NOTE TO USERS

Apprehending the Visible:
Logistical Histories of War and the Aerial Reconnaissance Archive

Neil Balan

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ABSTRACT

Apprehending the Visible:
Logistical Histories of War and the Aerial Reconnaissance Archive

Neil Balan, M.A.
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Images of war have an amplified efficacy in cultural contexts that privilege the power of the image and the hegemony of vision. This project animates and explores the recent virtual re-publication and political and cultural positioning of the Aerial Reconnaissance Archive (TARA), a collection of five million WWII Allied aerial reconnaissance photographs. Explicating the ethical tension inherent of the exhibition of photographic images and the problematic hinge between the constellations of aesthetics and politics, this research interrogates the concept of the archive to consider embedded and emerging communicative and technological practices that constitute the discursive articulation and cultural transmission of bodies of political and historical knowledge regarding the Second World War. The archive enables a *logistics of perception*, revealing the tension inherent in the collection: its visible and intended cultural value as a safe, sanitized object for public historical commemoration in a deregulated cultural economy; and its former function as an assembly of miniature, clinical operational diagrams designed for the application of war-time force and destruction. Following this tension, the collection activates a photographic aesthetic of affect, astonishment, and awe. This aesthetic activates dominant historical and memorial versions of war-time heritage and the contribution of aerial reconnaissance photography, which obfuscates and effaces the real terms of visceral, messy war-time devastation and destruction.

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There are too many fresh American and English regiments over there. There's too much corned beef and white wheaten bread. Too many new guns. Too many aeroplanes.

-Erich Maria Remarque, *All Quiet on the Western Front*

Narrator. To some who witnessed it, the massing of allied military power and the violent spectacle of its performance on the enemy can be compared to the performance of an orchestra...
Veteran. We've got artillery, heavy, medium, light, we've got aircraft coming in, we've got Typhoons, it's a whole symphony this whole thing. If you go to a theatre and listen to the music being played and you only listen to a trumpet that doesn't give you much because it's everything together that makes this opera, this symphony meaningful. You can rest in your chair and you can listen to it and you can say, "That's something!"

-*Desperate Battle: Normandy 1944*, from the National Film Board's *The Valour and the Horror*

To be brief, let us say that history, in its traditional from, undertook to memorize the monuments of the past, transform them into documents, and lend speech to those traces which, in themselves, are often not verbal, or which say in silence something other than that they actually say; in our time, history is that which transforms documents into monuments.

-Michel Foucault, *The Archaeology of Knowledge*

The first quote describes an encounter with an industrialized war machine's ability to mobilize resources and materials, the administering power of logistics, the art of supply.

The second quote describes the implementation and activation of these materials as assembled platforms of military science with specific but integrated functions – myriad weapons of war. The use of these weapons, as assets, is premised on a knowledge of where and how to deploy them; how to apply them productively so as to make them efficient in the things they themselves are designed to induce. The totality of their effects—in what they *affect*—amounts to a theatricality that is orchestral and symphonic, a field where the logistics of war in question is one of finesse, that deft arrangement and steady handling of knowledge and materials. Deploying assets and resources relates especially to military practices of

surveillance, reconnaissance, and intelligence. The chaos on the ground—when studied from

a distance at a time removed—is less chaotic and made more academic. Patterns emerge and

methods of supply can be designed to address those patterns.

The third quote, tangential, suggests how perhaps these logistical processes of

deployment are historicized and remembered. More appropriately, the quote suggests how

these processes, in a historical context, are abstracted from specific and documented

activities in order to become a generalized residue constituting something normal, natural,

and uncontested.

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The recognition of "too many aeroplanes" in the First World War and the

subsequent orchestration of these aeroplanes later in the Second World War is indeed a

matter of logistics. The increased function and importance of aerial operations and, more

specifically, aerial reconnaissance, enabled the development of the art and science of aerial-

photographic interpretation. The new emerging body of military intelligence generated by

aerial reconnaissance massively impacted the practice of war and continues to be an essential

and necessary part of how contemporary war is waged, sensed, rendered, and perceived.

The role of aerial reconnaissance and the ability to maintain a perpetual surveillance

presence in the air through the convergence of an airborne camera mounted on an airplane

produced a shift in the relationship between war and perception. I want to link the

emergence of this developing militarized perception both to current trends in visual culture

and particularly in relation to the archive, its formal and conceptual standing, and the role of

archival materials to evoke—through activation and arrangement—a hegemonic historical

figure 1.1   Copenhagen 1942, *Evidence in Camera*, TARA

figure 1.2   Arnhem 1944, Operation Market Garden, *Evidence in Camera*, TARA

imagining of the past. The crux of this project is one of logistics: how war is perceived by those waging war and how those acts of war, when encountered by a larger cultural public, are both threads that entangle in considering the conditions and imperatives of the supply of a historical perception. The aerial photograph is *the* sign of aerial mastery and the ability to survey and invent the dimensions of a space or territory without actually possessing, inhabiting, or occupying it. It is the negotiation of space by way of making an artificially-rendered and virtual place through photographic appearances. In these appearances, the territory is made legible – "readable". "Seeing from above at a distance" is not only an effect of the airborne camera but is also an approach to the generation of knowledge—vertical perspective miniaturizes things and affords the ability to master the visual field. Similarly, in activating archival holdings of old aerial images, war becomes visible at a different rate and distance, one based on a significant historical remove.

A historical vision of war is explicitly expressed and alluded to in the recent online virtual publication of the Aerial Reconnaissance Archives (TARA)[1]. TARA, as a collection of aerial signatures exhibiting the ability to see from above, consolidates in commemoration the systematic application and refinement of aerial perspective, a fundamental paradigmatic alteration in how war is "sensed and conducted based on the visual information supplied. Narratives of logistics and supply are secondary elements with respect to dominant and popular historical versions of war, below and between the mythologized surfaces of popular commemorations of war. Compared to chronologies of battles, it is less the stuff of history. Yet, the history of military aerial reconnaissance, when pulled off the shelf for consideration, functions similarly as a mythology, a novel trajectory connecting to the legacy of war in late

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[1] TARA's virtual home is located at <http://www.evidenceincamera.co.uk>. The domain name, "Evidence in Camera," is significantly the name of the top-secret journal published for military photo interpreters by the Royal Air Force during the Second World War.

Western culture. This myth then takes the character of a monument and resource itself to be considered, managed, and subsequently supplied.

