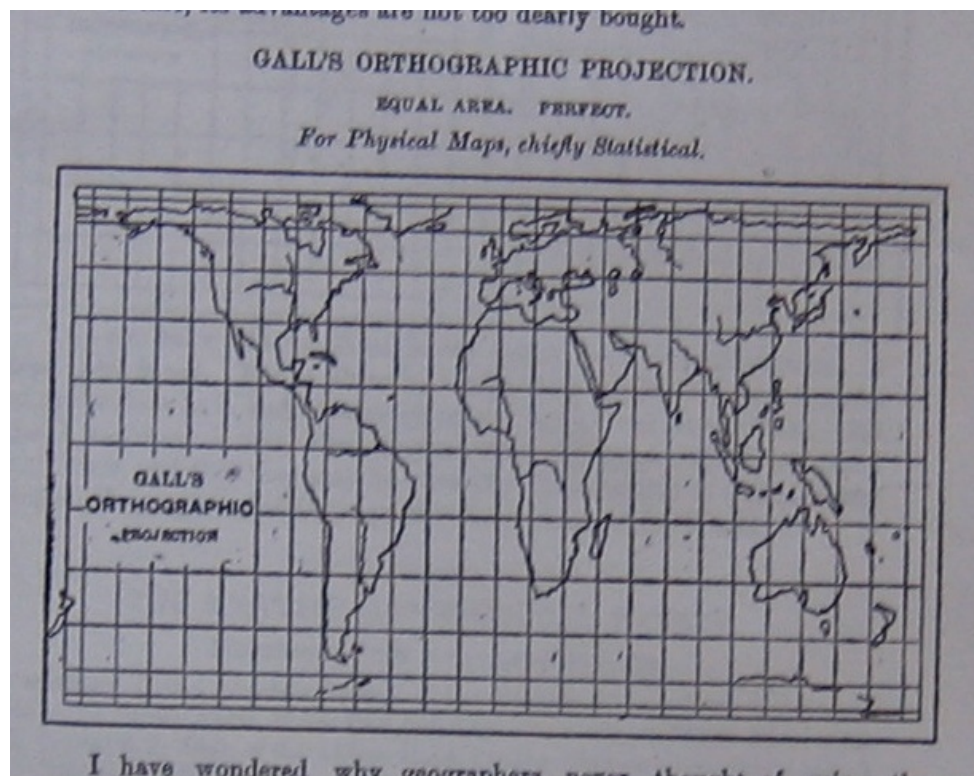
Figure 4.1. Reverend James Gall, "Gall's Orthographic Projection," *Scottish Geographical Magazine*, **1885**

Figure 4.2. Arno Peters, "World Map," *New Internationalist*, **1989**

Morris, reporting for the *Guardian*, Peters stated bluntly at the conference that, "Mercator presents a fully false picture, particularly regarding the non-white-peopled lands. It over-values the white man and distorts the picture of the world to the advantage of the colonial masters of the time."[6] Peters ambitiously attempted to reach beyond mere academic/technical innovation, and instead change the way a global audience envisioned their place within the world, by using an explosive mixture of ideology, science, and social advocacy.[7]

The Politics of Long Underwear:
The Peters Projection and the Iconization of Development

While Gall's evangelism never sparked any serious debate (in fact, his contribution was so forgotten that Peters apparently had never even heard of it when he began to promote his almost exact replica), Peters' brand of evangelism set off a firestorm of twenty-plus years of cartographic debate and re-circulation of the map by academics, Third World development groups, journalists, churches, governments, and international organizations.[8] While academic cartographers hurled around epithets like "worthless," "illogical," "cloudy," "pernicious," "inappropriate," and "absurd" at his map, the "Peters projection," as it came to be known, took on an active rhetorical life and had a staying power that even the relentlessly self-promoting Peters could not have anticipated.[9] Religious and charitable organizations appropriated the map in their international missions; economic development organizations circulated the map in a host of projects and campaigns; and elementary schools, universities, and curriculum development organizations employed the map as a new corrective for its educational possibilities.[10] By 2002, at least 83 million copies of the map were in international circulation.[11] By Crampton's estimation, the Peters projection became "the best-known

map in the world, excepting only the Mercator."[12] With its wide international reach to various audiences, the Peters map was unique in its ability to incite equal vitriol and praise: for example, it was the kind of map that was condemned in the United Nation's *Secretariat News* ("…it is not advisable for the United Nations to adopt the Peters map for any publication, let alone endorse it"), while simultaneously printed and distributed by the UN Development Programme in its 115 international offices.[13] Peters himself commented to Ward Kaiser, his publisher at Friendship Press, that "public discussion was such as had not been known in the history of cartography. I attribute this to the fact that the debate over my map was in reality not a struggle about a projection as such but over a world picture. Clearly, ideology had entered the struggle."[14]

The central conceit of the Peters projection is the rhetorical choice to emphasize the accurate area of the world's continents over the accuracy of their shape. Perhaps the most infamous critique of the Peters projection came from de facto dean of American cartography, Arthur Robinson, who pointed out that, "On the 'Peters projection' the landmasses are somewhat reminiscent of wet, ragged, long, winter underwear hung out to dry on the Arctic circle."[15] Certainly, the first noticeable visual effect of the Peters map is the elongation of the areas in the middle, which Peters manages by relegating the equator to the exact middle of the map. As Alan Henrikson writes, "On most Mercator maps, the Equator is located well below the middle, resulting in a kind of global pituitary problem: North America and Eurasia are giant-sized, South America and Africa are dwarfed."[16] By contrast, in Peters' map, the continents of South America and Africa, as well as the region of Southeast Asia dominate the visual field. For Peters, this corrective gives the most populous areas of the world a kind of parity with (if not superior position over) the

more industrialized northern areas.[17] In terms of Cold War geopolitics, the air-age

globalism of the 1940s posited the airplane's shrinking of distance as the new

measurement standard on the map; here, it is the sheer scale and population power of the

equatorial masses that serves as the new standard.[18]

In that way, the map hints at the explosive potential of a Third World to surpass

the First (and Second) World.[19] The crucial link made here by Peters is that the

redistribution of area alters the way equality is visualized.[20] For example, part of Peters'

claim to cartographic equality is his insistence that all of his topographic maps in the

Peters Atlas are on the same scale: each map uses an equal area scale, rather than one

simply based on distance—one square centimeter on the map equals 6,000 square

kilometers in reality.[21] In the topographic section, for example, Madagascar is depicted as

surprisingly larger in area than Britain, thus challenging the reader's expectations of

shape and area.[22] In this way, Peters sought to minimize the propensity for

misrepresentation and distortion. In representing countries and continents at the same

scale, Peters claimed that "their size and position in the world can therefore be

immediately recognized from the map."[23]

In addition, Peters used his projection (as did many of his supporters) not just for

topography, but for the vast diversity of social, economic, and political life on a global

scale, from information and communications, to nutrition, sports, energy, even

prostitution and child labor. Peters' style emphasized the form of equality by simplifying

each of these topics into an easily understood political message: no symbols or icons are

used in any of the maps; shading and coloring are alone used to show frequency and

quantity.[24] Most versions of the Peters world maps also featured a color scheme that

relegates certain color "families" to particular continents: Europe gets shades of roses and pinks, Asia gets lavenders and deeper purples, Africa receives golds and pale yellows, and then both North and South America are colored in lime and olive greens.[25] The color scheme speaks to the context of decolonization and the rapid pace of self-determination: by choosing to give each state its own shade of the color family, Peters' map reifies the power of the nation-state in the Cold War context—each political unit has its own voice but is still part of a "bloc" of similar voices.[26] Altogether, then, these choices of scale, projection, and color are appropriated strategically to accentuate the Peters projection's politicization of the concept of area.[27]

To make these arguments, Peters also required the Mercator map as a constant referent, as his projection is almost always consistently drawn (and debated) in reference to the Mercator.[28] In the UN Development Programme version, for instance, the margin of the main world map is filled with a series of insets—these constitute a group of comparatives that indict the falsities of the Mercator.[29] For example, one inset offers a comparison of "Soviet Union, 8.7 million square miles – Africa, 11.6 million square miles" with both these areas in black, while the rest of the world is in gray; the caption reads, "The traditional map is skewed to the advantage of the northern hemisphere, where whites have traditionally lived. The Soviet Union appears to be more than double the size of Africa, in spite of the fact that Africa is actually much larger."[30] In another inset, the top half of the world above Mexico and Asia is colored in black, while the rest is colored in gray, captioned by the staggering statistic that the "North" is 18.9 million square miles, while the "South" is 38.6 million square miles.[31] Visually, this black and white bipolar Mercator presentation stands in contrast to the multicolored visual explosion of the larger

Peters map.[32] By sacrificing the familiar shape of the world in place of accurate area, the map is engaging with both the geography and history of colonialism; in a kind of cartographic before/after relationship, the Mercator stands in for a colonial past, and now the enlarged South represents the international space of the future. The viewer sees the growth of the Third World and the shrinking of the First and Second right on the flat map.[33]

These kinds of novel visual appeals helped turn the Peters projection into a development icon. In 1980, for example, the Independent Commission on International Development Issues (comprising representatives from more than 20 countries) released the influential report *North-South: A Programme For Survival*, which outlined a humanitarian and economic system of world development and a reemphasis on North/South relations.[34] Begun as an idea by Robert McNamara in 1977 under his leadership at the World Bank, the group was convened and led by West German Chancellor Willy Brandt, internationally known for *Ostpolitik* and the thawing of East/West relations in Germany. The publicity and circulation of the report were extensive.[35] And the Peters projection became its defining symbol, used as both the cover of the report and a frequent backdrop in the ensuing media campaign. Over a cartographic grid, Peters' version of the world is rendered simply in red, with a stark, thick black line running over Mexico, over the tip of Africa up through China, and then dramatically dipping below Australia. In the late 1970s, with the re-heating of the Cold War (and its performance on a host of different "Third World" fronts) and the dramatic world recession, the Peters map fit the new context for North/South relations, favored for

its ability to provide a symbolic token for an alternative world order and to represent distributive justice.[36]

As the Peters projection became a new Cold War development emblem, other international organizations, governments, and social movements took up the projection as a banner.[37] The influence of the map also went beyond "development" as merely related to economic aid or international trade, as it circulated widely in international education and religious organizations. The General Board of Global Ministries of the United Methodist Church had a Peters world map six feet high etched in glass at the entrance of its New York offices.[38] Testimonials from officials at the Lutheran Church pronounced that: "The Peters map appears to be the best education tool for showing us our place on earth. The values and purposes of this map coincide well with the teachings of the Bible and the church."[39] Coordinators at the Development Education Association, an international consortium of educators, raved about the map's ability to teach the values of the South to children in order to create "global citizens."[40] An eighth-grade math teacher from a Chicago Mexican immigrant community even used it to teach his students how to critically read the world, with one of his students reporting that, "doing this project has opened my eyes in different ways. I am learning how small details like maps have a lot to do with racism and power."[41]

The Peters projection became, in geographer Denis Cosgrove's words, a kind of "totalizing discourse," offering itself as political shorthand for an alternative interpretation of Cold War space.[42] As Peters himself understood, "My projection has ceased to be just a piece of mathematics or cartography—it is now a symbol."[43] Through this diversity of usages and the wide circulation, the internationalist, progressive promise

of development became a uniting, common theme.[44] The *New Internationalist* pointed

out, "Indeed it is now almost *de rigueur* for the Peters map to be used if your intention is

to express solidarity with the Third World."[45] The use of the map as an iconic emblem

allowed it to transcend its technical or geographic origins, and it instead was appropriated

to represent, above all, a collection of *values*—a kind of logo for an internationalist

identity.[46] The presentation of the South in the Peters projection is made into a

commonsense, rational logic; the emergence of the Third World becomes inevitable.[47]

The Peters image as icon, thus, existed within the tense relationship between nationalism

and internationalism—purporting to provide a voice for the South, while having to

downplay the realities of self-determination and nationhood that mark the process of

decolonization.[48]

The Peters projection was a prominent example of how the vision and perception

of the so-called Third World was taking on increasing importance, and the sheer impact

of this map offers an entry point into considering new Cold War shifts in perspective

toward the South. During the 1970s, America's standing as the leading world power and

arbiter of world space was suffering; it is no coincidence that a map decentering

America's Western strongholds and recalibrating the sheer scale of the United States' and

Europe's power would ascend. Peters' map first appeared in the early 1970s, after years

of Cold War cartography's partitioning into blocs and units, depictions of bipolar

alliances, area studies, regional surveillance, and increasingly state-classified uses of

sophisticated mapping technology. Within these developments, the so-called Third World

had arguably been a central spatial battleground for decades.[49] Peters was simply

articulating the complex Cold War geopolitical tensions around both the place of the

North and the South that had been capturing the geographic imagination since the Cold War's inception. America responded cartographically to such tensions in a variety of compelling ways, and this chapter offers a discussion of these new perspectives that challenged familiar East/West geopolitical binaries.

I argue here that in the Cold War, well before Peters, American maps served as both technical conduits and rhetorical symbols for international development. Not only did maps reflect changes in spatial worldviews during the decolonization and rise of the Third World, but the very *act* of mapping, and all of its processes, were bound up in the way an array of institutions and actors approached and constructed an increasingly powerful South. As I have noted, the bipolarity of America's placement of the Soviet Union and its capabilities became evident through the ways in which cartography functioned as both images of commitment and evidentiary weapons for waging (and circulating the ideologies of) the Cold War. This chapter builds on these frameworks by exploring, from a U.S. perspective, how maps accounted for the expansion of the Cold War into the so-called Third World, and how cartography itself was a mode by which development could be envisioned and practiced. The kind of East/West commitments suggested by maps like "Gulag—Slavery, Inc." were increasingly constrained by North/South relationships, where the Third World became a contested field on the map by which to understand, envision, and wage Cold War. The volatility, however, of these relationships ensured that challenges would come to the familiar ways of charting the world—despite the progressive narratives of development imposed by particular institutions, the South could not be easily contained.

To explore these relationships, I first examine the etymology and rhetorical implications of the Third World's emergence as a contested, international concept of world space in the Cold War. Next, I discuss how America placed itself vis-à-vis the emergent South, and how America used cartography as an instrument of development and modernization to further both its security and economic interests. In particular, I highlight the U.S. cartographic collaborations with the United Nations and the multi-institutional medical cartography initiatives to map Third World disease as representative examples of the developing geopolitical tensions between North and South. In these cases, America attempted to make itself a model of modernization on the world map, while it also surveyed the world for geographic knowledge that would protect its global interests—during a time when decolonization reached its peak and Cold War antagonisms between the United States and the Soviet Union reached greater intensity. A phenomenon such as the Peters projection did not arise out of a vacuum, and this chapter charts the contexts that brought about such a cartographic protest.

Sketching the Contours of the Third World: Origins and Approaches

The "Third World" is both a fundamentally spatial and Cold War–centric concept. From its conception, it was continually contested and redefined, and it operated as a classification serving a variety of interests.[50] The term itself has been attributed to French economist Alfred Sauvy in 1952 when he used it to demarcate "developing countries" in contrast to the two major Cold War power blocs.[51] The idea, of course, of developed/undeveloped nations was not new. But in the early Cold War, the existence of two international economic systems at such loggerheads was new and thus the "third bloc"

became a geopolitically significant, abstract space where the United States and the Soviet Union vied for influence.[52]

Sauvy originally used the term *tiers monde* to mean a kind of "Third Force," emphasizing the "third way" of nonalignment rather than underdevelopment.[53] Certainly, after the famed 1955 conference at Bandung, Indonesia, the idea of an international movement using "Third World" status as a kind of organizing, resistant banner became more and more viable.[54] From the early etymological origins of the Third World, then, the idea "served as both a hegemonic conceptualization of the world, and of struggles against that hegemony" for both "the paradigms of capitalist modernity" and by "radical advocates of liberation from Euro-American colonialism."[55] According to Carl Pletsch's work defining the complex geopolitics of Third World development, the phrase the "Third World" itself thus became a kind of "abbreviated ideology" that could represent both state power and its resistance.[56]

Whether the actual term "Third World" was used as a tool of state power or protest, there existed a marked, three-tiered geopolitical framework that powerfully organized Cold War discourse.[57] In Pletsch's estimation "the very thought of three worlds on one planet constrained even those who were opponents of the Cold War or partisans of the third world to do work that contributed both to the strategies of containment and to the exploitation of the third world."[58] Especially from the standpoint of Western elites, the three worlds idea was inextricable from the modernization doctrines of Cold War social science and public policy. Modernization represented a lineage of development that leads from tradition to modernity; as a discourse, modernization argued that with the right knowledge and instruments, underdeveloped civilizations could advance

themselves.[59] In this way, the three worlds concept folded space into time, partitioning the "one-world" of 1940s globalism into a continental hierarchy where certain spaces are frozen onto the map as always "arriving."[60] In this process, as Arturo Escobar points out, "to represent the Third World as 'underdeveloped' is less a statement about 'facts' than setting up a regime of truth through which the Third World is inevitably known, intervened on, and managed."[61] This management of knowledge defined Third World space by what it "lacked" (whether in money, political stability, health—even in developing nations' abilities to properly map themselves).[62] In turn, the First World and the Second World would define themselves and each other around the ways they could meet this lack.

Despite the ways that the Third World was defined as underdeveloped and backward, it is important to note how the South became a powerful geopolitical trope.[63] While this "mass" South was often presented as a passive repository of Cold War interests, it was just as often appropriated (and feared) for its potential strength and threat.[64] As geographer Donald W. Meinig wondered aloud as early as 1956, "Is it not ironic that in this era…of unprecedented concentration of military power in the hands of two powerful nations…the small nation, the obscure culture group, the wholly non-industrialized people, are able to exert far greater force upon the complexion of events than in the past?"[65] Indeed, historians such as David Painter and Odd Arne Westad made clear that the influence of the South on the actions of the so-called North was not merely about security and economic influence—it was genuinely an ideological contest around deeply held beliefs.[66] The depth of such beliefs helps explain the massive scale on which modernization projects would be established (as well as the extraordinary violence that

often accompanied them). In addition, the internationalist identity of the map's

appropriation became a necessarily unstable one in the context of Cold War geopolitics.[67]

The tumult of decolonization and the ensuing work by nation-states and global

actors to define a postcolonial identity constrained the new spaces of the so-called North

and South during the 1950s and 1960s. As postcolonial theorist Edward Said revealed,

new "imaginative geographies" had to be devised to account for these new relationships

and to envision a role for the emergent South. For example, in defining the spatial

relationships between an essentialized East and West, Said noted a "*distribution* of

geopolitical awareness" that resulted in:

> an *elaboration* not only of a basic geographical distinction (the world is made up
>
> of two unequal halves, Orient and Occident) but also of a whole series of
>
> 'interests' [that] *is*, rather than expresses, a certain *will* of *intention* to understand,
>
> in some cases to control, manipulate, even to incorporate, what is a manifestly
>
> different (or alternative and novel) world.[68]

With the politicization of the equatorial masses in the Cold War, the North was

cultivating a new geopolitical awareness that involved this will to incorporate and control

the Third World by producing massive amounts of knowledge about it.[69] The

replacement of East/West with North/South set up new "processes of subjectification," in

Homi Bhabha's terms, where there were constant attempts to "fix" the developing nations'

places in the world.[70] What makes the Cold War in the Third World compelling and

explosive is that this stability was never reached, and the North/South relationship, just

like East/West, was always in flux.[71] For example, the "Third World" and "development"

never remained static concepts during the course of the Cold War. For much of the 1950s,

development had the optimistic connotation of providing materials and technical

knowledge for developing nations to maintain themselves; in the 1960s, as decolonization

spread, though, development became more about building stable nations and

infrastructures that could withstand communist influence. Soon, development was

(re)appropriated by Third World intellectuals and elites who were challenging Cold War

internationalism with homegrown nationalisms.[72]

Geographic knowledge, and its extension in cartography especially, provides one

entry point into exploring these competing imaginaries, especially the ways the South

was envisioned (and bounded) by the North.[73] The rise of geography as a quantitative

social science that could aid in political, economic, and social global development during

the Cold War is integral to understanding the contextual forces that brought the Third

World into view.[74] Cartography had the peculiar position of still being largely seen as the

technical, applied arm of the geographic discipline. The social implication of mapping

was often downplayed, since a map was frequently seen as an instrument, or a confluence

of scientific laws. At the same time, mapping was certainly implicated into the race to

chart and classify the immense social upheaval of a decolonizing world. In a review of

the major cartographic advances in the years 1950–1975, for example, cartographer

Arthur Robinson cited the explosion of thematic mapping, in response to the

overwhelming amount of new social phenomena that both *could* be mapped by new

technologies and was increasingly thought *should* be mapped.[75] From popular maps to

institutional maps to alternative maps of protest, the content of cartography was

expanding exponentially into covering a wider range of social and political topics, while

its form was still conceived as a system of scientific techniques. This uneasy navigation

between form and content would mark the U.S. approach to mapping the Third World

throughout the Cold War.

Bringing Up the South:
Maps, Scientific Internationalism, and U.S. Global Interests

The era of decolonization during the Cold War was a busy time for the

Department of State's Office of the Geographer. Beginning in 1961, the Office

commenced a series of intra-agency publications called the *Geographic Bulletin* and

Geographic Notes for circulation to foreign policy specialists, staff researchers, and area

specialists in the department.[76] Essentially, these were memo-length updates on volatile

or changing world geographic situations, accompanied by a map of the area in question.

What was remarkable about the circulation of the *Notes* and *Bulletins* was not the

cartography itself (mostly, these were simple political maps of particular nation-states

and their major administrative divisions—and the text provided basic geographic,

political, and demographic information about that state), but rather the sheer pace at

which decolonization was taking place, and the ensuing response that this required in

terms of producing geographic knowledge. A new *Notes* would appear any time a state

declared its independence, or its boundaries and administrative divisions were

reconfigured: in 1966 came Guyana (the fifty-seventh state to announce its independence

since World War II), Botswana, and Barbados; in 1968 came Swaziland; 1970 saw Tonga

and Fiji; 1971 saw Qatar and Bahrain; 1972 Bangladesh.[77] By December of 1975, as the

Geographic Notes captioned with its map, Angola marked the eightieth newly

independent state since 1943.[78]

With this running tally on each map, it was as if the State Department was

quantifying its astonishment about these world developments. As Director of the State

Department's Bureau of Intelligence and Research (and supervisor of the Geographer's

Office) Thomas L. Hughes said at a 1965 lecture at Hamilton College,

> already this week we have corporately encompassed about 120 old nations,
>
> discovered two new ones, estimated three elections, cast bets on the composition
>
> of two cabinets, fretted over one unilateral declaration of independence and
>
> another mutiny, noted the decline of two emerging forces and the resurgence of
>
> one old established force, and discounted three abortive plots erroneously
>
> attributed to the CIA.[79]

In addition to these notes on individual countries, the State Department was

continually issuing revisions of its "Newly Independent States of the World" map, a

world map on a Miller projection that simply colored in gray the states that had become

independent since 1943. Side-by-side, for example, the 1963, 1964, and 1965 "Newly

Independent States" maps show a growing mass of grays around the equator, almost

covering the entire African continent, and filling in Southeast Asia from Pakistan to

Indonesia (fig. 4.3).[80] Visually, the gray creates a kind of dividing line between the states

of the North and the states of the South, bringing the world's focus into a kind of

top/bottom relationship—and giving an uneasy identity to those considered "Newly

Independent." The accompanying memorandum spoke of the need for continual, reliable

geographic facts, noting the value of "constant monitoring" to define the ever-changing

patterns of the world's states, and pointing out that "political changes superimposed upon

the geography of the globe alter the structure of the international community of nations,

in name or by dimension, and they…must be reflected in pertinent official maps and

documents."[81] Thus, this "community of nations" required continual expert surveillance.
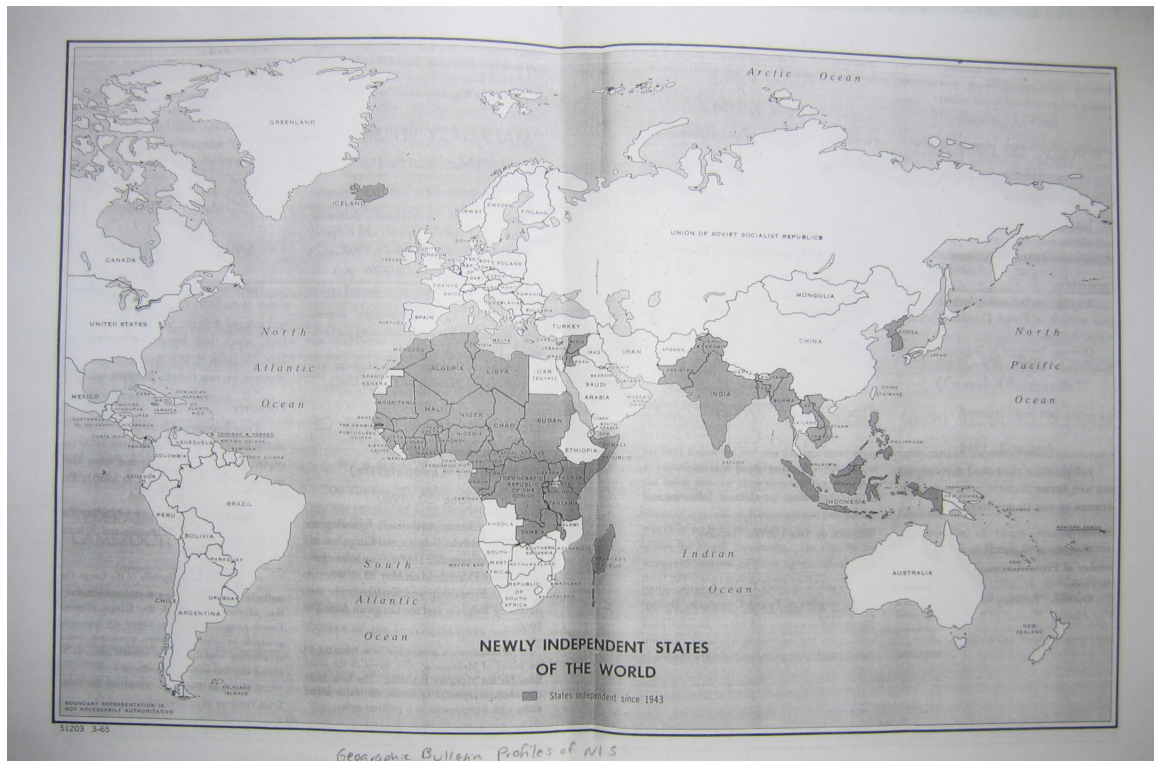
Figure 4.3. United States Department of State, *Newly Independent States of the World*, 1965 (Department of State, Cartographic & Architectural Records, National Archives, College Park)

A 1968 *Bulletin* explored Africa's "Patterns of Sovereignty" in a map series that

attempted to make sense on the flat page of the complex histories of European influence

while accounting for the sequence of how 36 African countries gained independence over

the course of 25 years. The new world order had new dependencies and new shapes and

the "puzzle pieces" of nation-states were not what they used to be. At the same time, the

Geographer's Office was continually revising its International Boundary Study (a project

since the days of S.W. Boggs) to reflect the international hotspots for political border

controversies, a seemingly impossible and interminable task in a world where a new

nation-state was defining and redefining itself every week (fig. 4.4).[82]

The State Department's geographic approach is just one example of a variety of

ways that America's Cold War-era cartography interpreted the world in the face of

Figure 4.4. United States Department of State, *Index to International Boundary Series*, 1974 (Department of State, Cartographic & Architectural Records, National Archives, College Park)

massive uncertainty and disruption. While the researchers at the State Department may

have merely been tracking the changes wrought by decolonization in order for

policymakers to have better information at their fingertips, cartography actually played a

broader role than mere knowledge production. Those white versus gray relationships on

the NIS maps from the Department of State constructed new and curious kinds of spatial

differences—those gray spots indicated that there were places all over the map that had

just arrived and had not quite reached the level of the white spaces. The temporal

relationships created by these continually changing cartographic images are telling—part

of the world was static and developed, while a mass of "others" was volatile and

developing, requiring the constant recalculation and repositioning of geographic knowledge.

Popular U.S. mapping institutions also responded to and adapted to these reorientations. The Associated Press, for example, throughout the 1960s mapped the impact of decolonization on U.S. foreign policy. AP Newsfeature Background Series maps like 1960's "Influx of Neutralist Members Changing Structure of UN," 1964's "The Non-Aligned," and 1968's "UN Membership" tracked the rapid pace of influence that the southern nations were gaining.[83] Not only was a certain anxiety reflected in the sheer size and number of new states but there was an even greater anxiety about what kind of international presence and allegiances these states would have. Neutrality and nonalignment take on a foreboding presence and are given a substantial power, destabilizing the familiar U.S./Soviet binary that marked the Cold War. In "Influx," for example, the so-called "Asian-African" bloc is shaded in dark gray on the map and is centered with a placard indicating that the bloc has gained 41 seats. The paramap is compounded by three pie charts overlaying the main map, which indicate the immensity of changes in Asian-African influence between 1945, 1957, and 1960. The 1960 pie chart shows the Asian-African bloc dwarfing the Western, Latin American, and Soviet alliances in numbers; together with the map, the temporal/spatial connections of new southern influence are made to overwhelm the reader. The stylized world map in "The Non-Aligned" simply removes North America, Europe, and the Soviet Union altogether, in order to show an equatorial world detached from familiar Cold War antagonisms, and united in solidarity (even if this was actually a gross simplification). The displacement of the United States from its usual center of influence on the map is jarring. Subtly, these

maps suggest that the momentous choice of "with us" or "against us" was not as clear-cut and self-evident on the map as it may have once been.

At the same time, AP maps like 1962's "Food For Peace Is American Success Story" and 1966's "Peace Corps—A Hit, and Growing" also show the promise of modernization on the international landscape, and offer a sense of benevolent paternalism in bringing the Third World up to the standards of the First.[84] "Food For Peace" spatializes the hunger of the Third World using U.S. Department of Agriculture data. Most of Africa and South Asia (and parts of South America) are colored in stark black to indicate which are "diet deficit countries," while the rest of the world is lightly outlined to recede into the map's background. In the margins are grossly stereotypical sketches of "racial types"—an Asian man eating from a bowl of rice, an Arab holding a shepherd's staff, and an African male with a crude rendering of a village hut behind him. The "othering" of the Third World is explicit here: it is the exotic, foreign elements far away that are suffering in terms of diet and hunger, thus putting the "underdeveloped" in their proper place. So, while the map connotes crisis, the implicit argument is that organizations like Food For Peace are working with benevolent goals to improve the health of the less fortunate, thus placing American aid as the real subject of the map. In "The Peace Corps," a conventional world map is simply covered with numbers that correspond to a legend indicating how many volunteers are serving in a particular country. What anchors the focus of the map, though, are drawings of two young white peace corps volunteers (one female, one male) in the bottom left corner of the map, gazing out over the landscape of the map and looking slightly upward toward Africa and Asia. In both AP maps, the cartography is "raced" and the notion of space explicitly linked to notions of

"civilization." Visually, the tiers are created between North and South, and place the First World as both the surveyor and model for the Third. Such maps speak to a strong ambivalence about the rise of the South—a wariness of neutrality and an anxious anticipation exists around what choice developing nations would make to join the "right bloc," but there also is a hope that with the proper U.S. stewardship, international space could be stabilized again.

At even the earliest stages of the Cold War, the highest halls of American leadership were formulating, with missionary zeal, a spatially conscious global push to modernize the Third World.[85] As a new corollary to the European Marshall Plan, President Harry S. Truman outlined what became to be known as the "Point Four Program" (so named because it was the fourth plank in his inaugural address on January 20, 1949), which set out to bring "scientific advances and industrial progress" to the world's underdeveloped areas.[86] As Truman offered:

> More than half the people of the world are living in conditions approaching misery. Their food is inadequate. They are victims of disease. Their economic life is primitive and stagnant. Their poverty is a handicap and a threat both to them and to more prosperous areas. For the first time in history, humanity possesses the knowledge and the skill to relieve the suffering of these people. The United States is pre-eminent among nations in the development of industrial and scientific techniques. The material resources which we can afford to use for the assistance of other peoples are limited. But our imponderable resources in technical knowledge are constantly growing and are inexhaustible.[87]

Truman's Point Four Program, which morphed into the State Department's Technical

Cooperation Administration, was concerned with an interventionism of ideas and

knowledge production. Its establishment also demonstrated that from a point early in the

Cold War, the stark East/West binaries were filled out and re-colored by the complex,

multilayered South. For example, a 1952 map series produced by the State Department to

promote the Point Four Program focused on the darkened countries in Central America,

South America, North Africa, the Middle East, and South Asia (fig. 4.5).[88] Black banners

cover the United States and the Soviet Union so that the eye focuses squarely on the

equatorial nations. A line traces from each darkened country to a circle in the banner,

which contains the letters A, H, E, and X to indicate whether the Point 4 intervention was

in Agriculture, Health & Sanitation, Education, or "X" for Resource Development &

Figure 4.5. United States Department of State, Technical Cooperation Administration, *Point 4 Around the World,* **1953 (Geography & Map Division,** *Title Collection***, Library of Congress)**

Other Technical Services. The visual combined with the text of the icons makes for a display in which the countries in dark blue are framed as "arriving" or "in process" relative to the rest of the world.[89]

Truman's push for a program to spread U.S. knowledge across the globe was linked with the rise of modernization theory, which became a major part of the collaboration between the U.S. government and the social sciences in the Cold War. For example, "area studies" programs were a large collaborative focus between government/military interests and academic institutions, think-tanks, and commercial research foundations, designed to create massive interdisciplinary knowledge (especially in the social sciences) of particular regions—specifically as catalysts for development projects in strategic spaces.[90] Out of collaborations like these came works such as Walt Rostow's *Stages of Economic Growth*, which was the Cold War hallmark "non-communist manifesto" for modernization.[91] To respond to the Soviet's own brand of modernization, social scientists like Rostow were looking for a logic and a lexicon that expressed U.S. plans for the increasingly southern focus of the Cold War—the push to standardize technical knowledge *of* and *for* the "places" of U.S. influence around the world became the answer.[92]

Of course, this move toward abstract knowledge necessarily involved a rupture and denial of individual Third World nations' pasts and differences.[93] As Kimber Charles Pearce concluded, theories like Rostow's made development a progressive, linear process with an anti-Communist pretext "whose argument that all nations pass naturally through the same phases of development convinced U.S. policy makers to homogenize their methods of economic interventionism in the Third World, although that view of the

evolution of liberal democratic capitalism tended to mask conflict and emphasize the continuities of the development process."[94] This emphasis on continuities also fit with what critical geographers like Simon Dalby referred to as a Cold War narrative where contentious political and social issues are reduced to technical considerations that can be continually improved by better knowledge and instruments.[95] Importantly, though, as Cold War historian Odd Arne Westad argues, Washington's objectives to modernize the Third World "were not exploitation or subjection, but control and improvement," thus representing a "genuine and deeply held ideological" social consciousness.[96] It is tempting to label the Cold War as simply a realist game of power politics, framed by the calculus of security. But the integration of social science into the waging of the Cold War evidences the driving belief in a liberal modernism that could develop the world to both further American interests and actually improve the lives of the great masses of the globe.[97]

Cartography played an interesting role in America's drive to modernize and develop the Third World—to be able to both survey and improve needed quantification and visualization, which maps uniquely provided. Cartography reflected new U.S. roles in the developing world by shaping and constraining the very ways the developing world was becoming a Cold War space. In both process and product, maps constructed particular visions of the South in relation to American interests, while also emphasizing the premium on cartographic knowledge for developing nations. Two particular U.S. cartographic projects are highlighted here to demonstrate these new perspectives: one encompasses the U.S. academic and government collaboration in the mapping of world health, concurrent with Truman's push to understand the "sick" and the "needy"; the

second is the "scientific internationalism" of the American cartographic role in the United Nations.

Medical cartography provides a compelling example of how internationalism and modernization were spatialized on the flat page, and how the needs for cartography were expanding in this era. In addition, the UN case highlights the ways in which U.S. policymakers and technicians transmitted and taught cartographic principles and techniques through UN leadership and other projects. All the while, particular attention is paid to the various interests that drive the uses of this knowledge in a Cold War context.

Diagnosing the Third World: America's Mapping of World Health in the Cold War

One of America's most ambitious cartographic endeavors in terms of Third World development came through the medical geography movement that gained momentum in the 1950s. The relationship of disease to physical location and region was not a new line of inquiry, of course: the writings of Hippocrates in *On Airs, Waters, and Places* established this connection.[98] But the systematic study of disease from a geographic point of view did not become prominent until the 19th century, when Prussian medical officers introduced the term "medical geography" and "sought to demonstrate a connection between the geographical location of disease and the prevailing physical, social, and cultural features of the surrounding environment."[99] In America, studies of disease (particularly alcoholism) and geography in the early frontier West appeared in public discourse, and U.S. census data was used to produce "Sanitary Maps" of preventable diseases in areas such as Louisiana and Texas.[100] During the Civil War, early work in medical geography was published discussing the relationship of disease and race to geographic location.[101]

Still, U.S. efforts at an international program of study in medical geography and cartography did not really take place until the push toward globalism in the 1940s. In 1944, Dr. Richard Light proposed, at an American Geographical Society (AGS) conference (with geographers, medical scientists, military medical officers, and influential government public health officials in attendance) that the AGS board should produce a comprehensive *Atlas of Diseases*.[102] A pilot project was started, and by 1948, it reached full steam. Dr. Jacques May, a French surgeon (and World War II Resistance agent) who had taught surgery and practiced in Hanoi, was chosen by Light and the AGS to take over the project.[103] With funding from the Office of U.S. Naval Research and with grants from pharmaceutical companies, May was able to establish a Medical Geography Department based out of the AGS's New York office, in order to create the atlas.[104] The full color map plates began to appear periodically in the *Geographical Review* and were distributed to various U.S. government institutions throughout the 1950s; 17 maps (out of a proposed 22) would appear by 1955.[105]

May was especially innovative in his work that connected the cultural aspects of particular regions to the outbreaks of disease—going beyond merely pointing out where such outbreaks were taking place. For example, a 1954 *Newsweek* profile of May, which referred to him as "The Map Doctor," highlighted his disease maps and their ability to make connections between disease and "soil, air, water, foodstuffs, modes of living, and religious customs and habits that contribute to these ailments."[106] The specific examples used in the article are direct connections between sickness and religious beliefs: "The daily ablutions of Moslem rites are usually performed in polluted water, causing infection. The common bowls for washing the hands in Buddhist temples are a prime source of eye

and skin diseases. In Asia, pilgrims are frequently the carriers of cholera and plague."[107]

May's work examining the prevalence of disease in North Vietnam due to cultural factors

of land tenure laws and house-building materials makes a similar case.[108] Indeed, in

historian of medicine Felix Marti-Ibanez's 1958 introduction to May's AGS-sponsored

book, *The Ecology of Human Disease*, culture is emphasized as a constraining factor:

"culture could influence disease by uniting or separating, whichever the case may be, the

'challenges' of the environment, which would then change and so would the host

population" with the solution being to "change the disease-producing environment in

which man lives."[109] The AGS mapping project evidenced that one integral way to

change "cultures" is through the accumulation of scientific, medical knowledge on a

global scale.

While May's background and credentials gave the project an international flair, it

was resolutely American in its concerns about security and economic modernization.

Historical geographers Tim Brown and Graham Moon use May's background as a

physician during Indochina's last vestiges of colonialism to show his approach to medical

geography as a benevolent, triumphalist spin on an "imperial history that views the

unfolding of events from the perspective of the dominant culture," and a celebration of

the "victories of civilization over barbarism."[110] At the same time, though, this brand of

imperialism was marked by a more "rational, scientific view of disease causality."[111]

Certainly, this paralleled the evolution of cartography in the postwar era toward a more

scientific, quantitative foundation and also as a strategic instrument used by America to

assess truly global problems. The focus on culture in these maps of world disease is

telling because it parallels the Cold War discourses around foreign aid and development

in Third World countries, as seen in Truman's Point Four initiatives. As international

relations scholar Roxanne Doty notes, these foreign aid discourses "suggest that the

danger was not in poverty itself, but in the identities of those who were impoverished,

those who could not take a long-range view of their situations."[112] Similarly, in

combating world health issues, sickness would be equated not only with particular world

regions, but with the people who filled those regions. Cartography provided the means to

visually edify these dangers—the way by which the "long-range view" could be taken.

The military applications of May's project were also a driving force. Not only did

U.S. Naval Research underwrite the work, but May also forged key collaborations with

the Office of the Surgeon General of the Army, suggesting that medical geography had

strategic potential. According to one military official, who was a major supporter of the

project "knowledge of the medical topography and medical geography of a region or a

country is just as important as that of its physical geography in the planning and conduct

of a military operation."[113] May was a central figure in the production of this type of

knowledge in the Cold War. For example, one of his main projects in the *Atlas of

Diseases* was mapping the various forms of viral encephalitis, particularly in response to

the hemorrhagic encephalitis epidemic that ravaged U.S. troops in the Korean War.[114] In

addition, after completing his tenure at AGS, May worked under contract with the U.S.

Army's Quartermaster Research Division and conducted a massive series of country-by-

country surveys on the geography of malnutrition (complete with maps), starting with the

Far and Near East in 1961; moving onto Africa, Central and Southeastern Europe, and

Central America; and ending with South America in 1974.[115] Thus, the *Atlas of Disease*

was the spark for a comprehensive U.S. program of surveillance of Third World space

during the Cold War. It motivated the charting of poverty and food shortage trouble spots as well as environmental facts for the U.S. armed forces that "would help in global military encounters."[116] It is no wonder, then, that Jacques May was appointed in 1961 as the Chief Medical Education Adviser to the U.S. Operations Mission in Vietnam. His intimate medical and geographic knowledge of the Third World would thus be appropriated and militarized into the conflicts of the Cold War.[117]

The *Atlas of Disease* style is colorful and packed with a "paramap" full of information. For example, the *Disease* map of the tropical skin diseases Yaws, Pinta, and Bejel features a world map focused on Africa, where splotches of brilliant red and orange mark outbreaks of the affliction (fig. 4.6).[118] Since Europe has almost no incidence of them, the map simply covers that continent with a closer inset of South America, and
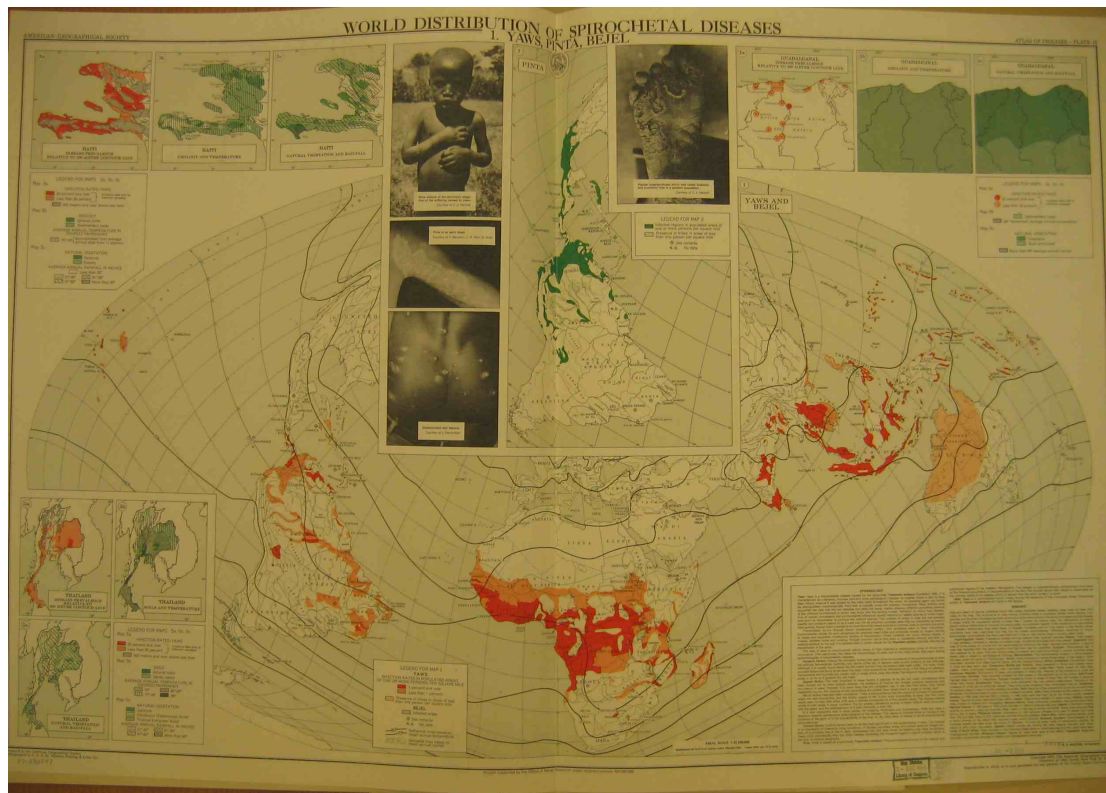
Figure 4.6. American Geographical Society, "World Distribution of Spirochetal Diseases: 1. Yaws, Pinta, Bejel," *Atlas of Disease*, **1955 (Geography & Map Division,** *Title Collection*, **Library of Congress)**

displays several provocative photos of what looks to be African children with skin lesions who function as symbolic stand-ins for an entire "diseased" continent. Surrounding the frame of the world map are insets of countries like Haiti and Thailand that display their infection rates relative to vegetation, soil, etc. On this global scale, the combination of world map, photos, and regional insets overwhelms the map user with the graphics of infection—particularly, the varying shades of bright color connote infiltration of southern, foreign spaces by sicknesses that call for intervention. The white spaces of either so-called healthy spots or those with "no data" stand in stark contrast with those that are affected, as the map plays temporally with the idea that it is only a matter of time before more color seeps into these spaces. In May's cartographic study of cholera epidemics, these temporal relationships are even more important—a main world map uses different colored lines to depict the worldwide spread of the disease during different eras of the 19th-century, while the insets show how cholera was isolated to the Middle East and India by 1950. Over the map spread, then, the viewer sees a worldwide pandemic slowly becoming a specifically Third World concern in the postwar era; the spaces of the North had "progressed" beyond it.[119] Other *Disease* maps highlight Africa and South Asia as being tick-, worm-, and louse-ridden in terms of disease transmission.[120] The overall effect of these displays is the empowerment of America's medical expertise as a form of knowledge and visuality. Cartography's historical power of linking entire territories with particular traits and relating them *in total* to other territories with those same traits is especially powerful when the subject is sickness, epidemics, and plagues. The map's ability to partition world spaces creates a kind of quarantine effect, seeking to isolate where these problem areas are.