The industrial development of aerial surveillance and reconnaissance essentially re-conceptualizes the act of war, moving a model of intense visceral battle to the removed act of control and surveillance based on assessment, prediction, and the arrangement and orchestration of resources. This mode is what Paul Virilio specifically calls a *logistics of military perception* (Virilio 1989: 1). Virilio writes:

War can never break free from the magical spectacle because its very purpose is to produce that spectacle… There is no war then without representation, no sophisticated weaponry without psychological mystification. Weapons are not tools just of destruction but of perception—that is to say, stimulants that make themselves felt through chemical neurological processes in the sense organs and the central nervous system, affecting human reactions and even the perceptual identification and differentiation of objects. (Virilio 1989: 6)

For Virilio, war conceptualized as a logistics of perception is more than symphonic: it is entirely cinematic, a massive powerhouse spectacle[2] where perception is at times, even in refined acts of careful monitoring and detection, overwhelming in regards to the scope and range of signatures made visible. This spectacle "underlines the fact that *the history of battle is primarily the history of radically changing fields of perception.*" (Virilio 1989: 5-6). Virilio interrogates the cognitive demands of war, demands that are short-circuited by affective capacities of war-time spectacle in the space of trauma "on the ground".

Virilio argues that perception is a weapon itself and a way of stepping back to "see", and the historical development of supplying the sensing of war as a perceptual act constitutes an advantage, one that is gained especially in the removal of perceptual—in sensing and interpretive—perspectives in proximity to a battlefield. As such, the historical emergence of the aerial-reconnaissance apparatus is an advantage in an institutional and

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[2] German filmmaker Alexander Kluge alludes to this in his film about opera, (1979) *The Powerhouse of Emotions*, when he connects the power of opera in its totality of sensations to the impossible sensing of a perceptual totality of war.

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historical sense: it can be re-articulated as part of a consistent set of dominant and historical imaginings of the war.

TARA is an archive; yet, further, it is an industrial and material record of the emerging attempts at mastering a highly variable visual field rendered from a vertical distance. TARA itself implicitly activates and determines a *logistics of perception* in its very rhetorical and discursive constitution: this perceptual supply is arguably the structuring device not only of war-time aerial photography but also for TARA's recent move from the space of the traditional archive to its concurrent online home. As a collection of over five-million war-time images chronicling the surveillance of occupied Europe by Allied forces, TARA is ordinary, mundane, and un-spectacular. Its sheer size is evidence, though, of the serial and indexical register of a massive survey of Europe under the auspices of generating war-time knowledge. Further, just as Virilio's logistics makes possible a "global vision" that is not confined to the horizontal topography of war (Virilio 1989: 2), TARA, in presenting and representing the Second World War through the display of an aerial- reconnaissance collection, supplies a global vision of war that functions as a schematic device for historical knowledge about the war.

TARA's self-described role as "a memorial of the most living kind" (TARA homepage, *'Who Are We?'*: 1) relies on the exhibition of visual records for perusal and public use. Foucault's opening comments are appropriate because the virtual location and re-articulation of the archival collection suggest a similar and connected shift from documents to monuments in a historical, political and cultural context. TARA "sediments" a historical and memorial imagining about the massive aerial assembly of the Second World War, making a monument. The aerial "seeing", in its current arrangement and display, arguably establishes and determines a dominant narrative of historical knowledge by way of an

institutional gaze based on perspectives concerning the needs and rhetorical constitution of a mass public. The new (re)constitution of TARA—as an object, an event, and a place of contemporary cultural commemorative practice—is a confluence of ontological, epistemological, and hermeneutic issues concerning the concept, form, and use of the archive.

The main thrust of this exploration and exposition emphasizes the photographic content of the archive and the accompanying rhetorical and narrative strategies it produces and establishes, strategies which structure, dictate, and induce the terms of "proper" encounter with the apparatus of the archive, with its institutionally-defined ideological and master political function. TARA activates a set of preferred and intended meanings in relation to how the Second World War can and should be recollected. The archive's intended mode of address, and the archive-designed opportunity for visceral interaction and encounter with the photos themselves, elucidates the archive's entanglement of hegemonic discursive, semiotic, and historical threads.

The archival apparatus is a hub for several areas of inquiry: the dissemination and circulation of dominant historical narratives and the function of hegemonic and institutionalized versions of History; the archive, its ontological status as an empirical repository of emerging "material", and the arrangement and activation of this material that conceptually approaches Foucaultian notions of truth and power/knowledge; the problems of memory, communication technology, and contemporary visual culture; and the affective status of the photographs themselves as serial records of geographies of trauma and destruction. The collection is fascinating, a fantastic fabulation in the most literal sense: it is a set of images originally produced and designed to perform a specific operational function. The original operational function ascribed to the photographs emphasizes their value first,

then, as register of the practice of interpretation and military intelligence. Yet, the enchanting public value of the collection arguably hinges on an encounter with the spectacle induced by an identification with technical perceptual weapons of war. This curious encounter hinges on practices of looking and the cultural primacy of vision in relation to perception and sense.

In its new "traveling" form, TARA is premised on the questionable ability of the state to govern history and administer cultural heritage in both national and global contexts. In plain terms, its archival holdings function to provide an orientation to memorializing the war. As such, the archive rhetorically exercises an obligation to dictate events or registers that are retroactively deemed as politically and culturally relevant. This conception of value and relevance, in deployment, lends and multiplies both legitimacy and authority to the construction and maintenance of both a specific war heritage and the larger tradition of the Western historical narrative record. TARA, in injecting materials once off-limits, secretive, and outside the arc of public knowledge into popular public discourse, frames and circulates a newly-available body of knowledge about the events of the war and the role of aerial reconnaissance.

TARA is relevant because it is now "in circulation"; yet, tautologically, it is in circulation because it is deemed relevant as a still-useable set of archival materials concerning a substantial limit-event in contemporary Western history. This dual logic is self-referential and the direction of this sort of intermingled causality is initially unclear. It implies, though, a reverential encounter with images of war, which TARA purports to provide. This provision suggests a determination of what kind of residual knowledge should in fact be prioritized for cultural transmission and inheritance across generations. Amid the massive assembly of knowledges that constitute contemporary discourses about the Second World War, TARA activates a specific domain.

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All along, this project is both an interrogation and an animation of various frequencies and fields that TARA, in protracted analysis, occupies and activates. The theoretical thicket I have assembled in this project draws on threads and debates from the larger field of contemporary cultural theory; the use of these threads will assist me in arranging the insights, concerns, and problems I want to express and explore. Using the advice and insights of some of the interlocutors I arrange and deploy, I am orchestrating but I am also making connections, ruminating on the affective intensity of images in a political and historical context. The beginnings of the chapters are noticeably thick with quotes and references: this is conceptual and intentional. The quotations provide a way into the material at hand, acting as trajectories that contextualize how that chapter or section will unfold. Rather than implementing a rigid methodology, my method of inquiry is one of finding semiotic fissures, rhetorical seams, and discursive silences; revealing the sort of palimpsest-like quality the archive has in its many contexts as a series of layers written and over-written.

As such, I would be hesitant to characterize this project as an exercise in "deconstruction".

Certainly, I shy away from the word as a *verb* (as it frequently and perhaps inappropriately

occurs) as it is not something I subscribe one is able *to do* or perform. *Doing it* runs counter

to the conceptual imperative of deconstruction that Derrida theorized, a concept that I

believe deserves maintenance. Instead, I contend from the outset that the complicated hub

of discursive, semiotic, and historical threads articulating and constituting the logics and

politics of TARA are always contingent and in close proximity to breakdown and failure, to

ripping apart under the pressure of serving as History and Truth and Knowledge. Thus, the

"deconstruction" is imminent and ongoing, always-already pulling apart, held together by

tenuous bands of political power and cultural authority.

The structure and organization of this project, then, is informed by this logic; the

following chapters build, in variation, a body of evidence so as to question the veracity,

validity, legitimacy, and authority of TARA. While I have attempted to organize and divide

the contents of this work into conventional self-contained chapters, I admit that there is a

reasonable amount of leakage from one chapter to the next. Some of the threads I pursue

and develop stretch across chapters, waning only to re-emerge elsewhere. I have attempted

to be succinct and concise, often with less success that I would have liked.

I follow this introductory first chapter with a second chapter, "Arrest and

Attraction" concerning the concept of TARA as an archival project. I explore its origins and

map the formation of TARA on its own terms: its contents' original value as operational

components of the military war-time surveillance apparatus; its transformation, in disuse

after the war, to an archive; and its subsequent emergence as a "new" heritage organ. As

such, the chapter is a rough kind of genealogy: it attempts to address what kind of formation

the domain of TARA constitutes and what this domain has presently become. Further on in

this section, I address TARA as a project undertaken by the British state apparatus and trace

its definition, function, and initial reception by public audiences and users. I emphasize the

rhetorical viewing and narrative strategies of the archive and opens some analysis of how the

historical images of war-time reconnaissance and surveillance both express and survey—as

images to reconciled by virtual visitors—how and what memories, traumas, and renditions

of "history" are *operationalized* and supplied. In this particular section, I address the exchange

between the original material practice of military photographic interpretation in its war-time

context and the institutionalized viewing strategies structured and intended by the archive's

mode of display. This chapter offers a rudimentary map of the limits of the representational

and narrative strategies of the archive, fleshing out the affective associations induced invited

in an encounter with images in the collection.

The third chapter, "War and New Appearances", is a combination and juxtaposition

of theoretically-inclined material, which I suggest animates the problems inherent in TARA

and its new circulation and standing. Using contemporary research and theory from Harum

Farocki, Paul Virilio, Thomas Richards, Andres Huyssen, and Gregory Paschaladis, I

establish that TARA's particular draw is that it is, for all intents and purposes, a project

concerning the musealization of images of war; images that, because of their abject and

exclusionary quality and their former operational role, are easily and readily accepted as

culturally valuable. The fourth chapter, "The State of Artifice of the Archive" consists of a

consideration of the collection of TARA and its relation to contemporary virtual archival

practices and technologies. Using both Scott Bukatman's notion of the "artificial infinite"

and some of the thinking of internet theorist Wendy Chun, I ruminate on the significance

and various implications of both the scholarly and popular cultural context of archival use,

especially emphasizing the link between archives and visual images. I suggest how the

archive is perhaps transforming according to pressures inherent in digital and new media

technologies. A smaller concluding chapter extends in order to emphasize how the collection

induces astonishment by way of an aesthetic encounter. Further, I suggest that the archive,

in its very constitution, is a figurative kind of "pollutant" with an inexhaustible cultural life

that refuses to decay and disintegrate, that is inexorably recycled and re-used in the political,

cultural, and historical "ecology of sense" (Hansen 3: 2003).

TARA is a place of tension: it is an enchanting supply of windows into the past, a

discursive formal system representing historical events; yet, it also modulates the intensity

and efficacy of cultural perceptions about the war. The affective content of the photos

promote and prescribe presentations of spurious simulations, which arguably generate

feelings of fascination, repulsion, or even revulsion to the events to which they allude,

conceptualize, and portray. To follow Paul Virilio further, there is something consistently

artful and fearful about them; their technical, operational status is overwritten with their new

positioning and presentation. The awe-inspiring, affective, and odd aura of the collection is

something that—instead of simply waning in dilapidated deposit—has induced this

exploration and explanation, which will perhaps both trouble and reconfirm the perspective

of seeing things, in study, from above.

<div align="right">

Two
Arrest and Attraction:

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During World War II photographic reconnaissance played a major part in the intelligence war. The advanced photographic techniques developed gave intelligence officers the ability to view the enemy's activities in 3D, and make highly accurate assessments. Discover a new way of looking at our history and our future at *evidenceincamera.*

-"Who We Are", *The Aerial Reconnaissance Archive homepage*

[E]very war image, produced as it is in the context of a certain and however implicit or spontaneous visual ideology, always contains in the form of certain coded elements, a specific perspective on the war and its meaning.

-Gregory Paschaladis, *"Images of War and the War of Images"*, 18

In historical and geographical terms, [the] emphasis on the use of vision in the construction of knowledge has depended on a particular political economy of the production of knowledge.

-Anthony D. King, *"The Politics of Vision"*, 125

It is precisely because images are the product of a particular moment that more must be added to them then is ever present in the images themselves. This excess, which is often seen as somehow interfering with the meaning of the image, is a necessary staging ground for interpretation and analysis.