Compounding this rhetorical display is the important political choice of projection that the *Atlas of Disease* uses. May's maps were drawn by the American Geographical Society's Senior Cartographer William Briesemeister, who invented a special projection specifically for the *Disease* maps.[121] First developed in 1948, the Briesemeister projection was a notably prominent representation of the increasingly popular use of equal-area on world maps in the postwar era—and one especially built for the complications of a Cold War. Briesemeister himself billed it as a "world equal-area projection for the future…most suitable…for the purpose of plotting worldwide statistics in this present day of super speed, jet planes and intercontinental missiles."[122] The overall display of the Briesemeister projection is odd and compelling—the full spread uses an elliptical egg-shape, and in the top center of the map, the entire North Pole can be seen, with Alaska and the Bering Strait region of the Soviet Union forming the northern-most point.[123] Importantly, except for Antarctica, the continents are grouped without being cut; thus, the map has a fluidity and "one-world" quality.[124] Most striking is the prominence of Africa and South America, and the two continents' large area in comparison to North America, Europe, and the Soviet Union. Using the Briesemeister projection, *Atlas of Disease* maps like "Distribution of Helminthiases" make particularly prominent use of Africa as the focal point, where the comparatively few other instances of this parasitical disease stand in contrast to the deep colors and thick, bold criss-crossed lines plaguing the African landscape.[125] Africa's visualization as the least distorted of all continents in Briesemeister's projection contributes to the effect of the visual field "clearing up" around Africa, and creating the impression that Africa is a sick continent. For Cold War space, the new focus on comprehensive, global knowledge called for maps that lent

themselves well to statistical distribution. In the process, the Third World spaces increased in size and centrality; shapes may have been slightly distorted, but cartographers and policymakers placed a higher premium on accuracy to pinpoint areas for economic and social development in the emerging nations. Even small innovations like the Briesemeister show an increasing visual acceptance of North/South as a defining characteristic of world relationships in terms of bringing politics, the military, and academic social science together.

The ensuing appropriation and adaptation of the *Atlas of Disease* reveals that the U.S. government's interest in this global mapping project was inseparable from its interests in world economic development. The Mutual Security Act of 1958, originally enacted in 1948, set forth a policy plank stating:

> The Congress of the United States, recognizing that the diseases of mankind, because of their widespread prevalence, debilitating effects, and heavy toll in human life, constitute a major deterrent to the efforts of many peoples to develop their economic resources and productive capacities, and to improve their living conditions, declares it to be the policy of the United States to continue and strengthen mutual efforts among the nations for research against diseases.[126]

The issue of world disease is rhetorically situated under the umbrella of America's conception of mutual security in the Cold War, as well as the drive toward modernization and development in the Third World. To supplement this policy, in 1959, the Committee on Government Operations in the Senate, headed by Senator Hubert Humphrey, produced a report called *The Status of World Health*, which included more than 30 maps and charts, most of which were adapted versions from the AGS's *Atlas of Diseases*, while the

remainder were from the World Health Organization and the United Nations. Humphrey's introduction to the report makes special reference to the need for a "big picture" approach to medicine "rather than piecemeal views of world health, such as may have been seen in times past" and "requires a total, not a segmented view," as "U.S. responsibilities under world health programs continue to mount."[127]

Maps, appropriately, served as the main instruments of vision for Humphrey's proposed big-picture approach, able to capture a total snapshot of world health. Using world regions as the basis of study, world maps of issues such as life expectancy at birth and the ratio of population to physicians sketched the stark contours of an unequal world.[128] To make this case succinctly and unequivocally, the adaptations of the AGS maps are made much simpler than their referents. For example, the layers of colors and shades that distinguished the *Atlas of Disease* maps are replaced by the simple black, white, and gray dots of the typical Congressional report, a constraint of its printing and distribution requirements. More literally, then, world health and the Western response to it, was depicted as a black-and-white issue. In this way, the diseases stand in for the regions on these maps (India equals smallpox; Egypt equals low life expectancy) (figs. 4.7 and 4.8). In other words, a black area on the landscape fills in the lines of an entire nation, discerned through the contrast to the nations in white that are un- afflicted.[129] In page after page of maps, whether depicting hookworm, yellow fever, or leprosy, the darkest-colored areas of the world are concentrated underneath a kind of invisible horizontal line drawn just north of Mexico, Turkey, Iran, Afghanistan, India, and North Vietnam.[130] North of this line, the map is mostly marked by empty white spaces and clean lines, while the South is where the pockets of black, shades of grey, and dotted
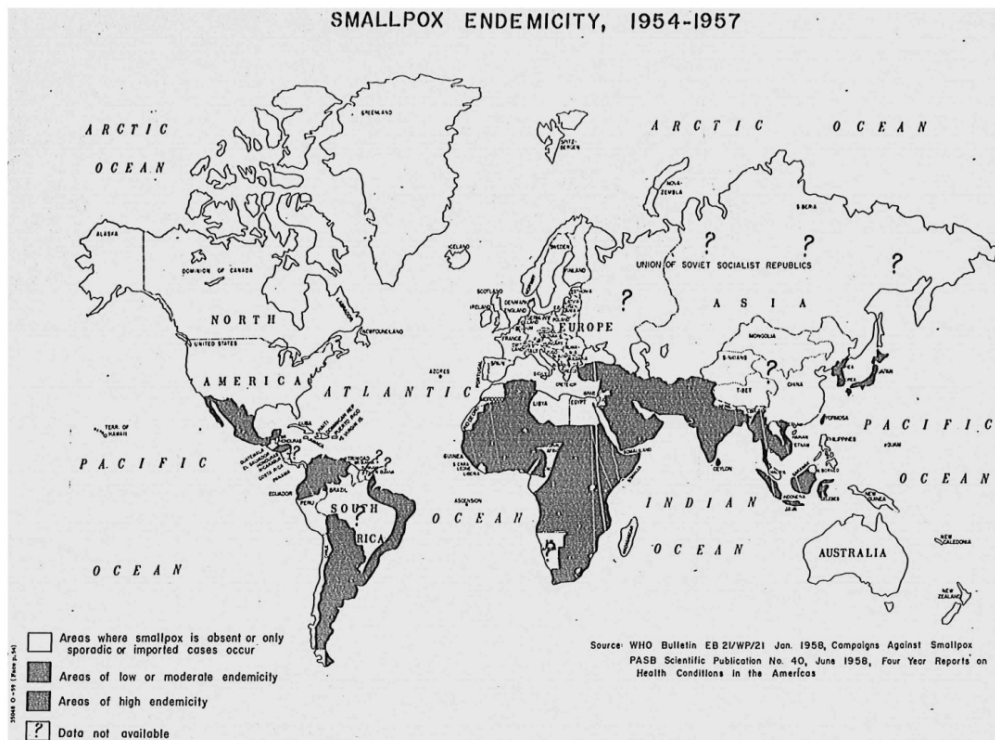
Figure 4.7. "Smallpox Endemicity," Senate Committee on Government Operations, *Status of World Health*, **1959**
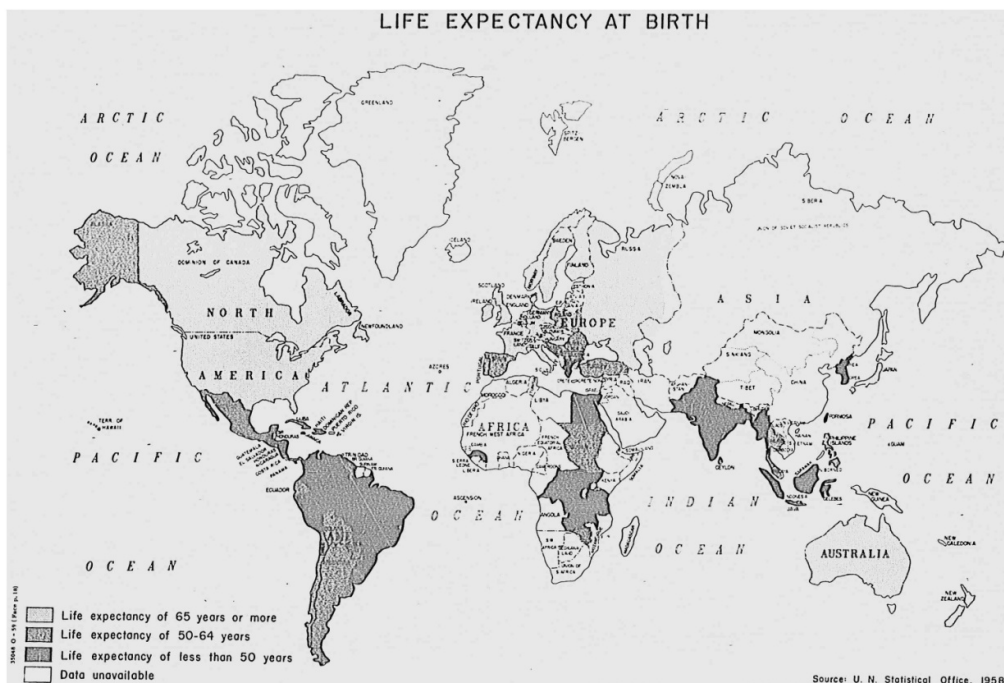
Figure 4.8. "Life Expectancy at Birth," Senate Committee on Government Operations, *Status of World Health*, **1959**

areas reside. To accentuate this line, *The Status of World Health* actually foregoes the innovative, Third World–centric projections like the AGS's Briesemeister projection for the more conventional Mercator projection. Despite the fact that most of the thematic maps in the study show higher incidences of disease and lack of health resources in South America, Africa, and South and East Asia, the use of the Mercator still privileges an enlarged Soviet Union, United States, and Europe. With the audience for this report limited mostly to other U.S. lawmakers and government health officials, the form of the map's projection eschewed statistical accuracy and scientific innovation in order to support the more officially sanctioned view of the world during the Cold War of the East/West bipolar superpower relationship. Thus, the North/South divisions are constrained by the East/West ones, and *The Status of World Health* situates world health from the global perspective of American security interests. While the intent of mappers like May might not have been to advance a crude cultural and environmental determinism of geographic area to disease and poverty, in the appropriation of them by the Senate, the overall effect of the maps sets up a deep boundary between the "above" world and the "under" world.

A few of the maps in the Senate report, though, notably go beyond the Mercator and use some novel cartographic forms to show certain key shifts in world geographic relationships. For example, the "Disease of the World" map uses "cartograms," where a chosen theme or trait is used as the basis of scale, rather than area (fig. 4.9).[131] Here, China and India engulf the visual focus of the map, bloated beyond recognition to denote their populations compared to areas such as the United States and the Soviet Union, while Pakistan, Japan, and Indonesia occupy unusually large expanses on the page. The

DISEASE IN THE WORLD: THE FOUR REGIONS
(A distorted map showing continents and countries on the scale of their population in 1950)

THE STATUS OF WORLD HEALTH

Source " World Population and Production " by Woytinsky and Woytinsky, 1953

21
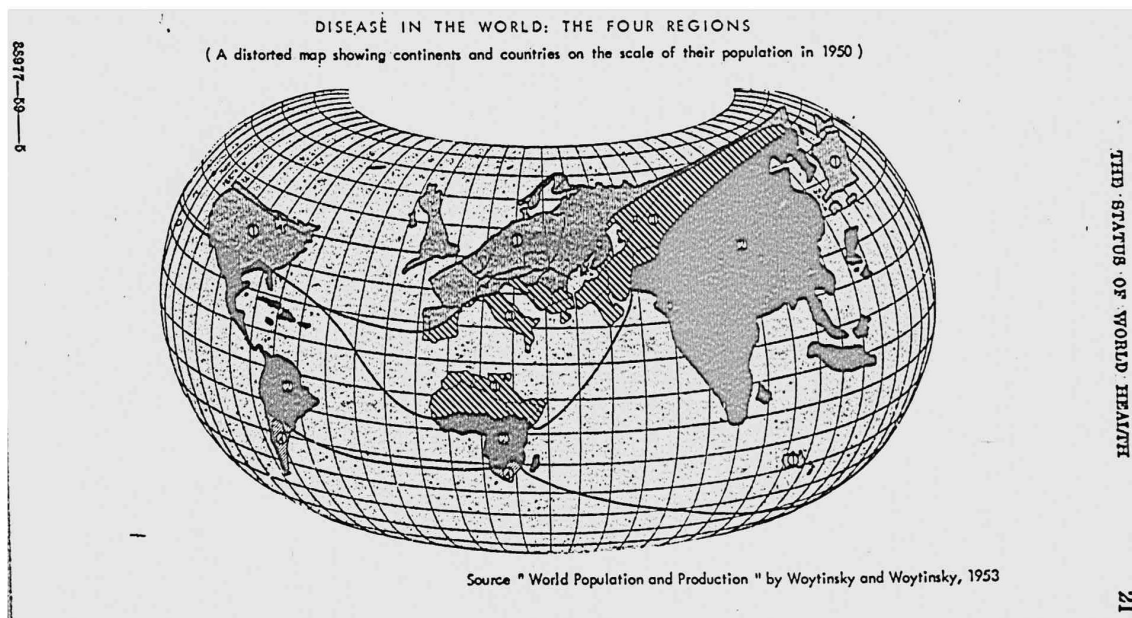
Figure 4.9. "Disease in the World," Senate Committee on Government Operations, *Status of World Health*, 1959

swelling, amorphous shapes connote an overstuffed quality to these areas, as if they are

ready to burst. Considered intertextually with the other maps of the report, which trace

the failing health of many of these regions, America's Cold War anxiety around place

becomes evident. Without surveillance, containment, and management, these volatile

areas could spread beyond their current boundaries and *dis*-place the centrality of the

United States and its allies.

Importantly, then, the *Status of World Health* report showcases that the ability to

map world health is only as good as the availability of data, and this fact is used in the

report to make a distinction between the First World and the Second and Third World. As

Humphrey points out, the main conclusion of the report is that "more statistics are

needed…Regrettably, an analysis of the world health situation is difficult due to the lack

of accurate, current statistical data, particularly from the less developed countries."[132]

Instead of specific conclusions as to what can be done with such statistical information to

improve world health, the implied argument is that the "full and accurate" documentation

of world health is enough, that *knowledge* of these problems is the real goal. Cartography

becomes a fitting central vehicle for such knowledge—drawing world spaces as abstract

containers that can be filled in with information in endless configurations, and with lines

that can draw the "over" and "under" distinctions that are needed to advance arguments

of development. In that way, channeling Doty, disease is not the enemy—it is the lack of

knowledge about such diseases in foreign areas that becomes the enemy.

In fact, Ibanez's introduction to May's work comments on the perceived value of

medical cartography as a tool of development and knowledge production:

> Every human race, however, just like every human being, carries within its
> primitive soul an image of the ideal, which it endeavors to fit within the
> surrounding geographic environment…Man throughout the centuries has fought
> against hunger, war, and disease, the three great threats that incessantly tend to
> change the map of humanity, just as medicine tends to shrink the empire of
> disease. Man's passionate craving for immortality has compelled him to fight
> incessantly against the forces that condemn him to the oblivion that is death.[133]

The Cold War project to map the extent of human disease strove for an idealized

image by pointedly making a deliberately global approach, on a scale that had not been

attempted before. May's combination of the "pathogen" (the sickness) with the "geogen"

(the geographic factor that facilitates the sickness) was not just a scientifically significant

connection, but a rhetorical one as well—the world on the flat page, through the bounded

lines of the map, could now be "diagnosed" and its weak spots and sicknesses absorbed

portrayed in one visual field.[134] The visual charting of health (or lack thereof) of

developing nations became an important representation of North/South relations in the

expansion of the Cold War. Cartography provided the necessary abstraction of individual

human suffering from disease, so that health could be aggregated as both a regional and

global phenomenon—a strategic world problem to be solved through economic and

cultural development by powerful, intervening world actors.

Developing and Decolonizing the Map: The United States, the United Nations, and the Transmissions of Cartographic Knowledge in the Third World

While projects like medical cartography helped to spatially define particular

world problems, there was also continual emphasis on the use of cartography as a Cold

War teaching medium to help newly developing nations achieve self-sufficiency, as a key

step in the progressive move toward development and modernization. For example, the

postwar push to dramatically increase the amount and accuracy of topographic maps of

the earth required collaborations with "friendly countries all over the world," and resulted

in projects like the U.S. Army Corps of Engineers' Inter-American Geodetic Survey

(IAGS), which drew on State Department, Army, and Navy support to work with various

Latin American countries to map the entire continent. Out of this collaboration came the

Alaska-to-Chile line, the longest measured line in the world, "an arc of triangulation

[that] will eventually lock the maps of North and South America into a unified whole."[135]

As Colonel Robert R. Robertson of the Army Corps of Engineers remarked in a 1956 *Life*

profile, "An important thing to remember about the IAGS is that we are not mapping

Latin America. We're helping the Latin Americans do it themselves. It's their

program…You can see what a terrific thing it is for inter-American relations."[136]

Cartography was framed as both a way to protect national security (having the most

accurate survey of the Western Hemisphere possible) and a symbol of self-determination

and spatial identity for developing nations. As Albert Lieber, writing for the American

Congress on Surveying and Mapping, offered in 1954, institutions like the Corps of

Engineers had mapping agreements with practically every country outside the Iron

Curtain since "aside from their military importance, adequate maps provide the

information required for the rapid economic and industrial development required by the

free world today."[137] In this way, cartography was posited as a facilitating force for

global development that went beyond military applications and could be drafted into the

economic ideology of the Cold War's Three Worlds framework. With U.S. technical

expertise, the world could be made more easily in America's image.[138]

The United Nations was one prominent vehicle through which this could be done.

The United Nations' attempt to centralize international mapping projects in the late 1940s

marked the first major attempt to systematically define cartography for its capacity to aid

international development efforts.[139] A U.N. Economic and Social Council resolution of

1948 stated that "accurate maps are a prerequisite to the proper development of the world

resources which in many cases lie in relatively unexplored regions."[140] This resolution set

the tone for the official start of a comprehensive international cartography program for

the United Nations (through UNESCO) at a two-week conference in March of 1949.[141]

Department of State actors like S.W. Boggs (who would attend and play a major role in

the conference), had lobbied for an international cartographic organization through U.S.

institutional channels for years. Finally, the participants at the 1949 conference were able

to agree on a galvanizing direction: a specific U.N. branch for cartography that would 1)

further stimulate national programs of surveying and mapping by promoting the

exchange of technical information and other means; 2) coordinate the plans and programs

of the United Nations and specialized agencies in the field of cartography; and 3) develop

close cooperation with cartographic services between interested member governments.[142]

In addition, the resolution broke the world down into six cartographic regions

(Asia and the Far East, Central and South Africa, the Middle East, Western Europe and

the Mediterranean, Eastern Europe, and the Americas—a typical geographic partitioning

during the Cold War). Out of these six regions, government representatives that shared a

community of interests in mapping that area would hold periodic meetings for each

region, supervised and supported by the United Nations. Despite the idealist overtones of

its calls for global cartographic cooperation, the resolution was not without its partisan

controversies. The delegations of the Soviet Union and Poland opposed joining the

resolution on the grounds that it would lead to "the establishment of international

cartographic standards and therefore to the eventual modification, through a difficult and

costly process, of laboriously built up national cartographic systems which were designed

to satisfy specific national needs."[143] In addition, France fought unsuccessfully to

separate Western Europe from the Mediterranean in the regional breakdown and make all

of Africa one region, instead of splitting North Africa amongst the Mediterranean and the

Middle East.[144] Thus, the Cold War tensions between national interests and

internationalism (Soviet Union) and the difficulty of defining regions during post-

colonial transitions (France) were bound up in the ways maps were situated in the

postwar landscape.

From the outset of the U.N. cartographic program, the focus on economic and

social advancement through mapping was critical. The delegates to this first map

conference produced a manifesto that represents well the conundrums of cartography in

an era of a rapidly shifting political and economic landscape. For one, they noted how

decolonization was changing and expanding cartography's role. While topographic maps

may remain a responsibility of national governments, "we are now living in a period

when the principle of absolute national sovereignty is losing some of its strength, a

political development which may be considered as the hallmark of our time," the

document concluded.[145] Thus, maps had to meet more fluid needs that required

international efforts. The report also attacked the lack of exchange of carto-information,

particularly between more highly developed countries and lesser developed countries,

noting that, "In an advancing civilization there is increasing and urgent need for more

power, more food, and better communications. The means of producing these essentials

are various, but in every case they can be produced more cheaply and more quickly with

adequate maps than without them."[146] Maps were supposed to speed the pace of

development and equalize the playing field—and governments had an actual *duty* to serve

their publics by producing them. More than merely technical instruments, they were

foundational for international progress. As the conference delegates' recommendations

note,

> Not only is cartographic service a tool to the United Nations and its specialized
>
> agencies but, in the broad sense used here, cartographic knowledge is the basis for
>
> any program for social and economic development…Human history, especially
>
> the recent records and particularly in the more highly developed nations, is full of
>
> examples of things that have been done, large structures intended for human
>
> betterment, which have completely or partly failed for lack of ordinary
>
> cartographic facts…It would seem to be the responsibility of those charged with

the consideration of social values to protect peoples and communities from
unconsidered—or not sufficiently considered—economic developmental
projects.[147]

Maps, in other words, can also visually reveal where development can go wrong,
thus serving as a protective device for communities that are in upheaval—in turn, the U.N.
cartographic branch was offering an interpretive function in its services, helping nations
to not only get the right tools, but to "read" maps better. In 1955, the same year as the
summit at Bandung, the United Nations held its first regional cartographic conference for
Asia and the Far East in Mussoorie, India. The conference's inaugural address by popular
Indian politician (and former member of India's Non-Cooperation movement) Dr
Sampurnanand upheld the idea that a lack of adequate mapping was a sign of global
inequality that required rectification, reminding the delegates that "Fairly accurate maps
showing political sub-divisions and the positions of the principal seas, rivers and
mountains are still luxuries in certain parts of the civilized world."[148] The age-old
connection of maps to "civilization" was especially heightened here in a Cold War
context—to participate in the new global world order, a nation had to know itself; maps,
thus, were not just important for their geographic information, but for their utility as a
development symbol. The very act of mapping allowed nations' entry into a global
conversation. This spirit of development would carry forward into the United Nation's
regional cartographic conferences held every couple of years, begun in 1955 and
continuing into the 1980s, for areas such as Africa and the Near East.

U.N. cartography also provided a visual representation of the organization's
controversial trusteeship system, which oversaw the decolonization process and peaceful

development for territories (either from former League of Nations mandates or areas derived from defeated nations in World War II) on the path to independence. Every year, the United Nations would issue updates of its Trusteeship maps, which marked areas of the world that were full members of the United Nations, and those that were trustee-dependent nations (mostly located in Africa and Oceania). The U.N.'s annual yearbook from the late 1940s into the 1960s, for example, published these maps in attempts to show the progressive effects of development that brought nation-states into membership in a larger world community.[149] In this way, the U.N. maps made political partitioning into a kind of paternalism that blocked off nations that were being "parented" toward full adulthood in the world of the United Nations. The problem is that such maps of political bordering and agreements could not account for the other inequalities that still existed between these nations and their move into adulthood. So while the gradual decline in the amount of trustee states was indicated as a U.N. triumph on these maps, the silences on the map still spoke loudly as well.

The U.S. role in this cartographic program of the United Nations especially provides some unique insight into the discursive role of mapping on an international scale, and what development meant in terms of U.S. global interests. For one, it was noted frequently that the viability of the U.N.'s program for international cartographic cooperation was inspired by the success of the U.S.-led Commission on Cartography of the Pan American Institute of Geography and History, which united U.S. technical cartographic advice with Latin American governments, and the IAGS project with the Army Corps of Engineers.[150] These became the kind of go-to examples for how a spirit of scientific internationalism could work for U.N. cartography, and gave the United States a

dominant role in setting the tone for the collaborative mapping of the entire world. This internationalism was in play, for example, in the report of the U.S. Delegation to the U.N. Regional Cartographic Conference for Asia and the Far East, where State Department Geographer G. Etzel Pearcy (S.W. Boggs' successor and a former airline executive) pointed out that "National developmental organizations must rely on the surveyor and cartographer for support in order to discover, evaluate, and utilize resources, and to foster the economic and social developments of the region."[151] Such development was also increasingly tied to developing states' access to better mapping technologies. As Pearcy notes,

> The increased demands to exploit our resources to meet man's needs make it mandatory to develop improved cartographic production techniques. Emerging states, however, should not wait for the utopia computer, but arrange their data and plan their programming techniques for today's computers. Consideration should be made by affluent nations to include the emerging countries as recipients of computers and automatic systems suitable for their applications.[152]

Mapping was clearly an activity, then, to be brought into the tide of modernization—the notion that with the right instruments from the established North, the South had a chance to catch up. At a U.N. Regional Cartographic Conference for Africa, a report to Secretary of State Dean Rusk by Delegate H. Arnold Karo (from the U.S. Coastal Survey) proposed that any kind of successful "rational economic development" in Africa depended on the credibility of technical specialists that could come in and help standardize the continent's disparate mapping methods.[153] Karo bemoaned how aerial photography needed for mapping was in danger in the face of decolonization. He reported that "a majority of the

aerial photography in the New Africa states has been provided by the British and French governments through commercial contracts or government-owned survey air-craft. As the influence of these governments on the new countries wanes, the support for aerial mapping and surveying will diminish in like proportion."[154] In a peculiar way, decolonization here is framed as inciting chaos that invites a kind of *re-colonization*, except this time due to the former colonies' perceived need for better technical knowledge.

While the report depicts the United States as a benevolent provider of technical assistance, the specter of Cold War competition for influence lingered not far behind. For example, Karo's version of the conference notes that "the African nations displayed much interest in the U.S. [geodetic] system and discussed it at considerable length," but also observed that "the mapping system proposed by the Soviet Union…could have a strong appeal to the African nations which are desperately seeking ways and means for mapping and survey assistance. Technically, however, the Soviet system entails cumbersome methods" and "could in effect only be operated and maintained by a large contingent of Soviet technical specialists."[155] In this way, the actual presence of Soviet cartographers to run this equipment connoted an infiltration of African areas that could prove dangerous for American interests. Responding to the anxieties, Karo's final recommendations to Rusk indicated that the United States needed to take the lead in providing mapping and geodetic/aerial photographic support for Africa, as "these same maps and data are necessary for the security of individual property rights, to the security of an individual nation, and the collective security of the region" as well as "worldwide security and defense of freedom everywhere." "As such," continued Karo, "adequate and

accessible cartographic intelligence on a worldwide scale is a necessary part of our national policy."[156] The individual mapping data systems for African nations were drawn into the complex East/West antagonisms of a U.S. Cold War internationalism increasingly constrained by the South.

These examples speak to a continual conundrum in the American approach to development in the Third World. According to Westad, for American Cold War ideology, decolonization provoked two very different kinds of responses:

> On the one hand, American elites welcomed the breakup of the European colonial empires because it meant opportunities for extending US ideas of political and economic liberties…On the other hand, however, decolonization increased the threat of collectivist ideologies getting the upper hand in the Third World…If that was the case, then a covert strategy for influence would make more sense than open attempts at gaining friends through aid and trade.[157]

The dualism between opportunities for open exchange and the need for covert secrecy found its way into the development of cartography and the production of geographic knowledge in the era. Extraordinarily fluid lines appeared between economic/social development and militarization. For example, the push toward development and modernization encompassed the efforts of the United States to lead UN initiatives to provide technical knowledge to Third World nations all over the earth. Promotional maps of the Peace Corps' missions around the world, for example (fig. 4.10), showed a kind of benevolent intervention across the globe that idealized America's development spirit.[158] At the same time, the most prodigious and vigorous mapping of the Third World during the Cold War era was done by both the Department of Defense and the Central
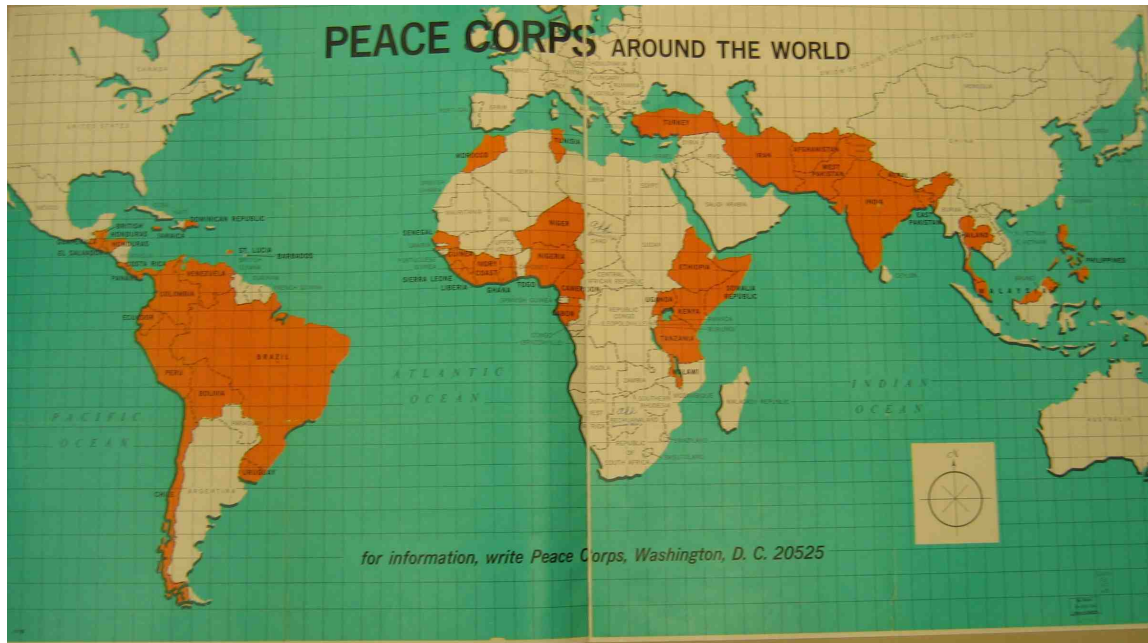
Figure 4.10. U.S. Peace Corps, "Peace Corps Around the World," 1966 (Geography & Map Division, *Title Collection*, Library of Congress)

Intelligence Agency (while most of the CIA mapping was topographical, figs. 4.11 and 4.12 show representative examples of a CIA political map series tracking the history of decolonization in the Third World).[159] Also, the rise of area studies, funded by U.S. intelligence agencies and major foundations, saw the Third World mapped into particular regions that minimized local differences in the face of finding larger trends.[160] As geographer Jim Glassman said, this kind of area expertise tended to "otherize" regions like Southeast Asia and helped to legitimize interventions in such areas.[161] A strange relationship thus developed between cartography and what Frank Ninkovich has called the symbolic interventionism of the domino-theory era: maps served as the symbol of technical expertise that aided in lifting allies out of poverty and backwardness, while simultaneously serving as tools of surveillance that monitored Third World sites for their strategic placement in the potential for global skirmishes and new fronts.[162] Historical geographer Matthew Edney has written of this concept of "disciplining cartography,"
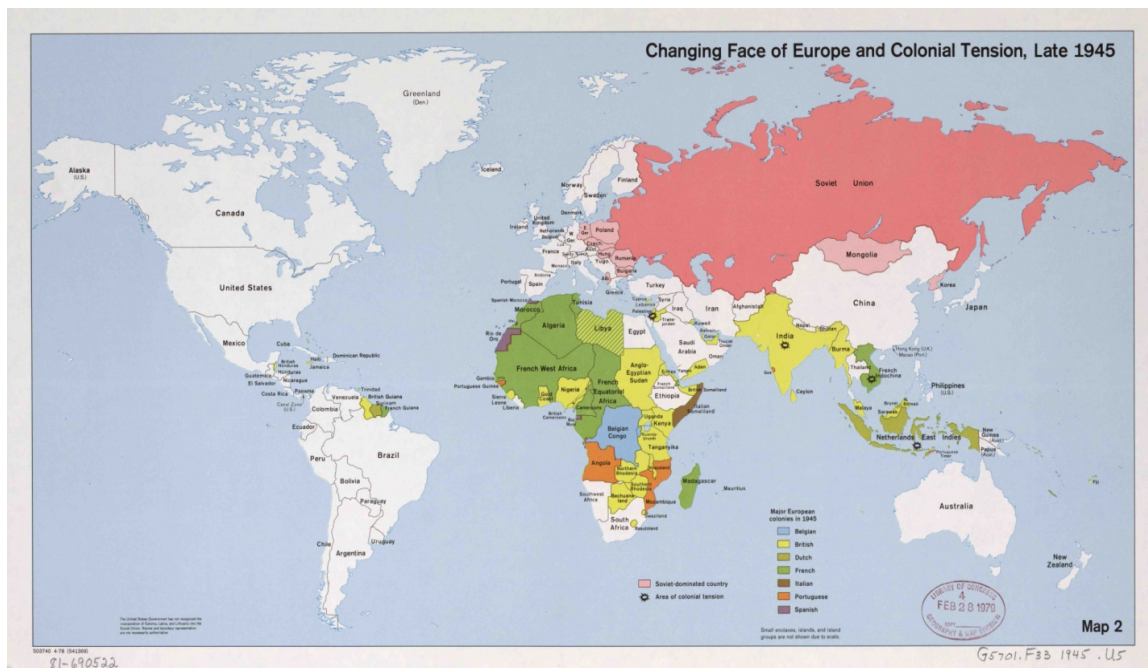
Figure 4.11. Central Intelligence Agency, "Changing Face of Europe and Colonial Tension, Late 1945," 1968 (Geography & Map Division, Library of Congress)
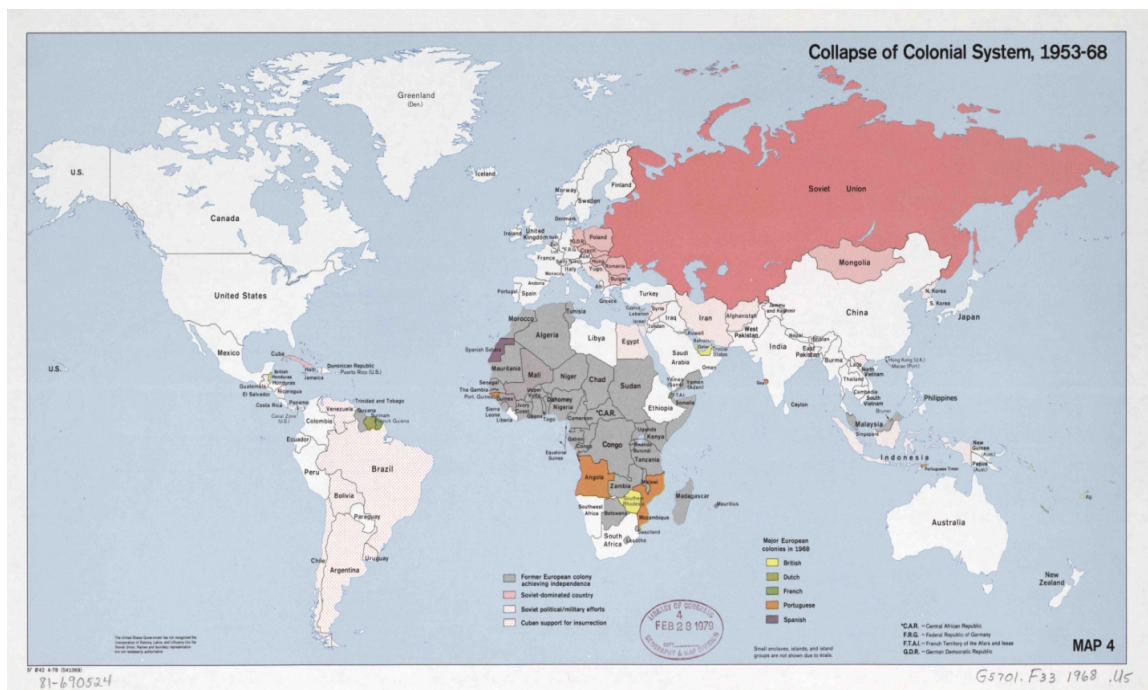
Figure 4.12. Central Intelligence Agency, "Collapse of Colonial System, 1953-68," 1968 (Geography & Map Division, Library of Congress)

where the map serves not just as a tool of state power, but also to perpetuate a progressive narrative about the worth of cartography as a practice.[163]

A quintessential example of this dualism in terms of U.S. Cold War cartography specifically depicting the Third World came through the use of maps in the infamous Strategic Hamlets program in Vietnam.[164] The Hamlets program was, arguably, modernization theory's ultimate project, where, according to James C. Scott, social science blended seamlessly into military science.[165] The program, which essentially involved removal and relocation of Vietnamese families from their villages to get them away from Communist propaganda and to cut down on civilian casualties, even saw Robert McNamara defending it as an opportunity for community building for rural Vietnamese.[166] The program used a system of map overlays that evaluated population and area to determine the stability of particular strategic areas for relocating villages. Because of the task's scope, the military outsourced some of this cartographic work to the civilian United States Geological Survey (USGS). In the process, USGS cartographers were given classified CORONA aerial satellite photographs to make their maps but were not notified that they were classified or where they came from. An interview with USGS director Roy Mullen, by historian John Cloud, reveals that:

> USGS was commissioned by the State Department to prepare civilian land reallocation maps for South Vietnam, and we were commissioned by Army Map Service to prepare battle maps of North Vietnam. They were the same maps. *They were the same maps!*[167]

In Cloud's terms, "the spatial relationships, the geographic 'truth' between hamlets was identical, but the maps validated different political concepts, and the ways they were used

to literally 'target' the populations were quite distinct."[168] The fact that the same cartographic data was literally being used to both save and destroy Vietnamese communities speaks to the ultimate tension between Cold War military prerogatives and social science.

Such tensions inspired a movement of "countergeopolitics." In 1972, for example, French geographer Yves Lacoste, visiting North Vietnam on a commission to investigate war crimes, wrote a piece (eventually published in the *Nation* and expanded for the radical geography journal *Antipode*) about the systematic, premeditated bombing by the U.S. of the irrigation system on the dikes of the Red River Delta—a bombing (and ensuing public relations disaster in America) that flooded the homes and crops of tens of millions, an effect tantamount to a hydrogen bomb.[169] Strategic geographic knowledge of mass projects like an irrigation system to modernize and aid local populations could also be conversely used as a weapon to drown and starve them. As Lacoste wrote,

> Today, more than ever, one has to become aware of the political and military
> function which geography has always had since its inception. In our time this
> function has assumed greater magnitude, and takes on new forms because of
> increased information, more technically-sophisticated means of destructions, and
> also because of progress in scientific knowledge. The title of an article in
> *Newsweek*: "When the landscape is the Enemy" is indeed significant.[170]

There was, during this period, then, an ambivalence and complexity that accompanied U.S. cartographic constructions of the developing world, both in terms of its ongoing competition with the Soviet Union, but also in its processes of geographic knowledge production. There was no easy reconciliation between "winning hearts and

minds" through the teaching of cartography to help nations develop, and the use of classified mapping technologies to capture hard data that may be used for the potential destruction of terrain. Geographer D.W. Meinig in 1956 decried the oversimplified view of the world that was arising during the dissolution of colonialism: "While we sincerely promoted the general ideal of political freedom and economic well-being for all mankind—and a marvelous and powerful ideal it is—we have ignored the inevitable corollary that that freedom and development would not find a singular, uniform pattern of expression."[171]

Conclusion

It was perhaps not surprising, then, that around the same time that Vietnam was shattering these dreams of modernization, and while nations were still decolonizing in significant numbers, the Arno Peters projection was able to capture a changing global geographic narrative that critiqued the Euro-centric worldview and attempted to displace the superpower as the focus of the map. The Third World was by no means a stable entity—it was continually contested, redefined and remapped by superpower nation-states, international mediators like the United Nations, and challengers like Arno Peters. As demonstrated in this chapter in particular, the developing world and the cartographic South were a force in Cold War geopolitics since the conflict's inception in the late 1940s. The notions of development and modernization went hand in hand with the way America placed itself into the emerging international framework: the United States defined itself (and its security) in terms of its ability to expand its influence. Mapping not only reflected these changes, but cartography itself was "hailed" into the rhetorical battleground of the Cold War. The very practice of mapping was seen as a progressive

method of bringing the Third World up to the standards of the First, as an attempt to validate not only the capitalist system but American ideology as a whole. Thus, the content of the maps in this era not only changed to include a massive diversity of social issues such as health (hunger and disease) and economics, but the form of vision in the maps was altering as well, introducing a host of new projections and perspectives.

Overall, the imaginative geographies of North and South evolved, adapted, and were contested throughout the course of the Cold War, making for profound tensions on the map between internationalism and nationalism, shape and area, and developed and undeveloped. The volatility of spatial concepts like the Third World anchored the spatial relations between the United States and the Soviet Union, but also opened up the possibilities of radical challenges to those relations. Walter Mignolo has written of "cosmopolitanism" as one global objective during the Cold War era, where international spatial relationships were redefined by Western elites in terms of interdependency, and human rights were redefined through the "master discourse" of political economy.[172] In this move to interdependency among global actors, the "language of developing under-developed nations as an alternative to communism" became integral. The problem, though, was that during the Cold War's Three World system, "human rights were caught in the middle of the transformation of liberal into neoliberal democratic projects" while "decolonized countries were striving for a nation-state, at the same time that the ideologues of the new world order no longer believed in them."[173] Thus, the ways the North was envisioning the South on the flat page were profoundly at odds with the ways in which developing nations were self-identifying.

In this way, the Arno Peters map has wider implications for considering the visuality of Cold War culture, and how the geopolitics of internationalism was reflected in the projection's construction and circulation. Jeremy Crampton has written that "maps have to be centred and projected somewhere, but the choice itself is not just an internal one, because the kind of map that *seems acceptable* is affected by the political, social and technological context in which that choice is made."[174] Considering each of these contexts is necessary to understanding how a map is used historically and rhetorically as a symbolic image to stand in for the identities of millions and millions of people. In addition, attending to the geopolitical contexts of Cold War development through maps helps explain how concepts of North/South and East/West are both challenged and reified by the internal choices of the mapmaker as well as the external ways in which the map is appropriated, circulated, and debated.

More importantly, for this project, the Peters projection is a reminder of the cracks in America's familiar spatial definitions of Cold War space. The anxieties of losing the binary between the United States and the Soviet Union helped fuel the use of cartography to both modernize potential allies and offer a stable place on the map for an American state, whose role as superpower was being challenged more than ever before. In response to the kind of social scientific modernization schemes that worked hand in hand with military strategic planning and weapons development, a homegrown U.S. movement of radical geographers and cartographers, influenced by Vietnam and the civil rights movement, would not only protest state power but also challenge the scientific sanctity of the "map" itself. This movement would advance well beyond Peters in its scope, as it was simultaneously working to both rewrite public policy and the

cartographic discipline as a whole. As had happened so often in the Cold War, the map was being contested in both form and content.

While these debates around the placement of the Third World raged on in the 1970s and 1980s, one particular radical critique that came out of this critical geography movement reached special notoriety: the challenge of "nuclear geography." Here was a terrifying kind of internationalism, where distinctions between North and South, East and West, were flattened by the power of the nuclear missile to obliterate international space. The face of 1940s air-age globalism, where the world became closer on the map, was now mangled by the prospect of cartography to map the volume of nuclear arms and its capacity for destruction. Particularly as the so-called Second Cold War ignited in the late 1970s, the resurgence of a nuclear arms race saw both a heightening of U.S. and Soviet needs for mapping, as well as the ensuing response by a movement of radical geographers and oppositional voices. The intersection between these two cartographic forces made for an explosive discourse around what constituted place in a potentially placeless world. How maps would envision the potential "end of geography" becomes the basis of the next chapter.

Notes: Chapter Four

[1] Rev. James Gall, "Use of Cylindrical Projections for Geographical, Astronomical, and Scientific Purposes," *Scottish Geographical Magazine* 1 (1885): 119–23.

[2] Gall was notable for periodically speaking at academic societies and publishing works like *The Science of Missions* and *An Easy Guide to the Constellations*. In 1855, Gall had proposed a series of new map projections to the British Association for the Advancement of Science, which, according to geographer Jeremy Crampton, was symbolic of a movement in Enlightenment cartography (and science as a whole) wherein the "twin disciplines of measurement and accuracy" became more integral to evidence man's control over natural spaces in order to progressively "enlarge and elevate" minds. Jeremy Crampton, "Cartography's Defining Moment: The Peters Projection Controversy, 1974–1990," *Cartographica* 31 (1994): 20.

[3] Gall, "Use of Cylindrical Projections," 121.

[4] Peters' background speaks to the nature of his approach, and how his numerous critics conceived of his image. For example, many of those assessing Peters's legacy bring up his 1952 publication of a world history (translated as *Universal History*), which was labeled as a "scandal" by *Der Spiegel* magazine. Apparently, Peters was hired by the regional government of Lower Saxony (with distribution support from the Educational Department of the U.S. Military Government in Germany) to create a school textbook; Peters decided to write a book that would be acceptable to both East and West Germany. The result was a critical disaster; neither side approved of the text, and it was especially

hated by his government employers for being too leftist, and they sued Peters and sent

thousands of copies back to the publisher. It was not until Peters began working on an

atlas volume to his *Universal History* during the 1950s that he drew cartography into his

equalizing project. Crampton speculates that Peters started drafting on what became his

signature world map in the early 1960s while serving as editor of the socialist magazine

Periodikum, another detail that was drawn by his fellow cartographers into the analysis of

his maps. He went on to reach notoriety as the founding director of the private Institute

for Universal History in Bremen, where he first unveiled the map to the public. See Denis

Wood and John Fels, *The Natures of Maps: Cartographic Constructions of the Natural

World* (Chicago: University of Chicago Press, 2008), 9; Peter Vujakovic, "Arno Peters:

The Man and His Map," *Cartographic Journal* 40 (2003): 51; Mark Monmonier, *Rhumb

Lines and Map Wars: A Social History of the Mercator Projection* (Chicago: University

of Chicago Press, 2004), 147; Phil Porter and Voxland, "Distortion in Maps: The Peters

Projection and Other Devilments," *Focus* (1986), 28; Arthur H. Robinson, "Arno Peters

and His New Cartography," *The American Cartographer* 12 (1985): 110; Crampton,

"Cartography's Defining Moment," 22–23, 31; Ward L. Kaiser and Denis Wood, "Arno

Peters—The Man, The Map, The Message," *The Cartographic Journal* 40 (2003): 53;

"Professor Arno Peters: Obituary," *The New Internationalist*, January/February 2003),

http://www.newint.org/; Peter Vujakovic, "Arno Peters' Cult of the 'New Cartography':

From Concept to World Atlas," *Bulletin for the Society of University Cartographers* 22

(1988): 1. Also, for critical discussions of geographers and cartographers as "authors,"

see Trevor J. Barnes and James S. Duncan, eds., *Writing Worlds: Discourse, Text and

Metaphor in the Representation of Landscape* (London: Routledge, 1992).

[5] Arno Peters, *The New Cartography*, trans. Ward Kaiser, D.G. Smith, and Heinz Wohlers (New York: Friendship Press, 1983).

[6] Defending his choice to use a familiar rectangular frame for his map, rather than a spherical projection or an ellipsis, Peters proclaimed that the public would not accept such novelties: "We live in a four cornered world. The television tube we sit in front of is perhaps the best symbol of it." Joe Alex Morris, "Dr. Peters' Brave New World," *The Guardian*, June 5, 1973, 15.

[7] After a highly publicized lecture for the German Cartographic Society in 1974, the projection and Peters's accompanying polemic text were published in a glossy, elaborately designed brochure, cumbersomely titled *Der Europa-Zentrische Charakter Unseres Geographischen Weltblides Und Seine Uberwindung* (or The Europe-Centered Character of Our Geographical View of the World and Its Correction). Arno Peters, *Der Europa-Zentrische Charakter Unseres Geographischen Weltblides Und Seine Uberwindung* (Dortmund, Germany: W. Grosschen-Verlag, 1976).

[8] Gall was often used as a kind of "gotcha" technique by critics to show Peters' apparent unoriginality. It is unclear who first made the connection between Gall's projection and Peters' identical copy, but in terms of publication, it could be from Iain Bain's article in the *Geographical Magazine*, where Gall's projection is included in a diagram next to the maps of Peters, Mercator, Mollweide, and Winkel. See Iain Bain, "Will Arno Peters Take Over the World?" *Geographical Magazine* 56 (1984): 342–43; There is also a footnote in Arthur Robinson's scathing 1985 review of the Peters' controversy, where he writes that "John P. Snyder has called to my attention that this obscure variant was first proposed by the Rev. James Gall as one of the three cylindrical

projections he devised…He stated that he hoped that, if it were used, it would be called 'Gall's Orthographic Projection of the World.'" See Robinson, "Arno Peters and His New Cartography," 110.

[9] Peters was not a member of the cartographic and geographic disciplines: as such, his grand claims and his abandonment (or some would say ignorance) of scientific conventions rankled the mapping community—the extent of the ire is almost amusing. Canadian geographer Thomas Wray wrote in 1978 that the projection and its campaign were a collection of "half-truths based on muddy thinking," while the German Cartographic Society issued an official edict against the Peters map, deciding that it "completely fails to convey the manifold global, economic and political relationships of our times." Monmonier would rail against news outlets, who he claimed were "as ignorant as the general public of how maps work," and "covered the story as if he [Peters] were a courageous innovator challenging a cartel of racist fuddy-duddies." Perhaps the apex, though, of the Peters debate came when the American Congress on Surveying and Mapping simply had enough and declared *all* rectangular world maps obsolete and dangerous. The *Wall Street Journal* printed an ACSM press release in June of 1989, with the headline, "Drawing the Line," noting that the "American Congress on Surveying and Mapping, Falls Church, VA, adopts a sternly worded resolution condemning such maps for 'showing the round earth as having straight edges and sharp corners.'" Of course, Peters sympathizers like Wood and Fels referred to this declaration as a "preposterous (and wholly ineffectual) resolution," but used it as an example of just how deeply the projection had shaken the discipline. See Thomas Wray, "Contrary View: The Peters Map is a Myth," *Canadian Geographic* 97 (1978): 28–29; German

Cartographical Society, "The So-Called Peters Projection," *The Cartographic Journal* 22 (1985): 110; Peter Vujakovic, "Damn or Be Damned: Arno Peters and the Struggle for the 'New Cartography'," *Cartographic Journal* 40 (2003): 61; Monmonier, cited in Dhananjayan Sriskandarajah, "Long Underwear on a Line? The Peters Projection and Thirty Years of Carto-Controversy," *Geography* 88 (2003): 241; "Drawing the Line," *Wall Street Journal*, June 8, 1989, 1; Arthur H. Robinson, "Rectangular World Maps— No!" *Professional Geographer* 42 (1990): 101–4; Denis Wood and John Fels, *The Natures of Maps: Cartographic Constructions of the Natural World* (Chicago: University of Chicago Press, 2008), 11.

[10] See D.H. Maling, "Personal Projections," *Geographical Magazine* 46 (1974): 599; John Loxton, "The Peters Phenomenon," *The Cartographic Journal* 22 (1985): 108. For more information on the circulation of the map, see Robinson, "Arno Peters"; "The New Flat Earth," *The New Internationalist*, May 1983, http://www.newint.org/; Leslie Wolf-Phillips, "Why Third World?" *Third World Quarterly* 1 (1979): 114–15; Kaiser and Wood, "Arno Peters—The Man, The Map, The Message," 53–54; Bernie Ashmore, "Arno Peters Changed the World! Development Education and the Peters' Projection," *The Cartographic Journal* 40 (2003): 57–59; Peter Vujakovic, "The Extent of Adoption of the Peters Projection by 'Third World' Organizations in the UK," *Bulletin of the Society of University Cartographers* 21 (1987): 11–16; Porter and Voxland, "Distortion in Maps"; Ward L. Kaiser, *A New View of the World: A Handbook to the World Map, Peters Projection* (New York: Friendship Press, 1987).

[11] Sriskandarajah, "Long Underwear on a Line?," 237.

[12] Crampton, "Cartography's Defining Moment," 22.

[13] Robinson, "Arno Peters," 110–11. Letter to the Editor, Paul Boyd, *UN Secretariat News*, Feburary 28, 1985, 2; Miklos Pinther, "The View of the World," *UN Secretariat News*, January 31, 1985, 5–7.

[14] Kaiser, *A New View*, 2.

[15] Robinson, "Arno Peters," 104. Upon Peters's death in 2002, British geographer Peter Vujakovic even eulogized him with a large cartoon of Peters dutifully standing in front of a clothesline putting out the world's continents to air. Vujakovic, "The Man and His Map," 51.

[16] Alan K. Henrikson, "All the World's a Map," *The Wilson Quarterly* 3 (1979): 175.

[17] American geographers Porter and Voxland derided this "squeezed accordion" effect as only able to "give north and south" and thus useless in terms of calculating distance (a hallmark strength of the Mercator). Porter and Voxland, "Distortion in Maps," 27.

[18] For a critical discussion of contested notions of "scale" in political geography, see Richard Howitt, "Scale," in *A Companion to Political Geography*, eds. John Agnew, Katharyne Mitchell, and Gearóid Ó Tuathail (Malden, MA: Blackwell, 2003), 138–57.

[19] While the de-emphasis on Western Europe and America was central to the map's arguments, the challenge to the areal dominance of the Second World was also made clear. The Soviet Union is stretched into a new, flatter and less imposing shape, and its more extreme placement in the upper North squashes the usually sprawling Soviet republics together. This created new spatial relationships for emerging Cold War "realities." As Peters told the *Guardian*, "It makes it easy to see why the Russians are so

nervous about the Chinese." The recalculation of area articulated anxieties in the bipolarity of the Cold War and argued that there were potential vulnerabilities. Morris, "Brave New World," 15.

[20] Of course, critics once again took Peters to task for his fidelity to equality at all costs. Peter Vujakovic, for example, points out that "Peters is effectively surrendering the flexibility of cartography to sustain his own 'myth' that his projection is universally applicable…His sin is not that he has questioned the bases of traditional cartography (correctly or not), but that he is seeking to replace it with his own dogmatic cult of the 'new cartography.'" Once again, Peters was indicted for the unfettered promotion of his projection and worldview, seen by certain critics as taking precedence over his proper use of the medium of cartography (and its advantages) to showcase world problems with fidelity and precision. Vujakovic, "Arno Peters' Cult," 5.

[21] Terry Hardaker, one of Peters' collaborating cartographers, notes in his introduction to the Peters atlas, "We have come to accept as 'natural' a representation of the world that devotes disproportionate space to large scale maps of areas perceived as important, while consigning other areas to small-scale general maps. And it is because our image of the world has become thus conditioned, that we have for so long failed to recognize the distortion for what it is—the equivalent of peering at Europe and North America through a magnifying glass and then surveying the rest of the world through the wrong end of a telescope." Terry Hardaker, "Introduction," in *Peters Atlas of the World*, by Arno Peters (New York: Harper & Row, 1990).

[22] This was often a point of contention with critics; Monmonier wrote, for example, that "Peters' claim of 'fairness to all peoples' seems less accurate than 'fairness

to all acres.'" Mark Monmonier, *Drawing the Line: Tales of Maps and Controversy* (New York: Henry Holt, 1995), 39.

[23] Arno Peters, *Peters Atlas of the World*, preface.

[24] In Hardaker's terms, "This way all the thematic maps can be understood at a glance without the necessity for complicated symbols or explanations." Hardaker, "Introduction."

[25] "World Map in Equal Presentation," UN Development Programme Version, 1987, Geography & Map Division, Library of Congress, Washington, DC. The *New Internationalist*, publishing the first English-language edition, highlighted this use of color as an innovation: "One of the most potent symbols of the dissolution of the British Empire, for those old enough to remember it, has been the disappearance of those splashes of red around the world. Indeed since the 1960s there has been relatively little need for political maps which give the same colour to countries under the same administration – since most are now independent Peters suggests that we start again and, instead of emphasizing the difference between countries, we should highlight the growing links between nations in the same region." *The New Internationalist*, 1983. Ward Kaiser's "guide" to using the Peters also notes this importance of color: "Regional and national identities more and more take precedence over a relationship that owes its origin and its continuation to forcible conquest and foreign domination. Therefore Peters conceived the idea of showing a whole region in one dominant color-family, with each nation having its own variant. Thus the 'family connections' as well as the separateness of each country can be shown. To my knowledge, there is no other world map…that takes regional awareness so seriously." Kaiser, *A New View of the World*, 23.

[26] An important discussion of color as a discourse is made by semioticians Gunther Kress and Theo Van Leeuwen, who make useful distinctions around "associative values" of color. In particular, their discussions of the "complex and composite meaning potential" of color in areas such as value, saturation, purity, modulation, differentiation, and hue have not only influenced my reading of the Peters map, but of my reading of color in maps in general. See Gunther Kress and Theo Van Leeuwen, "Colour as a Semiotic Mode: Notes for a Grammar of Colour," *Visual Communication* 1 (2002): 343–68.

[27] The potential problem, though, is that in spite of its focus on equality and distribution, the most circulated version of the Peters map retains a partitioned world of distinct landmasses as an enduring feature of a global geographic imagination, what Martin W. Lewis and Karen E. Wigen call the problematic "myth of continents." This myth advances, in this case through the visualization of a map, that there are somehow significant cultural groupings denoted by these divisions and that continents are still useful units of analysis. According to Lewis and Wigen, particularly in the international relations of the Cold War, the continental framework may conveniently "structure our perceptions of the human community" but "does injustice to the complexities of global geography, and it leads to faulty comparisons. When used by those who wield political power, its consequences can be truly tragic." Martin W. Lewis and Karen E. Wigen, *The Myth of Continents: A Critique of Metageography* (Berkeley: University of California Press, 1997), 1.

[28] Many of those participating in the Peters debates would suggest alternatives to the Peters projection that they believed could represent equality without the kind of

distortion and crudeness that they saw in Peters. These suggestions, though, often served to downplay the ideological point and the political nature of the Peters project. For example, Porter and Voxland, writing for the American Geographic Society, offer another famous Cold War geographic image as a better substitute: the Apollo VIII photographs of the earth from 1972. This is the best image, they write, "if we require an image to confirm the oneness of humankind—the earth as our only home, our global interdependencies" and proclaim, then, that the "Peters projection is as inappropriate an image of our earthly oneness as is the Mercator." Porter and Voxland, "Distortion in Maps," 23. Also see Cosgrove's discussion of the Apollo photographs and the discourse of "one-world" in Denis Cosgrove, "Contested Global Visions: One-World, Whole-Earth, and the Apollo Space Photographs," *Annals of the Association of American Geographers* 84 (1994): 270–94.

[29] Distortion was a continual issue in the Peters debate. As the American Cartographic Association declared in their booklet on map projections (in part, a response to the Peters flap), "A poorly chosen map projection can actually be harmful. We tend to believe what we see, and when fundamental geographical relationships, such as shapes, sizes, directions, and so on, are badly distorted, we are inclined to accept them as fact if we see them that way on maps." John Noble Wilford, "The Impossible Quest for the Perfect Map," *New York Times*, October 25, 1988.

[30] "World Map in Equal Presentation."

[31] This map comes complete with captions noting that "the traditional map distorts the world to the advantage of European colonial powers" and "is not compatible with

objectivity, which is required in a scientific age. " See "World Map in Equal Presentation."

[32] This notion of social change in maps is complex and ambivalent: ironically, in order to argue for cartographic transformation of the world, the visual depiction of that world still needs to be recognizable to the map-reading audience. In fact, Peters' one real compliment to the Mercator is that "the principles of construction were so easy to understand and the grid system so easy to draw that the map was suitable for use by school children." Peters, *The New Cartography*.

[33] "World Map in Equal Presentation." On the UN version of the Peters map, the sidebar to the world map display asks the question "Why This New World Map?" The answer posed is "FAIRNESS TO ALL PEOPLES. By setting forth all countries in their true size and location, this map allows each one its actual position in the world." Indeed, Peters' sweeping version of history in his writings that accompany his atlases and pamphlets bear this out—in the *New Cartography* he refers to the end of "the work of cartographers of a bygone age—the age of European domination and exploitation," an age being replaced, as he says in the *Peters Atlas*, by a "worldwide consciousness of solidarity." Peters, *The New Cartography*, 7; Peters, *Peters Atlas*, preface.

[34] Independent Commission on International Development Issues, *North-South: A Program For Survival* (Cambridge, MA: MIT Press, 1980).

[35] For some contemporary reports, see the interview with Brandt in Altaf Gauhar, "Willy Brandt," *Third World Quarterly* 1 (1979): 7–19. Also see Gavin Williams, "The Brandt Report: A Critical Introduction," *Review of African Political Economy* 19 (1980): 77–86; Graham Bird, "The Controversial Economics of the Brandt Report," *The World*

Today 36 (1980): 463–68. Future reports by the Commission, such as *Common Crisis* in 1983, would continue to use, and further circulate, the Peters motif. See Independent Commission on International Development Issues, *Common Crisis North-South: Cooperation for World Recovery* (Cambridge, MA: MIT Press, 1983).

[36] The inside flap of the report read, "This projection represents an important step away from the prevailing Eurocentric geographical and cultural concept of the world…the more densely settled earth zones, it is claimed, appear in proper proportion to each other." *North-South*, inside cover flap.

[37] The World Development Movement used it in publications like their *EEC and the Third World* as a kind of a simplified logo. The U.N. Committee on Trade and Development (UNCTAD) used the Peters in its report on the least developed countries of the world; it was appropriated into U.N. Children's Fund (UNICEF) brochures, and newsletters for the General Agreement on Tariffs and Trade Organization (GATT, the precursor to the World Trade Organization); and the international charity group Action Aid distilled the Peters into a logo for the masthead of its newspaper. See Overseas Development Institute, *EEC and the Third World* (New York: Holmes & Meier, 1981). Robinson, "Arno Peters," 109–11; Bain, "Will Arno Peters Take Over," 343. Meanwhile, the *Third World Quarterly*, which became the premiere academic outlet for development theory and progressive international relations studies, introduced the Peters map in its 1979 flagship issue accompanying Leslie Wolf-Phillips' foundational "Why Third World?" article. By the early 1980s, the UK's *New Internationalist*, a development magazine, issued a foldout Peters' map to every new subscriber, a service it still provides to this day. See Wolf-Phillips, "Why Third World?" and *The New Internationalist*, 1983.

[38] Kaiser, *A New View*, 23.

[39] Kaiser, *A New View*, 26. In addition, the Vatican touted the benefits of the Peters in some of its literature, and it would also be used by the Catholic Fund for Overseas Development. Kaiser, *A New View*, 23; Porter and Voxland, "Distortion in Maps," 28.

[40] Ashmore, "Arno Peters Changed the World!" 57–58.

[41] Ashmore, "Arno Peters Changed the World!" 58. In addition, nonprofit groups like Broader Perspectives secured acceptance by the State Board of Education in Texas to integrate the Peters map into curricula since, they argued, it "demonstrates more accurate and objective perceptions of the significance of nations in both hemispheres." Testimonials from academics in developing nations also became part of the Peters campaign. For example, the guide to the 1987 version of the map contained an endorsement from geographer Dr. Vernon Mulcasingh from the University of the West Indies, who commented that the map "represents a burst of brilliance that can be compared with any major breakthrough in the world of science." Kaiser, *A New View*, 27, 10. The education function of the Peters map was also parodied in a 2001 episode of the *West Wing*. During "Big Block of Cheese Day," when staffers of the fictional President Josiah Bartlett are forced to hear proposals and entreaties from public interest groups about their ideas and concerns, one group called the Cartographers for Social Justice comes to lobby for legislation mandating for public schools to replace the Mercator map with the Peters projection. The staffers are shown a large projection of the map, prompting alarm from White House Press Secretary C.J. Cregg, who replies to the question by one of the teachers, "So you're probably wondering what all this has to do

with social equality?" by answering, "No, I'm wondering where France really is!" Reportedly, sales of the Peters maps multiplied after the airing of the episode. *The West Wing*, NBC, Season 2, Episode 16, 28 February 2001. The citation on sales is from Sriskandarajah, "Long Underwear," 238.

[42] Cosgrove, "Contested Global Visions," 287–88. Conversely, critical voices often were attempting to *de-iconize* the map—to reclaim the Peters map as a scientific document and a system of calculations, and to bring it back to the grid and debate its technical merits. On a 1983 NPR broadcast of "All Things Considered," David Malpus interviewed Ward Kaiser, Peters' main translator and promoter in Britain and the United States. When Malpus asked Kaiser why the Peters map does not show Africa in its normal shape, Kaiser answered, "Well, one needs to ask what is the normal shape of Africa? Without having seen Africa from outer space, I'm really not in a very good position, nor perhaps [is] any of us, to say how it actually looks." Snyder's criticism of Kaiser represents the kind of terms by which scientific cartographers were assessing the debate, as he protested, "But because we have navigators' and surveyors' mapping work applied to our globes, as well as the new evidence of photographs by astronauts, we know very well how Africa looks from space!" In Snyder's terms, the trusted tools of cartographers and other scientists have already given us what we need to envision continental space with precision and accuracy; thus, the Peters projection is useless. John P. Snyder, "Social Consciousness and World Maps," *Christian Century*, February 24, 1988, 191–92.

[43] Andi Spicer, "Controversial Cartography," *Geographical Magazine* 61 (1989): 42–44. In terms of the Peters projection's elevation into the iconic, as Hariman and

Lucaites explain, "one reason images become iconic is that they coordinate a number of different patterns of identification within the social life of the audience…which together provide a public audience with sufficient means to comprehend potentially unmanageable events…Thus, the icon does not so much record an event or fix a particular meaning as it organizes a field of interpretations." The way in which that icon organizes those interpretations can be powerful. As Catherine Palczewski notes, icons are always "referential forms" that can become "appeals to fix and stabilize" in "the face of social pressures of destabilization." Robert Hariman and John Louis Lucaites, "Performing Civic Identity: The Iconic Photograph of the Flag Raising on Iwo Jima," *Quarterly Journal of Speech* 88 (2002): 367; Jeremy Black, *Maps and Politics* (Chicago: University of Chicago Press, 1997), 33; Catherine H. Palczewski, "The Male Madonna and the Feminine Uncle Sam: Visual Argument, Icons, and Ideographs in 1909 Anti-Woman Suffrage Postcards," *Quarterly Journal of Speech* 91 (2005): 388.

[44] While the Peters map advanced a potentially incendiary argument that the South had a viable political identity, other cartographic icons of the era would go even further. The original OPEC logo of the 1970s featured an ellipse that centered on the Middle East and Africa, with the bottom half of Asia and South America rounding out the eastern and western sides of the map, and Europe, North America, and the Soviet Union completely omitted from the image. As a development icon, the Peters map still needed the North/South counterpoint and to have the two spaces visualized in relationship to one another (the South still needed the North); but the OPEC map argued that the northern half of the world was largely irrelevant to the political and economic advancement of the so-called developing nations. Henrikson, "All The World's A Map," 175–76.

[45] Peter Stalker, "Map Wars," *New Internationalist*, March 1989, http://www.newint.org/.

[46] Interestingly enough, the very first point in Brandt's introduction to *North-South* was telling, as he wrote, "In the summer of 1978, half a year after we had started our work, a friend and distinguished African leader sent me an encouraging message: our Commission, he said, could 'contribute to the development of worldwide moral values.'" Critics saw the Peters projection as a *mode*, an instrument or vehicle of vision to see reality, while supporters saw the map as the moral vision itself. For example, surveying 42 development-oriented NGOs on their perceptions and use of the Peters projection, Peter Vujakovic found that a large majority had adopted the projection for their purposes, even as his interpretation of the results found that they were doing so uncritically. As he concludes, "The decisions to adopt the Peters projection are probably based on very restricted knowledge of cartography and on intuition regarding the value of its distinctive 'image'. This is supported by the fact that very few of the organizations receive advice from professionals involved in cartography…It has become accepted as the ideologically correct map to use." Willy Brandt, "An Introduction," in *North-South*, 7. Vujakovic, "Extent of Adoption," 14.

[47] The late 1940s air-age globalism of Richard Edes Harrison advanced the popularity of a "strategic perspective" in cartography, where the partiality of the viewer's interest determined the map's vision. Peters, however, used a more universal viewpoint by choosing the classic rectangular map, but altering its form. Peters' map idealizes this "universal" function of the projection by focusing on the North/South dynamics. For example, Kaiser's promotional brochure for Peters referred to the old Buckminster Fuller

projections in *Life* from the 1940s that used a novel, "dymaxion world" projection to offer new perspectives on what is North and what is South. Kaiser noted that Peters and Fuller shared similar aims to shake things up but that "their purposes are divergent, however; Fuller was largely concerned with helping the United States achieve its potential, through the use of creative imagination and forward-looking technology; Peters is more clearly focused on justice for all people, recognizing the values and contributions that all nations and all cultures can bring to the emerging civilization." Peters, *The New Cartography*, 147; Kaiser, *A New View*, 16; R. Buckminster Fuller, "Buckminster Fuller's Dymaxion World," *Life*, March 1, 1943. Also, an interesting (but small) amount of correspondence actually existed between Fuller and Richard Edes Harrison. See Richard Edes Harrison Collection, Correspondence Folders, Geography & Map Division, Library of Congress, Washington, DC.

[48] Certainly, the appropriation of the Peters as a symbol of progressive economic development organizations and human rights groups has lent the Peters map a kind of cosmopolitanism to transcend Cold War antagonisms and argue for the new power of the Third World, but those appropriations by development organizations have been done from a largely Western perspective. While the Peters map visually allows nongovernmental development organizations to transcend the influence of particular nation-states like the United States or the United Kingdom for a more cosmopolitan, international image, the act of drawing developing nations as one united mass of southern protest against the North potentially re-bipolarizes the Cold War. As David Harvey has written, "Cosmopolitanism bereft of geographical specificity remains abstracted and alienated reason, liable, when it comes to earth, to produce all manner of unintended and

sometimes explosively evil consequences. Geography uninspired by any cosmopolitan vision is either mere heterotopic description or a passive tool of power for dominating the weak." David Harvey, "Cosmopolitanism and the Banality of Geographical Evils," *Public Culture* 12 (2000): 557–58.

[49] See especially the thesis in Odd Arne Westad, *The Global Cold War: Third World Interventions and the Making of Our Times* (Cambridge: Cambridge University Press, 2007).

[50] For a critical discussion of the etymology of the uses of "Third World" as a term and a concept, see especially Vicky Randall, "Using and Abusing the Concept of the Third World: Geopolitics and the Comparative Political Study of Development and Underdevelopment," *Third World Quarterly* 25 (2004): 41–53.

[51] Pletsch's critical discussion of Sauvy's use of the Third World in the context of Cold War social science is particularly important. See Carl E. Pletsch, "The Three Worlds, or the Division of Social Scientific Labor, Circa 1950-1975," *Comparative Studies in Society and History* 23 (1981): 567–73.

[52] For a historical discussion of this, see Mark T. Berger, "The End of the 'Third World'?," *Third World Quarterly* 15 (1994): 257–75.

[53] Leslie Wolf-Phillips, "Why Third World?," 105–6.

[54] For contemporary histories of the Bandung conference, see Richard Wright's journalistic account (complete with a foreword by Gunnar Myrdal) in Richard Wright, *The Color Curtain: A Report on the Bandung Conference* (New York: World Publishing, 1956). See also the more academic account by Kahin of the influential Southeast Asia Area Studies Program at Cornell in George McTurnan Kahin, *The Asian-African*

Conference, Bandung Indonesia, April 1955 (Port Washington, NY: Kennikat Press, 1956). The 50th anniversary in 2005 also saw the publication of a consortium of international scholars on Bandung's legacy. See Seng Tan and Amitav Acharya, eds., *Bandung Revisited: The Legacy of the 1955 Asian-African Conference for International Order* (Singapore: Nus Press, 2008). In addition, for an account of Bandung's relationship to U.S. policy, see Jason C. Parker, "Small Victory, Missed Chance: The Eisenhower Administration, the Bandung Conference, and the Turning of the Cold War," in *The Eisenhower Administration, the Third World, and the Globalization of the Cold War*, eds. Kathryn C. Statler and Andrew L. Johns (Lanham, MD: Rowman & Littlefield, 2006), 153–74.

[55] Arif Dirlik, "Spectres of the Third World: Global Modernity and the End of the Three Worlds," *Third World Quarterly* 25 (2004): 133.

[56] Max Beloff, "The Third World and the Conflict of Ideologies," in *The Third World: Premises of U.S. Policy*, ed. Scott Thompson (San Francisco: The Institute for Contemporary Studies, 1978), 12–13. Cite in Pletsch, "The Three Worlds," 576.

[57] Tomlinson's account covers a wide amount of ground succinctly on the impact of the Third World on Cold War discourse. See B.R. Tomlinson, "What Was the Third World?" *Journal of Contemporary History* 38 (2003): 307–21.

[58] Pletsch, "The Three Worlds," 572.

[59] Pletsch, "The Three Worlds," 571.

[60] John Agnew, *Geopolitics: Re-Envisioning World Politics* (New York: Routledge, 2003), 47.

[61] Arturo Escobar, "Culture, Economics and Politics in Latin American Social Movements Theory and Research," in *The Making of Social Movements in Latin America: Identity, Strategy, and Democracy*, eds. A. Escobar and S.E. Alvarez (Boulder, CO: Westview, 1992), 62.

[62] David Slater, "Geopolitical Imaginations Across the North-South Divide: Issues of Difference, Development and Power," *Political Geography* 16 (1997): 642.

[63] A representative example of scholarship reconfiguring the Cold War around notions of the South can be found in Richard Saull, "Locating the Global South in the Theorisation of the Cold War: Capitalist Development, Social Revolution and Geopolitical Conflict," *Third World Quarterly* 26 (2005): 253–80.

[64] A revealing contemporary, left-wing account of the Third World by geographer Keith Buchanan draws on this duality between a passive and an influential Third World. Buchanan's cartogram maps on a variety of development subjects related to developing nations are particularly fascinating. See Keith Buchanan, "Profiles of the Third World," *Pacific Viewpoint* 5 (1964): 97–126.

[65] D.W. Meinig, "Culture Blocs and Political Blocs," *Western Humanities Review* 10 (1956): 220.

[66] See especially David S. Painter, "Explaining U.S. Relations With the Third World," *Diplomatic History* 19 (1995): 525–48; Westad, *The Global Cold War*.

[67] A representative example of decolonization on the map from a popular perspective can be found in Hammond Inc., "Emerging Nations," Map (Springfield, NJ: Hammond, 1966), World-International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC.

[68] Edward Said, *Orientalism* (New York: Pantheon, 1978), 12.

[69] For a historical review on decolonization Cold War scholarship, see Jeremi Suri, "The Cold War, Decolonization, and Global Social Awakenings: Historical Intersections," *Cold War History* 6 (2006): 353–63.

[70] Homi Bhabha, "The Other Question [1983]," in *Contemporary Postcolonial Theory*, ed. Padmini Mongia (London: Arnold, 1996), 37–38.

[71] For a discussion of the essentialization of North/South, particularly in terms of Cold War developmentalism, see Marcus Power, *Rethinking Development Geographies* (London: Routledge, 2003), 95–118.

[72] Slater, "Geopolitical Imaginations," 643–44.

[73] As Ó Tuathail notes, "the struggle over geography is also a conflict between competing images and imaginings, a contest of power and resistance that involves not only struggles to represent the materiality of physical geographic objects and boundaries but also the equally powerful and, in a different manner, the equally material force of discursive borders between an idealized Self and a demonized Other, between us and them." Gearóid Ó Tuathail, *Critical Geopolitics: The Politics of Writing Global Space* (Minneapolis: University of Minnesota, 1996), 14–15.

[74] Robert McMaster and Susanna McMaster, "A History of Twentieth-Century American Academic Cartography," *Cartography and Geographic Information Science* 29 (2002): 305–21.

[75] Arthur H. Robinson, Joel L. Morrison, and Phillip C. Muehrcke, "Cartography 1950-2000," *Transactions of the Institute of British Geographers* 2 (1977): 3–18.

[76] Selected copies of *Geographic Notes* and *Geographic Bulletin* from 1961 up until 1989 can be found in Records of the Office of the Geographer, Department of State, RG59, Cartographic and Architectural Records Division, National Archives II, College Park, MD.

[77] See the following *Geographic Notes* issues: GE- 17, GE-28, GE-33, GE-48, GE-68, GE-72, GE-81, GE-83, GE-88, Records of the Office of the Geographer, Department of State, RG59, Cartographic and Architectural Records Division, National Archives II, College Park, MD.

[78] *Geographic Notes* issue GE-152, Files of the Office of the Geographer, Department of State, RG59, Cartographic and Architectural Records Division, National Archives II, College Park, MD.

[79] Thomas L. Hughes, "Scholars and Foreign Policy: Varieties of Research Experience," *Background* 9 (1965): 199–214.

[80] "Newly Independent States" Map, *Geographic Bulletin*, Number 1, May 1963 [Revised July 1964 and May 1965], Records of the Office of the Geographer, Department of State, RG59, Cartographic and Architectural Records Division, National Archives II, College Park, MD.

[81] "Profiles of Newly Independent States," *Geographic Bulletin*, May 1965, Files of the Office of the Geographer, Department of State, RG59, Cartographic and Architectural Records Division, National Archives II, College Park, MD.

[82] "Status Map of International Boundaries," *International Boundary Study*, March 15, 1963, Records of the Office of the Geographer, Department of State, RG59,

Cartographic and Architectural Records Division, National Archives II, College Park, MD.

[83] *Associated Press*, "Background Map: Influx of Neutralist Members Changing Structure of UN," Map (New York: Associated Press, 1960); Associated Press, "Background Map: The Non-Aligned Map," Map (New York: Associated Press, 1964); *Associated Press*, "Background Map: UN Membership," Map (New York: Associated Press, 1968). All are located in the World-International Relations Folder, *Title Collection*, Geography & Map Division, Library of Congress, Washington, DC.

[84] *Associated Press*, "Background Map: Food For Peace Program is American Success Story," Map (New York: Associated Press, 1962); *Associated Press*, "Background Map: The Peace Corps—A Hit, and Growing," Map (New York: Associated Press, 1966). World-International Relations Folder, *Title Collection*, Geography & Map Division, Library of Congress, Washington, DC.

[85] For a collection of essays from a geographic standpoint exploring this sense of "mission" in American ideology, see David Slater and Peter J. Taylor, eds., *The American Century: Consensus and Coercion in the Projection of American Power* (Oxford, UK: Blackwell, 1999).

[86] "Background of Point-4," *Congressional Digest*, January 1952, 4–11.

[87] Harry S. Truman, "Inaugural Address: January 20, 1949," *Public Papers of the President: Harry S. Truman, 1949* (Washington, DC: Government Printing Office, 1964), 114–15.

[88] Technical Cooperation Administration, United States Department of State, "Point 4 Around the World," Map, January 1953, World-International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC.

[89] See also United States Department of State, "Technical Cooperation Administration", Map, July 1952, World- International Relations Folder, *Title Collection*, Geography and & Map Division, Library of Congress, Washington, D.C.

[90] A comprehensive source on Cold War area studies can be found (particularly in Chapter 3) in Matthew Farish, *The Contours of America's Cold War* (Minneapolis: University of Minnesota Press, 2010). See also Immanuel Wallerstein, "The Unintended Consequences of Cold War Area Studies," in *The Cold War & The University: Toward an Intellectual History of the Postwar Years*, ed. Noam Chomsky (New York: W.W. Norton, 1997), 195–231.

[91] W.W. Rostow, *The Stages of Economic Growth: A Non-Communist Manifesto* (Cambridge, UK: Cambridge University Press, 1960).

[92] Kimber Charles Pearce, "Narrative Reason and Cold War Economic Diplomacy in W.W. Rostow's *Stages of Economic Growth*," *Rhetoric & Public Affairs* 2 (1999): 399.

[93] Slater, "Geopolitical Imaginations."

[94] Pearce, "Narrative Reason," 399.

[95] Simon Dalby, *Creating the Second Cold War: The Discourse of Politics* (London: Pinter, 1990), 10–11.

[96] Westad, *The Global Cold War*, 5.

[97] See both Pletsch and Westad for further exploration of this idea.

[98] John K. Wright, *Geography in the Making: The American Geographical Society 1851-1951* (New York: American Geographical Society, 1952), 265.

[99] Tim Brown and Graham Moon, "From Siam to New York: Jacques May and the 'Foundation' of Medical Geography," *Journal of Historical Geography* 30 (2004): 747–48.

[100] See, for example, Michael L. Dorn, "(In)temperate Zones: Daniel Drake's Medico-Moral Geographies of Urban Life in the Trans-Appalachian American West," *Journal of the History of Medicine and Allied Science* 55 (2000): 256–91; Wright, *Geography in the Making*, 265.

[101] See also Melinda S. Meade and Robert J. Erickson, *Medical Geography* (New York: Guilford, 2000).

[102] Wright, *Geography in the Making*, 267.

[103] "The Map Doctor," *Newsweek*, May 3, 1954, 84–86. See also May's contemporary memoir in Jacques M. May, *Siam Doctor* (Garden City, NY: Doubleday, 1949).

[104] Wright, *Geography in the Making*, 268. The original, full-color plates, along with Dr. May's professional papers, notes, and correspondence for the *Atlas of Disease* (and some of his personal correspondence as well) can be found at the Archives of the American Geographical Society, located at the University of Wisconsin-Milwaukee.

[105] For example, see May's following maps: "Distribution of Poliomyelitis, 1900-50 – Atlas of Distribution of Diseases, Plate 1," *Geographical Review* 40 (1950); "Distribution of Cholera, 1816-1950 – Atlas of Distribution of Diseases, Plate 2," *Geographical Review* 41 (1951); "Distribution of Malaria Vectors – Atlas of Distribution

of Diseases, Plate 3" *Geographical Review* 41 (1951); "Distribution of Helminthiases –
Atlas of Distribution of Diseases, Plate 4" *Geographical Review* 42 (1952).

[106] "Map Doctor," 86.

[107] "Map Doctor," 86; See also May's own descriptions of cultural factors in his
articles accompanying the *Atlas of Disease* plates. Jacques M. May, "Map of the World
Distribution of Poliomyelitis, 1900-50," *Geographical Review* 40 (1950): 646–48;
Jacques M. May, "Map of the World Distribution of Cholera," *Geographical Review* 41
(1951): 272–73; Jacques M. May, "Map of the World Distribution of Malaria Vectors,"
Geographical Review 41 (1951): 638–39; Jacques M. May, "Map of the World
Distribution of Helminthiases," *Geographical Review* 42 (1952): 98–101.

[108] Jacques M. May, *The Ecology of Human Disease* (New York: MD
Publications, 1958), 29–35.

[109] Felix Marti-Ibanez, "Foreword: Medical Geography and History," in *The
Ecology of Human Disease* by Jacques M. May (New York: MD Publications, 1958),
xviii.

[110] Brown and Moon, "From Siam to New York," 752.

[111] Brown and Moon, "From Siam to New York," 752.

[112] Roxanne Lynn Doty, *Imperial Encounters: The Politics of Representation in
North-South Relations* (Minneapolis: University of Minnesota Press, 1996), 131.

[113] G.W. Anderson, "A German Atlas of Epidemic Diseases," *Geographical
Review* 37 (1947): 307–11. See also Brown and Moon, "From Siam to New York," 750.

[114] "Map Doctor," 86.

[115] A few representative examples of these studies are Jacques M. May, *The Ecology of Malnutrition in Central and Southeastern Europe: Austria, Hungary, Rumania, Bulgaria, Czechoslovakia* (New York: Hafner, 1966); Jacques M. May and Donna L. McLellan, *The Ecology of Malnutrition in Eastern Africa and Four Countries of Western Africa; Equatorial Guinea, the Gambia, Liberia, Sierra Leone, Malawi, Rhodesia, Zambia, Kenya, Tanzania, Uganda, Ethiopia, the French Territory of the Afars and Issas, the Somali Republic, and Sudan* (New York: Hafner, 1963); Jacques M. May and Donna L. McLellan, *The Ecology of Malnutrition in Mexico and Central America: Mexico, Guatemala, British Honduras, Honduras, El Salvador, Nicaragua, Costa Rica and Panama* (New York: Hafner, 1972); Jacques M. May and Donna L. McLellan, *The Ecology of Malnutrition in the Caribbean; The Bahamas, Cuba, Jamaica, Hispaniola, Puerto Rico, The Lesser Antilles, and Trinidad and Tobago* (New York: Hafner, 1973); Jacques M. May, with Irma S. Jarcho, *The Ecology of Malnutrition in the Far and Near East: Food Resources, Habits, and Deficiencies* (New York: Hafner, 1961); Jacques M. May and Donna L. McLellan, *The Ecology of Malnutrition in Western South America: Colombia, Ecuador, Peru, Bolivia, and Chile* (New York: Hafner, 1974).

[116] Brown and Moon, "From Siam to New York," 759.

[117] May would go on to lead the International Geographical Union's Commission on Medical Geography from 1949 until his death in 1975, and his program of research was adopted by the World Health Organization. In addition, May was a contributing member of the influential Council on Foreign Relations during the 1950s. See "Finding Aid: Jacques M. May Papers, 1943-1960," American Geographical Society Library, University of Wisconsin-Milwaukee.

[118] American Geographical Society, "World Distribution of Spirochetal Diseases: 1. Yaws, Pinta, Bejel," Map (New York: AGS, 1955), Geography and Map Division, Library of Congress, Washington, DC.

[119] "Distribution of Cholera."

[120] See also American Geographical Society, "World Distribution of Spirochetal Diseases: 2. Relapsing Fevers (Louse-Borne and Tick-Borne)," Map (New York: AGS, 1955), Geography and Map Division, Library of Congress, Washington, DC; American Geographical Society, "World Distribution of Spirochetal Diseases: 3. Leptospiroses," Map (New York: AGS, 1955), Geography and Map Division, Library of Congress, Washington, DC.

[121] Wright, *Geography in the Making*, 268. See also William Briesemeister, "A New Oblique Equal-Area Projection," *Geographical Review* 43 (1953): 260–61.

[122] William Briesemeister, "A World Equal-Area Projection for the Future: The Selection of the Most Suitable Equal-Area Projection for the Purposes of Plotting World Wide Statistics in This Present Day of Super Speed, Jet Planes and Intercontinental Missiles," *Nachrichten aus dem Karten-und Vermessungswesen*, 2 (1959): 60–63.

[123] The first use of Briesemeister was in an influential review of the burgeoning Cold War geopolitical situation in the pages of the *Geographical Review*, and the map was used to demarcate the world into a series of "zones" of "the international frontier." See H. Duncan Hall, "Zones of the International Frontier," *Geographical Review* 38 (1948): 615–25.

[124] See Snyder's discussion of the Briesemeister in John Snyder, *Flattening the Earth: Two Thousand Years of Map Projections* (Chicago: University of Chicago Press, 1993), 239.

[125] "Distribution of Helminthiases."

[126] Committee on Foreign Relations, *The Mutual Security Act of 1958: Report of the Committee on Foreign Relations on H.R. 12181*, 85th Congress, 2nd sess., 1958, S. Rep. 1627, serial 12062, Chap. 3, Sec. 6, 67.

[127] United States Senate Committee on Government Operations, *The Status of World Health in Outline Text and Chart: Report of the Committee on Government Operations, United States Senate and Its Subcommittee on Reorganization and International Organizations*, 86th Congress, 1st sess., 1959, S. Rep. 161, serial 12149, v.

[128] "Life Expectancy at Birth: Map," in *Status of World Health*, btw. 18 and 19; "Ratio of Population to Physicians: Map," in *Status of World Health*, btw. 70 and 71.

[129] "Life Expectancy at Birth: Map"; "Smallpox Endemicity, 1954-1957," in *Status of World Health*, btw. 54 and 55.

[130] "Distribution of Hookworm," in *Status of World Health*, btw. 44 and 45; "Distribution of Yellow Fever," in *Status of World Health*, 43; "Distribution of Leprosy," in *Status of World Health*, btw. 48 and 49.

[131] "Distribution of World Population," in *Status of World Health*, 5. This map, adapted from Woytinsky and Woytinsky's *World Population and Production*, uses the Raisz Projection. See Wladimir S. Woytinsky and Emma S. Woytinsky, *World Population and Production: Trends and Outlook* (New York: Twentieth Century Fund, 1953).

[132] *Status of World Health*, viii.

[133] Ibanez, "Foreword," xix.

[134] See May's theoretical foundation for these notion of pathogens and geogens in Jacques M. May, "Medical Geography: Its Methods and Objectives," *Geographical Review* 40 (1950): 9–41.

[135] Robert Leslie Conly, "Men Who Measure the Earth: Surveyors from 18 New World Nations Invade Trackless Jungles and Climb Snow Peaks to Map Latin America," *National Geographic*, March 1956, 361–62.

[136] Conly, "Men Who Measure the Earth," 362.

[137] Albert C. Lieber, "International Cooperation in Mapping," *Surveying and Mapping* 14 (1954): 71.

[138] For a discussion of the notion of "scientific internationalism" during the Cold War from a geopolitical perspective, see Collis and Dodds' work on the International Geophysical Year of 1958 in Christy Collis and Klaus Dodds, "Assault on the Unknown: The Historical and Political Geographies of the International Geophysical Year (1957-8)," *Journal of Historical Geography* 34 (2008): 555–73.

[139] The Associated Background Maps Series produced many maps to accompany its news stories that charted the influence of the Third World and decolonization on the international relations of the Cold War. See especially *Associated Press*, "The United Nations Lends A Hand," February 2, 1948, "Food For Peace Program is American Success Story," August 13, 1962, "The Non-Aligned Map," October 26, 1964, "The Peace Corps – A Hit, and Growing," October 3, 1966; "UN Membership," September 30,

1968. All can be located in World-International Relations Folder, *Title Collection*,

Geography and Map Division, Library of Congress, Washington, DC.

[140] United Nations Department of Public Information, *Yearbook of the United

Nations 1947-48* (Lake Success, NY: United Nations, 1949), 653.

[141] The history of relations between UNESCO and the United States is actually a

tumultuous one, reflecting contentiousness over development and Cold War contexts—

see Christopher C. Joyner and Scott A. Lawson, "The United States and UNESCO:

Rethinking the Decision to Withdraw," *International Journal* 41 (1985–86): 37–71.

[142] United Nations Department of Social Affairs, *Modern Cartography: Base

Maps for World Needs* (New York: United Nations, 1949), 1–7.

[143] United Nations, *Modern Cartography*, 93.

[144] United Nations, *Modern Cartography*, 93.

[145] United Nations, *Modern Cartography*, 22.

[146] United Nations, *Modern Cartography*, 13.

[147] United Nations, *Modern Cartography*, 33.

[148] United Nations, *Official Report on United Nations Regional Cartographic

Conference for Asia and the Far East, Mussoorie, India, February 15-28, 1955)* (New

York: United Nations, 1955), 23–24.

[149] See United Nations Department of Public Information, *Yearbook of the United

Nations*, particularly from the years 1951 to 1975. For a representative example of the

style of the Trustee maps, see United Nations, "Members of the United Nations and Their

Dependencies, and Trust Territories As Of 31 December 1953," Map (New York: UN,

1953), World International Relations Folder, *Title Collection*, Geography and Map Division, Library of Congress, Washington, DC.

[150] United States Delegation to the United Nations Regional Cartographic Conference, *Official Report of the United States Delegation to the United Nations Regional Cartographic Conference for Africa, Nairobi, Kenya, July 1-13, 1963*, prepared by H. Arnold Karo (Washington, DC: Government Printing Office, 1963).

[151] United States Delegation to the United Nations Regional Cartographic Conference, *Report of the United States Delegation to the Fifth United Nations Regional Cartographic Conference for Asia and the Far East, Canberra, Australia, March 8-22, 1967*, prepared by G. Etzel Pearcy (Washington, DC: Government Printing Office, 1967), v.

[152] *Cartographic Conference for Asia and the Far East*, 58.

[153] *Cartographic Conference for Africa*, 20.

[154] *Cartographic Conference for Africa*, 34.

[155] *Cartographic Conference for Africa*, 35.

[156] *Cartographic Conference for Africa*, 42.

[157] Westad, *The Global Cold War*, 26–27.

[158] For example, see United States Peace Corps, "Peace Corps Around the World," Map (Washington, DC: Government Printing Office, 1967) U.S.-International Relations Folder, Geography and Map Division, Library of Congress, Washington, DC.

[159] The Cartographic & Architectural Records Division at the National Archives II in College Park houses an extensive collection of Cold War–era CIA and Defense Maps. The Geography & Map Division at the Library of Congress also has a sizable number of

CIA maps that have been digitized. In addition, the Perry-Castaneda Library at the University of Texas has made an impressive amount of CIA and Defense maps available on their website: http://lib.utexas.edu/maps/.

[160] Farish, *Contours*, 110–20.

[161] Jim Glassman, "On the Borders of Southeast Asia: Cold War Geography and the Construction of the Other," *Political Geography* 24 (2005): 788.

[162] Frank Ninkovich, *Modernity and Power: A History of the Domino Theory in the Twentieth Century* (Chicago: University of Chicago Press, 1994), xv.

[163] Matthew Edney's historical geography mines this concept through the case of the British occupation of India. See Matthew Edney, *Mapping an Empire: The Geographical Construction of British India, 1765-1843* (Chicago: University of Chicago Press, 1997).

[164] For a contemporary "area studies" assessment of the strategic hamlets, see Milton E. Osborne, *Strategic Hamlets in South Viet-Nam: A Survey and Comparison* (Ithaca, NY: Cornell University Press, 1965). For a critical discussion, see Nick Cullather, "'The Target Is the People': Representations of the Village in Modernization and U.S. National Security Doctrine," *Cultural Politics* 2 (2006): 29–48.

[165] James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, CT: Yale University Press, 1998), 97–98. See also Matthew Farish and P. Whitney Lackenbauer, "High Modernism in the Arctic: Planning Frobisher Bay and Inuvik," *Journal of Historical Geography* 35 (2009): 523.

[166] Westad, *The Global Cold War*, 37; Michael E. Latham, *Modernization as Ideology: American Social Science and Nation-Building in the Kennedy Era* (Chapel Hill: University of North Carolina Press, 2000), 81.