-Ron Burnett, *How Images Think*, 15

The collection now known as the Aerial Reconnaissance Archive anchors a narrative of transformation: the archive's collection is the remaining set of records generated in conjunction with the development of the Allied aerial surveillance apparatus during WWII. Its emergence and subsequent re-fitting, from repository to potential heritage organ, is significant because it represents an evaluation and measure of usefulness: the once-useful operational images that provided a comprehensive aerial view of occupied Europe now serve as materials that, in re-use, prioritize a recognition of the legacy of TARA's earlier form, its organization, and the events of the war, which the collection inherently documents.

The residual value of the collection, sixty years after the initial conditions of production, is harnessed and channeled by the larger British heritage organ. This chapter is

an account of that process, a kind of genealogy attempting to address what kind of formation the domain of TARA may, in fact, constitute and what this domain has presently become in terms of definition, function, and the terms of initial reception by public audiences and users. Further, by examining the original material conditions of the collection's production, I suggest that the arresting and attraction-like value ascribed to the archive is translated and derived from the very activities and practices of "looking" and "seeing" devised and implemented by wartime aerial photographic interpreters.

TARA: the Heritage Project

The conglomeration of attempts and efforts to digitize and transform The Aerial Reconnaissance Archives emerged out of a 1998 symposium sponsored by the British Cartographic Society. In accord with expert concerns expressed by cartographers, aerial photography specialists, archivists, historians, and the various, loosely-connected bodies under the umbrella of the larger governmental heritage organ of Great Britain, the then-Air Photo Archive at Keele University gained finances from the nationally endowed University Trust Fund in 2001 (BCS Newsletter, 2004: 13) Beginning with the task of digitizing finding aids, the archive, in conjunction with the National Archives, proceeded on a trajectory toward its current incarnation as *Evidence in Camera*, the online home of TARA. The collection, rather than be allowed to deteriorate on cabinet shelves, was deemed a substantial and significant fond of historical material. Privileged as a collection with enduring value deserving of investment by the providers of an ideal and imagined British cultural heritage, the collection garnered increased protection and further preservation efforts.

The new mandate of TARA in the context of heritage occludes from its idealized "public" audience the bureaucratic web of cascading effects associated with the scheme and

strategy of digitizing the collection (i.e., displacement of workers in favour of automated

technological interfaces, maintenance of powerful social hierarchies in organizational culture,

the implementation of new digital strategies of preservation and restoration). The translation

of exclusive materials housed in the old archive to the supposedly inclusive, virtual confines

of the World Wide Web satisfied the primary stated goal of the endowment, which was to

export the archive's photographs "for discovery" and to make the collection accessible to a

larger audience of viewers and users. With access, it was hoped the collection would also

increase in relevance.

Though ostensibly "public" prior to January 2004, the collection inhabited an

exclusively official and institutional zone. Held by the United Kingdom Ministry of Defence

until 1962, the collection—"a visual record of the world at war"—was transferred to Keele

University, England, an official place of deposit for the National Archives. TARA's "Who

Are We" section on the archive's homepage cites the growing interest in aerial imagery

amongst university geographers and archaeologists in the early 1960's, many of whom were

themselves hobbyist photographic interpreters. A Keele professor, Stanley Beaver, engaged

in discussion with the Air Ministry in 1962. After a series of negotiations, the dialogue lead

to the transfer of the photos—in 40,000 boxes done over fourteen months—to Keele.

The 1962 de-classification date is significant because it essentially marks the end of

the collection's life as valuable strategic record of reference. With the collection containing a

survey of much of what was then (1962) Soviet-occupied eastern Europe, the

photographs—despite the almost-twenty year passage from the end of the Second World

War—remarkably maintained an operational value well into the mid-Cold War era. This

suggests the breadth and spread of the territorial coverage of the collection. Only when

potential use was out-dated and operationally exhausted was the collection deemed "safe" and no longer "sensitive".

TARA as Useful Culture

At five million photographs, TARA's online collection is massive. Before its recent release, TARA served as a vault of material for the European bomb disposal industry to locate unexploded bombs and other war-time ordinance, a developed default application that administrators used to justify the collection's continued utility:[3] The use of the archival photographs geared toward the apprehension and detection of decaying and decomposing "failed" objects is indeed consonant with the original, technical use of the same surveillance images. The fall-out of total war, decaying in an unfulfilled state, can be addressed and disposed of precisely because of the coverage achieved by the reconnaissance apparatus during the war. Thus, the scale of the collection is accordingly significant because it "charts the development of photographic reconnaissance and intelligence from a position of virtual insignificance during the early part of World War II, to an integral part of Military Intelligence." (TARA homepage, 'Who We Are': 1). Again, the collection comprises an entire aerial photographic survey of the territory of Europe. With close to twelve-million photographs in its collection in total (both digital and in the "hard archive" at Keele) spanning over the later half of the twentieth century, TARA aims to publish and make available all of this material for online use.

The collection as a whole becomes a kind of monument, much in the way that Foucault described the shift from the status of abstract archival documents to monuments.

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[3] From "Web Archive offers new perspective on the war", January 17, 2004, <www.ladlass.com/archives/001334.html>: "Because of its relative inaccessibility, the archive has until now been little used because it was so labour-intensive to find any particular image. The most frequent users were European bomb disposal agencies trying to locate unexploded Allied ordnance across the Continent."

The convergence of state institutions like the National Archives and the state-owned organ, the British Broadcasting Corporation, point to a "civilizing function" of the archive, now framed as a decisive application under the mandate of official and prescribed heritage. I loosely borrow this from Tony Bennett's genealogical studies of the institutional emergence and political rationality of the public museum. Bennett argues that the museum is a technology of governance specific to the sense of place created by what he calls the *exhibitionary complex*, which enforces expectations about public conduct and civil comportment. Bennett writes:

"[A]n account of the birth of the museum [can] serve to illuminate its political rationality, a term I borrow from Foucault. The development of modern forms of government, Foucault argues, is traced in the emergence of new technologies which aim at regulating the conduct of individuals and populations...As such, Foucault contends these technologies are characterised by their specific rationalities: they constitute distinct and specific modalities for their exercise of power, generating their own specific fields of political problems and relations, rather than compromising instances for the exercise of a general form of power." (Bennett 1990: 36)

The museum "civilized" people, enabling an encounter with bodies of knowledge, other citizens' self-regulating their own public behaviour, and the state apparatus projecting authority and power in the arrangement of its venerated holdings. Certainly, virtual TARA prevents direct physical encounters with other subjects and citizens in a regulated public space; yet, the function of this "civilizing process", as a didactic and pedagogical mechanism, relates to the intended and presupposed role of TARA maintaining a presence vis-à-vis the cultivation and governance of a virtual public culture.