[167] John Cloud, "American Cartographic Transformations During the Cold War," *Cartography and Geographic Information Science* 29 (2002): 277–78.

[168] Cloud, "American Cartographic Transformations," 278.

[169] See the critical discussion of Lacoste's work in Ó Tuathail, *Critical Geopolitics*, 160–168. "Countergeopolitics" is Ó Tuathail's term.

[170] Yves Lacoste, "An Illustration of Geographical Warfare: Bombing of the Dikes on the Red River, North Vietnam," *Antipode* 5 (1973): 2. See also Yves Lacoste, "Bombing the Dikes: A Geographer's On-the-Site Analysis," *The Nation*, October 9, 1972, 298–301.

[171] Meinig, "Culture Blocs," 221.

[172] Walter Mignolo, "The Many Faces of Cosmo-polis: Border Thinking and Critical Cosmopolitanism," *Public Culture* 12 (2000): 737–38.

[173] Mignolo, "The Many Faces," 738.

[174] Crampton, "Cartography's Defining Moment," 28.

CHAPTER FIVE

NUCLEAR WEAPONS AND THE "END OF GEOGRAPHY": CARTOGRAPHIC CHANGE AND CONTROL DURING THE SECOND COLD WAR

On February 27th, 1984, Secretary of Defense Caspar Weinberger made good on a promise to debate Marxist historian E.P. Thompson in front of the famed Oxford Union Debating Society.[1] The resolution? "That there is no moral difference between the foreign policies of the U.S. and the U.S.S.R." This was one curious Cold War confrontation: the appearance of Weinberger, as a major, high-ranking U.S. official and the prominent face of deterrence and nuclear policy, opposite one of the most significant leaders of the anti-nuclear movement in Europe, was not only startling, but in some ways courageous.[2] The U.S. Embassy in London, the State Department, and even members of his own Defense Department staff warned him that this trip was a fool's errand, a debate that was unwinnable, and may even damage the Reagan administration's "ability to hold anti-Communists together."[3] As Weinberger would later quip, "I had been on my feet in the Union only five minutes when I decided the Embassy was absolutely right."[4]

Former Oxford Union President (and fellow Weinberger debater) Laurence Grafstein noted in the *New Republic*, "Over drinks and dinner before the debate, Weinberger and Thompson eyed each other cautiously and exchanged a few forced pleasantries. They were both white with fear."[5] The visual contrast was almost humorously stark. Weinberger was nattily dressed in black tie and dinner jacket; Thompson in a professorial sports coat and sweater. "I mean no discourtesy," apologized Thompson, "but some of us who were appalled by the first war and who subsequently fought in the 1939–1945 war made a pledge not to wear dinner jackets again. You see, we saw them as symbols of the class system."[6] Weinberger answered back, "My father

always said it was the most democratic of all costumes because everybody wore exactly the same thing." Thompson, it was said, "was not terribly amused" by Weinberger's retort.[7] Meanwhile, students from both the University and Oxford Polytechnic protested outside the Union, shouting "Weinberger warmonger, Britain out of NATO!"[8] Colin Powell, a senior military assistant to Weinberger at the time and a member of the Oxford entourage, remarked that "the students in the packed house reminded me of Romans at the Colosseum waiting for a Christian to be thrown to the lions."[9]

Five hundred attendees voting on the motion crowded around the two debaters in their three-plus hour exchange, which was also broadcast live over BBC radio and eventually premiered in June across the United States.[10] The clash of rhetorical styles was even more apparent than the dress code; Thompson's impassioned and dramatic approach, representative of the notorious Oxford Union style, stood in contrast to Weinberger's quiet, calm, even "dispassionate" demeanor, "almost as if…believing his argument was self-evident, [he] has decided not to extend himself."[11] Overall, a tense and confrontational atmosphere hung over the exchange; Thompson's case posited the two superpowers as "towering terrorist states" and "mutually exacerbating military structures." He singled out the United States, in particular, for its imperialistic nuclear occupation of Europe with Cruise and Pershing missiles as "symbols of menace, of 'posture'."[12] Thompson joked to loud applause, "When friends come to help us it's fine for them to stay in the house for three or four days. When they stay for three weeks we get a little bit restive. But after 35 years…"[13] Then, he upheld the peace movement as a revolution: "I think Americans will understand when I say that we are on the edge of a moment that they might remember from their own history. We are in a place like 1771 or 1772.

Europe is meditating now a declaration of independence."[14] Weinberger's case, in turn, offered the morality of American ideology as the key difference between the foreign outlook of the two superpowers:

> It is very simple. It's all about freedom. Individual, personal, human freedom and whether we and our children will be allowed to exercise it...Who among the Soviets voted that they should invade Afghanistan? Maybe one, maybe five men in the Kremlin…Nobody else. And that is, I think, the height of immorality…You'll make a choice and I rest my case on your liberty to walk out either door and not have anything happen thereafter. There will be no intimidation, no threats, no arrests. I ask you to consider whether in the other system you and your families could have been here…[15]

At one moment, a student stood up and challenged Weinberger: "Do you think that an immoral act becomes less immoral because we have the choice to do it or not? Do the people who are tortured or killed by those regimes think it is a moral act because Congress approves it, rather than some general?"[16] Over vehement hissing from the audience, Weinberger reiterated again that "whether you think an act is immoral or not, we have the ability to change it."[17] As a television critic at the *New York Times* observed, Weinberger occasionally had "the look of a man wondering what possessed him to go there in the first place."[18]

To much surprise, however, "Cap" Weinberger was declared the winner in a decisive (but modest) margin of 271 to 232. His simple "civics lesson" drew on a well of sympathy from the audience after Thompson's brutal harangue; although, as the *Wall Street Journal* pointed out, all of the other speakers supporting Weinberger's side notably

distanced themselves from any support for Reagan's specific policies.[19] As Grafstein added, "it was the presence of about a hundred Americans in the debating chamber which proved decisive."[20] In Powell's view, "Though his victory was clear-cut in our eyes, we had taken out a little insurance. The way the debate winner is determined at Oxford is by counting how many people leave via the 'pro' exit and how many by the 'con.' We made sure that every member of our security detail and every staffer and secretary left via the 'con' exit."[21] Margaret Thatcher herself rung the sleeping Secretary of Defense (who did not yet know the outcome) the next morning with the greeting, "You know you won, don't you?"; a telephone call that, Weinberger wrote, "I greatly treasured."[22]

Forgotten in the novelty of the proceedings was the fact that Professor Thompson built his case on two peculiar visual aids—at one point during the debate, he brought forward two defense booklets, one produced by the U.S. Department of Defense (with a foreword by Weinberger), the other by the Soviet Union.[23] The professor called the U.S. pamphlet, *Soviet Military Power*, a "Sears-Roebuck catalogue of all the deadly military equipment" possessed by the U.S.S.R., while the Soviet book, *Whence the Threat to Peace*, was filled with the "usual half-lies and propaganda statements."[24] Pointing to the books, Thompson argued, "They have even copied each other in maps. Here is a power projection in the United States catalogue, with a *huge* Soviet Union, with arrows going in every direction around the world. And in the Soviet catalogue, the Soviet Union is rather smaller and all the arrows are spreading out from the United States towards the five continents of the world" (figs. 5.1 and 5.2 display the two dueling maps to which Thompson referred).[25] Reaching the climax of his speech, Thompson railed,
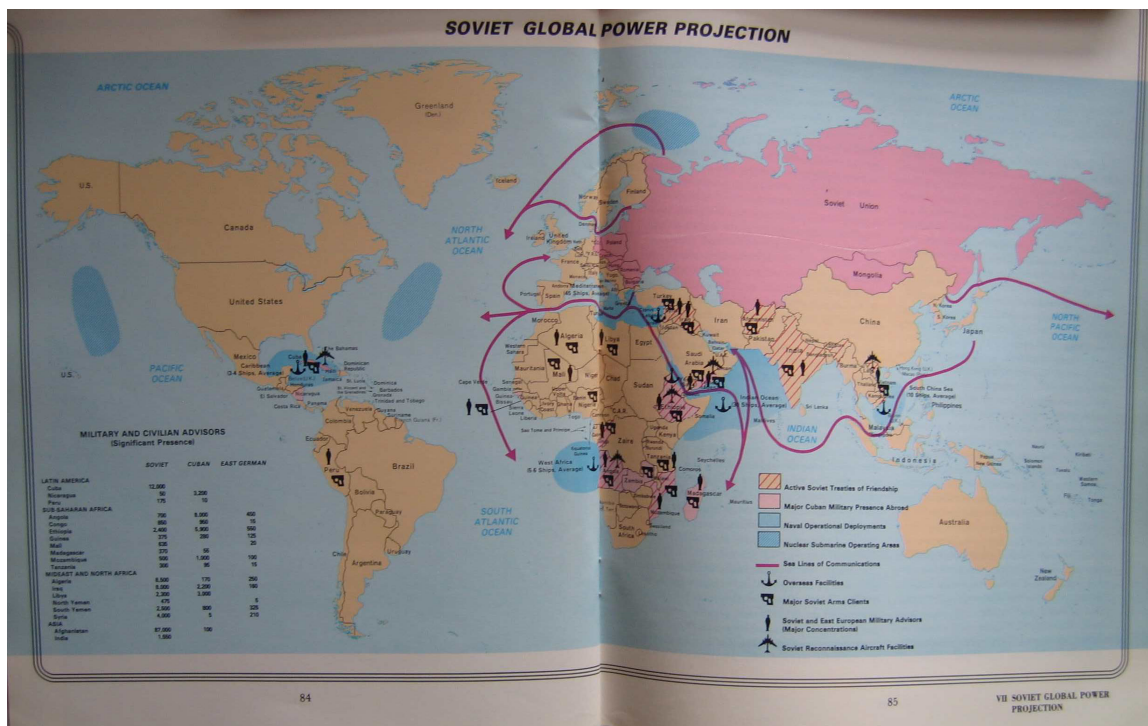
Figure 5.1. "Soviet Global Power Projection," in *Soviet Military Power*, **U.S. Department of Defense, 1981**
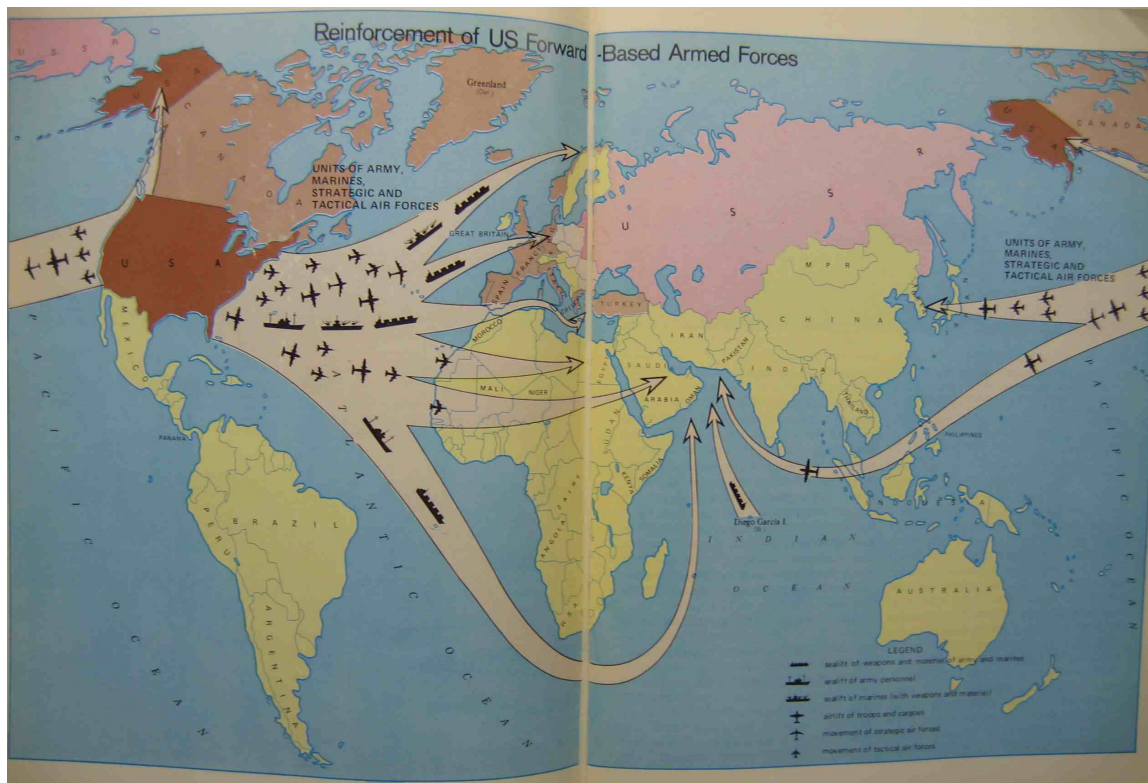
Figure 5.2. "Reinforcement of US Forward-Based Armed Forces," in *Whence the Threat to Peace*, **U.S.S.R. Ministry of Defense, 1982**

Bind these two together and they make the most evil book known in the whole human record…an inventory of the matched evils of this accelerating system, a confession of absolute human failure. What moral difference is there between these two catalogues?...The first moral difference that will appear will be when either superpower makes an actual *act* of disarmament. Then we can start to talk about morality. Until that happens I rest my case on these two odious books…[26]

Remarkably, the 500–plus members of the audience, and the millions tuning in across various media, were witnessing a radical socialist peace advocate directly lecturing a top U.S. leader about the moral evil of his maps in promoting a potential nuclear apocalypse.

Weinberger's very presence at the debate displayed the sizable investment of America's foreign policymakers and defense strategists in international public opinion. But more than a minor public relations victory for the Reagan Administration's defense of its nuclear arms policies, the Oxford event represented the increasingly moral terms of the nuclear arms debate. In press accounts and reviews, the question was often asked: why would the Secretary of Defense put himself at risk of humiliation in such a public forum? Was it hubris? Or was it idealist naiveté about America's moral standing in the world? Either way, through his appearance at the Oxford debate and through his commissioning of literature such as *Soviet Military Power*, Weinberger was clearly reaching beyond the balance-of-power pragmatism of 1970s détente and offering a bold rationale for the deployment of new arms to maintain peace, a rationale that relied on perception and moral fortitude.

G. Thomas Goodnight has noted the Reagan Administration's rhetorical rekindling of a so-called "Second Cold War" through its reformulation of the rhetoric of

war.[27] For example, in early policy-defining speeches such as "Zero Option" (1981),

President Reagan argued that new nuclear missiles are needed not because they will

correct the overall imbalance of power; rather, "the reality of force balances do not matter

precisely because deterrence depends upon the 'perceived ability of our forces to perform

effectively.'"[28] Nuclear weapons, then, are "symbols of commitment" and "all weapons

deficits are construed as signs of appeasement, and the danger of appeasement in a

nuclear age is attached to an infinite risk."[29] Thus, Reagan and his defense representatives

like Weinberger emphasized the value of perception and each side's ability to persuade

the other of its strength—hence the need for exceeding the Soviet Union in nuclear

capacities. In addition, this reformulation hearkened back to traditional definitions of war

before 1945; the Soviet Union as an "Evil Empire" made the nuclear struggle an age-old

moral battle between the forces of light and darkness. The realist Cold War strategies of

containment and the asymmetrical development of counter-forces had posited the United

States and the Soviet Union as two superpowers linked on the same road to doom,

requiring, in Ira Chernus' terms, a careful calibration of "apocalypse management."[30] The

Reagan and Weinberger of the Second Cold War sought to go beyond mere management

with the startling claim that *nuclear war is winnable*. Weinberger's presence on the stage

at Oxford (and his subsequent victory) affirmed the seriousness of conviction with which

both morality and the perception of intentions informed the defense policies of the United

States.

At the same time, Thompson's presence on the stage was equally noteworthy. The

rhetorical strategy of the Reagan Administration was in some ways an ingenious attempt

at suppressing dissent: as Goodnight says, "since arms control depends most

fundamentally upon an adversary who abides by commitments of self-interest and the

'evil empire' always operates by its own incontinent, perfidious code, any negotiated

agreement is suspect and ultimately fraudulent. So, the administration could continue to

offer arms agreements that fail, demonstrating undaunted good intentions and the

persistence of evil."[31] In addition, by rhetorically presenting an element of hope in the

face of nuclear destruction, the Administration could contrast their vision with the images

of devastation used by nuclear freeze advocates. By discussing nuclear policies on moral

terms, Weinberger was opening up a radical challenge for Thompson's brand of moral

outrage, and this allowed for Thompson's damning depiction of the Soviet Union and the

United States as the same evil face of destructive state power. The *Wall Street Journal*, in

fact, scolded Weinberger on this point: "Western governments should not raise the

credibility of 'peace' movement spokesmen by giving them the same status…

Commitment to democratic values does imply tolerance and a civilized attitude toward

one's opponent—but it does not require that you act as his publicity agent."[32] Thompson,

thus, was given a platform for moral dissent, and maps became an important plank in that

platform.

The improbable debate between Thompson and Weinberger points to, in a larger

sense, how maps offered a compelling and contested mode of visual perception for the

complex nuclear tensions of the Second Cold War and how questions of morality

constrained such cartographic discourse. Certainly, the debate represents cartography's

continuing evidentiary power during the Cold War to spatially define and *envision* the

world, as well as the importance of maps in the arena of public opinion. And "nuclear

geography" had some unique properties.[33] Maps had to account for the prospect of

nuclear war—to project both a present world of state power armaments while also sketching a future world of potential destruction. In James Der Derian's terms, nuclear weapons substantially changed notions of space in international relations by sparking a new emphasis on "rapidity and totality."[34] In a way, this focus on the immense speed of nuclear weaponry and the total miniaturization of the earth was the ultimate extension and outcome of the air-age globalism of the 1940s. Like the air-age global maps, nuclear cartography depicted a dramatically shrinking earth, where time had replaced distance (i.e., how fast a missile could reach a target) as the measure of power, but now the map foretold the total destruction of global space.

Through considerations, then, of the speed and *scale* of nuclear war, I explore cartography in this chapter from the standpoint of both the expansion of armaments and the responding calls for disarmament. In terms of the expansion of armaments, I examine the volley of defense propaganda that incensed Professor Thompson and that *Time* referred to as the "Battle of the Booklets," which supported arguments for a nuclear arsenal build-up.[35] Each year throughout the 1980s, these map-laced pamphlets like the U.S. *Soviet Military Power*, the U.S.S.R.'s *Whence the Threat to Peace* and *Disarmament: Who's Against?*, and even NATO's *NATO and the Warsaw Pact: Force Comparisons*, were updated, revised, and reprinted, providing a compelling visual record of the re-ignited Cold War and, more importantly, promoting a kind of *hyper-internationalism* where missiles and defense technologies fill global space and every corner of the globe is a potential target.

In terms of the visual arguments for disarmament, I examine the activist cartography that echoed the kind of moral challenge made by E.P. Thompson. In

particular, I discuss the radical geographer William Bunge and his *Nuclear War Atlas* project, which supported the nuclear freeze movement with its graphic cartography of nuclear destruction and the moral bankruptcy of state power during the arms race of the early 1980s. These challenges to the cartography of official actors like Weinberger stridently pointed out how nuclear weapons reduced the globe to an abstract surface for missile trajectories and nuclear capacities, leaving in their wake a kind of *placelessness*. Writing in 1977, around the beginnings of the committed re-acceleration of the arms race in the U.S. and the Soviet Union, Paul Virilio argued that, "Territory has lost its significance in favor of the projectile. *In fact, the strategic value of the non-place of speed has definitively supplanted that of place*, and the question of possession of Time has revived that of territorial appropriation."[36] The radical disarmament cartography of the 1980s, then, envisioned the end of the Cold War by trying to reclaim this sense of place and subvert the abstraction of space by superpower forces. By heightening their own ideologies and moral values in the lines of the map, these radical cartographers defied the expectation that Cold War maps uphold standards of rationality and scienticity. At the same time, radical mapping was constrained by cartography's continuing struggle between its formal expectations to present space "as is" and its traditional role of providing a means for state power and control. As political scientist Michael Shapiro writes,

> The alternative worlds destroyed and suppressed within modern cartography
> become available only when the global map is given historical depth and
> alternative practices are countenanced. In sum, although the dominant geopolitical
> map appears uncontentious and nonnormative, it constitutes what I am calling a

moral geography, a set of silent ethical assertions that preorganize explicit ethicopolitical discourses.[37]

The defense maps of works like *Soviet Military Power* and *Whence the Threat to Peace* organize the world through these dominant lenses, while the *Nuclear War Atlas* constitutes these "alternative practices" that attempt to graph the "silences" of these ethical assertions and expose their powerful assumptions. As Bryan C. Taylor writes, "Idealistic opponents have depicted the Bomb as a monstrous development whose impracticality and immorality warrant its elimination. Supporters of deterrence, in contrast, have viewed nuclear danger as a problem solved by harnessing nuclear weapons as a means of national security."[38] I argue in this chapter that, on both sides, nuclear cartography negotiates tensions between social change and social control, as well as between the realist concept of protecting security and the idealist notion that the world needs to be both morally and physically saved from nuclear devastation.

"Battle of the Booklets:" Nuclear Armaments and (Late) Cold War State Power

Soviet Military Power, the first half of what Thompson called "the most evil book of our time," appeared in 1981, as part of an informational offensive that accompanied the Reagan Administration's increasingly intense calls for nuclear expansion to achieve not simply *parity*, but actual missile superiority. These calls reached back to the 1970s anti-détente discourse of influential political lobby organizations like the Committee on Present Danger (CPD), who shared key members with CIA Director George H.W. Bush's "Team B," an independent group convened to advise President Gerald Ford on Soviet intelligence. Members included past Cold War luminaries like NSC-68 architect Paul Nitze, conservative Democratic intellectuals like Eugene Rostow, and many future

members of the Reagan Administration such as Richard Perle, Paul Wolfowitz, and

Jeanne Kirkpatrick.[39] Once President Jimmy Carter took office, the group brought their

strategic ideas to the public, producing manifestos and various publications (included in

journals such as *Foreign Affairs*) constructing a dark picture of Soviet superiority in

weapons and military technologies and calling for a change in international relations

toward a much stronger security apparatus.[40] This new, more militant security discourse

was also marked by what Simon Dalby called a revival of geopolitical thinking.

Intellectuals and policymakers attempted a "geo-graphing of the Soviet Union." In other

words, they constructed the threat of the U.S.S.R. in explicitly spatial terms, and

publicized the potential effect of Soviet weapons on the global landscape.[41] Zbigniew

Brzezinski's definition of security as a function of distance and proximity rang true here;

a renewed hard line in Cold War discourse revolved around estimations and debates

around how far and how fast.[42] Coupled with the context of the perceived failure of

SALT II and the Soviet invasion of Afghanistan, this discourse contributed to the Reagan

administration's resuscitation of a contentious, bipolar Cold War. In historian Fred

Halliday's estimation, Cold War II was defined by a "concerted and sustained attempt by

the USA to subordinate the various dimensions of its foreign policy, and that of its allies,

to confrontation with the USSR…In both internal and international issues, the postulation

of an external threat was combined with alarm about the erosion of pre-existing values to

foster mobilization for a new Cold War."[43]

Defense Department initiatives like *Soviet Military Power*, called a "slick analysis"

by *Time*, had to first establish that the Soviet Union enjoyed a destructive advantage over

the United States. To achieve this, the booklet constructs a verbal and visual rhetoric that

perpetuates "crisis."[44] Weinberger's introduction to the booklet constructs this crisis with a distinct spatial focus on how Soviet power has become uncontainable:

> There is nothing hypothetical about the Soviet military machine. Its expansion, modernization, and contribution to projection of power beyond Soviet boundaries are obvious. A clear understanding of Soviet Armed Forces, their doctrine, their capabilities, their strengths and their weaknesses is essential to the shaping and maintenance of effective U.S. and Allied Armed Forces.[45]

Cartography serves as a central vehicle to transmit such projections. Importantly here, Weinberger underlines the premium on a "clear understanding," thus setting up the self-evident proposition that the visual displays presented in the booklet will correct any misperceptions. He then takes his readers through a comparative litany of Soviet Union's numerical advantage in nuclear capabilities—in the 1983 edition, the Secretary of Defense pointedly referred to America's disadvantage as heightened "by a decade of our neglect coupled with two decades of massive Soviet increases."[46] This implicit reference to the détente period of nuclear rollbacks set a line in the sand for the military posture of the Reagan administration. Of course, while such pamphlets served as an inventory of capacities, their public opinion function was equally important. The same data was available, for example, in the Secretary of Defense's *Annual Report*, but the booklets allowed the chance for high-tech visual persuasion to display and shape the new nuclear geopolitics. As Weinberger wrote of *Soviet Military Power* in his autobiography, "it helped us measure and adjust our own forces and capabilities in relation to the Soviets'— an ongoing exercise that was crucial for realistic planning and budgeting. It was also

most useful in persuading some of our allies that they needed to increase their defense efforts."[47]

A Defense Department booklet about Soviet nuclear capacities would have generated little attention had the Soviet Union not responded in kind, a response that set off a back-and-forth exchange in the pamphlet series from 1981 until the beginning of the Cold War's end in 1989. The Soviets' first response came in 1982 with *Whence the Threat to Peace*, which was launched in conjunction with a news conference featuring Chief of Staff of Soviet Armed Forces General Valentin Varrennikov. The *New York Times* called the news conference "the first opportunity in years for foreign reporters to put questions directly to a member of the [Soviet] military hierarchy." Varrennikov announced that "the Soviet Union has never sought and does not seek military superiority" but "we have to react to the military threat created by the United States." The book, noted the General, would provide "objective factual material" on "who is responsible for the arms race."[48] The introduction to *Whence the Threat* is more confrontational, accusing Weinberger and the U.S. of a "campaign of slander" that was "directed to inciting military psychosis." Conversely, the Soviet booklet promises that the "unprejudiced reader will find answers in it to the anti-Soviet intentions that abound in the propaganda pamphlets of the USA and NATO."[49] The public relations offensive resulted in wide distribution of the booklet in six languages and an extensive amount of American press coverage. Congressman Thomas J. Downey of Long Island commented to the *New York Times*: "For the ordinary person, it's useful to see that the Soviets regard us with the same hostility we view them."[50] An *Economist* review reproduced one of the Soviet maps (a map claiming America as a technological belligerent) with the caption, "They're catching

up in pamphlets too."[51] The *Economist* also noted the lavish four-color illustrations and maps as products of "Madisonsky Avenue" and the *Times* called it the "most sophisticated effort yet to persuade public opinion…that the Reagan Administration's arms buildup is a threat to peace." *Time* declared that while many of the claims are false, "the production represents a quantum leap in Moscow's mastery of military propaganda."[52] While the first edition of Weinberger's booklet contained only a few maps, the Soviets used cartography extensively. In response, the U.S. Department of Defense notably increased the number of maps used in future editions. Further reprints of *Whence the Threat* and other tracts like 1983's *Disarmament: Who's Against?* escalated this numbers-and-maps war between the two powers.

Nuclear Geopolitics in the Second Cold War

To understand the meaning-making process of these defense maps, it is essential to understand the context of how the Second Cold War was accompanied and sustained by an evolving "nuclear geopolitics." Nuclear geopolitics rested on a complex conundrum, as its tenets simultaneously employed both an intensely spatial outlook, and a denial of space. As John Agnew writes, "the advent of the capacity to deliver nuclear weapons over great distances almost instantaneously both devalued the military importance of territorial space through a new emphasis on virtuality and yet reinforced the sense of being targeted because of where you happened to live."[53] The ascendance of Third World geography and cartography during the course of the Cold War was predicated on regional consciousness, continental imaginaries, and expertise on particular areas. At the same time, the development of nuclear cartography, at least from the standpoint of the U.S. and the Soviet Union, lessened the impact of that expertise. In

other words, the United States and the Soviet Union attempted to reclaim the familiar security of superpower politics, trying to reassert East and West as the defining geopolitical framework over the increasing calls to reorient the world in terms of North and South.

A revival of the superpower's spatial dominance thus came back into play, allowing for recourse to more traditional geopolitical conceptions like those of turn-of-the-century British theorist Halford Mackinder. As noted earlier, Mackinder foresaw a world of truly global relations where world space was fully closed, and nation-states had to consider the totality of their place in the world. In particular, Mackinder was famed for his thesis that the nation-state power that controlled the so-called "Heartland" (the central part of Eurasia) and Eastern Europe could, in turn, control the world.[54] Air-age globalists such as Richard Edes Harrison and S.W. Boggs revived and revised Mackinder's strategic geopolitics, and his conception of space and international relations became particularly useful to add geographical weight to theories of containment.[55] While the world had changed drastically since the days of Mackinder and even the air-age globalism of World War II, some of the assumptions of his approach were resurfacing during the Second Cold War, particularly in what Paul Virilio called Mackinder's "geostrategic homogenization of the globe." There evolved a renewed reliance on such realist geopolitical modes of explanation, almost as if to make sense out of the irrationality of nuclear war.[56] In Yves Lacoste's view, Mackinder's theories provided a grandiose and evocative historical narrative, and "although the theses lack scientific value, their lyrical function is unquestionable."[57]

The sophistication and immensity of nuclear war, however, required new adaptations. The key change was that instead of Mackinder's grand narrative of land and sea bridging together to create a playing field for the power politics of world conquest, the replacement narrative told of the shrinking of world space through the mastery of technical expertise and new modes of warfare that transcended the features of the land. As Ciro Zoppo notes, nuclear geopolitics revolves around the "intercontinental projection of nuclear firepower" and the "extension of land and sea space to atmospheric space and from the latter into the stratosphere and beyond."[58] In other words, it was now the trajectory of the missile and the purview of the satellite that determined who would "rule the World Island." Mackinder, writing in World War I, was originally responding to the closed world of the British Empire reaching the ends of the earth and facing decline. However, the closed world of the Cold War, in Paul Edwards' terms, was "a dome of global technological oversight…within which every event was interpreted as part of a titanic struggle between the superpowers," a war of information management.[59] The realist paradigm of foreign policy still retained its primacy—even with the revolutionary changes of the nuclear missile, a state of international conflict was still seen as natural and innate—but realism was nonetheless transformed by the speed and scale of technology. Der Derian notes, "Despite the best efforts of its earliest practitioners, realism was scrubbed clean of its original theologico-ethical rhetoric of tragedy and providence, justice and order, and neutralized by a nascent social science in search of a value-free discourse."[60] The metaphor of the "zero-sum" aided this discourse as an important "symbolic enclosure within which the (il)logic of nuclear politics played itself out."[61]

Importantly, the architects of nuclear geopolitics in the Second Cold War were part of a lineage running back to think tanks such as the RAND Corporation, which pioneered the techniques of systems analysis and game theory that transformed the notion of security as the Cold War developed. Edwards wrote of these developments as "the intricate interplay of equipment, logistics, strategy, tactics and costs. In the age of nuclear weapons and intercontinental bombers, the problem of how much was enough—how many men, how many bombs and planes, how much air defense, how much research and development—obsessed not only military planners but politicians wrestling with the constraints of still-balanced budgets."[62] Or in Philip Mirowski's terms: "The entire Cold War military technological trajectory was based on simulations, from the psychology of the enlisted men turning the keys to the patterns of targeting of weapons to their physical explosion profile…to the behaviour of the opponents in the Kremlin to econometric models of a postnuclear world."[63]

Security discourse, then, became a world of theories, simulations, and models, a world where cartography fit in well. Since nuclear deterrence itself was a projection, the map provided a fitting vehicle for its visualization, allowing for the simple and reliable display of complex calculations and quantifications. By showing a flat world over which missiles could be projected, cartography allowed for the necessary detachment and abstraction of nuclear planning. As early as 1955, for example, a textbook manual on the "Principles of Guided Missile Design" produced by the Naval Research Laboratory assured its readers that,

> There is no question that, with presently available techniques, it would be possible
> to send an aircraft to a predetermined point on the globe, have it drop its bombs,

and return to the starting point without the assistance of a human pilot in the aircraft…The practical question is: where do we start the automatic operations in the chain of offense or defense? The obvious answer is that when man becomes the weak link in the chain, for any reason, he must be replaced by a specialized automatic device.[64]

Thus, Richard Edes Harrison's imagined air-age pilot was replaced by a revival of the omniscient cartographic perspective—except now, the perspective was most often produced by machine.[65] Cruise missiles, for example, contained special radars in their nose cones that allowed them to monitor the layout of the ground below them against the information from satellite maps that have been digitized and stored in a built-in computer.[66] Not only did the content of such defense maps reflect this technological quantification, the actual form and production of the maps in this era were becoming increasingly automated.[67] Over the course of the Cold War, the mapmaker became a technician managing data rather than the artistic interpreter that was still prevalent in the days of S.W. Boggs. By the time of the arms race's rekindling, the detachment of missile warfare was matched by the detachment of cartographic methods as well.

Scale and Speed: The Hyper-Internationalism of Defense Cartography

The maps in the "Battle of the Booklets" draw on this detachment by reducing the conflict to a zero-sum game of numbers with the world as the playing board. Both sides in the pamphlet wars, as the *New York Times* points out, share the "same penchant for quantitative measurement" that came to especially characterize the defense discourse of the Second Cold War.[68] Cartography clearly provided a clean method by which to project these escalating quantitative measurements. For example, a central map in the original

version of *Soviet Military Power,* entitled, "Soviet Military Forces," uses an outline of the

U.S.S.R. and fills the landscape with stark black icons (over a pink background) of

missiles such as ICBMs, IRBMs, SLBMs, as well as the shapes of missile-delivering jets

and battleships (fig. 5.3).[69] In addition, the map represented ground forces with a

silhouetted icon of a soldier—its resemblance to a toy soldier minimizes the human

element and equates Soviet fighting men with the missiles and submarines surrounding

them. Like the Gulag map of the early 1950s, it did not matter where the missile silos (or

camps) were, it mattered that they had the ability to fill the space. Just as the Soviet

Union became one emblematic labor camp, it also became one emblematic logo of a

missile base—here the power of cartography draws on the recognizable lines of the

Soviet Union's shape and makes them synonymous with the equally recognizable shape

of a nuclear missile. The map switches from merely emphasizing locatory power

SOVIET MILITARY FORCES

BALTIC FLEET
TOTAL SHIPS 554
NAVAL AVIATION 275

NORTHERN FLEET
TOTAL SHIPS
NAVAL AVIATION

55 NON SOVIET WARSAW PACT DIVISIONS

30 SOVIET DIVISIONS

EASTERN EUROPE

Murmansk

Leningrad

Moscow

80 DIVISIONS

Sevastopol

USSR

BLACK SEA FLEET / CASPIAN FLOTILLA
TOTAL SHIPS 542
NAVAL AVIATION 430

PACIFIC FLEET
TOTAL SHIPS 785
NAVAL AVIATION 445

29 DIVISIONS

52 DIVISIONS

Vladivostok

AIR DEFENSE FORCES

STRATEGIC NUCLEAR FORCES

ICBMs	LRINF	SLBMs	STRATEGIC BOMBERS	TACTICAL AVIATION	GROUND FORCES		NAVAL FORCES	
SS-11 560		SS-N-6					SURFACE COMBATANTS 1,324	
SS-13 60		SS-N-8	BACKFIRE ×100				SUBMARINES 367	
SS-17 150	SS-4 232	SS-N-17	BISON 90		MOTORIZED RIFLE DIVISIONS 134		AUXILIARIES 770	
SS-18 308	SS-5 16	SS-N-18	BEAR 100	TACTICAL	TANK DIVISIONS 50	ABM	NAVAL AVIATION 1,886	
SS-19 330	SS-20 333	SS-NX-20	BADGER/BLINDER 456	AIRCRAFT 6,200	AIRBORNE DIVISIONS 7	LAUNCHERS 32	SAM LAUNCHERS 9,600+	

960+

*200+, including Soviet Naval Aviation

INTERCEPTORS 1,200

8   9   I SOVIET MILITARY POWER-1983

Figure 5.3. "Soviet Military Forces," in *Soviet Military Power*, U.S. Department of Defense, 1981

and instead emphasizes capacity and volume, measuring how many nuclear weapons and other military forces could fill (and overwhelm) one nation. In addition, the map divorces the Soviet Union from its relationship with the rest of the world—it is simply a large puzzle piece over a white background, abstracted from its contextual connections to world space. The outline of the Soviet Union is shaded in such a way that it appears to be a plateau coming off the page, making the U.S.S.R. appear to be even more of a detached, abstract surface on the page. Altogether, like the Gulag map, the "Soviet Military Forces" map spatializes the process of knowledge production around enemy spaces and serves as a militant brand of propaganda, while still making use of the map's representational power to reliably showcase statistical truth.

One particular map in *Soviet Military Power* extends this concept by alarmingly transposing Soviet space *onto* American space. The "Area of Nizhniy Tagil Tank Plant" map (fig. 5.4) uses an aerial view of the Washington, D.C., area, centered on the National Mall, and outlines in red the size of the Soviet tank plant at Nizhniy Tagil over the symbolically hallowed ground of the U.S. capital.[70] The red outline dwarfs the entire landscape of downtown D.C., attempting to prove that Soviet military power is sprawling and imposing (two smaller black squares inside the red outline denote two much smaller U.S. tank plants in Ohio and Michigan in order to buttress the idea that the U.S. is much less advanced in its military technologies). In addition, the blueprint-style quality of the aerial map used in both displays connotes a sense that the Soviet Union can destroy the infrastructure of its American enemy with the sheer immensity of its military power. By placing a tank plant over the center of American power, the map argues that the Soviets have penetrative abilities to invade U.S. space. The striking detail of familiar roads,
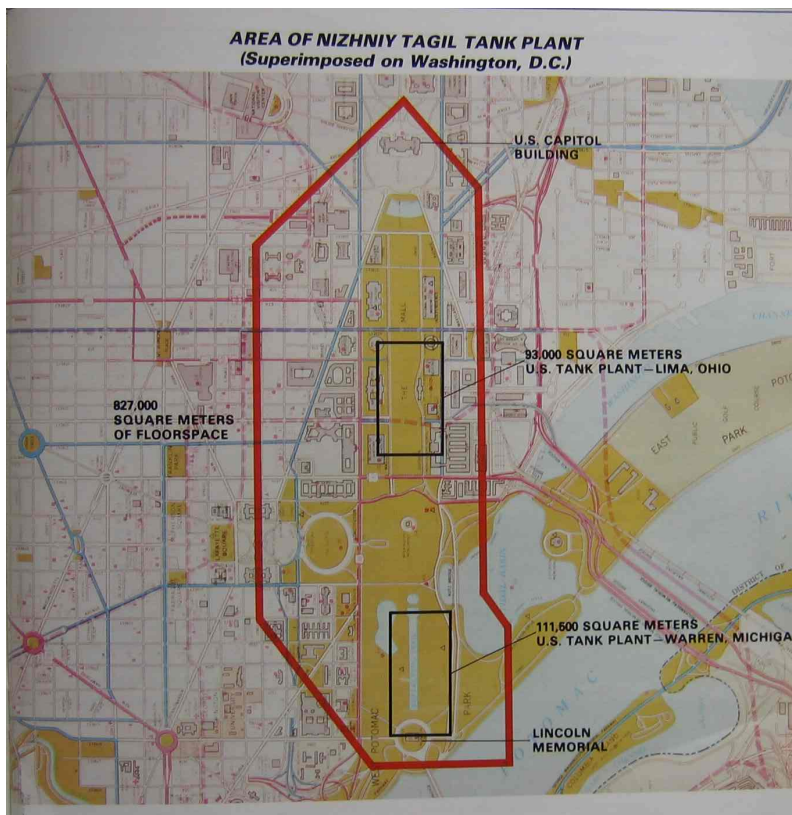
Figure 5.4. "Area of Tagil Tank Plant (Superimposed on Washington, DC)," in *Soviet Military Power*, **U.S. Department of Defense, 1981**

buildings, and parks on the ground are also key to the map's function: those streets of

Washington, D.C., and their famous landmarks are now contained by the capacity of

military power to essentially target them. Obviously, the map stops short of arguing that

the Soviets are specifically targeting D.C., but the choice of using an aerial map

(typically used to assess military targets from the air) inevitably makes that case

implicitly, and the capital (the nexus of "freedom" and American power) becomes a kind

of militarized zone.

Not only does the map represent the increasing size of Soviet armaments, but it

also suggests their power of *placement*. More so than the world maps included elsewhere

in the pamphlet, this map is intensely localized, corresponding to a very specific and *felt*

place. The Soviets were, of course, quick to respond. In *Whence the Threat*, they simply

reproduce the exact same map scheme (fig. 5.5), but now use a large blue outline of the

U.S.'s Detroit Tank Armory, superimposing it over the red Tagil plant to show how

America dwarfs the Soviet Union in terms of military capacity.[71] In the process, their

map accuses the Americans of omission and concealment in their use of cartographic

evidence. No small part of the "paramap" here is that the Soviets include a photograph of

U.S. nuclear-fitted howitzers (large cannons mounted on wheeled motor vehicles, similar

in look to a tank) across the page from their adaptation of the D.C. map, helping to

concretize the abstract nature of the tank plant outlines. Both of these maps also speak to

the techniques of "surveillance" that mark Cold War superpower technologies. As Der

Derian has written, this surveillance regime defined a superpower contest wracked by

"hyper-vigilance, intense distrust, rigid and judgmental thought processes, and projection
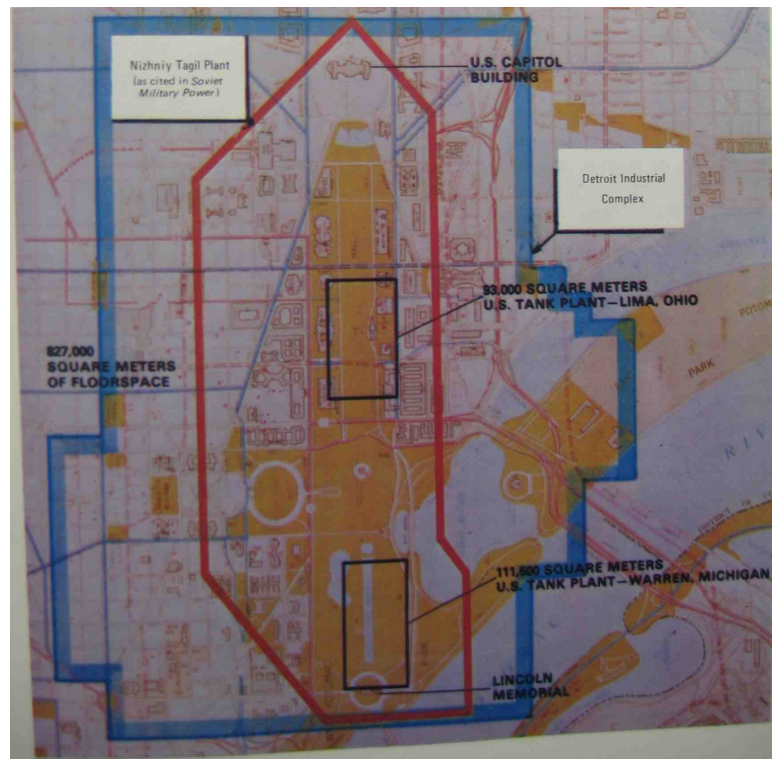
Figure 5.5. "Detroit Industrial Complex Over Plan of Washington, DC," in *Whence the Threat to Peace*, U.S.S.R. Ministry of Defense, 1982

of one's own repressed beliefs and hostile impulses onto another."[72] The tank plant maps

literally project the enemy's hostility onto our own internal spaces. In addition, the use of

the aerial map emphasizes once again, the complex form and production of the "view

from above." The problem is that this surveillance "normalizes relations by continuing

both war and peace by other, technical means. The same satellite that monitors and helps

us verify whether the Soviets are conforming to the INF treaty simultaneously maps the

way for low-level, terrain-following cruise missiles."[73] The tank plant maps, similarly

display the potentially peaceful technology of aerial mapping in D.C. and use it to show

the awful and immense military apparatus of a tank plant. The choice of whether to use

cartographic technology for good or evil is thus drawn into the lines of the map.

Other U.S. maps in *Soviet Military Power* such as "Soviet Global Power

Projection" do place the Soviet Union back into context with the rest of the world, using

a conventional Mercator projection (thus exaggerating the size of the Soviet Union and

Eastern Europe), and demonstrating the global locations of Soviet treaties of friendship,

major Cuban military presence abroad, and nuclear sub operating areas. These maps even

use pistol icons to show where major Soviet arms clients can be found.[74] Altogether, the

map spread reveals an extensive network of Soviet influence. By contrast, the Soviet

answer in *Whence the Threat* maps such as "Exports of US Weapons and Materiel" and

"Reinforcement of US Forward-Based Armed Forces" (refer back to fig. 5.2) employ a

projection (not dissimilar to the Peters projection) that shrinks the Soviet Union and

increases the size of Africa and South Asia. To dramatize the reach of the United States,

the maps also draw in Alaska twice on the map (both in the east and west margins of the

map)—in order to create the feeling of the Soviet Union being sandwiched by American

power.[75] Particularly in "Reinforcement," a large brigade of penetrating arrows aggressively protrudes forth from the United States and besets the Eurasian heartland from all sides. The arrow had been a frequent theme in so-called propaganda cartography since at least World War II, able to suggest directionality and movement on the static page.[76] Here, the presence of the arrows carrying various weapons of destruction connotes a feeling of constant, unending flow. The actual locations of where the forces are going are less vital than the message that this movement of arms from the United States all around the world against the Soviet Union will be continuous and relentless. In the introductory text to the 1984 edition of *Whence the Threat*, the Soviet Ministry of Defense even invokes an old Cold War cartographic standby, noting: "Like the tentacles of a gigantic octopus, American imperialism's bases—springboards for aggression— reach to all corners of the globe. The network of military bases and installations is being constantly extended to new regions…with the obvious intention of creating a palpable threat from all sides to the Soviet Union and its allies."[77] Elsewhere, maps like "Concept of Operations of US Strategic Offensive Forces on the Basis of Major Military Exercises" steal a page out of the U.S. journalistic cartography of the 1940s and 1950s. The map employs a polar projection anchored around the Arctic, except *now* the United States hovers above the pole and the U.S.S.R. sits below.[78] A series of thick, imposing arrows filled with jet and missile icons descend over the pole and infiltrate the Soviet Union.

The early Cold War cartographic motif of polar encirclement had come full circle into the nuclear age. As Alan Burnett concluded about nuclear cartographic propaganda in the Second Cold War, "the spatial distribution of nuclear installations is deliberately portrayed to suggest encirclement and vulnerability."[79] The specificity of targeting used

to matter more—in other words, the accuracy of a given missile target was an important function of early Cold War cartography. In the Second Cold War, however, it was less about the specificity of the target and more about the totality of coverage. Nuclear weaponry can be launched from any direction, as the natural geography of the earth is reduced to a simple flat plane that weapons can fly over; all space is rendered vulnerable. By bringing all of international space into a platform for a theoretical war, the scale is both infinitely large and small at the same time. The map no longer is abstracting "real" scenarios on the ground, but rather becomes an abstraction of nuclear war, an event that was *always already* a significant abstraction of warfare in itself. Therefore, this use of cartography aids a new foray into the hyper-international.[80]

The themes of totality and hyper-internationalism are even more prevalent in other maps in the "Battle of the Booklets." Particularly the maps of NATO's *Force Comparisons* demonstrate how the representation of targets had evolved over the course of the Cold War. One map, for example (fig. 5.6), portrays a rounded globe that compares the coverage of Soviet SS-20 and NATO Pershing and GLCM missiles.[81] The SS-20 covers a gigantic expanse of the earth stretching all over Europe, Asia, the Northern half of Africa and parts of North America, while the NATO weapons are portrayed as barely penetrating into Eastern Europe and the Western half of Russia. Soviet military power thus becomes menacingly global and total.

The inset maps of Europe that follow show the coverage and capacity of nuclear weapons in Europe no longer as directional targets, but as rays that expand out of the Soviet center (fig. 5.7).[82] Thick pink bands are concentrically emitted over the entire continent, suggesting that nuclear power is a matter of radiation enveloping all, rather

Figure 5.6. "Target Coverage of Soviet SS-20 and Target Coverage of NATO Pershing II and GLCM," in *NATO and the Warsaw Pact: Force Comparisons*, **NATO, 1984**
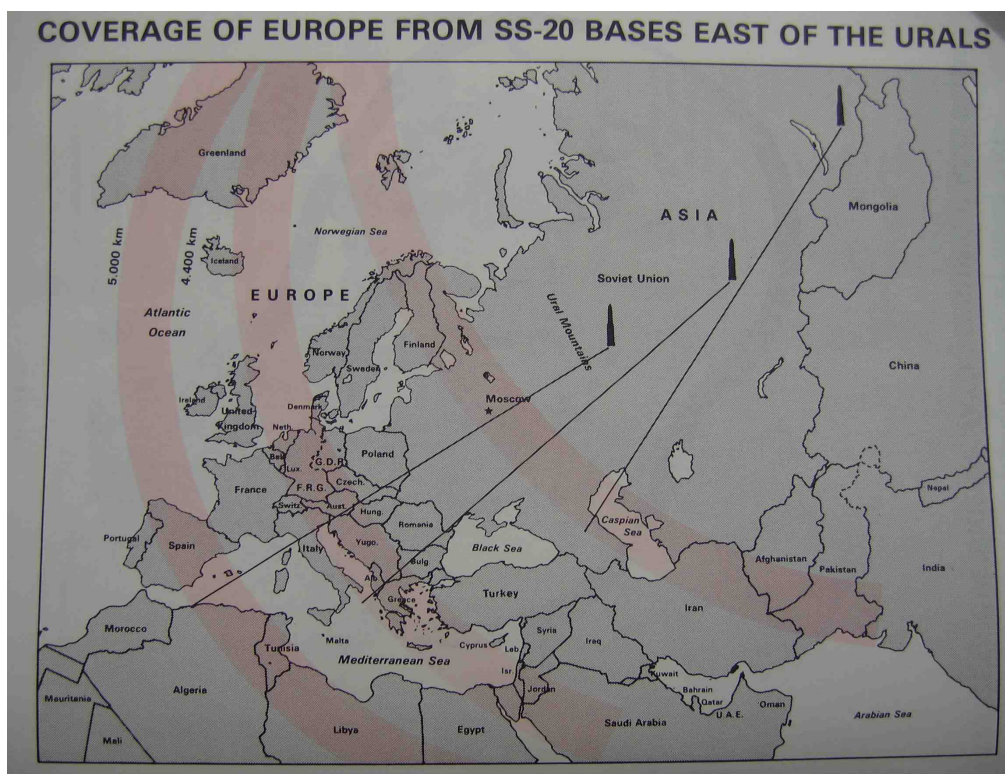
Figure 5.7. "Coverage of Europe From SS-20 Bases East of the Urals," in *NATO and the Warsaw Pact: Force Comparisons*, **NATO, 1984**

than confined to specified military bases and strategic targets. In response, the Soviet

pamphlets accused NATO of key omissions, as their maps attempted to show how

NATO's force capacities were much larger than they had previously revealed. For

example, in "NATO Medium-Range Nuclear Weapons Coverage" (from *Disarmament:*

Who's Against?), Soviet cartographers focus on the capacity of NATO's combination of

U.S. forward-based nuclear systems, and those of the British and the French, to penetrate

deep into the heart of the Soviet Union and its satellites (fig. 5.8). In addition, in bright

yellow, the map showcases where new U.S. missiles (the Pershings and cruise missiles)

will cover—and the capital of Moscow falls squarely into this new radius.[83] The

internationalism of the nuclear-based Second Cold War is thus built on radii, circles and

waves, rather than lines and edges, and this marks a key shift in cartographic techniques.

In addition, the maps of the early Cold War that used boundaries to partition
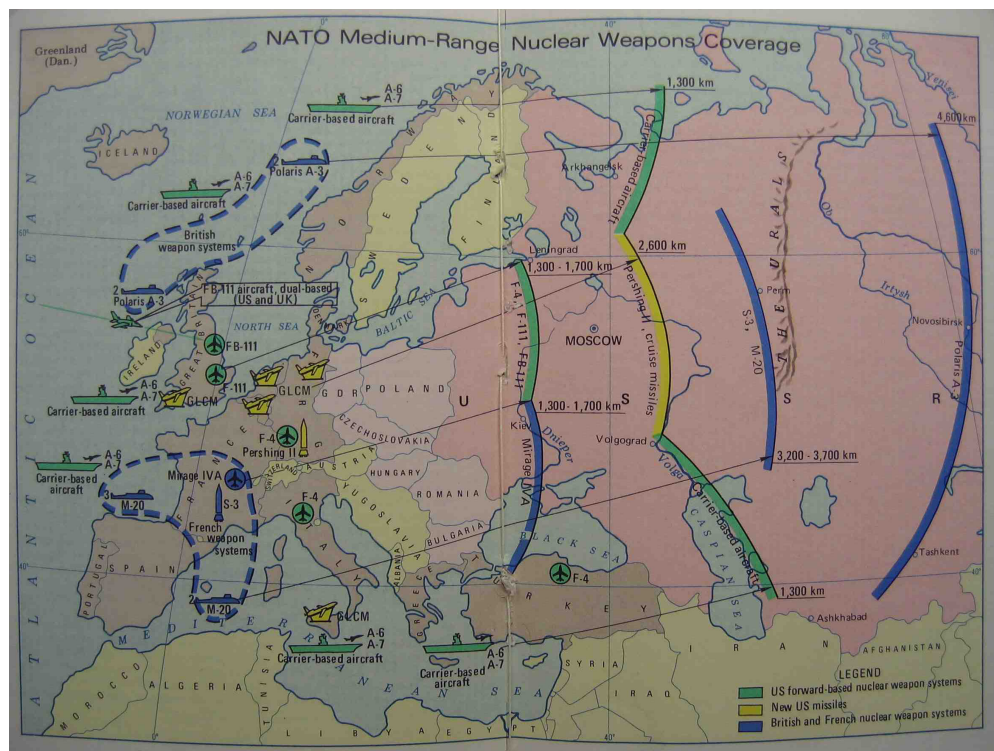
Figure 5.8. "NATO Medium-Range Nuclear Weapons Coverage," in *Disarmament: Who's Against?*, U.S.S.R. Ministry of Defense, 1983

NATO and Warsaw Pact countries became increasingly irrelevant when the trajectory of the nuclear missile came to encompass more and more ground. For example, in U.S. Defense Department maps of Soviet SS-20 missile sites in Europe, a pink shading covers all of Europe (even into Greenland) and the upper Atlantic Ocean, an ambit representing the full trajectory of their advanced nuclear strike capabilities (fig. 5.9).[84] In a map of the Soviet Union's missile detection and tracking system, a series of overlapping radar systems, including locations in outer space, cover the earth in searchlight-like streams that come from all directions and wrap around the continents (fig. 5.10).[85] In both of these maps, the distinction between geographical features such as continental land and ocean is tangential—a kind of radar-like dome covers the sky and subsumes everything beneath. As Virilio wrote,
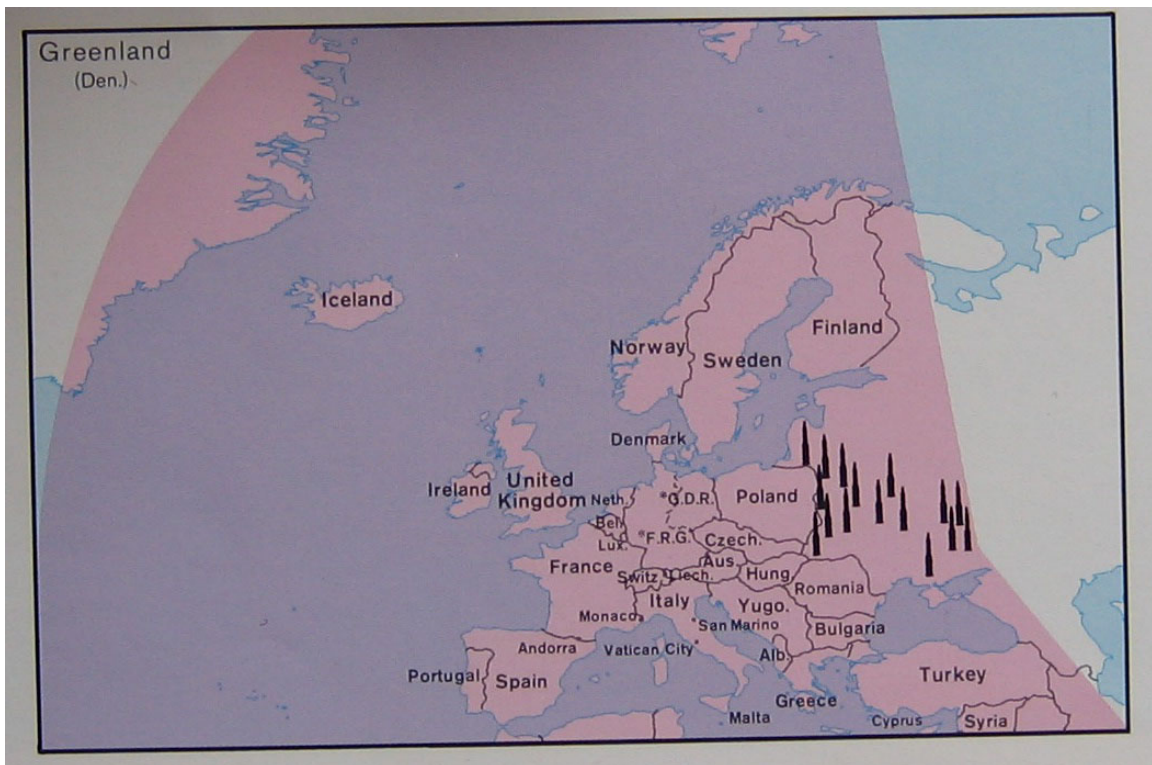
Figure 5.9. "Soviet SS-20 Range," in *Soviet Military Power*, U.S. Department of Defense, 1981
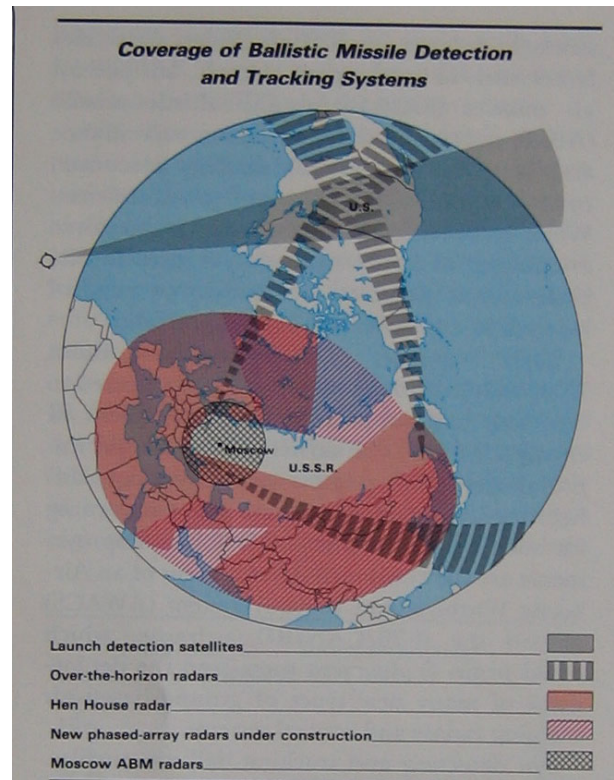
Figure 5.10. "Coverage of Ballistic Missile Detection and Tracking Systems," in *Soviet Military Power*, **U.S. Department of Defense, 1983**

in the ballistic progress of weapons, the curvature of the earth has not stopped

shrinking. It is no longer the continents that become agglomerated, but the totality

of the planet that is diminished…a world wide phenomenon of terrestrial and

technological contraction that today makes us penetrate into an artificial

topological universe: *the direct encounter of every surface on the globe.*[86]

Weapons of Perception: Affirming the Superpower in the Second Cold War

The cartographic form becomes, then, an ideal visual medium for the display of

state power during a nuclear arms race because of its ability to reduce space and create

the illusion of a manageable surface for weapons. Overall in this process of reduction,

despite exceptions, there is a lack of *place* that accompanies these maps; the specifics and

uniqueness of particular places are subsumed by the homogenizing character of the

nuclear weapon. Writing around this same time, geographer Doreen Massey was concerned about these developments, particularly in the "turning of space into time, the sharp separation of local place from the space out there" and "another and less-recognised aspect of this technology of power: that maps (current Western-type maps) give the impression that space is a surface—that it is the sphere of a completed horizontality."[87] Maps, in short, "precodify all surprises."[88] Massey's worries are particularly important when considering how anti-nuclear activists would come to answer the arguments of the superpowers, particularly from a geographic and cartographic point of view. Much of the media coverage of the defense booklets, for example, notes that most of the actual data presented are relatively true; what makes them reflective of the official space of the Second Cold War, though, is how they direct perception.[89] In this way, what the maps in the "Battle of the Booklets" do not do is suggest the potential of nuclear destruction; rather, they suggest the potential loss of national influence in an international arms race. The consequence of this escalating race is not death, but more of an abstract loss of security—a loss of perception, rather than an actual material loss.

For nuclear critics, this emphasis on perception was a function of the Cold War's always-developing technological advancements. As Der Derian notes, the technological premium on acceleration resulted in an "urgent need to accurately see and verify the destruction of the enemy at a distance."[90] Such a "collapse of distance" shifted the aim of battle "from territorial, economic, and material gains to immaterial, perceptual fields, where the war of spectacle begins to replace the spectacle of war."[91] The compulsion to perfect technological possibilities became a driving force in determining the contours of Cold War space.[92] Maps helped make "what had appeared in the past as intractable

foreign policy problems suddenly amenable to purely technical solutions."[93] In this case, the exaggerations and spurious data sources of all the negative comparisons in the maps and diagrams of *Soviet Military Power* and *Whence the Threat to Peace* are, at least in this light, irrelevant. It is the form of perception that makes the argument, not the so-called real disparities in arms between the two powers.[94] Rachel Holloway, for example, has noted the extensive rhetorical use of the "technological sublime" in the Cold War, particularly in how actors like Reagan place a high value on the vision of military and scientific expertise, where nuclear force takes on an almost metaphysical overtone.[95] Likewise, Taylor notes how the nuclear weapon maintains a kind of mystery and secrecy—a "numinous aura" that allows "nuclear officials to claim authority over the future (and defend their exacerbation of its danger) by using hyper-rational, euphemistic codes."[96]

Massey's concern about the spatial being converted into the temporal comes true in the Soviet and American maps that perpetuate nuclear war as "always becoming." This abstract power of the state over the future is critical to the persuasive power of the map. With nuclear weaponry, citizens did not have the chance to test the claims of their leadership—and as Fischoff, Pidgeon, and Fiske note, "one must take it on faith that new arms systems will deter the Soviets from military adventures and work if they are ever tested in real conditions."[97] This power also allows the state to focus, in Taylor's words, on the "continual refinement of means, but not to moral reflection about ends. The nuclear future is subsequently pursued as the practical realization of a historical *telos* that is attributed to the guiding terms of technological programs."[98] Overall, then, the validity of state power is upheld. "Defense" and "security" exist on these maps not to protect

citizens but to protect an abstract conception of power. Weinberger makes the point that "the greatest defense forces in the world are those of free people in free nations well informed as to the challenge they face, firmly united in their resolve to provide fully for the common defense, thereby deterring aggression and safeguarding the security of the world's democracies."[99] Here, he emphasizes perception, defining nuclear deterrence and security in abstract terms, as a way to protect American democratic ideology—not necessarily the health and wellbeing of individual citizens. The forms of the maps inside these booklets visually support Weinberger's definition of defense and his emphasis on perception. In Henri Lefebvre's terms, space often represents "the epitome of rational abstraction…because it has already been occupied and used, and has already been the focus of past processes whose traces are not always evident in the landscape."[100] The map, then, can serve to hide those processes and thus use its picture of rationality as a means of social control.

Altogether, the immense state power on visual display in *Soviet Military Power* and *Whence the Threat to Peace* is an important attempt by the Cold War superpowers to control the "identity and the interpretation of space." As Shapiro writes,

Insofar as it has maintained control over its space and the identities of its citizens, [the state] has done so through the continuous reproduction of its political identity. Among other things, its territorial map has been maintained with a series of containment strategies, which have ranged from force of arms to the literatures through which the territorial state has claimed coincidence with the nation it purports to represent."[101]

What the pamphlets ultimately do is affirm the need for superpowers at a time when the stability of such bipolar organization was collapsing; they reproduce the Cold War and uphold its values.

Despite the anxieties of both superpowers about their respective rival's capacity for violence, these maps and pamphlets validate the supremacy of the nation-state over the control of armaments and technoscience in the Cold War. Both the United States and the Soviet Union, while decrying the threat of the other, are conversely celebrating their own ability to use sophisticated technology to track and catalogue the spaces of their enemy. In the spirit of Robert Scott's insight that "stopping short" is built into the very concept of the Cold War, these static maps ironically assure a kind of security in their suspension of crisis and conflict.[102] As historian Norman Graebner has written of the Cold War, "The prodigious investment of human and physical resources assumed a fundamental international security, one that, despite the recurrence of limited aggression and war, permitted the evolution of the complex, dynamic, technology-driven civilization."[103] Even with their alarming depiction of potential aggression and antagonism, Weinberger's maps assure that the Cold War could comfortably keep progressing as is. In this way, the maps' management of state power capacities and numbers reify a static image of the Cold War that Dalby calls "a conceptualization of political affairs that is clearly hegemonic. It is accepted as inevitable, assumed to be commonsense, and naturalized in that it renders eternal a transitory political arrangement, that of modernity."[104]

The overall phenomenon of the pamphlet wars is especially compelling if viewed longitudinally throughout the 1980s. Every year, a new edition would map this insulated,

abstract universe of defense, as budgets and stockpiles fluctuated. Benjamin Bratton, following Virilio, wrote that "history progresses at the speed of its weapons systems…that is, at the speed of the competitive capacities to envision, draw, map, curtail, mobilize, contour, stabilize and police the polis."[105] Each re-printing and re-mapping of the progress of nuclear offense and defense systems in the 1980s can be seen as part of an attempt at stabilization by Cold War state power. Since the effect of nuclear weapons is often unfathomable, nuclear arms are frequently "discourse-defying," according to Taylor, and thus can be used by the state as a means to suppress resistance and control public dialogue.[106] This unfathomable nature of nuclear war is integral to the silences of the maps contained in the Department of Defense's propaganda of the Second Cold War; in the clean lines and their focus on quantification, the weapons on display are treated as if they were any other type of conventional warfare. The maps are not necessarily scrubbed free of morality; it is simply that their moral questions are constructed as self-evident. The value of superiority in technoscience and the abstract notion of security become the moral architecture of the map. In the end, the claims to completeness and accuracy in the maps, and their reduction of the globe to a playing field for armaments, serve to suppress any challenges to the bipolar spatial framework of the Cold War.

Cartographic challenges to this forty-plus-year standoff would indeed surface. While controversial projections like the Peters projection gained wide circulation concurrently with the rise of the Second Cold War, an even more radical strain of spatial activism came out of the diverse disarmament community. As if to echo the outrage of Professor Thompson, activists and scholars from a host of disciplines began to manipulate the unique qualities (and limitations) of maps to showcase the immense

global apparatus of state power in the nuclear age, and to highlight the sense of moral and human cost that they saw hidden in the boundaries of works like *Soviet Military Power* and *Whence the Threat to Peace*. The complex power of maps that dared to assess the "end of geography" articulated the destruction of world space in the face of nuclear war; in the process, such cartographic activism also foresaw the end of the Cold War itself in compelling and challenging ways.

"Missiles as Missives":
William Bunge and the Radical Cartographic Challenge to the Second Cold War

In 1982, around the same time that the U.S.S.R.'s Defense Ministry was producing its response to Weinberger and the U.S. Defense Department, expatriate geographer William Bunge was distributing, through his Canadian collective "The Society of Human Exploration," a poster/pamphlet (fig. 5.11), containing 28 maps, called
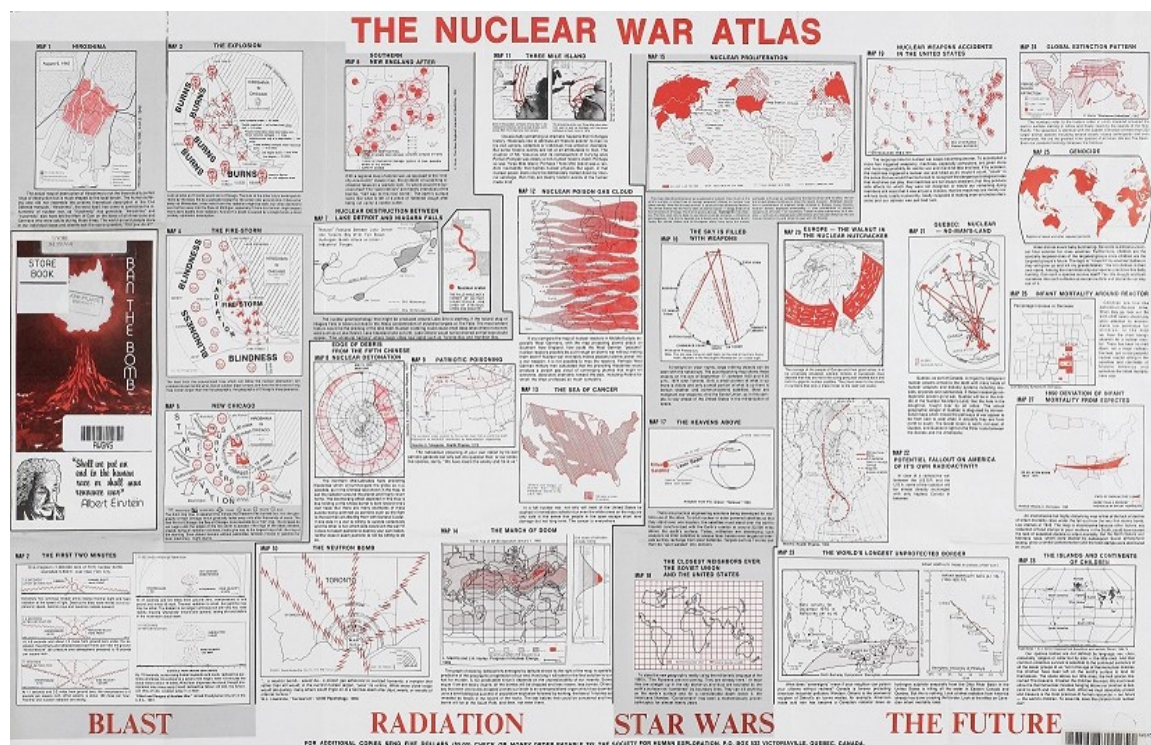
Figure 5.11. William Bunge, *Ban the Bomb: The Nuclear War Atlas*, broadsheet, Society for Human Exploration, 1982

simply the *Nuclear War Atlas* (*NWA*).[107] A project realized during the rise of the intercontinental nuclear freeze movement (and eventually published in 1988 as a full-length book), "Wild Bill" Bunge's angry salvo ambitiously set out to map the latitude and longitude of the potential for human suffering in the face of nuclear attack. Bunge was a longstanding radical geographic crusader, who had drawn the idea of the polemic into mappers' imaginations ever since the upheaval of the late 1960s attracted geographers into a new socially active role. Perhaps his most ambitious polemic yet, the *Nuclear War Atlas* graphically charted a teetering apparatus of death in the hands of what he saw as a morally bankrupt state system. As Fraser Macdonald has written, "Bunge's *Atlas* maps out a post-apocalyptic terrain, without any attempt to soften the theme of 'unremitting and sense-numbing disaster.' Few geographers have offered their readers such a bleak cartography."[108]

A cursory flip through the *Nuclear War Atlas* reveals, for example, a macabre map of Chicago with simple "emoticon" looking faces as icons that are melting from third-degree burns. Another map, entitled "The Sea of Cancer" features a rendering of the United States with lines of red across the vast majority of the page (and only a few white spaces) and a caption that reads, "In a full nuclear war, not only will most of the United States be washed in immediate radiation, but even the white areas on the map will be safe only in the sense that people in the open escape short-term damage but not long term. The cancer is everywhere."[109] The message of Bunge's maps is both crude and devastating. Most of the maps are skeletal and simple in content, awash in black and blood-red dots and lines, and there seems to be more than a bit of subversion of the expectations of map users. As Bunge pronounces in his introduction to the maps, "Many geographers now

understand, and the general public itself is gradually getting the idea, that we cannot sustain nuclear war. It is a geographical impossibility."[110]

Bunge himself embodies the tensions of postwar Cold War academic geography and its attempts to define itself and its role as it engages with various publics. On the one hand, Bunge is a member of the quantitative revolution that transformed geography into a *science*, one of the key figures in advancing cartography specifically as a mathematical practice, and a steadfast believer in using theoretical knowledge to produce hard, objective spatial prediction, generalization, and quantification. On the other hand, he was a vociferous critic of the loss of the human in geography, a radicalized, impassioned preacher for exploring the very specificity of particular regions and peoples. Bunge railed against "armchair academics" who did not use their tools and expertise to help improve the human condition. The so-called quantitative revolution, thus, was peculiar in that it aided the kind of increasingly automated and abstract military-academic cartography that supported the U.S. efforts against the Soviet Union, while also sparking a critical geography movement that would question the appropriation of spatial knowledge for the benefit of state power. The kind of Third World challenges issued by outsiders such as Arno Peters, as well as the wider interdisciplinary disillusionment of academics with Vietnam and civil rights policies, would aid this movement.[111] Maps could now be conceived less as mere representational devices and more as both processes of power relations and logos of "imagined communities"—new arguments that would captivate many of those in the discipline during the 1970s and early 1980s, just as the Cold War was re-igniting. Scholars began to assert, thus, that maps did not necessarily reflect the spaces of political power, but were rather constitutive forces of those spaces, and not

even the most objective-seeming maps could escape questions about their ideological placement in a discourse of power and politics.

The prospect of ever-more destructive nuclear armaments and their re-escalation during the 1980s would, however, raise the ultimate challenge to cartographers and geographers engaged in social activism. Situated as a kind of fiery, apocalyptic, visual tirade, the *Nuclear War Atlas* represents a synergy of form and content that transforms the typical bounded lines of nations into expanded notions of volume and surface, bringing nuclear missiles closer than they ever were. By arguing for a new visual language of what proximity comes to mean on the surface of maps, the *Nuclear War Atlas* uses the ultimate fear of annihilation ironically as a catalyst for social change. In particular, the maps struggle between presenting an ironic parody of traditional maps while simultaneously reaching for a sense of "The Real"—to give a kind of felt quality to the potential reality of nuclear war through lines and dots. What went hidden in the maps of the "Battle of the Booklets" is now put on display, accentuated, and made uncomfortably present, as Bunge deconstructs the very conventions that allowed figures like Caspar Weinberger to define Cold War space and place American power within such space. In Slavoj Žižek's words, "the opposite of *existence* is not nonexistence, but *insistence*: that which does not exist, continues to insist, striving towards existence."[112] William Bunge's maps connote this insistence, creating a future geography of "place annihilation and post-nuclear landscapes" that advocates a "passion for the Real."[113].

The ways in which the cartography of such projects as Bunge's foregrounded the artifice of mapping exhibit how maps can then function simultaneously as a rhetoric of social change and social control. As Jeremy Black asserts, "[r]adical cartography . . .

offers the possibility of problematizing generally accepted notions of progress'' and opening ''the politically charged question of social justice.''[114] At the same time, as he also points out, the emancipatory function of cartography has its limits, as mapping is constrained by our desire to ''explain, classify and organize space,'' entailing a significant degree of control.[115] Although maps with radical messages can participate in complex renderings of power, these messages contend with a cartographic impulse for convenient efficiency, simplicity, and objectivity. Maps still share the age-old conundrum of many rhetorical forms of social change: the difficulty of challenging a system while working from within it.

The *Nuclear War Atlas*, for example, highlights form as content, and thus calls into question the objective, scientific presentation of maps. Furthermore, by boldly advancing their ideological goals, William Bunge's maps accentuate the politics of cartography. This embellishment, however, also calls attention to how these maps struggled against the potential to function as rhetorical control over spatial meaning, having ultimately to maintain some conventional assumptions and techniques in order to sustain a level of cartographic credibility. In the end, these maps of disarmament and nuclear destruction represented a uniquely explosive tension between cartographic form and content, as well as a snapshot in time of what challenges to the Second Cold War looked like. They thus manifest the tension between rhetorics of change and control.

The Emergence of Radical Cartography and the Origins of the *Nuclear War Atlas*

Interestingly, the story of Bunge's development mirrors the emergence of a new consciousness in post-war geography. Bunge was born in 1928 in Milwaukee to a family of privilege—his father was in finance, managing successful family farms. As Bunge

notes in the preface to the *Nuclear War Atlas*, "As a boy, my father would take me on business trips through southern Wisconsin and explain the region, the farming, the industry and all that we were passing through between calls on small-town banks. Both he and I thought he was teaching me his business, but it turned out that he was teaching me his geography."[116] For Bunge, growing up in the Depression-era Northern U.S., "the primary effect of the Depression was not hunger or fear, but loneliness from those who were hungry and fearful."[117] With that acute sense of isolated privilege in mind, Bunge's ascent to the forefront of geographic social thought was accompanied by controversy, which he would continue to court throughout his career.

As a student of William Garrison at the University of Washington, Bunge was at the forefront of the quantitative revolution in geography, a paradigm shift that marked the social sciences as a whole. His first major work, *Theoretical Geography* (the first edition completed in 1962), was a landmark move toward establishing geography as a spatial science above all else, conceiving of maps specifically as mathematical models.[118] According to Bill Macmillan's tribute, *Theoretical Geography* appeared "on the cusp between the old world and the new, between the old analog world of crude, imprecise tools and the modern world of abundant data and powerful techniques of analysis, visualization, and simulation."[119] Bunge's own work, for example, would go on to influence the applications of GIS technology that would come to revolutionize the field even further.[120] According to Kevin Cox, after Bunge, "the spatial became the central organizing concept of the field," as researchers aspired toward universal laws that united locations together; the premise of uniqueness of places that marked much of the first half of the century in geographic research was abandoned in favor of work that sought

generalizability.[121] Bunge positioned his work in tandem with Waldo Tobler (who he called Ptobler because "he was the greatest cartographer since Ptolemy"), as he reflected later, to get at "the pure spatial essence of our trade – dimensions and nearness," and his mathematical theories sought to sketch this out.[122]

This new world in the American academy, as Barnes points out, was inescapably tied to the state power interests of the Cold War, and this never quite sat well with Bunge. Out of the research universities' contracts with the defense establishment came a focus on the increasing importance of the "spatial model." These developments were directly inspired by the advent of the nuclear bomb, new "cyborg forms" of science that "offered through their rigour, analytical purchase, and generalizations, the means to exceed mere description. Models lay exactly between the worlds of high theory and empiricism," serving as "mediators, and consequently seized upon…to achieve specific ends."[123] Bunge's advisor, Garrison, for example, was enlisted by the Washington State Highway Commission to use spatial models for highway planning, particularly with the Cold War objective of providing ways for Seattle citizens to exit the city in case of a nuclear emergency.[124] Tobler, for his part, contributed to a RAND spinoff called the Systems Development Corporation in developing mapping technology for a computer-based early warning system for nuclear attack, called SAGE. In particular, Tobler's innovative forays into "analytical cartography" (essentially computer maps) worried Bunge in their tendency toward encouraging detachment—as he admitted in 1966: "To see region construction, one of the last preserves of the non or anti-mathematical geographers, crumble away before the ever growing appetite of the computing machines is a little unnerving even for a hard case quantifier."[125]

Not only was Bunge concerned about the loss of this kind of expertise, he also worried about the increasing compartmentalization and professionalization of Cold War geographers. He spent years, for example, trying to publish a tribute (that no one would touch) to Fred K. Schaeffer, a German expatriate geographer in America who was an early pioneer of quantitative geography, but also a radical followed by the FBI and dead from a heart attack by 1955.[126] Commenting on this episode, Bunge wrote that,

> Most of my batch of intellectuals seem to pursue their personal careers with a fanaticism worthy of higher purpose…If McCarthyism is truly dead then why not a general rehabilitation of his academic and other victims? If this country is so free why is there not a single public Communist professor in the entire country? When I was a young boy we had a saying we used whenever we fell into dispute. "It's a free country, ain't it?" I never hear that expression anymore. Perhaps it is no longer true. The academic pretense is somehow more depressing to me than what I consider to be the obvious fact.[127]

As the utility of geography as a spatial science grew, Bunge became disillusioned with the university system's treatment of it. Like-minded contemporary David Smith wrote that

> numerical dexterity had been replaced by confessions of ignorance as the cardinal professional virtue. There were sessions in urban and economic geography which gave the clear impression that more than a decade of…running regression models, factor-analyzing census data, and the like, has done little to help us improve the quality of life for real people in real cities or real economically declining regions.[128]

Smith even used an example of a local university atlas that had "a section of thirty-four maps of the United States which includes dot maps of the location of turkeys, hogs, and chickens, but no maps of any human material or social conditions."[129] Bunge sought to bring the field closer to humanist concerns—to see quality of life more literally on maps. He especially hoped that the disciples who took up his theoretical geography would start moving beyond mere abstraction, and instead make spatial prediction more concrete.[130] In Bunge's philosophy of scientific activism, "There exist objective ways to judge police states. Map them."[131]

Bunge became truly radicalized alongside the student protest movements outside his office doors, crediting Vietnam with forever taking him out of abstract work altogether and "headlong into peace work."[132] As Bunge has said about this immersion,

> Betty [his wife] and I are a couple of rich white kids no longer rich, certainly not kids and I'm not so white any more…Though we live modestly, at times extremely modestly, I know that our families will never let our children face real physical needs like hunger or lack of medical care…But when I confront the physical aspects of The Movement, my family's money falls away and I find my ultimate legitimacy.[133]

Denied tenure at Wayne State because of obscenity charges (swearing in lectures), he was released from teaching.[134] In 1968, Bunge was one of 65 national names listed by the United States Anti-Subversive Committee not to speak on campuses—as Bunge notes, "To my eternal glory, I was alphabetically placed between H. Rap Brown and Stokely Carmichael and not far from philosopher Angela Davis."[135] John Pickles notes that William Bunge became the archetypal representative of the "nomad cartographer,"

moving from periods of unemployment to visiting lectureships to working with underground publishers and organizing on the streets.[136]

At this time, Bunge became a proponent of a new kind of fieldwork, reviving the old-school geographic concept of the "expedition," where he engaged deeply in "location" and traced intensely the spatial aspects of neighborhoods.[137] He was a resident of a Detroit ghetto, Fitzgerald, and his most controversial project, outside of the *Nuclear War Atlas*, was his radical *Fitzgerald: The Geography Revolution*, published in 1971. *Fitzgerald* takes up the largely black Detroit community threatened by slum and shows how everyday community inhabitants were using geographical knowledge to take back the neighborhood. As Bunge noted in *Fitzgerald*'s introduction, "In this radioactive age, these are signs of Life itself."[138] According to Rich Heyman, the Detroit expedition, "represented a wholesale reconceptualization of the social role of geographical knowledge production" where "through the reciprocal interaction between theory and local knowledge, people begin to realize their relative position in society, which may in turn lead to more active agitation for change."[139]

Out of such projects, Bunge formed the "Society for Human Exploration" with his wife and a rotating cast of academics and locals. By the time *Fitzgerald* appeared, though, Bunge left Detroit for the landscapes of Canada, after "displeasing the national political police too severely to remain in other than a permanently horizontal and motionless position."[140] He took short-term positions at the University of Western Ontario and York University, teaching seminars that were well-received, but his anger with "the political positions of some of his colleagues made it impossible to renew his contract."[141] Typical pronouncements from Bunge that came during his exile include: "Not only do those in

their armchairs think and write junk, obfuscation, obscurantism, and endlessly convoluted self-referral to their literature in windowless libraries, they do not care about the human condition."[142] Bunge's critics such as Donald Fryer would shoot back witheringly that Bunge's work was "harsh, strident, and hectoring, more fit for the marketplace and the hustings than the pages of a serious academic journal" and "perhaps Professor Bunge believes that only a bludgeon can make an impression on the thick deposit of indurated bias and ignorance in our skulls."[143] Bunge ended up driving taxis while pursuing his projects independently. Over the years, his whereabouts were a mystery—he surfaced periodically, offering a book review or editorial in disciplinary journals, but mostly he served as a kind of activist specter over the field.[144] He is still evading an arrest warrant from a 1986 disruption of an open meeting of the Wayne State University Board of Governors in Detroit.[145]

The *NWA* was produced out of the tumult of Bunge's long expatriate period, and it is important that its visual and verbal appeals be seen in this context. During this exodus, Bunge's locational focus broadened significantly into the realm of the atomic, and he came to see the "nuclear question" as key to both his own development and the vitality of the discipline of geography as a whole. As he said in 1987 while promoting his atlas,

> Normally, socialism, nuclear war protest and academic freedom are not directly
> linked, so how did this happen in me? Each generation of geographers produces a
> few of us who walk off campus to serve the people, returning to our glorious field
> tradition of exploration in the process…I am a Martin Luther King American
> driven out of my native land in November of 1970 and away from the faculty of

Wayne State University. I am fiercely loyal to my home, the Fitzgerald

community in Detroit, a Dr. Martin Luther King community. I am a socialist by

the classic definition of 'holding the means of production in common', but I do

not prefer socialist H bombs to capitalist ones. I simply hate all H bombs

implacably.[146]

The kind of reclamation of place sought by the *NWA* in the abstract menace of nuclear

war was informed by Bunge's own concrete experience of displacement from his home.

His longing to be immersed back in his community comes through in the *NWA*'s moral

outrage at the destruction of space. This also points to a compelling conundrum that

marked Bunge's nuclear cartography: he was unabashedly positivist in his belief that

geography could help save the world, but also very wary of the kind of expertise that

positivist geographers claimed. For example, when asking himself the question, "so what

is the state of geography today?," his blunt answer was that: "It is in a mess – hyphenated,

obfuscated, as confused as it is confusing. Why? Society is itself degenerating. The

culture is coarse, vulgar, prostituted, chaotic, 'dummied down.' We are in desperate need

of intellectual reinforcements, and geography can help some."[147] At the same time,

Bunge maintained that geography was not the domain of geographers, any "more than

medicine was the domain of doctors"; he argued that "people in their local places with

local knowledge should collaborate with geographers to make their own geographies."[148]

As the geographic "impossibility" of nuclear war became the driving focus in this

nomadic period, Bunge immersed himself in these notions of place, and used both his

background in mathematical modeling and urban exploration to fashion the *NWA* maps.

For example, much of the *NWA*'s cartography contrasts maps of superpower nuclear

antagonism with much smaller-scale renderings of cities and surrounding areas laid to

waste by atomic blasts and waves of radiation. Bunge resurrected the works of early

twentieth-century German geographer Walter Christaller, especially his "Central Place

Theory," which cast cities as settlements of hierarchical systems that, if attacked, would

set off a kind of "chaining out" of destruction.[149] In Bunge's explanation, "When the

major centres are destroyed, so are all skilled workers, the artists, the diamond cutters. If

the 'primate city' – the city in each nation that tops the hierarchy – is destroyed, then all

the national centres are destroyed, including the national theatre, ballet, government and

finance. The nation is not only decimated, it is decapitated."[150] For Bunge, the identity of

urban populations was a central way to personalize and truly place both the physical and

moral consequences of nuclear weaponry into proper context.

Bunge's work in this vein was part of the larger push in the geography discipline,

beginning in the early 1970s, to incorporate newfound interests and insights in social

conditions, Marxist economics, and urban planning. This movement was centrally

concerned with the privileged place of the geographer and how the nature of political

upheaval all over the world begged the geographer to be actively involved. David

Harvey's 1973 landmark *Social Justice and the City* builds off *Fitzgerald* and accuses

fellow geographers of being apologists for the status quo and calls for a revolution in

geographic thought, in his case "to design a form of spatial organization which

maximizes the prospects of the least fortunate region."[151] Harvey, like Bunge, challenged

geographers to immerse themselves in advocacy for the people of the spaces they charted,

railing against the expectations of geography to promote scientific measures of "effective

space"—essentially about efficiency—instead of realizing the socially responsible

"created space" that welcomes geography having ideological purpose.[152] In Harvey's wake, a cadre of radical geographers and theorists on space accepted this challenge against objective assumptions. Postmodern urban planner Edward Soja challenged the power of the nation-state as geographical unit and the obscuring of the nature of social identity, while Richard Peet attempted to establish radical geography as its own distinct sub-discipline and defined it as the "evolution of a non-destructive society."[153] In the *NWA* project, Bunge sought to recast geography as a science of survival, and thus he assumed these humanistic assumptions of his contemporaries.[154] While Bunge upheld his projects as works of quantitative science, he explicitly often used the term "humanist geography" to describe his perspective, what he called the "steel-hard hammer of humanism."[155] His radical vision was uncompromising in its moral absolutism: "If the earth is finite and fragile, and geography clearly proves the destructibility of the human race, then one cannot be relative about all things…and still claim a humanism. If cockroaches and not humans survive the radioactivity, biologists might be interested, but geographers and other humanists are not…He must be singularly absolute about the species continuation."[156]

It was important, too, that prominent geographers were taking up the cause of anti-nuclearism and helping to define a potential atomic holocaust as a spatial problem, offering an integral context for Bunge's contributions. For example, Gilbert White, arguably the most famous postwar environmental geographer in America, who contributed innovative flood-planning measures to the Johnson Administration, argued that nuclear disarmament was a public policy that demanded input and activism from geographers and cartographers. As White wrote,

> Short of finding a way of forever suppressing the manufacture of nuclear bombs
> and fuels, the world is condemned to living with them. As long as the missiles are
> present and ready to launch in large numbers, there will remain the hazard, to
> which no probability is assigned, that their detonation would massively disturb
> atmospheric and biologic systems."[157]

In particular, nuclear disarmament movements in Britain and Canada, such as the
Campaign for Nuclear Disarmament (CND) and Women Strike for Peace, drew heavily
on activist geographers to support their public messages.

One particular set of activist cartographies called *The State of the World*, for
example, emerged out of a British disarmament and socialist collective of like-minded
economists, geographers, and peace activists called the Pluto Press.[158] Headed by radical
Marxist economist Michael Kidron, the original *State of the World Atlas* appeared in
1981 (co-written by anti-apartheid activist Ronald Segal), followed shortly by the *War
Atlas* in 1983 (co-authored with CND mainstay Dan Smith), with others following in the
series.[159] The *State of the World* earned wide distribution (through Simon & Schuster)
and acclaim, and its share of controversy, for presenting an uninhibited reading of the
nature of oppression in the modern nation-state. With colorful, sometimes acidic wit in its
visuals, combined with pithy, often outraged text, and map titles like "Funny Money,"
"Slumland," and "Bullets and Blackboards," the authors shunned notions of objectivity
and featured an angry, subjective geopolitical vision of the state of the world.[160]

While nuclear warfare was only one subject among many covered in the atlases
(they targeted the nation-state from a variety of angles), their treatment of weapons was
representative of the cartographic challenges to the superpower system produced during

the Second Cold War. For example, "The Nuclear Club" from the original *State of the World*, is a political map of the world featuring those nations that have nuclear capacities, and those who will likely join the "club" in the coming years. Over the United States and the Soviet Union are a mass of missile icons, air bombers, and submarine-launched ballistic missiles.[161] An inset map also reveals three maps of Hiroshima: one shows the three square mile radius of the 1945 bomb, the 50 square miles that a current U.S. ICBM would cover in the area in 1981, and then a 290 square mile radius for what these ICBMs are projected to cover by the end of the decade. In the first edition of the *War Atlas*, maps like "On the Ground," "In the Air," and "At Sea" cover the globe with a visual catalogue of tools of violence and destruction; the familiar outlines of world geography are barely visible, obscured by an almost ridiculous amount of armament statistics—the visual argument is that world space has been colonized and conquered by defense machinery.[162] The almost comically overstuffed maps, overwhelming the reader with weapon icons, represent a kind of absurdist version of the Defense pamphlets being released at the same time. The *State of the World* project also innovates through its full global perspective that goes beyond superpower armaments and reminds the reader that nuclear arms will only block out even more of the map in years to come.