At stake, then, is the allocation of the collection of the archive as a state-held resource for both the supplementing of mass public culture and the memorializing potential afforded by new encounters with the images. The new virtual geography of the archive extends as a tactic to reassert the bodies of knowledge constituting a sense of imagined national heritage through the engineering, supply, and reorientation of the collection. This re-orientation is amplified by cultural associations and encounters with culturally revered

images of war. The photographs stand as objects forged in times of uncertainty, in environment embedded in a state of war.

So, from a heritage perspective, TARA is "useful culture" (Bennett 1993: 69), providing a material and symbolic anchor for retaining a residue of that same revered war-time past. It is one resource within the state repository of materials and contents ready for release for the production of a type of branded, state-sponsored culture. According to Bennett:

...[M]odern culture tends increasingly to comprise a "single, intertextual field whose signifying elements are perpetually being recombined and played off against each other" (Nowell-Smith 1987: 87)...[V]irtually all forms of culture are now capable of being fashioned into vehicles for governmental programs of one sort or another. (Bennett 1993: 77)

This "fashioning" is a manufacture. While the National Archives owns the collection, its efforts to re-produce TARA and transform it into a public-oriented resource is evidence of this kind of elastic use of "cultural material". The postmodern ring of intertext suggests a struggle: it evacuates agency from the state but also lays clears the careful handling and arrangement of TARA, which constitutes an aspect of a larger imagined hegemonic field of heritage and commemoration.

New TARA is extended and projected from what was its more emplaced geography. The collection has gained legs beyond the mere physical possibility for travel, i.e. as a travelling exhibition to other galleries, universities, and archives. It is now continuously available. The newly-accessible, virtual status of the archive revalorizes it, both as an institutional meta-formal system and as a collection of war-time visual records. The virtual home of TARA exploits the capability of web-access and technologies to connect to other resources concerned with the topic of the Second World War and aerial reconnaissance. "Seeing" the war as heritage and at a historical remove is contingent on couching TARA within a pre-existing network of similar institutions. The semantic and discursive

constitution of this network serves to ensure a kind of consistency, like a *genre* of materials.

On the "Links" page at the TARA site, possible nodes online are available as interconnected,

supporting, and consonant sites providing a similar kind of referential function as TARA.

They serve as a buttress. They are listed categorically on the TARA page as follows:

About Aerial Reconnaissance:
BBC Timewatch: Aerial Reconnaissance in World War II
National Air and Space Museum

Aerial Reconnaissance and the Holocaust
Yad Vashem
The Holocaust Revisited

For Non-UK historical Aerial Photography
The National Archives
US National Archives and Records Administration
Imperial War Museum
ICCD: Rome

For UK Historical Aerial Photography
English Heritage: National Monuments Record
Royal Commission on the Ancient and Historical Monuments of Scotland
Royal Commission on the Ancient and Historical Monuments of Wales
CUCAP: *Cambridge University Collection of Air Photos*

Related Archive Organizations
SEPIA (*Safeguarding European Images for Access*)

(TARA, Links, < http://www.evidenceincamera.co.uk/Links.htm>)

As sites on a network, referentially signposted to one another by way of the topics of "aerial

photography" and "military reconnaissance", these links constitute and articulate a circuit. In

and of themselves, they are a kind of rhizomatic construct that alludes to and describes

generalized content while affirming their own "civilizing" and linked importance with

respect to institutional imaginings and dominant historical narratives.

In the context of showcasing images and exhibiting visual records of the war, the

alternate locations connect in ways to the mythic primacy and importance of the aerial

photography legacy. Within this reasonably coherent and thematically-affiliated circuit,

TARA establishes and augments

…a relation to [the] publics it organizes and constitutes, its own internal organization, and its placement in relation both to kindred institutions as well as those – both ancient and modern – to which it might most usefully be juxtaposed. (Bennett 1990: 38)

In juxtaposition, the circuit animates the TARA collection specifically within a hegemonic context while also multiplying the cultural value of the photographic materials themselves by juxtaposing the collection with other war-related sites and topics. The ancillary sites buttress the historical bridges enabled by TARA: they are possible and similarly-applied tangents to the question of memory and history of the war and of aerial reconnaissance. The loosely affiliated network also normalizes the supposed prevalence of these conduits into memory about the war.

Enduring Residues

Determining the collection's enduring value in relation to the practice of maintaining and preserving archival collections is a significant issue in TARA's new institutional life. TARA possesses that enduring value according to an index of appraisal that fixes the collection with its value as a standing reserve, with a potential to activate and actualize for ancillary uses.

The National Archives, the parent organ of TARA, acts as an industrial advisor on the process and practices of record management, establishing and setting the bar with respect to conventions and normative procedures.[4] The National Archives keys on the quality of "enduring historical value which will be preserved *forever*." The emphasis is mine and in conjunction with efforts of the archive to make its "collection as accessible as possible to the community at large and to heighten our profile both nationally and

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[4] The National Archives website, <http://www.nationalarchives.gov.uk>, is a conduit to the archive's holdings. Besides the newly integrated online catalogue and 'PROCAT" search engine surveying the joint National Archives-Public Records Office collection, the site provides institutional information about the operation of the archive, its mandate, and mission statement. The material in the following paragraph come from the "About us: Who are we?" page, <http://www.nationalarchives. gov.uk/about/who.htm>.

internationally", the National Archives espouses its most recent and remarkable

achievement: the development of a comprehensive electronic records system. The National

Archive claims its role is one pioneering "the digitization of records on paper and other

traditional media", ultimately seeking to replace "paper-based systems". TARA provides an

opportunity to apply the electronic and digital impetus to "update" these systems. So, in

locating a determining factor for what is maintained and monumentalized, TARA is ideal: its

images translate well to scanning and to presentation online. Thus, the enduring value in

question suggests also an archival endurance, a function of the collection's ability to become

something else, mutating into exhibition, to encourage encounters and co-ordinations by a

group of Web "visitors" or an audience that lends justification to the maintenance and

conservation of a given collection. In TARA, the enduring value of a collection made public

in a widespread release taps into the energy of a relatively inert object.