Other cartographers emerging out of this British movement took a more localized approach to disarmament activism. Stanley Openshaw, for example, charted and mapped the geography of hypothetical nuclear attacks on the British Isles and particular cities, using the kind of mathematical map modeling pioneered by Bunge and Tobler to predict the effects of this future geography. As Openshaw warned, "Some people may find it difficult to think about the unthinkable and some may even feel that spatial models

concerned with the prediction of 'mega-deaths' are even more distasteful," but government figures in the throes of nuclear policy decisions needed to *visualize* the consequences of their actions.[163] The discourse of geographers such as Openshaw, later expounded by Bunge, marked an important shift from emphasizing nuclear *capacities* (what defense mapping like the pamphlet wars suggests) toward a focus on spatial consequences. Similarly, Canadian geographers such as Kenneth Hewitt advanced the notion of "place annihilation," accentuating the material attributes of places and railing against how nuclear extermination is "literally to kill by geography, not necessarily damaging an organism, but driving it beyond its bounds," potentially turning nation-states into *non-places*.[164] A Cold War initiative such as civil defense, then, becomes "a token gesture, an abstract, statistical notion of survivability," and state leaders divert publics with their "'nuclear diplomacy', a high-class and very secretive game….The posturing and rhetoric, the duplicity and failure to take real actions to outlaw aerial bombing of cities by powerful governments before World War II seem strangely like the nuclear disarmament fiasco since."[165]

Bunge especially challenged nuclear policy in terms of how it approached the notion of scale, and he would find that even some of his well-meaning colleagues underestimated the issue's full import. "That the earth is too small to contain such a war," wrote Bunge, "is invariably missed by most strategists, who nibble away at it by concentrating on issues such as…the capability of a civil defence programme. They look at the war at a scale below its true one – which is the planet itself; and they come up with conclusions that the human species will not be completely destroyed."[166] The military spaces of maps like those in the "Battle of the Booklets," thus, were not able to separate

from the "life spaces" of Bunge's cartography. Bunge also reached back to the precepts of his *Theoretical Geography*, particularly in its arguments about the three-dimensionality of the human race, to "prove that the 'zoning' of the battlefield away from the nurseries of the world would be impossible. The battlefield is everywhere due to the collapse of topological space."[167] This three-dimensionality was developed by using ideas from his contemporary Ronald Horvath, who theorized the rise of "machine space" (or what Horvath frighteningly referred to as alienated spaces of death) in the Cold War, where the habitable space for humans became dramatically smaller based on the sheer amount of space that machines covered—including nuclear weapons and the industries that built them.[168]

Not only could this development destroy space on the ground, but it took over the skies as well; the actual atmosphere of the earth in the days of the Second Cold War was now subsumed by dangerous machinery. In these ways, the shrinkage of the earth advanced by the air-age globalists in World War II, and furthered by the technological innovations of Cold War cartographic science, became distinctly nuclearized. Now, to Bunge, geography had to go smaller in the face of the most massive weapons of all, as he noted that "time is infinite; space is not…Geography, the study of the earth's surface as the home of man, is a small thing, not the infinite…the hugely infinite universe of astronomy. Our planet is small. It is increasingly easy to poison the planet, making it uninhabitable."[169] Such contraction of the earth, for Bunge, also signaled a death of nationality, which contradicted the intensely nationalized mapping of the U.S./Soviet defense pamphlets. As he lamented, "Already, national sovereignty over the earth's surface and atmosphere has been lost—the United States with its satellites knows more

about what is happening in Canada than do the Canadians. Loss of sovereignty over the earth below would be the final destruction of geography…In geographical terms, this planet is not too small for peace but it is too small for war."[170]

The total combination of these strands of thought and discourses helped form the basis of Bunge's nuclear opus, which he finally released in 1982, after working on the maps and texts for over ten years.[171] Nowhere is it explicitly apparent that William Bunge ever felt comfortable with the abstract notions and theoretical extensions of postmodernism—as noted, Bunge's activism was still mired in his modernist belief that "science, not policemen, has created what order man has achieved."[172] At the same time, the *NWA* is a clear example of bringing J.B. Harley's more postmodern idea of cartographic "silence" to the forefront—what has not been mapped before, what others *will not* map, becomes Bunge's currency.[173] John Pickles, in fact, used Bunge as the quintessential example of the way the "discursive practices of modernist cartography are to be deconstructed and read differently."[174] I examine these practices in the *NWA* maps around four major aspects: 1) the *NWA*'s radicalized "proximity," in how Bunge rhetorically constructs the "closeness" of nuclear weapons through shifting ideas of volume and surface on the maps, as well as through the strategic use of "place"; 2) the ways in which Bunge's maps attempt to destabilize Cold War superpower binaries; 3) how the concept of "nuclear vision" is used to frame post-apocalyptic space, creating simultaneously a sense of fear and hope in the atlas's advocacy for social change, representing the struggle that nuclear geography has in using lines and abstractions to depict a tangible future vision; and 4) the *NWA*'s use of a brand of pitch-black humor (in the form of parody) that foregrounds the ironic absurdities of nuclear weaponry. Wood

once termed Bunge's style of cartography as "oughtness maps," and thus, overall, I proceed in terms of how the *NWA*'s maps construct what the world ought to and ought not to look like.[175]

Bringing Nuclear War Home: Radical Proximity in the *NWA*

After the original broadsheet was distributed at peace rallies in 1982 and 1983, the *NWA* was expanded and eventually featured a total of 57 maps, 26 figures, and one table, interspersed amongst text under four sections ("The Introduction," "The Weapons," "Star Wars," and "The Future"). While a perusal through the *NWA* may give a horrifically visceral first impression about the sheer enormity of nuclear warfare, its most lingering suggestion is the immediacy of the weaponry. Many of the maps inside do contain graphic depictions of the destructive power of atomic bombs, yet it is those that display the nearness and the speed at which they can reach the U.S. that challenge traditional cartographic notions of form. The map entitled, "The Closest Neighbours Ever – the Soviet Union and the United States" is a typical representation of Bunge's outlook.[176] The projection is of a standard flat world map, but curiously the U.S.S.R. and the United States' borders are missing on the map, while the rest of the world is filled in as normal. The simple, crude legend at the bottom of the map reads "National boundaries," indicating that the border of the U.S.S.R. are three red diagonal lines, while those of the U.S. are three red diagonal lines going the other way. Over the map are criss-crossed red lines, displaying that the borders of the U.S. and the U.S.S.R. intersect everywhere in the nuclear age, since, as Bunge claims, the two superpowers are volumetric powers that "cannot be contained by lines, but only by surface."[177] On the original *NWA* broadsheet, Bunge indicts the familiar geopolitical definitions set by the United States, noting that

"'containment' has been a mathematically proven bankruptcy for almost twenty years."[178] By omitting the traditional borderlines, and by overlaying intersecting borders in bright red, not only does Bunge bring the proximity of the powers into close range, he overlaps them, essentially making them both sides of the same coin, sharing in destructive capability. The maps of Weinberger's Defense Department and his Soviet counterparts sought to advance moral distinctions and inequities between the two powers; Bunge, however, following E.P. Thompson, erases any distinction between the two. In addition, the full removal of the two superpowers' traditional political boundaries from the face of the map comments on the new placelessness created by the arms race. The militarization of all the skies above us has the potential to uproot us from our connections to our homes and felt places.[179]

Similarly, containment is declared obsolete and distance rendered meaningless in maps like "Nuclear Proliferation."[180] On this world map, countries belonging to the "Nuclear Club" are marked in solid red, countries that could develop nuclear weapons in five years are striped in red, and countries that could develop them in ten years are marked by red dots; this leaves only a few white spaces on the map (those with no hope of nuclear development), most prominently in Africa and Central America. What draws the visual focus of the eye, though, are the oceans; rather than the typical ocean space on world maps being left empty or colored in blue, instead, here, wavy red lines cover the entire surface of the world's oceans. These lines correspond to the legend as "aquatic launching pads," with Bunge's point being that, in the Second Cold War, "all the oceans are launching platforms: this constitutes two-thirds of the earth's surface for a start."[181] What on first glance, then, looks like a typical political map, in fact, destroys the

boundaries between oceans and continents, as the world is equalized as a nuclear launch site. Still, the map does include some specific references to places—noting the locations of famous nuclear detonation sites such as Hiroshima, Nagasaki, Alamagordo (NM), Eniwetok Atoll, and even Stagg Stadium in Chicago—and includes the dates of the explosions. Contrasting these iconic sites with the flattened surface of the entire world (as one nuclear launch pad) draws on the collective memory of those nuclear tests and projects them into a future where, Bunge suggests, even more detonations will dot the landscape. Altogether, the use of test dates and the suggestion of future nuclear developments in five-year increments mixes temporal and spatial appeals in complex and compelling ways on the map. In most of these world maps, for example, traditional arrows and distance lines are nowhere to be seen—the maps connote that nuclear weapons have already arrived at their destinations, and exist essentially everywhere.

In addition, as noted earlier, Bunge's Second Cold War nuclear maps of proximity represent a key connection with early Cold War air-age globalism, except now the airplanes have become nuclear missiles. The *NWA*'s map, "Space: The Disputed Volume," actually uses a Harrison style perspective map with a bird's-eye view, although much more crude in design. Here, Bunge sketches a perspective of the Northern hemisphere, where we see a piece of the United States as well as the Soviet Union. Instead of seeing, say, mountains appearing three-dimensionally off the page, the map displays the red lines of a missile trajectory curving from both superpowers above the earth in the top space of the map. Surrounding this trajectory is a bevy of floating American and Soviet flags, again showcasing the idea that borders no longer exist now that warfare takes place in "national boundary *surfaces*, not boundary lines."[182] The dispute becomes that of volume

in the air, rather than lines on the ground. As Bunge explains in the caption about the worthlessness of borderlines, "You cannot hold water with sticks."[183] Relatedly, in "The Fences" map, Bunge illustrates his point that "While there may be no 'one world' on the earth's surface, there certainly is above it."[184] On this map of North America, a grid-like "radar fence" lines the border between Canada and the U.S.—but the fence resembles a tennis net that only goes so high. The point Bunge makes here is that if nuclear bombs and spy satellites were to cross the border on the ground, there would be a major controversy—but send them 100 miles above the border in the sky, and no one notices, begging the question, "How high (in feet) is Canadian Sovereignty?"[185]

The consequence of the nuclear-age "one-world," then, is a loss of familiar national autonomies in the face of an unavoidable hyper-internationalism. The references to this transformed air-age globalism are even more overt when, at one point, Bunge even reproduces former State Department Geographer S.W. Boggs' 1941 map of world transportation, which shows the new ease of movement in the progressive development of transport technologies.[186] However, Bunge appropriates it for a more sinister purpose—to show how the nuclear missile has sped up transportation to such a radical degree that there essentially *is* no strategic distance anymore between warring powers. As Virilio noted, "without the violence of speed, that of weapons would not be so fearsome."[187] To argue for disarmament, then, is to decelerate "the speed of means of communicating destruction"; thus, for Bunge, the first step is revealing and putting those means on rhetorical display.[188]

In addition to the subversion of air-age globalism, the other textual evidence of Bunge's new proximity rests in the way he accentuates place and the power of specific

locations in the prospects of nuclear war. Drawing on his trademark intensive immersion in the places being mapped, instead of simply relying on large-scale maps of Cold War superpowers, Bunge resurrects his *Fitzgerald* approach in certain maps by showing the effects of nuclear war on regions and real neighborhoods, namely his Northern and Midwest heritage grounds. His two "ring" maps "The Explosion" and "The Firestorm" use the space around Lake Michigan, with Chicago as the center, to show the effects of a 20 megaton hydrogen bomb blast.[189] By drawing a series of rings around Chicago, Bunge shows the extent in miles where people would become vaporized (4 miles), where most frame building and trees would collapse (14 miles), where extreme radiation would carry (20 miles), where second degree burns would occur (23 miles) and where incidences of blindness would occur (40 miles). A third ring map, "The New Chicago," shows the new geography of the region after a nuclear firestorm, showing 20 miles of radioactive corpses and the migration patterns of "sick, maimed, and insane" survivors to outer areas, predicting starvation within the 60 mile radius of the New Chicago.[190]

The depiction of miles on these maps radicalizes distance as a vehicle of destruction; after a nuclear blast, the migration from the core to the periphery is a trail of spreading radiation and sickness. In addition, Bunge's rings serve as a kind of ironic comment on the use of the radius and concentric circles in Cold War urban planning for the purposes of civil defense against possible nuclear war and to decentralize urban blight.[191] The rings of Cold War urban planning designed the center of the city as empty, only for transient use, whereas the inhabitants of the city would live in successive rings on the outer edges.[192] Bunge's rings had the ultimate in atomic activity at the city's core, with destruction emanating outward—serving as a reminder that the urban centers are

still filled with people, often poor and African-American. By taking this micro approach

to supplement his world maps, Bunge localizes the suffering of a region he is intimately

familiar with –the abstraction and theoretical nature of much nuclear cartography is made

startlingly concrete by placing human symptoms and disease into the lines of the map.

Starvation and poverty, in particular, become a theme in some of *NWA*'s other

localized maps—a map of Detroit plots with red dots the instances of rat-bitten babies,

while another Detroit map shows the major streets of the city, which strangely are lined

with numbers of other countries' infant mortality rates.[193] Near the streets where the

worst neighborhoods are, numbers for countries such as El Salvador, Bulgaria, and

Guyana are displayed, indicating that American urban landscapes are comparable to

Third World standards of health. Other maps branch out from the city/bomb focus and

depict the effect of blasts on particular regions. Representative of this approach is a map

like "Southern New England" where "zones of destruction" are marked by a rash of red

inner circles surrounded by light pink circles dotting the landscapes of Massachusetts,

Rhode Island, and Connecticut.[194] The small bits of white space untouched by this blast

damage are glaring—such spaces of peace are few and far between, indicating no relief

for potential survivors. The map employs proximity and absence to provoke a kind of

claustrophobia where space is constantly being depleted. Because locations and places on

earth could be seen as generalizable and theoretically similar to each other, the map of

nuclear bombing in a place like New England, Chicago, or Detroit could be extrapolated

to stand in for the destructive capacity of weapons in *any* space around the world. Thus,

the *NWA* is able to operate in both larger and smaller venues to heighten proximity in

both enormity (air-age globalism) and intensity (location) cartographically.

All is Red: The Challenge to Cold-War Binaries in the *Nuclear War Atlas*

Bunge's heightening of air-age globalism's intensity, as well as the contrast of intensive local hotspots, reveals how the *NWA* works to strip away at the binaries of the Cold War. Philip Wander argued that a prophetic dualism characterized Cold War rhetoric, which split the world into two moral camps.[195] As a reaction to this dualism, many of Bunge's maps point to the number of times nuclear arms can destroy the world over, making boundaries and sides in a dualism between red and red, white, and blue meaningless. Hugh Gusterson writes about a nuclear "orientalism" where the "differences are complex, ambiguous, and crosscutting in ways that are not captured by a simple binary division."[196] Similarly, Matthew Woods' studies in international relations theory points to the rhetorical invention of the concept of constant proliferation as a way for nuclear states to maintain power over non-nuclear states.[197] *The Nuclear War Atlas* turns proliferation and orientalism inside out—in the face of ultimate destruction, rather than a U.S.–Soviet divide, the whole world is put under the grip of nuclear machinery. The amount and targets of nuclear weaponry become irrelevant; all are implicated.

In *NWA* maps, this stripping away of binaries is seen not just in the content of the maps, but also in the way their form subverts cartographic expectations. One example is of a Harrison-style map, entitled "Edge of Debris from the Fifth Chinese Nuclear Detonation," which places the Arctic in the center. The U.S. and U.S.S.R. are pictured on the map, but the focus of the map is on a large red dot in China. A large red path circles out from the dot, around the Arctic through Europe, the U.S, Asia, and all the way back to the other side of the dot. As Bunge writes in the caption, "The northern mid-latitudes have prevailing westerlies which circumnavigate the globe, so it is possible, as in the

Chinese test shown in the map, to sail radiation around the planet to finally return

home."[198] Bunge's map is one of suicide, an argument that nuclear war cannot be reduced

to a binary antagonism with helpless standbys, but a war which the mapped nations are

waging on themselves. Similarly, in "Patriotic Poisoning," Bunge shows a red wave of

radiation originating from a 1965 cratering event in Nevada, with winds carrying it across

the Northern United States. Bunge refers to this as the "radioactive poisoning of your

own nation by its own patriotic generals," accompanying the map with the adage of "we

have met the enemy and he is us."[199] Another map of Europe ("Europe: The Walnut in

the Nuclear Nutcracker") uses a similar arrow-shaped wash of red, but is much more

hopeful, arguing that Europe has the ability to rebel against being a "ping-pong ball

swatted back and forth by giant nuclear paddles" in the midst of two giant red arrows

targeting it from the United States and the Soviet Union.[200] In terms of social change,

Bunge uses this map presciently to pinpoint how defiance from European peoples could

blow open the Cold War's dualism—echoing the Oxford debate sentiments of E.P.

Thompson.

In addition, part of Bunge's activism was not just concerned with nuclear

disarmament, but with the destabilization of state power in general. In maps like

"American Domino Theory," for example, Bunge mocks the traditional Cold War

geopolitics of the domino theory—a map of Eastern Asia and the Pacific shows an arrow

moving in one direction from Moscow to Hawaii (representing Soviet aims),

superimposed exactly over an arrow going in the opposite direction (representing

American aims).[201] The overall visual presentation not only accuses both sides of

imperial conquest but, more importantly, of being stuck in a standoff with identical aims,

one no nobler than the other. On a larger scale, "Regions of Recent and Often Repeated Genocide" eliminates the Cold War binary and shows a whole world united in the act of genocide as "a universal final solution for one's enemies."[202] The "victims" are in red, while the "victimizers" are in white—almost the entire world is awash in red, including both the U.S. and most of the U.S.S.R. as being victims at one time or another of genocide. The map blends a sense of outrage at the liquidation of enemies with an acknowledgement of identification with those lost; in other words, the spaces of victimage are simultaneously the spaces of victimizing, showing how the Manicheanism of the Cold War does not the fit the complicated histories and present realities of world violence.

A final (and perhaps best) example of Bunge's cartographic protest against binaries comes from "Moscington," which is a map that combines the landmarks, medical centers, atomic energy research institutes, and government buildings of Moscow and Washington together, as if the two were united as one city.[203] In "Moscington," the White House is down the street from the KGB, while the CIA and the Kurchatov Atomic Energy Institute follow each other on the Potomac River. All in all, Bunge's map reduces the Cold War binaries to one indistinguishable state, providing a perfect addendum to the "Tank Plant" maps in *Soviet Military Power* and *Whence the Threat to Peace* that compared the capacity for destruction over an aerial map of Washington, D.C. In Bunge's perspective, by highlighting military, science, and government institutions in both capitals, the map also argues that these spaces are detached from the "everyday" lives and places of Soviet and American citizens. The world in this map is isolated only to state power; all else is left out. In a sense, this feeling of isolation connotes that these

governments lack control of anything outside of these hermetic spaces. Furthermore, by blending these symbols of state power together, the map destabilizes each government's uniqueness and ability to isolate themselves from the "other." The United States and the Soviet Union could no longer define themselves in opposition to one another—the new, radical proximity has forever brought them together.

Days After: The Use of Rhetorical Vision in the *Nuclear War Atlas*

The themes of proximity and the subversion of binaries are part of an overall perspective on space/time in the *NWA*, and cohere as a rhetorical *vision* of nuclear war, one that inevitably has to look forward to the future. In his book *Nuclear Fear*, Spencer R. Weart commented that, "by the 1980s it was clear to all careful thinkers that nuclear policy had less to do with the physical weapons than with the images they aroused."[204] Bunge's atlas serves less as a representation of Cold War realities than it does as a bleak image of the nuclear future. A temporal aspect is integral here—a resonant rhetorical vision of nuclear war has to contrast the image of life now with the after-vision of a post-atomic age.[205] That vision has to conform to an acceptable narrative of what we expect nuclear war to look like. The conundrum for Bunge is the attempt to inject "The Real" into something utterly unimaginable. David Berg has written that:

> Media do not simply confront us with "real" events of which we might otherwise remain unaware; they also, through the means of pseudo-events, extend our awareness of reality beyond the range of normal perception…By similarly expanding our awareness of virtually every issue facing mankind, mass media effectively increases the ratio of exigence to reality.[206]

Like other forms of media, maps that promote social change can heighten the sense of ill and doom foreshadowed by nuclear war.

Conversely, in terms of presenting a reality, maps face the added conundrum of their inherent abstraction. Instead of photos of death, lines and symbols are displayed that serve as a surrogate for reality. In this process, iconography and color become two integral ways by which maps present meaning and vision. Sam Dragga and Dan Voss have called for "a humanistic ethic of visuals," indicting technical graphics for their lack of attention to human elements. To Dragga and Voss, the typical "graphic isn't so much deceptive, however, as it is plainly inhumane – insensitive or indifferent to the human condition it depicts."[207] Bunge's choice of icons seems to almost over-exaggerate the sense of humanity and present a contrast with the dehumanization of weaponry. Faces with "X"s for eyes in "The Firestorm" map show the effects of blindness, alongside icons of jagged red lightning bolts to denote radiation; in "The Explosion" map, droplets melt from emoticon-style faces.[208] Elsewhere the standard nuclear mushroom cloud is used; unlike the almost cartoonish looking faces in the other maps, "Nuclear Weapons Accidents in the United States" uses the realistic cloud to represent a more culturally familiar icon of nuclear war.[209] The contrast between pointedly unreal icons and more realistic ones creates a connotation that Bunge is using both radically provocative images and images that are anchored in the collective memory as nuclear icons. In other maps, even mere dots provide iconic power to the *NWA*'s crude simplicity. The figure entitled "Nuclear Firepower" presents a grid of 121 boxes all filled with red dots, except for the center box, which only has one. The center dot represents all firepower used in World War II, whereas the other 120 boxes filled with dots represent the firepower of existing

nuclear weapons.[210] In this way, the iconography of maps can present spatial

relationships that photographs, films, and other media cannot—the contrast between red

dots is overwhelming visually, and invites a reading of the map's provocative caption that

three dots "represents the weapons on one Poseidon submarine. It is equal to the

firepower of three world wars."

In terms of color, the stark contrast between black and red are the staple of the

atlas's presentation of nuclear vision. Mark Monmonier has warned against the rampant

misuse of color in maps, particularly against the notion of *simultaneous contrast*, or "the

eye's tendency to perceive a higher degree of contrast for juxtaposed colors."[211] When a

light color is engulfed by dark color, the light seems lighter and the dark seems darker,

and thus can draw deep and often dualistic distinctions between elements being mapped.

Bunge employs such contrasts in almost every map—the red sears and burns through the

pages to represent the destructive capability of state weapons. In the *NWA*, color is also

tied to temporal concerns; red represents the "future hell," while the isolated spots of

green represent a "future heaven." "The Native Plan For Toronto" map is one of the few

without any red, representing an American Indian-style revision of Canada's most

famous city centering around parks and cultural centers rather than business and

government, bringing in the cool greens as a respite from the red covering the rest of the

maps.[212] But these are isolated moments in *NWA*—Bunge's skepticism is apparent in the

sheer quantity of red bleeding on the pages of the *NWA*. Red in Cold War maps usually

meant the spreading menace of Soviet communism, but in his explosion of binaries,

Bunge awards red to all who exist in the nuclear age. In "Nuclear Poison Gas Cloud," for

example, the brash red paint of potential bloodiness covers all of Europe.[213] Most

importantly, the map uses the red to project a bleak vision of how the hope for peaceful uses of nuclear technology is a deceptive one. Here, black dots all over Europe indicate the places of nuclear power plants; as Bunge warns, "Nuclear war inevitably makes peaceful atomic power into a war weapon."[214] Bunge twists the vision that many Cold War-era policymakers and activists had for a future of clean nuclear energy and rhetorically subjugates the peaceful uses of nuclear technology to its militaristic ones.

To make the unreal, the unhappened, believable, Bunge falls back on the map's privileged position as a frame of reality, even while he tries to subvert those very same conventions of reality. One of the key elements of Bunge's "New Chicago" map is its horrific depiction of sickness and insanity, complete with arrows tracking "marauding zombies" and "invading zombies."[215] J. Michael Hogan was unsparing in his criticism of this kind of "rhetoric of doom" outlined by leaders and supporters of the nuclear freeze movement, where he chided freeze leaders for going so far as to paralyze (and ultimately stifle) debate through the use of "images, synoptic phrases, and fear appeals."[216] Hogan denigrated the privileged stance of experts who condescended to the public when presenting their nuclear visions—here, the use of an exaggerated pop-culture horror icon like a zombie risks that condescension by turning the potential loss of life and land into a mediated, voyeuristic fantasy. Bunge's utter disregard for standards of cartographic taste allows him to destabilize the usually clean and scientific form of the map, but it also puts him in a tough spot. The lines of power inherent in maps give him a kind of detachment without responsibility for a solution, which is difficult to escape. Hogan asks a relevant question for such projects:

Are we to presume the irrationality of the public and celebrate rhetoric that

promotes hysterical fears while offering no solution to the nuclear dilemma? Or

shall we presume the public capable of reasoned judgment, and demand that

public advocates argue rationally, and employ sound evidence and reasoning?[217]

On the other hand, Bryan C. Taylor defends the desire for a more radical aesthetic in

nuclear activism—his thoughts suggest that Bunge's maps have a certain open-endedness

that invites a healthy ambiguity.[218] Because the maps simultaneously indict the nuclear

arms apparatus, while also showcasing a malleable, self-reflexive attitude about the

objective truth of their making, a space is drawn for other readings and interpretations.

This juxtaposition of expectations in both form and content as a strategy is best summed

up through Karen Foss and Stephen Littlejohn's conceptions of irony as nuclear vision.

The *NWA* reflects a kind of horrified detachment from nuclear war, but detachment,

according to Foss and Littlejohn, does not have to mean un-involvement. As they write,

"irony works paradoxically: the superiority of detachment enables one to clearly own

one's involvement as a potential victim."[219] This irony brings into clearer focus the final

major theme of Bunge's atlas: the *NWA*'s subversive, absurdist use of humor.

Wit and Weaponry: Postmodern Humor in the *Nuclear War Atlas*

Bunge's brand of nuclear cartographic righteousness takes it to an extreme level

that exposes the apparatus of power behind mapping—his maps explicitly radiate with

ideology, and thus call into question all other maps that mask their intentions. Derrida's

notion of the *fabulously textual* seems an appropriate lens by which to understand this

function of the *NWA*, as he writes that nuclear weaponry is "fabulously textual to the

extent that, for the moment, a nuclear war has not taken place: one can only talk and write about it."[220] He goes even further, though, in his characterization:

> Nuclear war is not *only* fabulous because one can *only* talk about it, but because of the extraordinary *sophistication* of its technologies – which are also the technologies of delivery, sending, dispatching, of the missile in general, of mission, missive, emission, and transmission, like all *techne* – the extraordinary sophistication of these technologies coexists, cooperates in an essential way with sophistry, psycho-rhetoric, and the most cursory, the most archaic, the most crudely opinionated psychagogy [sic], the most vulgar psychology.[221]

Bunge bases much of his impassioned polemic on this absurdity of nuclear technology—and thus represents the nuances of Derrida's observation that sophisticated arms are often coupled with crude rhetoric. As a kind of protest, Bunge's rough, unsophisticated cartography is a protest against the massive and slick technical impressiveness of the subject it maps. The content of "Space: The Disputed Volume," for example, serves to heighten the enormity and proximity of the nuclear weapons being exchanged between superpowers, but the form of the cartoon flags of the United States and the Soviet Union, scribbled onto the space of the page, deflates the importance of the state powers and renders their battle of missiles childish.[222] Elsewhere, Bunge's comically simple map of Reagan's SDI program ("Nuclear Shields") shows a world map with the famous three-grid Star Wars shields. Simply imposed in red over the map, the grids look humorously flimsy and imprecise—the most sophisticated and complex military technology ever devised is constructed as an absurd, almost video game-like projection.[223] Juxtaposed with other maps in the atlas that depict so-called "real" potential effects of nuclear war,

this map of Reagan technology emphasizes artificiality; the state is charged with being "unreal." Again, though, in the tension between social change and social control, elements of the *NWA* both subvert and reify the urgency of nuclear war. Bunge's lack of polish, then, can be seen as both liberating as well as possibly stifling to his activism. His own messiness exposes the crude, messy barbarism behind nuclear technology, but he also may be in danger of rendering that nuclear threat ridiculous, a potential that could undermine the radical message of the *NWA*.

A way to see this tension played out in the maps themselves is by seeing this fabulous textuality on a level of postmodern humor (although of the darkest kind)—particularly in terms of how Bunge's maps function as a kind of parody of what an ordinary map might look like. His use of exaggerated cartoon-face icons to depict burns and insanity heighten the sense of humanity, hence parodying the normally staid pages of typical atlases, and placing the maps in a postmodern tradition where structures of ideology and power are accentuated. Typically, parody is a kind of ridiculing imitation that often mocks the form of an original source and draws ironic humor at the expense of the text being parodied. A more postmodern vision of parody advanced by literary critic Linda Hutcheon foregrounds the entire process of meaning making in the creation and reception of art, making parody a ''double-voiced discourse'' that points out the differences between itself and the original text.[224] Unlike satire, though, parody does not have to be an aggressive rhetorical strategy; it exaggerates, but also conserves ''an aesthetic impression of rationality.''[225] So, the *NWA* suggests that rational standards for mapping are suspect by featuring exaggeratedly absurd icons and graphics, yet it

simultaneously holds onto such standards so that readers will believe that nuclear war is a dangerous possibility.

Despite the potential of parody to serve as a radical critique of form and content, its use in the *NWA* also suggests a possible problem. The parodic elements of the text work in tandem with the conventional elements while still trying to retain a critical distance from such elements, and this can limit a progressive drive toward change. The atlas cannot simply destabilize the process of mapping altogether; it has to uphold the traditional idea that the form of mapping can help recapture a more ideal political world and effect change, or Bunge could not advance the content of his message that the nuclear world needs mending. Robert Hariman highlights both the radical and conservative functions of parody's rhetorical ''doubling.'' On the one hand, he notes the momentous political shift in parody's dependence on a ''prior conversion of some part of the world into an image.''[226] Once the parodic discourse is recognized as an image, the ''weight of authority'' of the original discourse is destabilized and more avenues of resistance are thus opened. On the other hand, the parodic double is immersed in the rituals of its source material, and as Hariman writes, ''[e]verything is left as it was, because the original discourse is not itself subject to any change.''[227] In this case, Bunge's cartography foregrounds the absurdity of, say, maps like those in *Soviet Military Power*, by converting cartography to an image, even as his work faces the conundrum of how to channel those absurdities into a coherent vision of how the Cold War landscape should be changed.

Conclusion

Like a cartographic *samizdat*, the *Nuclear War Atlas* was Bunge's homemade attempt at propagating a movement. However, even though the atlas was written for both a lay audience and to effect policy change (Bunge's introduction optimistically asks that "after the hour or two it takes to study this atlas, act for peace as if the lives of the children in your family, and your very own personal life too, depended upon it") it is difficult to get a sense of the text's reception or circulation beyond the academy.[228] The *NWA*'s unapologetically extreme polemic drew different responses from these academic readers. Fryer excoriated Bunge for his *inhumanity*, writing that "survival in Bunge's world is not likely to be pleasant," while John Whitelegg believed "the sheer good common sense of Bunge make[s] a deep impression."[229] Overseas, researchers at the Geography Institute at the Soviet Academy of Sciences used the *NWA* as an exemplar for their own goals, commenting that "There is a recognition at the highest levels within the institute that geographers have much to contribute as scientists in the context of war and peace. Geographers can help to identify and publicise the impact of nuclear war, an approach exemplified by William Bunge's *Nuclear War Atlas*."[230] Denis Wood referred to it as a "grim imperative" but somewhat lovingly as "an anti-atlas in the form of a Marxist tabloid, a document one could well imagine run off after hours on a hand-cranked press and thrust at nervous yuppies on street corners, or nailed to a senator's door."[231] In the same year of the *NWA*'s publishing, Susan Cutter made a call for geographers to band together and make more of a difference in nuclear policy, and she lauded the atlas for its intentions, "despite some failings."[232] Donald W. Meinig termed the atlas as a work of art with "great energy and deep feelings" but ill-shapen and without

"firm discipline," writing that, "[Bunge's] self-righteous rhetoric and deep prejudices vitiate his argument, fail to convince the reader, and waste the worthiness of his cause."[233]

This ambivalence in the *NWA*'s reception is a microcosm of the tentative support cartographers and geographers have given their colleagues who make their maps overtly political—a tendency that was on display during the Peters map controversy as well. Bunge suffered no ambivalence, though, in the confidence of his science and his message, as he declared somewhat immodestly,

> Professional geographers deny the world of reality. There are important maps to
> be made about, for instance, the spatial realities of nuclear war and, by this token,
> the recently published *Nuclear War Atlas* is one of the most important geography
> works ever written, because it is about the most important subject ever addressed.
> The prospect of a war so terrible that it threatens to eliminate our species: "The
> war to end all wars"—at last…It is filled with terrible maps, horrific maps.[234]

He would then implore the scholarly community to "Get *The Nuclear War Atlas* and feel proud of geography. Shed your inferiority complex. Drop your hyphens….We must resume our central and classical work, enhanced by our modern work, neither purging the other. We must explore and map."[235]

But the conundrum presented in the pages of the *NWA* is: how do we "explore and map" the potential elimination of space and place as we know it? Maps, I argue, offer a uniquely visual abstraction in longitude and latitude of the forces that strategies of social control and social change exert on each other. Bunge's *Nuclear War Atlas* and its brand of advocacy plot well the concerns, contradictions, and potential that there is in probing

the textual qualities of maps in a Cold War context. Bunge's radical cartography defied

conventions while still upholding them, and within that nexus of change and control is

perhaps a place we can situate other maps of advocacy. In addition, nuclear war is the

ultimate in fantastic rhetorical vision, and Bunge's red and black lines, insistent and

haunting, reveal an explosive intersection between art and science in the nuclear age.

Denis Wood writes of activist maps in general:

> Their *subversion* of the power of [rhetoric] amounts to a bold proclamation of
>
> their rhetorical stance (cartographic nudism, cartographic streaking, cartographic
>
> punk), the very opposite of the position occupied by the United States Geological
>
> Survey, which…obscures its stance beneath a rhetorically orchestrated *denial* of
>
> rhetoric (dressing itself in the style of science).[236]

Overall, such a radically revisionist message ultimately places Bunge in a new alternative

cartographic tradition where structures of ideology and power are brought into the

foreground. Not only do the maps speak through angry ideology about a new world order,

they also reflexively question the function of maps as a whole. When Ben and Marthalee

Barton advocated on behalf of a postmodern visual design for maps, they wrote:

> Although the map as a concrete graphic text is an act of enunciation with
>
> ideological dimensions, such an act takes place in a social context and the map is
>
> thus also both an act of production and an act of reception. The map, in other
>
> words, may be considered as *process* rather than *product*…[237]

So, by heightening its ideological viewpoints in such visually evocative ways, the

Nuclear War Atlas makes "process" a central feature of mapping. This movement helps

eliminate the fixed position of maps and puts them on a shifting and more contested ground.

One larger question left unanswered in this chapter, however, regards the cartographic relationship between problem and solution. In representing space, this connection is tenuous. The nature of the form constrains the content. The social change map reduces the world to a particular temporal and spatial rendering and contains it; it cannot necessarily offer solutions to the problems it highlights—the map's frame can only encapsulate the spatial relationships and the exigencies of the new political landscape. In addition, the complex mixture of militancy and moderation may lessen the overall coherence of the message, exhibiting the potential limits to the clarity and quality of advocacy that can be achieved cartographically. Thus, Hogan's label of nuclear freeze rhetoric as "apocalyptic pornography," predicated on the sensational and graphic nature of "day after" scenarios of nuclear war, must be taken into consideration here.[238]

These issues come back full circle to that night in Oxford when the morality of the Cold War and cartography as a practice was a subject for public debate. Overall, the contrast of the *NWA* with the "Battle of the Booklets" maps speaks not only to the complex geopolitical imagination of the Second Cold War, but also the dynamic between revelation and concealment in cartographic evidence that Lawrence Prelli highlighted.[239] While Bunge put both nuclear weapons and the mapmaking process on display, the Defense Department maps hid that process from view. According to Gordon Mitchell,

> Excessive secrecy locks in Cold War patterns of public discourse, where defense officials and industry representatives monopolize arguments, sealing their positions with the unassailable proof of classified evidence. Threat assessments

drift toward worst-case scenarios generated from simulation and speculation, rather than more sober appraisals…Military officials who see the idea of public debate as superfluous luxury skirt critical arguments, removing issues of grave national importance from arenas of democratic deliberation.[240]

Perhaps what makes the Defense pamphlets most interesting, though, is how Weinberger *was* opening himself up to public debate, but was able to choose the terms of argument. His maps reveal what he deemed worthy of going unclassified—what was willing to be mapped and put on display. The map is expected to be reliable and all-encompassing, while the methods of production behind those maps can remain classified. Thus, the dynamic between what is revealed and concealed on the map is based here on what state representatives are willing to show, and the means by which that cartographic data is produced can remain silent and outside the margins of the map. Bunge has the tougher position of fighting these age-old conventions of the map. As Fischoff, Pidgeon, and Fiske write, "military proposals typically promise to solve specific narrow problems (e.g., defending a particular weapons system against a particular form of attack), whereas peace proposals stress more nebulous actions (e.g., having a more robust, resilient, and ethical society)."[241] Bunge, thus, had to push at the very edges of what cartography as a medium could be expected to accomplish.

Despite their differences, though, what both mapping projects share is what Barry Brummett has termed the "symbolic perfection" of nuclear discourse.[242] Weinberger and his colleagues are attempting to perfect the technology, to progress toward greater control and mastery of the missiles and radars. Bunge, for his part, tries to perfect society and the world at large in the face of this technology. Weinberger's maps make the atomic bomb

more palatable and conventional, with missiles as game pieces in a progressive escalation; Bunge uses the maps as visions of how the world has progressed too fast and lost its moral bearing. Either way, the cartography of both remain part of the Cold War's brand of liberal, modern internationalism—that in a shrinking world, we can use scientific expertise and the promise of better perception to improve the world.

In addition, both cartographies affirm the anxieties around place in the era. In 1977, Virilio wrote that, "The danger of the nuclear weapon, and of the arms system it implies, is thus not so much that it will explode, but that it *exists*…"[243] Maps provided a substantive medium for making these claims of existence; even though Bunge and Weinberger had significantly different visions, maps provided them with images of commitment that placed Cold War values into the realm of public opinion. For Weinberger, the danger of the nuclear weapon was a loss of the security of national *place*, and a blow against the power to control and define Cold War spaces before our ideological enemies could. For Bunge, the danger of the nuclear weapon was a loss of humanity's material place in an increasingly abstract, technologized world. In a new era of revolutionary missile speed, the Second Cold War embodied a condition where "we see and hear the other, but imperfectly and partially *below* our rising expectations," thus leading to an over-determined globe, a place of hyper-internationalism.[244] The superpower defense pamphlets, and the radical disarmament challenge to them, provided compelling visualizations of how America placed itself in a rapidly changing world.

Finally, while Bunge overtly prophesizes the "end of geography" in the nuclear future, both his maps and those of the defense pamphlet wars also foretell of the end of the Cold War itself. Bunge collapses the familiar U.S./Soviet binaries to show the

tenuousness of the spatial frameworks that had so long defined the Cold War, thus

foreshadowing a future where the world system would have to be re-defined (unless it

was destroyed first). At the same time, Weinberger's maps (and the ensuing Soviet

response) indicate a system out-quantifying and overextending itself, where the Cold War

would be unsustainable and ideology outstrips the actual means by which either side

could fight such a war. Sure enough, by the end of the 1980s, the Soviet system was

unable to support itself under the weight of its arms economy. Thus, the "future

cartography" of both projects reflects the cracks in Cold War space. It is perhaps fitting

that E.P Thompson rested his debate case with this entreaty: "I ask Oxford to support this

motion in the name of a universalism at its very foundation in the Middle Ages: a

universalism of scholarship which owed its duty to the skills of communication and

learning and not to those of the armed state."[245] In the Second Cold War, cartography

uniquely framed the capacities of the armed state, while also offering a universal mode of

communication for those attempting to challenge that state.

Notes: Chapter Five

[1] "Weinberger Victor at Oxford Debate," *New York Times*, February 28, 1984. The debate had been originally scheduled for May 1983, but Weinberger had been advised by British Defense Minister Michael Heseltine that "such a debate in a year that might see a general election might not be advisable." See R.W. Apple, Jr., "Weinberger Drops Debate at Oxford," *New York Times*, April 20, 1983.

[2] John Lewis Gaddis, "On Moral Equivalency and Cold War History," *Ethics & International Affairs* 10 (1996): 131.

[3] Caspar W. Weinberger, *In the Arena: A Memoir of the 20th Century* (Washington DC: Regnery, 2001), 318. On a sidenote, one of Weinberger's writers and debate coaches was K.T. MacFarland, who would later be an unsuccessful Republican primary challenger in the bid to unseat Hillary Clinton in the Senate position from New York. See "Reagan Aides Try to Remember KT MacFarland," *New York Sun*, March 7, 2006.

[4] Caspar W. Weinberger, *Fighting For Peace: Seven Critical Years in the Pentagon* (New York: Warner Books, 1990), 169.

[5] Laurence Grafstein, "Oxford Diarist: Moral Differences," *The New Republic*, April 2, 1984, 42.

[6] Gerald Frost, "Europe: Disarmament Crowd Gets an Unexpected Boost," *Wall Street Journal*, March 7, 1984.

[7] Weinberger, *In the Arena*, 319.

[8] Carolyn Milner, "Yank in Oxford – Weinberger Versus Thompson in Nuclear Battle," *Cherwell – Independent Oxford University Student Newspaper*, March 2, 1984.

[9] Colin L. Powell with Joseph E. Persico, *My American Journey* (New York: Random House, 1995), 302.

[10] Interestingly enough, the late Benazir Bhutto, former Prime Minister of Pakistan, was a member of the audience. See Grafstein, "Oxford Diarist," 42.

[11] John Corry, "TV Reviews: Morality in Policies," *New York Times*, July 3, 1984; Milner, "Yank In Oxford." It is worth noting here, too, that historian Fred Halliday refers to Weinberger in his book on the "Second Cold War" as a "soft-spoken evil genius." See Fred Halliday, *The Making of the Second Cold War* (London: Verso, 1983), 260.

[12] A full transcript of the debate is unavailable currently, as it is only accessible to members of the Oxford Union. However, enough of the debate can be pieced together through video clips, news reports, and Thompson's own (edited) transcript in his book of essays. See E.P. Thompson, *Heavy Dancers* (New York: Pantheon, 1985), 53, 55. Also see Frost, "Europe: Disarmament Crowd."

[13] Thompson, *Heavy Dancers*, 60; Corry, "Morality in Policies."

[14] Thompson, *Heavy Dancers*, 58.

[15] Weinberger, *In the Arena*, 321. See also Gaddis, "On Moral Equivalency"; Christopher Layne and Ted Galen Carpenter, "Cato Institute Foreign Policy Briefing No. 5: Time for Congress to Vote on the Issue of War in the Gulf," Cato Institute, December 1990, http://www.cato.org/pubs/fpbriefs/fpb005.pdf.

[16] Frost, "Disarmament Crowd"; Corry, "Morality in Policies."

[17] Frost, "Disarmament Crowd"; Corry, "Morality in Policies."

[18] Corry, "Morality in Policies."

[19] Grafstein, "Oxford Diarist," 42; Frost, "Disarmament Crowd."

[20] Grafstein, "Oxford Diarist," 42.

[21] Powell, *My American Journey*, 302.

[22] Weinberger, *Fighting For Peace*, 169.

[23] United States Department of Defense, *Soviet Military Power* (Washington, DC: Government Printing Office, 1981); Union of Soviet Socialist Republics Ministry of Defense, *Whence the Threat to Peace?* (Moscow: Military Publishing House, 1982).

[24] Thompson, *Heavy Dancers*, 54.

[25] Thompson, *Heavy Dancers*, 54.

[26] Thompson, *Heavy Dancers*, 54, 60.

[27] For a historian's take on the etymology of the so-called Second Cold War, see Halliday, *The Making of the Cold War*. For a critical geographer's assessment of Second Cold War discourse, see Simon Dalby, *Creating the Second Cold War* (New York: Guilford, 1990).

[28] G. Thomas Goodnight, "Ronald Reagan's Re-formulation of the Rhetoric of War: Analysis of the 'Zero Option,' 'Evil Empire,' and 'Star Wars' Addresses," *Quarterly Journal of Speech* 72 (1986): 396. Reagan's quote within Goodnight's is from: "Remarks to Members of the National Press Club on Arms Reduction and Nuclear Weapons, November 18, 1981," *Weekly Compilation of Presidential Documents* 17 (November 23, 1981): 1276.

[29] Goodnight, "Reagan's Re-formulation," 396.

[30] See Chernus' thesis in Ira Chernus, *Apocalypse Management: Eisenhower and the Discourse of National Insecurity* (Stanford, CA: Stanford University Press, 2008).

[31] Goodnight, "Reagan's Re-formulation," 396.

[32] Frost, "Disarmament Crowd."

[33] For an introduction to the relationship of geographers to nuclearism, see Susan L. Cutter, "Geographers and Nuclear War: Why We Lack Influence on Public Policy," *Annals of the Association of American Geographers* 78 (1988): 135–36.

[34] James Der Derian, "The (S)pace of International Relations: Simulation, Surveillance, and Speed," *International Studies Quarterly* 34 (1990): 308.

[35] "Soviet Union: Battle of the Booklets," *Time*, February 1, 1982, http://www.time.com/time/magazine/article/0,9171,954993,00.html.

[36] The emphasis is Virilio's. See Paul Virilio, *Speed and Politics* (Los Angeles: Semiotext(e), 2006), 149.

[37] Michael J. Shapiro, *Violent Cartographies: Mapping Cultures of War* (Minneapolis: University of Minnesota Press, 1997), 16.

[38] Bryan C. Taylor, "'A Hedge Against the Future': The Post-Cold War Rhetoric of Nuclear Weapons Modernization," *Quarterly Journal of Speech* 96 (2010): 2.

[39] For a good academic example of CPD discourse, see the work of Colin Gray, a conservative international relations theorist who also served on Reagan's General Advisory Committee on Arms Control and Disarmament. In particular, see Colin S. Gray, *The Geopolitics of Super Power* (Lexington: University of Kentucky Press, 1988).

[40] Dalby, *Creating the Second Cold War*, 46–47.

[41] Dalby, *Creating the Second Cold* War, 41. See also Ó Tuathail's critique of Dalby's concept in Gearóid Ó Tuathail, *Critical Geopolitics* (Minneapolis: University of Minnesota Press, 1996), 178–85.

[42] Zbigniew Brzezinski, *In Quest of National Security*, ed. Marin Strmecki (Boulder, CO: Westview Press, 1988). See also Jan Nijman, "The Limits of Superpower: The United States and the Soviet Union Since World War II," *Annals of the Association of American Geographers* 82 (1992): 681–95.

[43] Halliday, *The Making of the Second Cold War*, 16–17.

[44] "Soviet Union: Battle of the Booklets." For a recent discussion of the crisis theme in rhetorical studies, particularly in reference to the Cold War, see Denise Bostdorff, *Proclaiming the Truman Doctrine* (College Station: Texas A&M University Press, 2008).

[45] Caspar W. Weinberger, "Preface," in *Soviet Military Power*, United States Department of Defense (Washington, DC: Government Printing Office, 1981), 3.

[46] Weinberger, "Preface," 3.

[47] Weinberger, *In the Arena*, 307.

[48] John F. Burns, "Cut in Arms Urged By Soviet General," *New York Times*, January 26, 1982.

[49] "Introduction," in *Whence the Threat to Peace*, 5.

[50] Wayne Biddle, "Moscow Asserts Strategic Parity," *New York Times*, August 28, 1984.

[51] "Down Madisonsky Avenue," *The Economist*, February 6, 1982, 43.

[52] "Down Madisonsky Avenue," 43; Burns, "Soviet Booklet Attacks U.S. Arms Policy"; "Soviet Union: Battle of the Booklets." Also of interest is the advertisement for *Whence the Threat* in the April 1982 issue of the *Atomic Bulletin of Scientists*, 53.

[53] John Agnew, *Geopolitics: Re-Envisioning World Politics*, 2nd ed. (New York: Routledge, 2003), 30.

[54] Sir Halford Mackinder, *Democratic Ideals and Reality: A Study in the Politics of Reconstruction*, NDU Press Classic Edition (Washington, DC: National Defense University Press, 1996), 106. For critical readings of Mackinder's work, there are a host of different sources, but most germane to this project come out of the "critical geopolitics" movement that emerged at the end of the Cold War. See especially Ó Tuathail, *Critical Geopolitics,* 24–38; Susan Schulten, *The Geographical Imagination in America, 1880-1950* (Chicago: University of Chicago Press, 2001), 80; Francis P. Sempa, *Geopolitics: From the Cold War to the 21st Century* (New Brunswick, NJ: Transaction Publishers, 2002), 20; James Sidaway, "Overwriting Geography: Mackinder's Presences, a Dialogue with David Hooson," *Geopolitics* 14 (2009): 163–70.

[55] During the Second Cold War, Mackinder once again became a frequent point of discussion for international relations theorists, strategists, and geographers. See especially Gray, *Geopolitics of Superpower*; G.R. Sloan, *Geopolitics in United States Strategic Policy, 1890-1987* (New York: St. Martin's Press, 1988); Saul B. Cohen, "A New Map of Global Geopolitical Equilibrium: A Developmental Approach," *Political Geography Quarterly* 1 (1982): 223–41; Yves Lacoste, "Geography and Foreign Policy," *SAIS Review* 4 (1984): 213–27; Paul Virilio, "The State of Emergency," in *Speed and Politics*, 149–67.

[56] Virilio, *Speed and Politics*, 151.

[57] Lacoste, "Geography and Foreign Policy," 214.

[58] Ciro Zoppo, "Classical Geopolitics and Beyond," in *On Geopolitics: Classical and Nuclear*, eds. Ciro E. Zoppo and Charles Zorgbibe, NATO ASI Series (Dordrecht, Netherlands: Martinus Nijhoff, 1985), 8.

[59] Paul N. Edwards, *The Closed World: Computers and the Politics of Discourse in Cold War America* (Cambridge, MA: MIT Press, 1996), 1.

[60] James Der Derian, "A Reinterpretation of Realism: Geneaology, Semiology, Dromology," in *Post-Realism: The Rhetorical Turn in International Relations*, eds. Francis A. Beer and Robert Hariman (East Lansing: Michigan State University Press, 1996), 296.

[61] Edwards, *Closed World*, 118.

[62] Edwards, *Closed World*, 116.

[63] Philip Mirowski, *Machine Dreams: Economics Becomes a Cyborg Science* (Cambridge, UK: Cambridge University Press, 2002), 15.

[64] Arthur S. Locke, *Guidance: Principles of Guided Missile Design* (Princeton, NJ: Van Nostrand, 1955), 713.

[65] Such texts also debated the utility of particular map projections (such as Mercator versus Lambert) in plotting the directions for guided missiles. See Locke, *Guidance*.

[66] Lawrence Freedman, *Atlas of Global Strategy* (New York: Facts on File, 1985), 16–17.

[67] See both of Waldo Tobler's landmark essays on these phenomena: Waldo R. Tobler, "Automation and Cartography," *Geographical Review* 49 (1959): 526–34; W.R. Tobler, "Analytical Cartography," *The American Cartographer* 3 (1976): 21–31.

[68] Biddle, "Moscow Asserts Strategic Parity."

[69] *Soviet Military Power* (1981 edition), 6–7. Future versions of the map would also documented the weaponry's ballooning expansion. See *Soviet Military Power* (1983 edition), 8–9.

[70] *Soviet Military Power* (1981 edition), 11.

[71] *Whence the Threat* (1982 edition), 11.

[72] Der Derian, "The (S)pace of International Relations," 305.

[73] Der Derian, "The (S)pace of International Relations," 305.

[74] *Soviet Military Power* (1981 edition), 84–85.

[75] *Whence the Threat* (1982 edition), 26–27, 56–57.

[76] See especially John Ager, "Maps & Propaganda," *Bulletin of the Society of University Cartographers* 11 (1979): 1–15.

[77] U.S.S.R. Ministry of Defense, *Whence the Threat to Peace* (Moscow: Military Publishing House, 1984), 3.

[78] *Whence the Threat* (1982 edition), 68.

[79] Alan Burnett, "Propaganda Cartography," in *The Geography of War and Peace*, eds. David Pepper and Alan Jenkins (New York: Basil Blackwell, 1985), 64.

[80] "Hyper-internationalism" is my term for the spectacular collapse of distance during the nuclear arms race—missile technology brought nation states so close as to become *hyperreal*. The United States and the Soviet Union overlapped so as to become almost copies of one another. International relations, then, were based on a surreal absurdity around quantitative projections of force that sanitized the mega-destructive

effects of the weapons. See also Simon Dalby, "Geopolitical Discourse: The Soviet Union as Other," *Alternatives* 13 (1988): 421.

[81] *NATO and the Warsaw Pact: Force Comparisons* (Brussels: NATO Information Service, 1984), 37.

[82] *NATO and the Warsaw Pact*, 38–39.

[83] U.S.S.R. Ministry of Defense, *Disarmament: Who's Against?* (Moscow: Military Publishing House, 1983), 32–33. See also the map of U.S. nuclear weapons systems in Europe in *Whence the Threat* (1982 edition), 76–77.

[84] *Soviet Military Power* (1981 edition), 26.

[85] *Soviet Military Power* (1983 edition), 28.

[86] Virilio, *Speed and Politics*, 151–52.

[87] Doreen B. Massey, *For Space* (Thousand Oaks, CA: Sage, 2005), 107.

[88] Massey, *For Space*, 111. See also Graham Huggan, "Decolonizing the Map: Post-Colonialism, Post-Structuralism and the Cartographic Connection," *Ariel* 20 (1989): 115–31.

[89] Mark Polelle, *Raising Cartographic Consciousness: The Social and Foreign Policy Vision of Geopolitics in the Twentieth Century* (Lanham, MD: Lexington Books, 1999), 46.

[90] Der Derian, "The (S)pace of International Relations," 307.

[91] Der Derian, "The (S)pace of International Relations," 308. Here, Der Derian is explaining Virilio's argument from *War and Cinema*. See Paul Virilio, *War and Cinema: The Logistics of Perception*, trans. Patrick Camiller (London: Verso, 1984).

[92] For an introduction to these notions, see Barry Brummett, "Perfection and the Bomb: Nuclear Weapons, Teleology, and Motives," *Journal of Communication* 39 (1989): 85–95.

[93] Polelle, *Raising Cartographic Consciousness*, 41.

[94] As a sidenote, a 1983 atlas by French international relations theorists reprinted the two world "power projection" maps from the "Battle of the Booklets," one from *Whence the Threat* and one from *Soviet Military Power* retitling them "American Aggressiveness as Seen By the USSR" and "Soviet Aggressiveness as Seen By the United States." The atlas was using them to show how superpower propaganda has been cartographically presented. See Gerard Chaliand and Jean-Pierre Rageau, *A Strategic Atlas: Comparative Geopolitics of the World's Powers* (New York: Harper & Row, 1985), 216–17.

[95] Rachel L. Holloway, "The Strategic Defense Initiative and the Technological Sublime: Fear, Science, and the Cold War," in *Critical Reflections on the Cold War*, eds. Martin J. Medhurst and H.W. Brands (College Station: Texas A&M University Press, 2000), 219–27. Also contributing to this line of argument is David J. Tietge, *Flash Effect: Science and the Rhetorical Origins of Cold War America* (Athens: Ohio University Press, 2002).

[96] Taylor, "Hedge Against the Future," 2.

[97] Holloway, "The Strategic Defense Initiative," 211; Baruch Fischoff, Nick Pidgeon, and Susan T. Fiske, "Social Science and the Politics of the Arms Race," *Journal of Social Issues* 39 (1983): 168.

[98] Taylor, "Hedge Against the Future," 2.

[99] Weinberger, "Preface," 3.

[100] Henri Lefebvre, "Reflections on the Politics of Space," *Antipode* 8 (1976): 3.

[101] Shapiro, *Violent Cartographies*, 20.

[102] Robert L. Scott, "Cold War and Rhetoric: Conceptually and Critically," in *Cold War Rhetoric: Strategy, Metaphor, and Ideology*, eds. Martin J. Medhurst, Robert L. Ivie, Philip Wander, and Robert L. Scott (New York: Greenwood, 1990), 4.

[103] Norman A. Graebner, "Myth and Reality: America's Rhetorical Cold War," in *Critical Reflections on the Cold War*, 34–35.

[104] Dalby, "Geopolitical Discourse," 421.

[105] Benjamin H. Bratton, "Introduction: Logistics of Habitable Circulation," in *Speed and Politics*, by Paul Virilio (Los Angeles: Semiotext(e), 2006), 11. Virilio's famous pronouncement that "History progresses at the speed of its weapon systems" can be found in *Speed and Politics*, 90.

[106] Bryan C. Taylor, "Nuclear Weapons and Communication Studies: A Review Essay," *Western Journal of Communication* 62 (1998): 303.

[107] William Bunge, "Ban the Bomb: Nuclear War Atlas," Map (Quebec: Society for Human Exploration, 1982), Geography & Map Division, Library of Congress, Washington, DC; William Bunge, *Nuclear War Atlas* (New York: Basil Blackwell, 1988).

[108] Fraser MacDonald, "Geopolitics and 'The Vision Thing': Regarding Britain and America's First Nuclear Missile," *Transactions of the Institute of British Geographers* 31 (2006): 58. The quote within a quote is from Bunge. See Bunge, *Nuclear War Atlas*, 178.

[109] Bunge, *Nuclear War Atlas*, 18; Bunge, "Ban the Bomb: Nuclear War Atlas."

[110] Bunge, *Nuclear War Atlas*, xiii.

[111] A good introduction on both the history and theory of "radical geography" and "postmodern" and "poststructural" geography can be found in Richard Peet, *Modern Geographical Thought* (Malden, MA: Blackwell, 1998).

[112] Slavoj Žižek, *Welcome to the Desert of the Real!* (New York: Verso, 2002), 22–24.

[113] The phrases "future geography" and "place annihilation and post-nuclear landscapes" are borrowed from Susan L. Cutter, "Geographers and Nuclear War: Why We Lack Influence on Public Policy," *Annals of the Association of American Geographers* 78 (1988): 135–36; The idea of "passion for the Real" is from Žižek, *Welcome to the Desert of the Real*, 24.

[114] Jeremy Black, *Maps and Politics* (Chicago: University of Chicago Press, 1997), 77, 78.

[115] Black, *Maps and Politics*, 95.

[116] Bunge, *Nuclear War Atlas*, xxvii.

[117] William Bunge, *Fitzgerald: Geography of a Revolution* (Cambridge, MA: Schenkman Publishing, 1971), 137.

[118] William Bunge, *Theoretical Geography*, Lund Studies in Geography, Series C General and Mathematical Geography No. 1 (Lund, Sweden: C.W.K. Gleerup Publishers, 1966).

[119] Bill Macmillan, "Classics in Human Geography Revisited – Commentary 2: Geography as Geometry," *Progress in Human Geography* 25 (2001): 74.

[120] Michael F. Goodchild, "Theoretical Geography (1962): William Bunge," in *Key Texts in Human Geography*, edited by Phil Hubbard, Rob Kitchin, and Gill Valentine (London: Sage, 2008), 13.

[121] Kevin R. Cox, "Classics in Human Geography Revisited – Commentary 1," *Progress in Human Geography* 25 (2001): 71.

[122] William Bunge, "Classics in Human Geography Revisited – Author's Response: Geography the Innocent Science," *Progress in Human Geography* 25 (2001): 75–76.

[123] Trevor J. Barnes, "Geography's Underworld: The Military-Industrial Complex, Mathematical Modelling and the Quantitative Revolution," *Geoforum* 39 (2008): 9.

[124] Barnes, "Geography's Underworld," 13. See also Garrison's landmark work on the geography of the new highway system, considered a classic work in the field: William L. Garrison, *Studies of Highway Development and Geographic Change* (Seattle: University of Washington Press, 1959).

[125] Bunge, *Theoretical Cartography*, xiv.

[126] That piece was eventually published after years of rejection. See William Bunge, "Fred K. Schaefer and the Science of Geography," *Annals of the Association of American Geographers* 69 (1979): 128–32.

[127] William Bunge, "Less Free?: Letter to the Editor," *American Association of University Professors Bulletin* 49 (1963): 382.

[128] David M. Smith, "Radical Geography: The Next Revolution?," *Area* 3 (1971): 154.

[129] Smith, "Radical Geography," 155.

[130] John D. Nystuen, ed., *The Philosophy of Maps*, Michigan Inter-University Community of Mathematical Geographers Discussion Paper #12 (Detroit, MI: Wayne State University, 1968), 31–33; Bunge, *Theoretical Geography*, xiii–xvii.

[131] William Bunge, "Comment in Reply to Donald W. Fryer," *Annals of the Association of American Geographers* 64 (1974): 483.

[132] Bunge, *Nuclear War Atlas*, xviii. Bunge was described by geographer Michael Goodchild as "a very imposing person, two meters in height and powerfully built, and with enormous energy." See Goodchild, "Theoretical Geography," 14..

[133] Bunge, *Fitzgerald*, 135.

[134] Richard Peet, "The Development of Radical Geography in the United States," in *Radical Geography: Alternative Viewpoints on Contemporary Social Issues*, ed. Richard Peet (Chicago: Maaroufa Press, 1977), 14.

[135] Bunge, *Nuclear War Atlas*, xx.

[136] John Pickles, *A History of Spaces: Cartographic Reason, Mapping, and the Over-Coded World* (London: Routledge, 2004), 184.

[137] William Bunge, "The First Years of the Detroit Geographical Expedition: A Personal Report," in *Radical Geography: Alternative Viewpoints on Contemporary Social Issues*, ed. Richard Peet (Chicago: Maaroufa Press, 1977), 31–39.

[138] Bunge, *Fitzgerald*, introduction.

[139] Rich Heyman, "'Who's Going to Man the Factories and Be the Sexual Slaves If We All Get PhDs?': Democratizing Knowledge Production, Pedagogy, and the Detroit Geographical Expedition and Institute," *Antipode* 39 (2007): 106–7.

[140] Bunge, *Nuclear War Atlas*, xx.

[141] Goodchild, "Theoretical Geography," 14.

[142] William Bunge, "Geography is a Field Subject," *Area* 15 (1983): 209.

[143] Donald W. Fryer, "A Geographer's Inhumanity to Man," *Annals of the Association of American Geographers* 64 (1974): 479.

[144] Goodchild has some of the most detailed biographical information on Bunge. See Goodchild, "Theoretical Geography," 9–16.

[145] "Dr W Bunge," *Area* 19 (1987): 254

[146] "Dr W Bunge," *Area* 19 (1987): 254.

[147] Bunge, "Author's Response," 76–77.

[148] Bunge, "Comment in Reply," 482.

[149] Walter Christaller, *Central Places in Southern Germany*, trans. Carlisle Baskin (Englewood Cliffs, NJ: Prentice Hall, 1966).

[150] W. Bunge, "Epilogue: Our Planet is Big Enough for Peace But Too Small For War," in *A World in Crisis? Geographical Perspectives*, eds. R.J. Johnston and P.J. Taylor (Oxford: Basil Blackwell, 1986).

[151] David Harvey, *Social Justice and the City* (Baltimore, MD: Johns Hopkins University Press, 1973), 118, 148–49, 110.

[152] Perhaps the best introduction to the history of this movement against geography's quantitative revolution is Peet, "The Development of Radical Geography," 6–30. Another source of interest is the collection of essays in Nystuen, *The Philosophy of Maps*. Also see David Harvey, *Social Justice and the City*, 309–10.

[153] Richard Peet, "Introduction," in *Radical Geography*, 1–6; Bunge, "The First Years of the Detroit Geographical Expedition," 31–39. A useful summation of the aims

and goals of humanistic geography can be found in Yi-Fu Tuan, "Humanistic Geography," *Annals of the Association of American Geographers* 66 (1976): 266–76.

[154] W.W. Bunge, "The Geography," *The Professional Geographer* 25 (1973): 332–33.

[155] Bunge, *Fitzgerald*, foreword.

[156] Bunge, "Comment in Reply," 484.

[157] Gilbert F. White, "Geographers in a Perilously Changing World," *Annals of the Association of American Geographers* 75 (1985): 13.

[158] For more on the Pluto Press, see the Conclusion.

[159] This Pluto Project series encompassed further editions of *The State of the World*, as well as more issue-based atlases such as *The State of the Earth Atlas, The New State of War and Peace Atlas, Women in the World: An International Atlas*, and *The State of Health Atlas*. Michael Kidron and Ronald Segal, *The New State of the World Atlas*, 4th ed. (New York: Touchstone Books, 1991); Michael Kidron and Dan Smith, *The New State of War and Peace: An International Atlas* (New York: Touchstone Books, 1991); Joni Seager, ed., *The State of the Earth Atlas* (New York: Touchstone Books, 1990); Joni Seager and Ann Olson, *Women in the World: An International Atlas* (New York: Touchstone Books, 1986); Judith Mackay, *The State of Health Atlas* (New York: Touchstone Books, 1993).

[160] Michael Kidron and Ronald Segal, *The State of the World Atlas* (New York: Simon & Schuster, 1981), maps 29, 50, 57.

[161] Kidron and Segal, *The State of the World*, map 9.

[162] Michael Kidron and Dan Smith, *The War Atlas: Armed Conflict – Armed Peace* (New York: Simon & Schuster, 1983), maps 13, 14, and 15.

[163] Stan Openshaw and Philip Steadman, "The Geography of Two Hypothetical Nuclear Attacks on Britain," *Area* 15 (1983): 193.

[164] Kenneth Hewitt, "Place Annihilation: Area Bombing and the Fate of Urban Places," *Annals of the Association of American Geographers* 73 (1983): 259.

[165] Hewitt, "Place Annihilation," 279, 280–81.

[166] Bunge, "Epilogue," 290.

[167] Bunge, "Geography is a Field Subject," 209.

[168] Ronald J. Horvath, "Machine Space," *Geographical Review* 64 (1974): 167–88.

[169] Bunge, "Comment in Reply," 484.

[170] Bunge, "Epilogue," 291.

[171] Much of the *NWA*'s early foundation can be found in William W. Bunge, "The Geography of Human Survival," *Annals of the Association of American Geographers* 63 (1973): 275–95.

[172] Bunge, *Fitzgerald*, 137.

[173] Harley, *New Nature of Maps*, 67.

[174] Pickles, *A History of Spaces*, 184.

[175] Wood, *The Power of Maps*, 189.

[176] Bunge, *Nuclear War Atlas*, 93.

[177] Bunge, *Nuclear War Atlas*, 93.

[178] Bunge, "Ban the Bomb: Nuclear War Atlas."

[179] In a similar vein, see "The Sky is Filled With Weapons Map" in *Nuclear War Atlas*, 110.

[180] Bunge, *Nuclear War Atlas*, 108.

[181] Bunge, *Nuclear War Atlas*, 108.

[182] Bunge, *Nuclear War Atlas*, 84.

[183] Bunge, *Nuclear War Atlas*, 84.

[184] Bunge, *Nuclear War Atlas,* 70.

[185] Bunge, *Nuclear War Atlas,* 71.

[186] S.W. Boggs, "Mapping the Changing World," *Annals of the Association of American Geographers* 31 (1941): 119–28.

[187] Virilio, *Speed and Politics*, 153.

[188] Virilio, *Speed and Politics*, 153.

[189] Bunge, *Nuclear War Atlas*, 18–19.

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[191] Ann E. Larabee, "Ground Zero: The City, the Bomb and the End of History," *Canadian Review of American Studies* 22 (1991): 269.

[192] Larabee, "Ground Zero," 270.

[193] Bunge, *Nuclear War Atlas*, 167, 165.

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Gusterson's (113) but Edward Said's introduction of this concept into literary theory

deserves wider exploration in terms of how maps help to create these divisions. See

Edward Said, "Orientalism," in *The Edward Said Reader*, eds. Moustafa Bayoumi and

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Inevitable Spread of Nuclear Weapons," *Review of International Affairs* 3 (2004): 416–17.

[198] Bunge, *Nuclear War Atlas*, 40.

[199] Bunge, "Ban the Bomb: Nuclear War Atlas"; Bunge, *Nuclear War Atlas*, 44.

[200] Bunge, *Nuclear War Atlas*, 133.

[201] Bunge, *Nuclear War Atlas*, 82.

[202] Bunge, *Nuclear War Atlas*, 147.

[203] Bunge, *Nuclear War Atlas*, 128.

[204] Spencer R. Weart, *Nuclear Fear: A History of Images* (Cambridge, MA: Harvard University Press, 1988).

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[209] Bunge, *Nuclear War Atlas*, 132.

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[213] Bunge, *Nuclear War Atlas*, 53.

[214] Bunge, *Nuclear War Atlas*, 53.

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[219] Foss and Littlejohn, "*The Day After*," 328–29.

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[221] Derrida, "No Apocalypse," 24.

[222] Bunge, *Nuclear War Atlas*, 84.

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[226] Robert Hariman, ''Political Parody and Public Culture,'' *Quarterly Journal of Speech* 94 (2008): 255.

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[228] Bunge, *Nuclear War Atlas*, 10.

[229] Fryer, "A Geographer's Inhumanity," 482; John Whitelegg, "William Bunge: The Nuclear War Atlas Video," *Area* 17 (1985): 266.

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[231] Wood, *The Power of Maps*, 132.

[232] Susan L. Cutter, "Geographers and Nuclear War," 138.

[233] Meinig, "Geography as an Art," 322.

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[242] Brummett, "Perfection and the Bomb."

[243] Virilio, *Speed and Politics*, 166.

[244] Der Derian, "(S)pace of International Relations," 306.

[245] Thompson, *Heavy Dancers*, 60.

CONCLUSION

**FROM GLOBALISM TO GLOBALIZATION: STATE POWER,
CARTOGRAPHY, AND THE POLITICS OF (INTER)NATIONAL IDENTITY**

On December 2nd and 3rd of 1989, the month in which Czechoslovakia followed many of its Eastern European neighbors by electing its own president for the first time in forty years, Presidents Mikhail Gorbachev and George H.W. Bush held a summit meeting at Malta.[1] As international relations scholar Alan K. Henrikson recounts,

> Gorbachev handed President George Bush a blue-and-white map allegedly showing the Soviet Union's encirclement by US bases as well as American aircraft carriers and battleships….For a moment, according to a detailed account of this episode, President Bush was at a loss for words. President Gorbachev then said tartly: "I notice that you seem to have no response." Bush, in response, pointed out to Gorbachev that the Soviet landmass was shown on the map as a giant, white, empty space, with no indication of the vast military complex that US forces were intended to deter. "Maybe you'd like me to fill in the blanks on this," he said. "I'll get the CIA to do a map of how things look to us. Then we'll compare and see whose is more accurate."[2]

This curt exchange between two bickering superpowers encapsulates the contentious lines and boundaries of Cold War mapping.[3] As the two cold warriors knew well, maps communicate volumes not just in what they include, but also in J.B. Harley's notion of "silences"—what the maps choose to omit and obscure from view.[4] While Gorbachev's glaring white areas are uncluttered by any meaningful geographical information, they do mark an ideological density that affirms the power of the state to produce and interpret the world.

The conversation at Malta is not merely a tidy example of how cartography is bound by state power; it also represents well the core ideological problematic of how shifting global space was negotiated in a key historical moment. As late as December 1989, Bush and Gorbachev were still committed to the clearly bounded Cold War system, typified by bipolar intelligence and defense maps that contained bases and battleships. As walls toppled, countries reunited, and borders ripped open, two of the most powerful world leaders still clung to the familiar cartographic shapes of their forty-five-year rivalry. The two leaders' anxiety around blank space on the map was palpable, as if they were bracing for the unknown. Bush and Gorbachev intuitively understood the legacy of the map's power during the half-century of Cold War as a mediator and vehicle of interpretive perception. They knew how maps could be marshaled as evidentiary weapons—that the power of the map was not simply in what it displayed but how it was materially used in discursive exchanges and circulated.

But what was perhaps most revealing about this incident was the uncertainty around the notion of place. As I have attempted to trace in a variety of cartographic contexts throughout this project, the impulse to map is bound up in values and ideology. To be able to place lines and icons onto a map with certainty was also a bid for power and control—a kind of political stability. At the same time, maps had the propensity to introduce new perspectives and displace traditional spatial relationships, thus adapting to and reflecting processes of social change. In a sense, then, Bush and Gorbachev were reacting anxiously to the new spatial changes that faced them, hoping to stabilize their power by holding on to old cartographic Cold War fixities at a time when the world was becoming more and more unfixed. The linking of the temporal and the spatial was key

here: as French cartographer Michel Foucher wrote of the challenges in mapping and charting a new Eastern Europe, "[w]hen history is in movement, places are transformed….The geographical approach must therefore take into account Europe in peacetime and Europe at war, the Europe to be developed and the Europe to which peace must be brought."[5] Foucher's sentiments are applicable well beyond Europe's boundaries: *(Re)Placing America* has viewed, through an American lens, how these international transformations call for particular spatial visions and perceptions (textualized in maps) that are informed by values of the past, present, and future. This project as a whole has revealed how cartography offered U.S. strategists and popular audiences ways of making meaning of state power on an international scale. In particular, this project has advanced that certain projections and mapping forms have constrained not only U.S. foreign policy, and our constructions of areas such as the Soviet Union and the Third World, but also America's self-identity as a superpower in the second half of the twentieth century as a whole. In concluding, I briefly explore how maps accounted for the Cold War's end and envisioned an uneasy globalization. Then, I implicate the products and processes of cartography as important to a rhetorical perspective of political culture, and explore why the tensions between *space* and *place* are fruitfully understood through mining material mapping artifacts in their historical contexts.

Mapping a New World Order: The Pluto Press Atlases and the End of the Cold War

It is an obvious statement that the Cold War view of international space did not cease being relevant once the Cold War as a political conflict ended. The Cold War still provided the overarching interpretive lens for perceiving world relations. Still, the events of 1989 across Eastern Europe heralded a new era for cartography, and while the end of

the Cold War did not erase or invalidate the state, it provided the spark that forced the international community to think in more profound geopolitical ways.[6] As this project has traced, Cold War maps often comfortably represented and constituted the natural power of the state, depicting a clear division of "superpower rivalry, East/West Bloc formation," and "ideological competition."[7] Once America was locked in an arms race with the Soviet Union, the states on the map were counted to see which ones were red and which ones were not, splitting the earth in strategic geopolitical ways and providing a kind of "doctrinal…color-coding for vital ideological difference."[8] In a sense, state boundaries came "to represent intellectual boundaries as well," providing a frame of reference for economics, social life, and most importantly, national identity.[9] With a new globalized economic integration in Europe as socialism transitioned into democracy, however, states constituted by the standard cartographic unit faced serious new threats and challenges against their dominance, an anxiety borne out by Bush and Gorbachev in their map exchange.[10] The post-Cold War saw a historical reawakening of the need for self-determination, making traditional boundaries and borders the crux of defining new states and new national identities.[11] As Christer Jönsson, Sven Tägil, and Gunnar Törqvist point out, "[g]one are the days when cartographers did not have to worry about changing state boundaries, and when representing the members of NATO and the Warsaw Pact in different colours captured the essential political configuration of the continent."[12] A new "geopolitical game" was renewed by unfreezing the Soviets' icy grip, heated by the ambition of new post-communist regimes to gain the best territorial, economic, and military advantage.[13]

Amidst the context of this post-Cold War landscape came the successive editions of the Pluto Press' popular and widely distributed *State of the World* atlas series, a progressive project in the spirit of William Bunge's radical style. The Pluto atlases produced at this time provide a fitting example of the opportunities and challenges that faced cartographers attempting to depict how a new post-Cold War space would be constituted, particularly the transitions in areas like Eastern Europe. The blank spaces of Gorbachev's map resonate with the Pluto Press atlases: while Bush and Gorbachev wanted to fill that space with the conventional apparatuses of superpowers, the Pluto Project deconstructed the very conventions that allowed such leaders to define this space for the rest of the world. In particular, the Pluto Press's 1991 editions of the *New State of the World (NSTW)* and the *New State of War and Peace (NSWP)* offer a striking example of how popular cartographers dealt with the end of a forty-year system.[14] Especially in their depictions of the fall of communism in Eastern Europe, the Pluto Project characterizes the post-communist transition with an ambivalently critical eye. The activist maps create the image of a new world order, vulnerable and mired in uncertainty and fluidity—by both subverting and upholding traditional mapping forms, the Pluto Project represents not only a Europe (and world) in transition, but also a transition between the limitations and opportunities of cartography itself.

Which Way is East? Challenging Cold War Dichotomies in Pluto Project Maps

The creators of the Pluto Press atlases did very little to mask the ideological ambitions of their project, and the Press's history bears out this progressive intent. The Pluto Press dates back to 1969, led by activist Richard Kuper as a publishing branch of what would become the Socialist Workers Party in the UK. Taken over by economist

Michael Kidron and his wife Nina in 1972, the Press became a center for left-wing

publishing in England, but in order to stay commercially afloat, Kidron steered Pluto

away from its overtly socialist origins. By 1979, Pluto had dropped its political affiliation

altogether and became independent. The group, which self-proclaims that it "has always

had a radical political agenda," is still active today as one of the world's leading

progressive book publishers, with over 550 titles in print.[15] It was the *State of the World*

atlas, though, which appeared in 1981, that became the Pluto Press's flagship success.

Distributed widely in paperback by Simon & Schuster, the original atlas was a

collaboration between the radical Marxist Kidron and the progressive South African-born

historian and anti-apartheid activist Ronald Segal, whose expertise in third-world

development politics led to works like *The Anguish of India* and *Islam's Black Slaves:*

The Other Black Diaspora, one of the first historical accounts of the Islamic slave trade.

The two drew on the visually provocative potential of cartography to challenge the nature

of nation-state power in a globalizing world. In fact, the ideological goals of the atlases

are perhaps most vividly revealed in the headline for *The Guardian*'s 2003 obituary for

Kidron: "Michael Kidron: publisher, writer and socialist whose life's project was to

understand, and help replace, capitalism."[16] The gamut of responses to the *State of the*

World was wide, as the atlas was lauded for its "scope and originality" and challenged for

its "raging polemic."[17] Despite the radical content, the atlas was a huge commercial

success, the style being innovative and distinctive enough to make a pointed political

message, but also simple and straightforward, packed with enough useful information to

have educational potential. Successive editions of the *State of the World* appeared

through Simon & Schuster for the next twenty-plus years (currently in its 7th edition), and

Kidron and Segal's work also spawned a cartographic brand made up of like-minded, socially progressive researchers, expanding into a wide array of specialized atlases on women, the environment, global health, and war.[18] In 1983, for example, Kidron collaborated with Dan Smith, a leader of Britain's Campaign for Nuclear Disarmament and a prominent peace researcher (later the head of the International Peace Institute in Oslo), to produce *The War Atlas*, taking up the *State of the World*'s signature style to critique the arms economy of the late Cold War.

By the time the 1991 editions of the *State of the World* and the *War Atlas* appeared (now titled *The New State of the World* and *The New State of War and Peace*), Kidron, Segal, and Smith were faced with the dissolution and transformation of many of the nation-states that they had begun challenging ten years before. The original atlases had attempted to destabilize state power through their angry, subjective geopolitical visions—now they would do the same for a new world order; the 1991 editions especially critique the entrenched lines between East and West that solidified during the Cold War, imagining how states would vie for and consolidate power without long-honored U.S./Soviet frameworks. The ideological battleground of Central and Eastern European became an especially important cartographic symbol for exploring these shifts.

Similar in some ways to how Third World nations of the South in the 1960s and 1970s sought to redefine their space as separate and distinct from East/West, the Central European nations of the so-called Velvet Revolutions in 1989 and 1990 were establishing their own identities. One Pluto map in particular represents the difficulties these states faced, stuck between East and West. Titled "The Uncommon European Home," this map foregoes the usual world political map of the *State of the World* series and focuses only

on Europe, depicting especially the conundrums that the emerging countries faced in trying to join the "supra-national economy" while they confronted increasing demands by ethnic and national groups.[19] This map shows red ballot box icons depicting free elections, alongside icons of silhouetted soldiers holding guns behind what look like tiny explosions. The choice of the Pluto cartographers to highlight and omit specific iconic symbols is particularly telling in their strategy to critique the East/West problem in post-Cold War space. So, for example, on one level, "The Uncommon European Home" exhibits a traditional layout of graphs, charts, and insets with symbolic icons over geographic territories. The use of ballot box and toy soldier icons in itself is not subversive; rather, it is the spatial relationship created between the two icons that suggests an indictment of the mapping form. Placing the ballot box, a progressive symbol of voting in East and Central European countries where elections were charades for decades, next to a repressive symbol of an arms-wielding state soldier invites a strong ambivalence about the new changes in East/West relationships. The way the "Uncommon" map links the two actions of voting and military action together displays the sense in which the drive toward democracy occurs simultaneously with armed repression across the region. Implicit in these spatial relationships are the authors' western assumptions that ballot boxes and membership in the European Community are the measures of democratic progress in the new states, while the clash for ethnic rights in the East is the measure of falling short of that progress.

In addition, the coloring of the territories in "The Uncommon European Home" mirrors many of the imagined divisions existing among the countries trying to make a "return to Europe." The choice of colors exhibits an almost gaudy splash of brightness

and sharp contrasts, operating outside of the conventional, subdued realm of traditional

world maps, as the Pluto style over-amplifies the function of color and widens the

contrast between light and dark. Membership in the EC is depicted in red, which includes

Germany after its reunification. This red is in deep contrasts to the yellows of Poland,

Hungary, and Czechoslovakia, whose applications to join the union were postponed. In

even deeper contrast stand the countries in brown (the Soviet Union, Romania,

Yugoslavia, and Bulgaria), which are simply listed in the legend as "other states" with no

connection, or any hopes of connection, to the EC at all. This map is a fitting depiction of

the splintering of the post-Cold War world, with West Europe clearly depicted as its own

unit (Germany once again accepted), and Central Europe grouped as having its own

distinct identity alongside the West, while a Balkanized East still persists. Iconically, then,

the loud cacophony and contrast of colors support the revisionist message that the

immediate post-Cold War is a jarringly unequal clash of powers.

Another map from the *NSWP* atlas, "Before the Thaw," also addresses these

East/West tensions. "Before the Thaw" foregoes the traditional alignment of East/West

prevalent in most of the other maps, and instead reaches back to the air-age global era for

a projection anchored around the Arctic circle.[20] This tectonic shift situates the reader in a

topsy-turvy world where Europe is in the southern hemisphere, and the United States is

off-center in the North, somewhat distant from its usually dominant place in the western

hemisphere. However technically inaccurate, the map's subversion of form utilizes an

almost unrecognizable perspective of the world to demonstrate the argument that the

relationship of East and West sustained during the Cold War is no longer viable; indeed,

the distorted shapes of nations on the page, in a way, mirror the distorted nature of

political alignment in the post-Cold War landscape. To further illustrate the new world of alignment, white dots are placed in a host of countries across the globe to denote membership in the "movement of non-aligned states," showing in both color and icon how many states were choosing to opt out of the Soviet/American dichotomy. As the caption in "Before the Thaw" notes, "[i]t remains to be seen whether a system constructed in the name of East/West confrontation will be useful in the post-Cold War world."[21]

The map titled "Killing Power" goes even further in representing such tectonic shifts by using cartograms to chart the destructive capacity of nations other than the United States and the Soviet Union (who, the map points out in an inset, together have 98 percent of the world's weapons), making France bigger than China, and India dramatically diminished in size to that of the reunified Germany.[22] Relatively large projections of Czechoslovakia and Yugoslavia are cast in a beige hue that marks them as "states among the most lethal top 20."[23] These unusual projections create new spatial relationships that defy conventional, territorially bound approaches. The radical message is again one of ambivalence as the map emancipates Europe from the grip of East/West definitions, but does it to show how destructive non-superpowers can be where nations retain their arms. Still, even as they show the dramatic inequities between states' capacities for violence, the authors fail to note that nuclear weapons are a grim equalizer (as Bunge knew); whether a state has more destructive capacity than another is irrelevant if just one nuclear weapon is used. The contradictions of tradition and innovation in these maps display a cartography in transition, mimicking the transitions that many of the states being mapped were undergoing.

Running From the Border:
Nationalism and Ethnic Identity in the Pluto Project's New Europe

Another issue in mapping the post-Cold War revolves around the great challenge

for mapmakers and new states as a whole: determining how to represent borders and

identities in the new world order. As Michel Foucher highlights, such borders exist on

multiple levels, including the physical borders of the new states; the lines representing

membership in different markets, coalitions, and multilateral institutions; the dividing

lines between religions or "frontier[s] of faith"; and the lines between minority and

majority populations.[24] As the Pluto Project subversively notes, a rapid change in

political and economic borders would not necessarily match the pace of the social and

cultural sphere, a reminder of Kari Laitinen's warning that "it takes time to 're-imagine'

the political space we live in."[25] As the 1990s unfolded, many of these borders became

the wicks that lit the flames of interethnic conflict and nationalistic extremism, fanned by

the shifting identities of the people living inside and outside those borders during political

transition.

The "End of Empire" map addresses these border issues through its focus on the

crumbling Soviet Union and its constituent republics.[26] Most other Pluto maps use states

as their building blocks, but here, the map also mixes in competing nationalities,

featuring small graph icons that detail the percentages of Russians versus the home

populations in these territories, such as Uzbeks, Ukrainians, Moldavians, Byelorussians,

etc. The overriding presentation of the map threatens to overwhelm the reader with color

and graphic detail, mimicking the dangerous messiness of borders, as well as hinting at

the meaninglessness of state lines in the face of ethnic conflict. A thick black line outlines

the whole of the Soviet Union on the map, but that line is dotted by a host of icons in

silhouette that look like explosions, as if the border was literally crumbling. Such strategies advance the argument for the *active* nature of space, even as they work within the lines of a traditional map. The map also plays with temporal conventions that emphasize the active, changing immediacy of border conflicts. "End of Empire" projects impending disintegration by showing what were then *present* realities in the Soviet Union and connecting them to what the mapmakers saw as elements of its *future* downfall. The "End of Empire" map also contains an inset called "The Expanding Empire," which depicts changes in the Russian Empire from 1462 to Stalin's acquisitions in World War II in soft pastel colors, while right above is a second inset that depicts how the acquired territories have suffered economically, with incomes in some of the outlying republics as much as 50 percent below the Soviet average, shown in dark shades of green. The stark conflation of political conquests with economic ruin, through color and time-spanning graphics, is representative of the Pluto Project's approach to the new European space: the map's form is used to both heighten the temporal urgency of action and to chart visions of a painfully contrasting near future.

In his introduction to the *New State of the World*, Kidron states that the new edition supplements the previous one from 1987 with "a few cracks," significantly referencing those of "nationalism, sub-nationalism and supra-nationalism beat[ing] against the state's borders."[27] The forward-thinking image that the atlas works to portray is evident here, as Kidron charges, "as yet these are hairline cracks barely visible to the unpractised eye. They do not threaten to ground the world as we know it. But they indicate where the stresses are, and hint at what might happen if they are not dealt with."[28] Kidron thus subtly privileges the revisionist cartographer's eye as trustworthy in

detecting new fault lines following the Cold War and to serve as a hermeneutic for future world events. This notion is evident in the *NSTW*'s first map, "The World of States," which shows almost every state in bright red, denoting those "states with unresolved jurisdictional disputes," in a sense reclaiming the menacing color of the Cold War for *all* nations with border problems in the post-Cold War era, including almost every country in East and Central Europe.[29] In turn, "The World of States" serves as a parody of the Cold War: at first glance, the form looks like any traditional Cold War map, but instead of a dualistic split of states, it is clear that almost all states have the potential for violent clashes over borders, whether democratized or not.

This concern with the ambivalence in borders is further apparent in "At the Turn of the Decade," a map that appears at the end of *NSWP*, as it mixes a cautious optimism with biting ideological fury.[30] At the time of its printing, the Soviet Union had not disbanded, yet the map's graphic and linguistic elements pronounce the Cold War dead. In an inset of Eastern Europe, the states in which major changes were directly related to the end of the Cold War are colored in red, with orange and yellow icons indicating where border disputes were surfacing. These states are once again separated from the states of the larger European community, which are colorless. The tagline under the title supports the visual, starkly noting that "much of the news was good but not all. Some of it was very bad. The end of the Cold War was affecting a lot but not everything. There were fewer armed forces but still too many. Some wars ended, but new conflicts started and many old ones worsened."[31] The resignation of this quotation speaks again to the mix of optimism and alarm that marks the project's characterization of a post-Cold War future. Seeing where and how change occurs, though, is made difficult by some of the rhetorical

choices inherent in the maps: for example, while making Western Europe colorless in a map about eastern border disputes makes functional sense, the choice ignores the West's contentious role in defining those borders and setting standards for democratic progress, for better or worse. By fading the West into the background, the map connotes the idea that these powerful nations' role in restructuring and effecting change is minimal, despite the realities on the ground.

The authors of the Pluto Project maps also suggest that the worst conflicts to come for areas like Eastern Europe will happen *within* borders, not outside them. The "Human Rights" map in the *NSTW* bathes Yugoslavia, Albania, and the U.S.S.R. in vibrant reds, marking them as "terror states" that employ the strategies of "assassination, disappearance, torture." Romania and Bulgaria are colored in dark gray, indicating a "repression state" that employs "arbitrary arrest, detention or exile; interference with privacy; excessive force; curtailment of freedom to express opinions, to associate, to worship, to travel, to change government."[32] These distinctions are also advanced in "See, Hear, Speak No Evil," which places a padlock icon over the whole region in a larger argument about censorship around the world.[33] Maps like "The Dogs of War" color Yugoslavia and Romania, as states at war with their own citizens, in bright orange, linking their hue to other states on the map like China, Pakistan, and Sudan. Along with bright yellow icons that look like exploding grenades, this map recalls the bloody realities behind the dismantling of the Berlin Wall, and features a sense of doom alongside a rhetoric of optimistic social change.[34]

The Third Worlding of the Second World: Economic Development in Pluto Maps

Finally, a major function of the Pluto Project's transitional cartographic rhetoric is its use of radical economics to show how the countries emerging from state socialism were economically dependent on richer and more powerful states. Maps that depict the end of the Cold War, and particularly the nation-states of Eastern Europe, faced the challenge of how to represent the integration of these new spaces into the burgeoning phenomenon of globalization. Thomas Kane has suggested that a rhetoric of "economic dualism" accompanied the end of the Cold War, leaving Eastern European countries scrambling to get on the right side of the dividing line, as membership in the European Union creates new spatial divisions.[35] Those nations on the wrong side of the line risk being mapped within the Third World, affecting their self-identified shapes, and privileging a western binarism defined as being either in or out.[36]

The Pluto Project approaches these Third World depictions with its typical mix of optimism for peace and prosperity and alarmed anger at the inequities and ruin of state power. The new universe after 1989 portrayed in the Pluto atlases is both scary and intense, inundated with gas masks, skulls, tanks, dollar bills, fires, and missiles strewn across our globe. A bleak overall presentation, though, is supplemented by pockets of hope concerning how a less dualistic global society can achieve peace and stability. The very first map in the *NSWP*, for example, begins the atlas on a note of guarded optimism. Titled "The Dove of Peace," the map includes an inset of a dark green-colored Eastern Europe set in contrast against a colorless Western Europe. According to the map's legend, states colored in dark green were cutting back armed forces, hinting that the changes of the Cold War came relatively peacefully. The icon of what appears to be a soldier

walking away with a backpack on his back is also placed at different spots on the former

Eastern Bloc nations, indicating a withdrawal of foreign bases by the Soviets in these

states.[37] The map that follows, "Talks and Treaties," provides a similarly hopeful

message for Eastern Europe by showing icons of heads around conference tables, a

suggestion that implies the diplomatic successes of arms control talks.[38]

Such optimism aside, the choices of captions and icons indicate the ambivalence

of parody as a strategy for effecting social change. For one, as the Bush-Gorbachev

summit reveals, a lot is hidden in the cartographic space drawn by superpowers, and there

is no indication that the U.S. or NATO would withdraw its military presence from the

region to match the U.S.S.R.'s retreat. This omission in the map obscures the sense in

which democratization would come against the backdrop of weaponry and force. Also,

the decision to show disembodied, silhouetted heads around a conference table across the

region, rather than to use a graphic of two hands shaking, is a less than subtle reminder

that sitting at a summit does not necessarily equal the radical drive toward peace the

authors have in mind. The wording of the caption underscores the point: "If the world

seemed to be getting safer at the end of the 1980s, some of the credit belongs to expanded

diplomatic relations and three decades of arms control talks. The talking and treaty-

making continues."[39] The graphic fusion of the linguistic "talking" in the caption and the

title of the map with what looks like heads talking over Eastern Europe leaves the reader

wondering if talk is cheap, especially among the ensuing maps that show the extent of

armed conflict and economic uncertainties in the region.

Other maps bear out this guarded optimism by depicting Eastern Europe still

mired in a web of superpower entanglements. An inset of the region on the map "The

Superpowers" is filled with a host of icons, including power lines, satellite dishes, and clocks, all of which signify the extent of the surveillance and intelligence devices that the Soviet Union still held in the region.[40] The map also links parts of Eastern Europe to nations more often considered to be developing, contributing to the possible othering of such new states. The association of these so-called Second World states with the Third World is also evident in the map "Psst!" where the clandestine arms trade is depicted, linking some Eastern European countries to the arms suppliers in Libya, Afghanistan, and Nicaragua through color and icons.[41] The parodic humor of a title like "Psst!" with icons of money piles and spilling test tubes implies that the "talks and treaties" indicated by earlier maps in the atlas mask pernicious and dirty secrets. And to see "Afghan Mujaheddin" and "Nicaraguan Contras" placed as captions over Czechoslovakia and Poland reductively signifies and intertwines these countries' fates together.

Altogether, the Pluto Press atlases evidence a potentially important interlocking relationship between cartography and democratization. These maps of transition— whether displaying the dichotomy between East and West, presenting shifting borders and identities, and accounting for economic development and multilateralism—ably express the ideological complexities of the supposed "end" of Cold War geopolitics. Their very ambiguity makes it difficult to see how the process of democratization can provide solutions to the ravages of socialism. Maps that appear in times of social change struggle with the notion of representation: how it is that abstract lines on the flat page come to denote sweeping, volatile change on the ground. The clean lines and blank spaces on maps (like Gorbachev's) often mask the ideological messiness of state power, and only when the form of maps *as* content are accentuated can such messiness be

identified. What is striking, though, is how much the process of democratization in places like Eastern Europe is itself a struggle of representation, especially in deciding who merits the power to speak for and represent individuals that, for over four decades, were not allowed a public voice. Now, as the spaces for participation have opened, those involved in building democracy need to fill in those spaces with clear promises that life will be better than before, to project the image that the individual will now receive representation.