Prior to TARA, Keele University maintained a more traditional, research-oriented

archive, simply named the Air Photo Archive.[5] Though much-used according to its handlers,

it was not very efficient in terms of searching and locating requested material. The old

archive's website describes a range of past users: ostensibly authors, publishers, legal experts,

local and military historians, as well as service and civil engineers and architects. Due to the

extensive aerial coverage by war-time reconnaissance sorties to produce surveillance

photographs of communications networks, the archives administrators claims it contains

comprehensive aerial-photographic coverage of rural areas. The introduction on the

homepage suggests the value of such a collection to agricultural historians and archaeologists

studying settlements and their remains. The photographs document the details of war-time

damage and, as such, document the dates and timing of the damage, essential content to

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[5] An archived webpage titled "Air Photo Archive: Introduction" is available through Keele University at
<http://www.keele.ac.uk/depts/is/airphoto/about.htm>.

historical studies attempting to reconstruct the development and chronology of the war, its

massive logistical dimension, and the tactics and strategies used. The "old" version of the

archive offered research space and print and enlargement services; yet, all the possible visual

information "stored" in the massive survey alludes to problems of organizing and managing

the massive collection: the archive stated abstractly that it "cannot provide a list of all the

cover we hold." Basic consultation and assistance was available (and, at Keele, still is),

though users were urged to come with the awareness of what "mapped" areas they

required.[6]

Further, in the past, the old archive suggests a three-week notice be given before

arriving to do research. This procedural instruction is significant: it locates the difficulty of

searching such an archive, as well as the time and labour inherent in such an endeavor. Also,

the instructions with respect to specifically mapping a territory of inquiry "clearly" and

precisely with respect to co-ordinates of longitude and latitude is a small but significant

stipulation that indicates an impetus to transform the Air Photo Archive into something

more manageable: the archive itself feeds off the searches laid out and created by potential

users, using that labour to ascertain possessions and categorizations of its contents in order

to perform an inventory. This inventory, measured in the process and practice of actual use,

provides some grounds for administrators to argue for updating and digitizing the archive.

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[6] This is worth remarking upon because it belies the original material status of the collection: as aerial
reconnaissance photographs, the informatic content of the photos—dependent on the index of
interpretation—was a function of a series of photographs. While I will remark further on this below, it is
suffice to note that the function of the photograph as a visual map, as a coherent and comprehensive recording
across a field of vision, effectively removes the photographs from their original explanatory and functional
context. Allied interpreters, while surely examining individual photographs, depended on the serial comparison
of photographs from minutely differential perspectives as a reconnaissance plane flew over the target zone.
TARA's antecedent organ revokes this material process and its ideological effect, all the while offering photos
for consideration as maps.

Thus, the emergence of TARA allowed the archive's administrators an opportunity to re-vamp and to take stock, to re-organize, and to essentially re-appraise and clean the proverbial house. The automated searching and instant access to any and all areas covered by the reconnaissance organ during the war is certainly more efficient that the three week notices and necessity of pre-research packages sketching an area. The Web archive, to follow the title of an article on TARA, "offers a new perspective on the war" but it seems that it is a perspective premised on the ease of access: potential users and visitors provide the labour to access materials and subsequently lend validity to the mission of the archive as a *necessary* place of increased efficiency and the "convenience" of eventual near-automation.

The Operational Legacy

What remains, though, are preserved? The industrial development of aerial-reconnaissance techniques and the subsequent process of photographic interpretation is the archive's primary rhetorical narrative frame. It is apparent that the archive memorializes and commemorates Allied efforts to use the emerging practice of aerial reconnaissance during the war as a tool for "victory". That victory, though, is bound up as a mythologized and celebratory narrative that both expounds certain things and elides others, trimming the contradictory fragments that otherwise compromise the integrity of the narrative, the archive, and the enduring value of preserving and re-articulating the collection itself in a contemporary context.

Most of the reconnaissance and interpretation work done using the photographs was carried out in the early part of the war by the RAF's Photographic Reconnaissance Unit (PRU). In a British national context, the storied and mythic RAF is historically paramount in the popular cultural imaginary of Great Britain, especially for its actions during the 1940

German "blitz". Later, with the entry of the United Sates into the war, the RAF and the U.S.

Air Force integrated their respective reconnaissance and interpretation services to form the

Allied Central Interpretation Unit (ACIU), a organ devoted specifically to the production of

aerial- reconnaissance images and the interpretation and assessment of those images. The

unit was based at RAF Medmenham, the then-headquarters for photographic intelligence.

The ACIU organized and provided intelligence for any and all manner of Allied

military operations, from the Italian Campaign to the Normandy invasions. Notorious myths

about D-Day preparation, the guarding of intelligence, and the management and processing

of visual photographic information connect back to TARA. Perhaps most significantly, the

intelligence offerings generated from the reconnaissance collection fuelled the Allied

strategic bombing campaign waged from 1943 to 1945. As a way of "getting back into the

war" and opening up a second front –in the air—Allied air power was increasingly

dependent and linked to the increased acumen and industrial process of photo

interpretation. The protracted, intensive, and devastating two year area-bombing campaign

waged on Occupied Europe and Germany hinged on the ACIU's operation. The ACIU

developed the ability to reliably generate military information and intelligence to create a

body of comprehensive knowledge about threats and targets.

The necessity of photographic reconnaissance and interpretation during the war is

pedagogically framed in one of the narratives on the TARA homepage. The following

passage stipulates the ACIU's prominence:

In a similar way to the Code and Cipher School at Bletchly Park, the ACIU had high priority in the recruitment of all staff. Like the code-breakers, the photographic interpreters played a key role in winning the war. No attack, whether a bombing raid, the landing of a few men on a beach, or a massive landing of an army, was possible without the preparation of target material by the ACIU…The fact that many pilots never returned from reconnaissance sorties requires that their lives should not be forgotten. The Aerial Reconnaissance Archive is a memorial of a most practical and living kind. (TARA homepage, 'Who Are We?: 1)

Arguments for the centrality of the archive are partly premised on incorporating the very action of maintaining, preserving, and mythologizing the photographs as pertinent and important historical materials of service and contribution. The comparison to the well-known *Enigma* code breakers and the role of code breakers during the war serves to further validate the memorial function of TARA. Aerial reconnaissance is amalgamated into a set of overlapping historical narratives and discourses.