In a sense, cartography and democratization after the Cold War share the problem of representation: both are expected to adapt to the changing geopolitical landscape and offer new, realistic visions. Part of questioning the objective, scientific standards of the map is subverting the form of the map itself; similarly, because of the fusion of the form and content, it would follow that indicting democratization would involve indicting the forms of democracy itself, of which mapping is an important part. For cartographies like the Pluto Project, however, this second challenge has proven to be more difficult. Their atlases clearly offer an ambivalence about both state socialism and the ensuing democratizations, more generally indicting *all* state power, but their efforts fail to offer a third way. The ills of power, whether democratic or socialist, in a changing world are vivid and stark in these pages, but the solutions, or the path to peace, less so. What makes the Pluto Project atlases from this time period so important as part of this larger project on Cold War space is how much the maps are challenged by the nexus between the formal, representational conventions of cartography and democratization, simultaneously challenging those conventions even as they hold on to enough of them to advance their progressive content in an understandable and compelling way.

While the unique position of the Pluto Project houses a fragmented and sometimes incoherent collection of messages, they can generate new lines of argument in the way they defy convention, while also dramatizing and heightening the conditions of state power in the post-Cold War landscape. By questioning the function of cartography itself, the atlases show how challenging form is in itself an active critique of power—the Pluto Press authors re-examine the nature of state power by subverting the forms one of its own historical tools, namely, the map. Frank Lentricchia conceived of criticism as "the production of knowledge to the ends of power, and, maybe, of social change," which "presupposes a critical theory of society and history—what human beings have made, they can and will unmake and then remake and remake again."[42] In the context of a collapsing Cold War, the Pluto maps arguably map themselves into this remaking process.

Placing *(Re)Placing America*: Reflections on Cartography and U.S. Cold War Power

The Pluto Project provides a fitting example of the difficulties of depicting a dissolving geopolitical framework that was deeply entrenched in the international imaginary. The maps signify that just like there was no Fukuyama-style "end of history," there was also no accompanying "end of geography."[43] Notions of space and place, nation-state power, globalism (and later globalization) continued to play a contentious and influential role in international politics. Three years after Gorbachev and Bush debated a crumbling Cold War system on the map, former dissident turned Czechoslovakian President Vaclav Havel, dealing with his own dissolving country, spoke to the World Economic Forum in Davos in March 1992 about the challenges of an era's end. Havel characterized the Cold War as "an era of systems, institutions, mechanisms and statistical averages. It was an era of ideologies, doctrines, interpretations of reality,

an era in which the goal was to find a universal theory of the world, and thus a universal key to unlock its prosperity."[44] Havel's worry, though, was that in the face of a new era, the leaders of the world were not learning their lessons:

> We are looking for new scientific recipes, new ideologies, new control systems, new institutions, new instruments to eliminate the dreadful consequences of our previous recipes, ideologies, control systems, institutions and instruments. We treat the fatal consequences of technology as though they were a technical defect that could be remedied by technology alone. We are looking for an objective way out of the crisis of objectivism.[45]

To Havel, the Cold War was the ultimate modern project: two world systems united in the "proud belief that man, as the pinnacle of everything that exists, was capable of objectively describing, explaining and controlling everything that exists, and of possessing the one and only truth about the world."[46]

The Cold War's end required a new mode of envisioning the world, and Havel worried aloud that the same familiar frameworks of superpowers and scientific control were being erected once again. A week after Havel spoke to the WEF, a Pentagon draft memorandum of the "Defense Planning Guidance for the Fiscal Years 1994–1999" was leaked to the *New York Times*. The report presented an America coping with an uncertain international political landscape, offering prescriptives like:

> First, the U.S. must show the leadership necessary to establish and protect a new order that holds the promise of convincing potential competitors that they need not aspire to a greater role or pursue a more aggressive posture to protect their legitimate interests. Second, in the non-defense areas, we must account

sufficiently for the interests of the advanced industrial nations to discourage them

from challenging our leadership or seeking to overturn the established political

and economic order. Finally, we must maintain the mechanisms for deterring

potential competitors from even aspiring to a larger regional or global

role…There are other potential nations or coalitions that could, in the further

future, develop strategic aims and a defense posture of region-wide or global

domination. Our strategy must now refocus on precluding the emergence of any

potential future global competitor.[47]

The contrast between Havel's new world vision and that of the Defense Planning Group

could not have been starker. While Havel hoped for some kind of international pan-

humanistic collaboration of nation-states, America was still defining the world in terms

of balances and competitors, forces and threats—all from an overtly geopolitical,

strategic vantage point. The U.S. seemed to be clinging to the old Cold War map of

superpower binaries. This notion was not lost on *Harper's* editor Lewis Lapham, who

wrote of the report:

Within the Washington conference rooms where the strategic theorists decorate

their maps with lines of force and arcs of crisis, the Pax Americana remains as it

was in 1947, as permanent and serene as the dome on the Capitol or the stars in

the flag…The Cold War imprisoned the nations of the earth in the attitudes of fear.

It wasn't only the threat implicit in the weapons, although the weapons were

many and terrible; it was also the pattern of thought bent to the service of

abstraction.[48]

Ultimately, *(Re)Placing America* follows Lapham's sentiments and interrogates how these abstract Cold War patterns of thought were materialized into the lines of maps and were hailed into the contexts and conflicts of an international standoff. My intent, however, was not to indict the practices of mapping as "agents of doom" in the service of evil superpowers; such a move would be as reductionistic as a map itself. Rather, I situated cartography as an alternative entry point into assessing America's construction of the Cold War. A map remained a vibrant discursive formation by which America attempted to place itself, to stabilize its identity in the face of global-scale spatial change. Maps in this way, both in U.S. institutional and popular contexts, can be seen as management systems that reduce and universalize, flatten and make round, reveal and conceal. Havel wondered if the end of the Cold War meant the "end of the modern era" and tried to envision what a post-Cold War space would look like, while the Pentagon attempted to perpetuate the Cold War's modern admixture of military objectives, science, and power politics in order to cope with an unfixed, unstable world landscape. Space, in short, matters—and the textual ways in which we produce and reproduce that space, and vie for control over the right to envision and chart that space, matters as well.

Throughout *(Re)Placing America*, I make the connections between such competing world visions and the practices of mapping. The story of cartography in the second half of the twentieth century is a microcosm of the narrative of the Cold War itself: the anxieties around "progress," the drive to incorporate and devise *better* and clearer perceptions of the world, the development of technologies that encompass more facts and wider spaces, the negativity of containment placed against the ideal of scientific internationalism in economic and social development. Maps offer a way of explaining

how a high-level Defense Planning Group could grasp onto a fixed view of the world, while also helping to explain the scope of vision that an agent of change like Havel needed in order to alter such fixed views. And while Lapham may have mentioned the maps decorating defense office walls as a kind of literary device, this project has advanced that those map-covered walls have actual ramifications in helping to produce the U.S. imaginary of itself and the world. A map is not placed in a Congressional report thoughtlessly; the choice of a mapmaker to frame Africa in a particular way is not arbitrary. These maps were produced, displayed, and entered into exchanges and debates according to the dictates of the Cold War contexts surrounding the map and the dictates of the internal forms of the map as a medium (in its shapes, colors, icons, captions, and relationship to the information it may support). Cold War maps are, if anything, a fitting barometer of the modern era, gauging the climate for state progress, but also measuring the storms of state upheaval. The ambivalence and complexity of cartography as a medium, and its unique abilities to negotiate various tensions are what makes maps relevant both historically and rhetorically. Havel's "crisis of objectivism" started well before the end of the Cold War; cartography was bound up in these conundrums of science, art, and ideology since the conflict's beginning, with its synergy of form and content adapting and re-adapting to tumultuous changes.

Altogether, I would argue that this study has made the following points of contribution in analyzing and tracing such changes: 1) the function of the map to both "fix" and "unfix" particular perceptions of the world is relevant to assessing how America sought to stabilize its place in a rapidly changing world; 2) the internationalism of the Cold War was bound up in the capacities for cartography to document and adapt to

it; 3) the humanistic notion of a geographical imagination is central to understanding why particular Cold War agents and institutions continually drew on cartography to represent their interests; 4) combining an ideological approach to reading maps as articulators of contextual tensions and historical ideas with an instrumental approach to maps as material, strategic documents can best help to situate cartography as an ongoing process of production, circulation, and display. Such contributions place the study in a dynamic between "mapping forward" and "mapping back," and show how considering Cold War cartography and history from a rhetorical perspective can help to critically assess future cartographic projects and visions of the world.

Fixing and Unfixing: Maps as the "Immutable Mobile"

For one, characterizing Cold War maps as an uneasy balance between fixing and unfixing helps create a better understanding of America's recent cartographic history and potentially strengthens a sense of the contingencies of world space as we move further into the twenty-first century. In some ways, the cartographics of Soviet octopi and slave camps, the widely distributed educational maps showing America as the center of the world, the newspaper maps showing the promise of the Peace Corps, the Congressional and Defense reports filled with endless security projections of America's power all over the globe, all seem like antiquated, historical curios. The mapping impulse and spatial assumptions of the Cold War, however, remain very much alive and relevant—the concept of closed, absolute spaces on the map, the continental framework of power lines between developed and underdeveloped, and the acceptance that the world is continually shrinking through rapidly changing technology and communication still hold sway. Arguably, the map's ability to fix and freeze relationships onto the page is its most

pervasive and powerful characteristic: not only to say (à la Denis Wood and John Fels)

that *this is there*, but also that *this is the world*. The international landscape was not

simply in flux during the Cold War; America was powerful enough that its definitions

and its vision of world space was hegemonic and often immovably rigid. Thus, the maps

of the Cold War have displayed the various ways by which, in Shapiro's words,

"dominant territorialities have daily helped to reproduce the international imaginary."[49]

Using maps as rhetorical texts that can show this process of reproduction is particularly

important, as they help to critically assess how certain dominant views of the world

become fixed and powerful. In the words of international relations theorist Kennan

Ferguson, cartographic practices have:

> served as a sense-making machinery for the United States and other geopolitical
>
> entities in the form of the taxonomies that make placing the American self in the
>
> world possible…to map is to 'do' politics: to make political judgments, to place
>
> people in different worlds, to grant and deny opportunities—but also to attempt to
>
> depoliticize and naturalize these judgments.[50]

I sought in this project, then, to foreground this politics of mapping in America's recent

history through compelling cases that displayed the visual politics of the Cold War. What

makes maps important in this context is not just how the maps politicized space, but also

how their power of scientific authority and authenticity removed politics from the map,

often smoothing out the wrinkles of inequities and struggle that searching for place

within an abstract space can create.

On the other hand, while the bipolar image of the U.S./Soviet Union was (and in

some ways remains) powerful, it is entirely too easy, as this project has demonstrated, to

claim forty-plus years of a static geopolitical landscape. The maps of the Cold War era have demonstrated that this is far from true. Even as they were used to fix the world, maps were dynamic, continually contested, circulated and re-circulated, drawn and re-drawn. They were created by a diversity of institutions and interests looking to define the world and fill abstract space with meaning and stability. Denis Cosgrove points out that a map is the very embodiment of what Bruno Latour called the "immutable mobile," "a container of information gathered at specific locations, returned to a 'centre of calculation', and then placed once more into circulation as a vehicle and instrument of scientific knowledge."[51] Thus, the map freezes and commits particular relationships to the page, but then becomes a circulatory medium that has movement in the culture, as certain projections will be redesigned and refashioned or particular mapping projects designed for one purpose will be (re)appropriated for other uses. All the while, the map has to, in a sense, perform—to constantly promote itself as a credible expert witness to the world space it abstracts. Because of this, maps also have a recursive quality, referring back to themselves and their forms by pulling on past conventions, while arguing for future realities."[52]

To show the *(re)placement* of America is to conceptualize the Cold War and cartography itself working in tandem with one another as a continual process, with the United States (through its multitude of cartographic agents) renewing and re-envisioning itself in a dynamic between fixing and unfixing. The wide scope of *(Re)Placing America* overall is used to show this sense of movement. America emerged an undisputed world power from World War II, and out of that power built a massive strategic apparatus based around complex inter-agency military, academic, and foreign policy collaborations.

These collaborations placed the nation uneasily as both an idealist, benevolent developer of the undeveloped, and a guarded, realist surveillance center of knowledge production and control. By the time of the Second Cold War, America was a shaken giant reaffirming its principles to both its technocratic and moral place of prominence on the international landscape. *(Re)Placing America* contributes a rhetorical perspective on maps as a process of fixing and stabilizing throughout these international shifts in the United States' identity as a world power—in other words, how cartography managed the anxiety around what and where the place of America should be in the second half of the twentieth century during an era where two world systems vied for the ultimate locatory power of geopolitical influence.

Cold War America and the Form of Internationalism

This project has primarily focused on world political maps that project American power (and its perceptions) across a global field, making internationalism a central theme. The Cold War introduced the tension between an acceptance that horizontal distance on the ground is no longer the primary measurement of space, and the fact that the horizontal, flat map still reigned supreme. These changes in distance had profound implications for the character of American internationalism and foreign relations. Some would argue that air-age globalism never really caught on—for example, a Richard Edes Harrison map today, still surprises with its novelty, its rolling landscapes and disorienting viewpoints. Whether those styles had a long legacy, though, is immaterial: Harrison (and the other early World War II and Cold War cartographic innovators) more importantly articulated the opportunities, limitations, and ambivalences in visually presenting America as a steward of the world. What did catch on was Harrison's acceptance of maps as a

discourse—during World War II and the Cold War, cartographers and policymakers from a wide array of institutions accepted that maps could no longer be static, but had strategic properties. The rise of the air as a cartographic medium and the technological advances in missiles transcended familiar political boundaries, and maps documented these shifts at each turn. To cope with American power potentially losing its place in these changes, Cold War maps were especially successful at projecting the labyrinth of new commitments and framing the geopolitical reasoning behind blocs and pacts. For example, the State Department found itself using cartography as a catalogue of borders and political jurisdictions, attempting to keep pace with the immense changes in world politics. By the time of the Second Cold War, the world had shrunk on the map to the point of hyper-internationalism, where the U.S. and the Soviet Union overlapped so much in destructive power that international distance, at least in a horizontal sense, became meaningless. The power to draw borders and boundaries was still deeply important, as I have suggested; the fear that our familiar geographical methods of explaining the world were becoming obsolete was expressed in attempts to enforce and protect those methods. Hence, it is clear why the Weinberger defense maps of 1981, which catalogued a new arsenal of the most sophisticated weapons technology in American history, were projected on maps that could have come out of *Time* magazine in 1947, with their arrows of Soviet aggression and arguments for spatial containment.

These issues lie at the heart of what makes Cold War mapping interesting: most mapmakers, policy analysts, defense representatives responded to the new strategic uses and malleability of mapping to represent America's international interests, yet this was not always accompanied by a critical understanding of maps as ideological constructs.

More often, any problems with the map were seen as technical—a map could be reconceived and redrawn to get a better perception, but there usually was not a question about maps themselves as a form of vision and what those implications might be. This conundrum explains why outsiders like Arno Peters were met with extreme reactions of hostility and adulation, and fringe academics like William Bunge both baffled and inspired audiences. The expectations that the forms of maps would fulfill a certain appetite were extremely powerful, making those violators of forms that much more novel. Altogether, the anxiety of the Cold War's leap into internationalism made familiar and recognizable cartographic conventions even more important to maintain. The borders on the map were not simply legal-political lines and military barriers, they were powerful ways to maintain and defend a particular vision of the world, and a method of ordering and containing international chaos.

Imagining and Re-Imagining: Humanistic Projection and the Question of Cartographic Agency

While cartography was certainly prominent as a medium for scientific knowledge and management, this project also renders maps as part of a more artistic "imaginary" in Cold War visual culture. Cartography was drawn with particular value systems, setting spatial hierarchies and politicizing "place." Maps, then, were contingent, situational, and, above all rhetorical. Despite their sophisticated technology and abstract qualities, maps are, in a sense, unfailingly *human*. The Cold War did see an unprecedented technologization of cartography and a transition of mapping into a highly sophisticated science, but it also saw an explosion of social-political issues and thematics that fell under the mapping umbrella, from health to economics to religion to poverty and beyond.

The human element still found its way into the map, and to find the tensions by which those themes made their way into the lines and borders, thus, becomes important.

I highlighted, for example, how agency remains an important character in analyzing maps, as the individual choices of cartographers and the interests of particular institutions bind and frame the map's presentational power. The way in which a William Bunge comes of age during both the tumult of Vietnam and the rise of quantitative geography as a major disciplinary paradigm shift, or the function of Isaac Don Levine as defector journalist who chooses cartography as one medium of fighting communism, or S.W. Boggs becoming frustrated behind-the-scenes as America drops its commitments to international mapping collaborations—all speak to the business of cartography as a confluence of human forces, not simply byproducts that reflect history. Discerning the intent of these actors is difficult, even as it is possible to discern a network of interests and ideologies constrained by rhetorical choices and contextual changes that inform (and are informed by) the larger Cold War. These agents provided values systems for the map, while in turn, the map provided a value system back to its agent. All in all, whatever the intent may be, the map was chosen by these actors for its unique power to articulate and mediate the space of the Cold War.

Related to these notions of cartographic agency is the function of a map's circulation: the map is not just a rendering of its cartographer's artistic vision or its institutional origins, but the map also accrues further political meaning and ideological value through its rhetorical life in circulating through various contexts and interpretations. Such an approach seeks to remove the map from its status as detached visual aid or a mere reflector of historical change—a kind of historical wall decoration. Even after two

decades of robust scholarship in "critical cartography," too often, fruitful conversations about the ideologies of mapping and the powerful interests behind maps ignore the actual maps themselves and treat them as simply side items. This good work misses the opportunity to bring forth the material cartographic evidence and re-create the heightened moments by which maps get hailed into active duty. Maps are points of human communicative action, not empty containers of ideology. To approach them in this way first involves unearthing the maps, engaging with them in their archival locations, treating them as complex textual fragments in their own rights, accentuating their embeddedness with other maps and material artifacts, piecing together (when possible) how the maps were appropriated for particular interests and strategies, and reading the actual maps for their internal grammars *and* their external ideologies—seeing the map and the "paramap" as working in tandem.

The danger of doing a historical study of Cold War mapping is that it risks reducing, as has happened all too often, space to time. In other words, stringing together a narrative around cartography may create the appearance of a neat chronology, when there is really messiness and loose ends. Worse, it may suggest, once again, that maps simply serve as reflectors of historical circumstances. What I would advance, instead, is that what makes maps particularly interesting is their inherently fragmentary nature—that here and there they are embedded in a report for statistical evidence for capacity and projection of power, used as emblems for internationalist identities at other points, and circulate as provocative arguments elsewhere. They provide interesting ripples, and then go back under water again. Mapping, then, finds its way into some of the most heightened and dramatic of Cold War situations, as well as the more mundane.

(Re)Placing America does not, then, attempt a comprehensive history of Cold War cartography, but rather seeks out particular nodal points and thematics where maps consolidated and shaped changing shifts in perception, where cartographic fragments cohered around the defining moments, but also sometimes in the everyday politics of the Cold War. The performative drama of Henry Cabot Lodge hailing cartography into a direct confrontation with the Soviet Union at the United Nations needs to be placed alongside the routine recommendations buried in conference reports that American representatives made at UN cartographic summits about how U.S. mapping methods could be appropriated by developing nations. Both provide equally important representations of not only the strategic uses of mapping, but the way cartography was understood as a practice—and the more these are put in play with one another, the richer sense we may get of how Cold War space edified itself into U.S. government, academic, and popular identity.

The intertextuality across Cold War maps in a host of different popular, academic, foreign policy, and defense venues is what gives them richer meaning: that Richard Edes Harrison was a State Department consultant, that the same specifications for International Map of the World maps were being used by the Army Map Service to chart foreign areas, that Dr. May's maps of disease for the AGS were circulating in Congressional debates, that Peters' socialist map projection was adopted by evangelical religious organizations all over the world. Maps, then, engage with other maps, creating a complex, often contradictory, web of discursive relations between geopolitical ideas and values.

Vision and Strategy: Bringing Ideological and Instrumental Approaches Together

Finally, this notion of intertextuality hints at one last implication of this project: the potentially fruitful blend of ideological and instrumental critiques. For example, beginning this particular narrative of Cold War cartography with Richard Edes Harrison is instructive because his two innovative articulations about the function of mapping—vision and strategy—are central to the mapping process as a whole in the second half of the twentieth century. The ideology of vision, that perception and interpretation (in his case, the "bird's eye view") are key to seeing the world as a whole in terms of American interests and power, finds its way into the multitude of new uses for mapping in the era. At the same time, these users also understood mapping as *strategic*, that a map had an instrumental purpose and could be marshaled and circulated as evidential weapons against the U.S.S.R., or could be drawn into the U.S. project of developing a stable and democratizing Third World. "Gulag—Slavery, Inc.," for example, provided the archetypal instantiation of these functions. The AFL's map of slave labor constructed a powerful vision of America's place vis-à-vis the Soviet Union, infiltrating its borders with "authentic" knowledge; yet, the map's full influence is not seen until it is shown how "Gulag—Slavery, Inc." was instrumentalized as a strategic force by international labor unions, Congressional representatives, the CIA, even everyday citizens. Similarly, an analysis of the products of U.S. Third World cartography shows how maps anxiously framed an emergent South, but this analysis is richer when those products are considered alongside the processes by which State Department policymakers conceived cartography as a modernizing project that could "teach" de-colonized nation-states to be strategic allies. All in all, the intersection of such relationships hopefully proves why the meaning-

making function of the internal system of maps and their external production/circulation are best held in suspension with one another.

This relationship, then, between the ideologies of maps and their strategic, instrumental uses evidences the power of the map as an inventional resource, a unique force to be marshaled *into* America's waging of international conflicts. President Roosevelt understood this when he ordered Americans to become World War II participants by tracing strategic routes on maps. Richard Edes Harrison understood this when he discussed the importance of "user requirements" when training Army personnel to absorb the importance of the new pilot perspectives. S.W. Boggs certainly responded to this power as he sent a new state-of-the-art globe to Secretary of State George Marshall as he blueprinted a vision of a postwar Europe. When O.K. Armstrong detonated the map as a public relations timebomb in the hands of Andrei Gromyko, he was drawing on that same inventional power, as was Henry Cabot Lodge showcasing the technical superiority of U.S. cartographic surveillance technology to embarrass the Soviet Union in an international forum. Even Hubert Humphrey distributing maps of world disease to members of Congress or Caspar Weinberger choosing cartography as a central medium to rekindle an arms race and propaganda war with the U.S.S.R.—both saw cartography as a rhetorical choice and a viable medium for arguing America's role as both benevolent international steward and military exemplar. While all of these anecdotes may be small instances of Cold War antagonisms, their importance as illustrations, arguably, goes deeper. In each case, the actors understood, at least implicitly, the map's importance as a potentially explosive source of invention—providing a writ of commitment and evidentiary power. It is no coincidence, then, that the map continually

infiltrated its way into high-level summits and conferences, or stirred up overseas reactions. And, on the other hand, if maps are conceived as inventional resources, it is easier to understand why actors such as William Bunge and the Pluto Press provocateurs could choose the map, one of the most visible tokens of state power, to potentially undermine and destabilize that power. In all of these examples, maps provided such actors with a political vision of the world, but also one that was tangible, to be held in one's hands, passed around, and argued about; and these functions of vision and strategy combined together to display America's investment in grappling with and coming to terms with its place in the world.

The relationship between maps and the Cold War also compellingly documents how cartography was continually constrained by its complex history as an artistic technique and a scientific application of the geographic discipline. Academic cartographers were so often drafted into the foreign policy and military apparatus of the U.S. government, and in the process the search for disciplinary truth and scientific rigor both vied against and aided the defense needs and the programs of U.S. international relations. Particularly, the rise of social science as a modernizing force was inseparable from the geopolitical internationalism of Cold War security and foreign policy discourse. The discipline of geography (and cartography as its visual companion) reached prominence as a social science in this era, but was also continually haunted by its perceived status as an arm of government objectives. Relatedly, the notion that in the "shrinking world" the importance of geographical knowledge was in danger also provided an uneasy backdrop to the collaborations between academics and policymakers. Continually, maps were drawn on as base for knowledge production. Thus, the

information and knowledge that maps contained on the page was matched in importance by the tensions around what "cartographic knowledge" actually means and can achieve. For example, "Gulag—Slavery, Inc." was just as notable for revealing the locations of Soviet labor camps as it was in offering proof that the United States had superior spatial knowledge to infiltrate the protected borders of the Soviet Union. From an oppositional perspective, this also follows that the *Nuclear War Atlas* is not only an example of nuclear protest, it is a culmination of anxieties around the shifting place of geographic and cartographic knowledge in both the academy and the U.S. government, and how that knowledge either aids or harms human beings on the ground. On the other hand, when popular cartographers were also hailed into the Cold War, government policymakers absorbed and recirculated the artistic perspectives, the reductionistic visual metaphors, and the appreciation of public opinion's role in creating visions of the world. When Boggs brought Boris Artzybasheff of *Time* to render map graphics for State Department propaganda films, or representatives entered *New York Times* maps of Cold War international problems into the Congressional Record, these actors were reaching out to novel perspectives and signifying the importance of the "audience" as a factor in their use of cartography. Taken together, this melding of art and science made for maps as unique source of both authoritative expertise and visionary inspiration. In this way, the remarkable fluidity of maps crossing popular, academic, and institutional contexts remains one of the most enduring legacies of Cold War cartography.

Mapping Back, Mapping Forward: Resituating Cold War Cartography

On June 13, 2011, literary theorist Stanley Fish boldly titled his periodic column for *The New York Times* "The Triumph of the Humanities." In this piece, Fish essentially

reviewed a new interdisciplinary volume called *GeoHumanities: Art, History, Text at the Edge of Place*, which shows that scholars can, Fish argues, "read events not merely historically, as the product of the events preceding them, but geologically, as the location of sedimented patterns of culture, economics, politics, agriculture. What is being attempted is a reorientation of perception, an alternative way of interpreting the world."[53] This alternative interpretation advances, in Paul Smethurst's words, that "space is not merely in the service of time, but has a poetics of its own, which reveals itself through a geographical or topological imagination rather than a historical one."[54] Such an approach is consonant with what historian Edward Ayers calls "deep contingency," in his "Mapping Time" essay for *GeoHumanities*, where layers of reality interact and the passage of time can be seen in spatial units. In this way, as Ayers claims, if geography is "about patterns and structures; history is about motion; by integrating the two, we can see layers of events, layers of the consequences of unpredictability."[55]

(Re)Placing America is one contribution to this spatial turn in the humanities, where maps are used to see both the motion of Cold War history, while also showing the spatial patterns of the American imaginary of the globe. This kind of spatial inquiry remains a vital project, for as Fish states, "the division between empirical/descriptive disciplines and interpretive disciplines is itself a fiction and one that stands in the way of the production of knowledge."[56] In this way, a critical, humanistic perspective to maps can be part of this bridge, not only in *producing knowledge,* but perhaps more importantly, exploring the ways in which *knowledge has been produced* in the past. To use Peta Mitchell's words, this perspective "demands a reader who is at once an archeologist, geologist and geographer, a reader who…is at all times attentive to the

stratification of history, memory, language, and landscape and who can read obliquely

through their layers."[57]

My approach to reading such stratification in *(Re)Placing America* is not just a

way of looking back into distant history. Critically reaching into that history allows for

the useful interpretation of uncertain, unfolding spaces (as well as the stabilizing forces of

place) in the future. In March 2003, as the U.S. military prepared to enter Iraq, a military

strategist at the U.S. Naval War College, Thomas P.M. Barnett, made waves with an

article in *Esquire*, entitled "The Pentagon's New Map."[58] Barnett sought to define a post-

Cold War, post-9/11 American geopolitics that finally faced the tides of globalization. In

short, Barnett's thesis is that in this new era, "disconnectedness defines danger"—those

nations that are plugged into the globalizing capitalist networks are safe, while those

states that stay outside of these networks are threats. Barnett wrote in *Esquire*:

> Show me where globalization is thick with network connectivity, financial
>
> transactions, liberal media flows, and collective security, and I will show you
>
> regions featuring stable governments, rising standards of living, and more deaths
>
> by suicide than murder…But show me where globalization is thinning or just
>
> plain absent, and I will show you regions plagued by politically repressive
>
> regimes, widespread poverty and disease, routine mass murder, and—most
>
> important—the chronic conflicts that incubate the next generation of global
>
> terrorists.[59]

Included was a map (fig. 6.1) depicting a deeply divided world between the connected

and the functioning (the "core": the U.S., the E.U., parts of South America) and the

disconnected and dysfunctional (the "gap": almost all of Africa, the Middle East, most of

Southeast Asia).[60] Barnett's bold map landed him a position as a special strategist for Donald Rumsfeld with the Department of Defense, and his multi-mediated PowerPoint presentation of the piece, entitled "The Brief," was required viewing by all Air Force members who attained the rank of General, and was given hundreds of times to various private and public organizations. The project became a book (*The Pentagon's New Map* in 2004), Barnett became a popular media pundit, parlayed his work into his "Glo*blog*ization" project on the Web, and his map was widely circulated as a new geopolitical vision for the twenty-first century.[61]

Certainly, Barnett's vision was different than that of the Defense Planning Group in 1992, which was still mired in a world of superpower politics. Rather than simply an
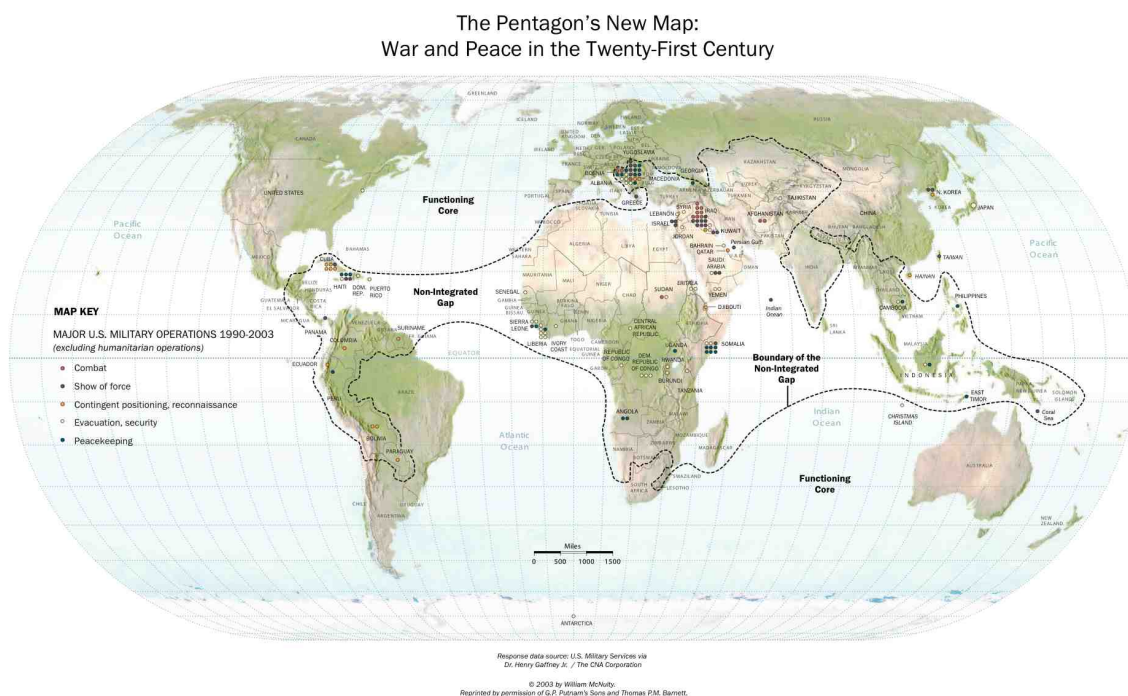

Figure 6.1. William McNulty, "The Pentagon's New Map," in Thomas P.M. Barnett's *The Pentagon's New Map*, **2004**

arms-wielding power or world cop, the U.S. was posited by Barnett as a "systems administrator" helping manage the world towards peace through connectivity. As Simon Dalby pointed out, though, Barnett was assuming that globalization was a benevolent, U.S.-led process that all would want to partake in, and within Barnett's vision was the age-old ideology of American exceptionalism and manifest destiny.[62] In addition, Barnett's geopolitical imaginary involved the legitimation of U.S. military intervention wherever it may be needed to ensure that the "gap" would shrink ("Show me a part of the world that is secure in its peace and I will show you a strong or growing ties between local militaries and the U.S. military").[63] So, while Barnett's project defined itself as resolutely post-Cold War, it takes an understanding of the historical nuances of Cold War cartography and geopolitics to be able to interpret and assess such new geo-visions. Barnett's own agency as strategist and cartographer mixed popular, academic, and government-defense assumptions in ways that Richard Edes Harrison and S.W. Boggs would understand. His geopolitical reasoning spoke to the kind of "world divided" that Mackinder's World War I cartography inspired in the move toward containment and bipolarity that mapped American constructions of the Soviet Union. The multi-mediated circulation of Barnett's maps may have been more sophisticated than the AFL's Gulag labor map, but the importance of how a map is produced and circulated amidst institutional collaborations and support through a multitude of forms ring true in both cases. Barnett's map also drew lines that (re)set notions of inside/outside, and center/periphery, and demarcated which nations had arrived and were arriving, in ways that resonate with the cartography of development and modernization during the Cold War's realignment toward the South in the Third World. All in all, the idealism of the

"shrinking world" bringing connectedness and peace, mixed with the realist calculus of security and counterforce, was a confluence of spatial values that marked America's Cold War past. Ultimately, the "Pentagon's New Map" phenomenon once again shows cartography being hailed as evidential weaponry into a global debate around America's continually-shifting "place" in the world. To see the map forward, we have to see the map back as well.

Finally, though, this same prescription holds true for considering the future of mapping as a form of resistance to these powerful geopolitical frames. Oppositional movements, for example, are "taking back" the map, attempting to reclaim a sense of place within the abstract world space. Urban geographers and social activists, in particular, are following in William Bunge's legacy of radical immersion, but updating with new technologies: in Chicago, Daniel Makagon has been engaging in "sonic mapping," combining cartography with audio documentaries, where neighborhood inhabitants tell their own stories of the urban landscape and take listeners along a sonic journey as they walk through parts of the city with their map, allowing citizens and tourists to piece together and collaborate in an alternative story of Chicago and participate together in urban life.[64] Makagon's work speaks back to the ways in which Bunge tried to rescue the urban neighborhood through cartography from the kind of Cold War urban planning maps that saw citizens moving away from city centers because of nuclear fears. Joan Faber McAlister recently studied how maps of shack settlements in South African Townships, commissioned out of government attempts to resettle the inhabitants, have been marked by repressive racial re-ordering that "marginalize the lived practices that constitute the places that more than 2 million black citizens currently call

home."[65] In response, McAlister has been working with shack settlers to draw their own maps as resistance techniques to the resettlement plans. In looking back to the past, the collaborators of *GeoHumanities* are also revising history, using GIS technology (originally a highly guarded Cold War defense project) to remap each layer over time of particular Civil War-era areas and show what happened to African-American populations after emancipation.[66] And Sorin Matei at Purdue University has piloted a series of projects bringing maps into conversation with cutting-edge social media—where, for example, users can interact with historical maps through their cellular phones.[67] In each of these diverse projects, the fluid use of cartographic technologies with other media speak well to the benefits of the kind of "convergence culture" that Henry Jenkins wrote about; the kind of dynamic flexibility in mapping that was evidenced at points during the Cold War has now exploded in a variety of fruitful directions.[68] Significantly, such oppositional cartographic projects capture the idea of "place" as an intensely felt and *lived* entity amidst the potentially corrosive abstract projects of state power and globalization, and advance the hope that cartography can become a more democratized activity where *all* can map.

In addition, the Google Maps phenomenon has also fascinated and challenged many of these mapping activists. As critical cartographers and geographers have noted, Google Maps has revolutionized the experience of the map.[69] The positionality and subjectivity of the user has transformed; the bird's-eye perspective has evolved into an immersive perspective, where map users can put themselves inside virtual spaces. There is subversive potential in the *map user* now becoming the *mapmaker*; in this way, cartography as a historical tool of expert power may be shifting in compelling ways. The

same satellite photography that revolutionized Cold War cartography for defense purposes has now altered subject positions. Places are not just military targets, but can be defined now in a host of different ways by the user, changing the way one can self-identify in space. Amber Davisson's investigation of the red state/blue state map in the 2008 election shows how the interactivity and new subjectivity of Google Maps allowed voters to "create a custom rhetorical interpretation of the election" in an act of "digital citizenship" and rhetorical invention that challenged the news media and political campaigns' typical power of interpretation in a political election.[70]

Still, the technologies that allow for these changes are often backed by corporations and used to protect state power—and thus, the anxieties around the power of perspective and the surveillance function of such technologies that arose out of Cold War contexts still remains. When historian John Cloud was incensed that the same maps being used to help relocate and save Vietnamese families were the same base maps being used to bomb them, he was offering a reminder about the divergent pathways that mapping technology can take. What allows us to position ourselves on a virtual map so that our friends can find us at a crowded rally also resonates with the technology that allows for a drone strike to make an accurate target on a foreign landscape. As Cold War geography reminds us, the borders between war and peace are not often as clear-cut as the lines of the maps we use.

In the end, the cases and histories in *(Re)Placing America* also stand in for a larger reflection about how critics define political space and interpret cartographic imaginaries in a time of immense transition. In eras of global upheaval and change, critics can interrogate the contextual constraints on space and place by looking at the circulation

and use of the rhetorical artifacts that imagine such spaces. If Michael Shapiro is correct

that "the primary contestations in current global instabilities are over identity and spaces,"

then the visual artifacts that shape and contain such identities and spaces must remain at

the forefront of the debates and discussions, as well as being situated as continually

relevant instruments of power and knowledge production.[71] In particular, the properties

and design of the map or globe that "read" this changing world can say much about the

complexity of national identities and the power of the nation-state. As Michael Biggs has

noted: "putting the state on the map meant knowing and imagining it as real—and, so,

making it a reality."[72] The map simultaneously reveals and conceals its ideological

commitments to the user, and that process of display is especially heightened in rhetorical

intensity during times of global reorganization and changes in the nature of state power.

Maps play an important role in fusing form and content together by becoming vehicles of

perception for such power. In a world supposedly marked today by the fluid lines of

globalization, there is a benefit from sharper critical vocabularies on the "producers" of

space and the output of their production.

In terms of situating U.S. placement within these vocabularies, the Cold War and

its maps remain an explosive site of inquiry. For the Cold War was not simply a war of

missile trajectories and political force treaties, it was a war of symbols; ensuring that

maps are re-situated as integral articulations of this war of symbols remains a vital task.

Ferguson's conception of this idea is particularly eloquent, and thus I quote him at length:

> The United States' imaginary in the twentieth century was conceivable primarily
>
> in reference to the communist 'threat.' A world was designed where the
>
> geographic and the ideological could be superimposed on one another to create a

powerful map with both horizontal depth and interpretive depth, explaining what

the world meant as well as how it looked. Mapping serves as a powerfully

personal function, producing the world as understandable as its discursive

productions provide guides for certain modes of travel and highlight sights and

sites of importance. Mapping also serves a powerfully collective function,

furnishing coherences that make people into a singular people…To map is to

engage in a procedure of identity creation at the individual and group level; it is,

bluntly, to produce the world.[73]

In addition, according to Ferguson, for America "the instability of its own geographic

identity, its plurality of history, and its character as a method of thought rather than an

ideologically secure territory have long provoked a strong need to map. Yet

simultaneously, these characteristics have allowed a plurality and an instability of

mappings."[74] Coming full circle, the anxiety of Roald Dahl's pilot anxiously traversing

over the blank pages of an atlas represents that instability. As we look toward mapping

the future, the trap is to fall into prescribing what will be good maps and what will be bad

maps with the promise that we will make more accurate and responsible cartography.

Such a trap would have us succumb to Boggs' "cartohypnosis" that haunted the Cold War,

and could risk replacing the world of 2011 with the world of 1947. Rather, I would argue

that we can (and should) continue to interrogate the processes by which we see and

envision our place in the world, and engage with the contentious cartographies that sketch

such visions. In other words, we would do well to rewrite the histories of spaces at the

same time as we remap the spaces of history.

Notes: Conclusion

[1] For more details on this summit, see the previously classified documents and analysis put out by the Central Intelligence Agency on the end of the Cold War: Benjamin B. Fischer, ed., *At Cold War's End: US Intelligence on the Soviet Union and Eastern Europe, 1989-1991*, Center for the Study of Intelligence (Washington DC: Central Intelligence Agency, 1999), ix–xxii.

[2] Alan Henrikson, "The Power and Politics of Maps," in *Reordering the World: Geopolitical Perspectives on the 21st Century*, ed. George J. Demko and William B. Wood (Boulder, CO: Westview Press, 1994), 57.

[3] Henrikson, "The Power and Politics of Maps," 57.

[4] J.B. Harley, *The New Nature of Maps: Essays in the History of Cartography*, ed. Paul Laxton (Baltimore, MD: Johns Hopkins University Press, 2001), 67.

[5] Michel Foucher, *The New Faces of Europe* (Netherlands: Council of Europe, 1995), 11.

[6] Christer Jönsson, Sven Tägil, and Gunnar Törqvist, *Organizing European Space* (London: Sage, 2000), 16.

[7] Gearóid Ó Tuathail and Timothy W. Luke, "Present at the (Dis)Integration: Deterritorialization and Reterritorialization in the New Wor(l)d Order," *Annals of the Association of American Geographers* 84 (1994): 381, 382.

[8] Kennan Ferguson, "Unmapping and Remapping the World: Foreign Policy as Aesthetic Practice," in *Challenging Boundaries: Global Flows, Territorial Identities*, eds. Michael J. Shapiro and Hayward R. Alker (Minneapolis: University of Minnesota Press, 1996), 170.

[9] Jönsson et al., *Organizing European Space*, 11, 25; Stanley Brunn, "Geopolitics in a Shrinking World: A Political Geography of the Twenty-First Century," in *Political Studies from Spatial Perspectives*, eds. A.D. Burnett and P.J. Taylor (New York: John Wiley & Sons, 1981), 131–32.

[10] Judy Batt, "Introduction: Region, State and Identity in Central and Eastern Europe," in *Region, State, and Identity in Central and Eastern Europe*, eds. Judy Batt and Kataryna Wolczuk (London: Frank Cass, 2002), 5.

[11] Elsewhere, scholars of nationalism, like Katherine Verdery, have advanced arguments that institutions such as the international weapons trade in the wake of the Cold War challenge the "state's supposed monopoly of the means of violence." Katherine Verdery, "Whither 'Nation' and 'Nationalism'?" in *Mapping the Nation*, ed. Gopal Balakrishnan (London: Verso, 1996), 232.

[12] Jönsson et al, *Organizing European Space*, 2.

[13] John O'Loughlin, "Ordering the 'Crush Zone': Geopolitical Games in Post-Cold War Eastern Europe," in *Geopolitics at the End of the Twentieth Century*, eds. Nurit Kliot and David Newman (London: Frank Cass, 2000), 35.

[14] Michael Kidron and Ronald Segal, *The New State of the World Atlas*, 4th edition, (New York: Touchstone Books, 1991); Michael Kidron and Dan Smith, *The New State of War and Peace: An International Atlas* (New York: Touchstone Books, 1991). From here forward, *The New State of the World* will be abbreviated as *NSTW*, and *The New State of War and Peace* will be abbreviated as *NSWP*.

[15] Richard Kuper and Ronald Segal, obituary of Michael Kidron, *Guardian*, March 27, 2003; Pluto Press, ''About Pluto Press,'' http://www.plutobooks.com/about.asp.

[16] Kuper and Segal, obituary of Michael Kidron.

[17] Jim Paul, "The State of the World Atlas," *MERIP Reports* 105 (May 1982): 29; Denis Wood, *The Power of Maps* (New York: Guilford, 1992), 140.

[18] This Pluto Project series encompassed further editions of *The State of the World*, as well as more issue-based atlases such as *The State of the Earth Atlas, Women in the World: An International Atlas*, and *The State of Health Atlas*. See Joni Seager, ed., *The State of the Earth Atlas* (New York: Touchstone Books, 1990); Joni Seager and Ann Olson, *Women in the World: An International Atlas* (New York: Touchstone Books, 1986); Judith Mackay, *The State of Health Atlas* (New York: Touchstone Books, 1993).

[19] Kidron and Smith, *NSWP*, 50–51.

[20] Kidron and Smith, *NSWP*, 48–49.

[21] Kidron and Smith, *NSWP*, 48–49.

[22] Kidron and Smith, *NSWP*, 52–53.

[23] Kidron and Smith, *NSWP*, 52–53. The authors define destructive capacity as "shares of world lethality" through nuclear, chemical, and conventional weapons. Lethality is defined as a measure of "deliverable destructiveness. It is based not only on the number of deaths that can be caused by a single strike with each weapon, but on other factors such as range, accuracy, rate of fire."

[24] Foucher, *The New Faces of Europe*, 20–21.

[25] Kari Laitinen, "Post-Cold War Security Borders: A Conceptual Approach," in *Routing Borders Between Territories, Discourses, and Practices*, eds. Eiki Berg and Henk Van Houtum (Burlington, VT: Ashgate, 2003), 17.

[26] Kidron and Smith, *NSWP*, 42–43.

[27] Kidron and Segal, *NSTW*, 7.

[28] Kidron and Segal, *NSTW*, 7.

[29] Kidron and Segal, *NSTW*, 10–11.

[30] Kidron and Smith, *NSWP*, 88–89.

[31] Kidron and Smith, *NSWP*, 88–89.

[32] Kidron and Segal, *NSTW*, 62–63.

[33] Kidron and Segal, *NSTW*, 78–79.

[34] Kidron and Smith, *NSWP*, 22–23.

[35] Thomas Kane, "Foreign Policy Suppositions and Commanding Ideas," *Argumentation & Advocacy* 28 (1991): 87.

[36] Atilla Melegh, *On the East-West Slope: Globalization, Nationalism, Racism and Discourses on Central and Eastern Europe* (Budapest: Central European University Press, 2006), 105.

[37] Kidron and Smith, *NSWP*, 16–17.

[38] Kidron and Smith, *NSWP*, 18–19.

[39] Kidron and Smith, *NSWP*, 18–19.

[40] Kidron and Smith, *NSWP*, 36–37.

[41] Kidron and Smith, *NSWP*, 70–71.

[42] Frank Lentricchia, *Criticism and Social Change* (Chicago: University of Chicago Press, 1983), 11.

[43] See Neil Smith, *American Empire: Roosevelt's Geographer and the Prelude to Globalization* (Berkeley: University of California Press, 2003), 4; Francis Fukuyama, *The End of History and the Last Man* (New York: Free Press, 1992).

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