Further, memorializing the sacrifice of reconnaissance pilots and the skills of interpreters is another prevalent and associated narrative thread. The display of aerial bravery by reconnaissance pilots has been duly noted in some of the literature around aerial reconnaissance:

The P.R.U. planes carried no guns. They were unarmed not only to decrease their weight and thus increase their speed and range[…]but also to remove the pilot's temptation to engage in combat at the expense of securing photographs. His only defence was speed, and his orders were to run away from planes attempting to intercept him… Few flyers in World War II were more courageous than photo pilots: they had no defense against attack, yet were ordered to fly in the enemy's fire. (Newhall 1969: 57)

The iconic value of heroic and glamorous pilots with "nerves of steel" offers a point of identification for users interfacing and encountering TARA's new configuration. Newhall, cites a daring mission by iconic "writer-flyer" Antoine de Saint-Exupéry, one of the most "illustrious" and "daring" reconnaissance pilots. He also recounts Frederick Sidney Cotton, another folkloric figure celebrated for his early contribution to war-time reconnaissance. As a civilian pilot, Cotton gained aerial access to much of what would become occupied Europe prior to the formal outbreak of hostilities. He managed to take a larger number of aerial photographs, some of which became the initial contents for British military intelligence (Newhall 1969: 56). The TARA site establishes the persona of pilot Adrian Warburton, a RAF pilot whose efforts positioned him as a flyer with the some of the highest numbers of sorties flown. His efforts constitute an entire alternate category in the archive, with the

figure 2.1   Adrian Warburton Collection, *Evidence in Camera*, TARA

figure 2.2   Adrian Warburton Collection, *Evidence in Camera*, TARA

results of his photographic sorties on display. He is credited with gathering some of the "best" photographs in the collection; as such, he gains a degree of authorial value as well, the one responsible for wilfully and seamlessly "taking" the photographs.

Yet, the daring of Cotton, Saint-Exupéry, and Warburton does not translate to the mundane unglamorous act of interpretation, the place where surveillance gains were made. All the energy and effort to mobilize resources and send out aerial "detectors" rested on the efficacy of interpretation, the conduit where "seeing" transformed into military "knowing". The bravado of "airmanship" is subterfuge to the careful consideration of interpretation, where fuzzy images become sterile and clinical conveyors of information. The labour and principles governing how one "sees" an aerial photograph constitutes an expertise, the specialized knowledge of knowing what to detect and what to monitor. Here, the pilots are put under erasure at the behest of this transparent "seeing". Their intersection with the act of interpretation is fundamental in TARA's rhetorical framing of interpreters' integral role; hence, the memorial aspect. In his 1968 instructional manual on the interpretation of aerial photographs, T. Eugene Avery devotes his largest chapter to "Air Intelligence and Military Target Analysis".[7]

Though lamp-side analysis pales in comparison to sensational highflying antics, interpreters were indeed the conduits to the constructing visual knowledge. In what is technically straight, serious language, Avery outlines the various acts, practices, and tasks that constitute the reconnaissance-interpretation apparatus. He cites "early" interpreters as occupying a step in the progressive and refined development of the "air intelligence" he

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[7] The catalogue compiled by Avery is academic and instructional yet there is no shortage of mythic, fetishistic subtext. The historical conjuncture of the text's 1968 publication is contingent with the culmination of the Cold War and the height of the Vietnam War. Avery's manual in this context is symptomatically riddled with this political imaginary, where a naturalized consensus is projected about the primacy and apparent geopolitical necessity of imaging. See Avery, "Introduction", 2-4.

catalogues, explains, and describes. He recuperates the role of interpretation versus the

glamour of flight, writing of the Second World War:

In times of all-out war, a superior intelligence system may hold the balance of power and the key to ultimate victory. As an illustration, skilful photo reconnaissance work by British interpreters during the war led to the destruction of launching sites for German V-bombs on the continent; as a result a long-range attack which might have been catastrophic was averted. (Avery 1968: 283)[8]

The efficiency and skill of the British PRU and the subsequent ACIU was honed, then,

through the repeated act of recognition and interpretation.

Operational Failure? Measuring TARA's Early Success

With emerging techniques in photographic reconnaissance and interpretation

causality is recursive; depending on the index of interpretation, something that is wholly

visible may remain entirely invisible, insignificant, and unworthy of attention, only to be

made "visible" later when the object or thing is coded and ascribed with value by arbitrarily

becoming something necessary to detect and in that moment, becoming legible to

interpreters. The "science" described above is the arbitrary allocation and establishment of

an index of semiotic relays. This establishment is significant because TARA then also

occupies a location on the trajectory of concerted efforts by the ACIU to exploit the new

capacity of coupling film and flight for military purposes. The role of reconnaissance is

obvious: further and enable the generation of strategic and tactical knowledge about enemy

targets, damage done to enemy forces, and the general surveillance of the what was enemy-

occupied territory.

Obviously, the significance of aerial reconnaissance in particular is amplified because

of the combination between the technical capacity of the cameras and the aerial capabilities

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[8] Avery attaches the applicable reconnaissance photos (figure 15-1: 284), saying little of the successful V-bomb attacks on England during the war. He chooses instead to valorize the eventual operational success of "skilful" interpreters combating the menace of aerial attack. The failure of interpretation is elided in the expression of celebratory rhetoric.

to put a camera into space. The ability to gain altitude and scale immense spaces, to miniaturize the surface of a given visual field—battle, target, or otherwise—bear the marks of powerful political, cultural, and industrial production. Vertical perspective incidentally translates landscapes into contained segments; massive spaces, already perhaps sublime in how they are normally perceived (i.e., horizontal perspectives), are extraordinarily transformed into manageable pieces. The archive is as much about the history of organizing specific and specialized industrial labour as it is about the photographs themselves. Many of the reconnaissance sorties were in fact rather mundane, un-spectacular, and ordinary, normalized acts in the machinic assembly of war. Yet, ordinary and mundane visual appearances deny the consistent and powerful capacity of the reconnaissance apparatus' ability to generate information and knowledge. Applying an interpretive scheme to even the most basic sorties and runs, the reconnaissance apparatus supplied a constant flow of images—a type of perception—integral to command and control bodies and their decision-making processes that altered the course and direction of the war

Fixing the interpretive line of sight constitutes the act of reconnaissance as a weapon. Circling aloft is useless without the careful consideration afterward. With success comes the accompanying failure of interpreters to detect, failure of the reconnaissance organ to survey and manufacture information and intelligence. It is this fundamental moment of failure—the moment where a technology fails to fulfil the function and accomplish the task for which it was designed and organized[9] —that paradoxically announces the necessity of the whole

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[9] In this there is some larger hint of what Peter Van Wyck calls, in passing, "an analytics of the accident". Van Wyck 2002: 108. Detection systems and the specific reconnaissance system memorialized with TARA are driven by the 'accident', the moment of failure. The concept of failure is something that Virilio's conceptualizes as far from accidental or random. Rather, in any system the accident as the moment of failure is built-in. It predetermines function and pre-supposes it. Accordingly technologies function with failure as an inevitable anchor. In a war context Virilio suggests the 'mode of destruction' precedes the 'mode of construction'. See Virilio 1993: 111-2. Also consider Octavio Paz: "Axiomatic systems have lost their consistency and revealed an

organ or apparatus. Namely, legitimacy rests in *not failing*, in *not being unable* to detect threats

or assess probable risks, not being able to "read". This organized disposition, as a mode or

"way of seeing" in war-time, is the terminal point of an attempt to gather comprehensive

knowledge of a space or territory, an impossible task extending to an unknowable limit

where success is the arbitrary determination of light on highly sensitive fast film. Total

comprehension is the impossible ideal.

The Immediate Appraisal of Operational Remains

TARA's visual basis subtly ensures both an economy and efficiency of exhibition and

display: the photographs require visual engagement and as such, they provide a kind of

mnemonic and spectacular short-hand before any framing or formally-written,

institutionalized accompaniment text. There is some inherent fascination: the collection, in

its basic character and in how it is recognized, defies conventions of horizontally-oriented

photos. The vertical vantage point is the obvious marker of an alternate perspective.

Standard aerial reconnaissance photographs (20 x 20 cm) are usually large-scale

images depicting relatively small areas, providing more detailed coverage. They have a basic

capacity to abstract the surface through the measure of vertical distance. This translation

allows for the discernment of patterns in order to make operable a comparative syntax of

recognition. Vanishing point, deep focus, and depth-of-field—traditional photographic

measures of distance rendered horizontally—are displaced in favour of a more powerful

merging of perceptual and technical systems that flatten the object or space covered. In this

specificity, part of TARA's draw is the possible aesthetic encounter with such images. In

extolling the decisive role of aerial operations as a factor in the course of winning the war,

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inherent defect. But it is not really a defect: it is a property of the system, something that belongs to the
system." See Paz (1974), "Order and the Accident," in *Conjunctions and Disjunctions* (New York: Viking), 112.

the archive is an implicit testament to the sheer power of the reconnaissance apparatus to

dominate aerial space and sufficiently regulate the visual and visible field of the ground

below by way of effecting actions and producing destructive results. The archive in this way,

then, is historically implicated in the complicated events of the Second World War: it

corroborates and substantiates the familiar normative narrative of "victory over evil" and

the mythologized liberation of Europe from the alliance of the Axis plague. Exhibition—and

the collection's legitimacy—is premised upon the trajectory of this narrative mythology; the

photographs affirm their own development as indispensable tools to win the war.

Even early in its operational life, or late in its war-time configuration, TARA's

antecedent ACIU-form was appraised and evaluated. The ability to generate "intelligence"

and knowledge through the use of images was indirectly put under scrutiny by post-war

bombing surveys conducted by the United States Army. These studies were designed to

abstract, analyze, and assess the ergonomic efficiency and effectiveness of the strategic

bombing[10]. The ability to quantify and reduce suffering to science is, in the survey, another

kind of *optics*, another way at looking from a distance mediated by the lens of numbers and

the superlative aim of better strategy, better pictures, and better technique. Statistics trumps

suffering in a popular context, and is a way of negotiating and encountering the immensity

of damage by dividing, parsing, and colonizing with the careful permutations of data.

Noticeably absent from the bombing surveys were numbers of deaths inflicted, implying that

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[10] Two massive surveys undertaken after the war by the United States Air Force attempted to assess and correlate the effectiveness of their war-time bombing campaign. The RAF conducted a similar survey in Europe through Bomber Command. Both were tomes of statistical figures attempting to quantify the damage and devastation accomplished by the aerial bombardment, especially the later aerial bombing campaign, which drew heavily on the reconnaissance and military intelligence generated by the ACIU during the war. The surveying is a system of feedback measuring what and how things are affected; the bombers were effective but they also massively affected things. In a similar way, TARA is a survey in that it is monitored, offering feedback to the heritage organ of the National Archive so as to gauge how effective and affective the commemoration campaign enabled by TARA is proceeding and if the investment is providing intended results. It is difficult, though, to measure and test popular historical consciousness or awareness whereas the quantification of rubble per citizen and civilian deaths is far more statistically friendly. See the (1946) United States Strategic Bombing Survey (European) online at <http://www.aaesi.com/ussbs.html> for a veritable wall of surveyed feedback.

perhaps within the rigorous photographic indexes designed for interpretation, "people" bore

little signature. In the context of signatures, other trajectories that are or have been *minor*

fields or discourses of historical knowledge, that run counter to this narrative version of

events concerning "victory", are effaced and espoused. They bear little signature in TARA's

rhetorical approach. In relation to these trajectories, TARA is an exclusionary organ that

prioritizes and accommodates a specific version of wartime events. Divergent threads are

regulated, arranged, and aligned to resonate in a specific way. These threads, then, constitute

domains of war-time history outside or beyond typical and normative renditions of the

victory narrative.

One emerging domain in relation to TARA's account of the war is the discourse of

Germany as the site of reception, literally, of a massive aerial war culminating in two years of

a pervasive and indiscriminate area-bombing campaign—masquerading under the official but

sterile rubric of "strategic bombing"—undertaken by Allied forces in the second half of the

war[11]. Regarding the air war in the Second World War and the complicated and problematic

politics of pain and suffering of German civilians, W.B. Sebald remarks with disdain about

the discursive disabling of any extended consideration of this problem: "[Certain discourses]

function [*sic*] to cover up and neutralize experiences beyond our ability to comprehend"

(Sebald 2001: 25). Sebald suggest in his treatise, (2001) *On the History of Natural Destruction*,

that the Allied efforts to pursue a concerted air war in Europe—dependent on the

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[11] David Irving's (1963) *The Destruction of Dresden* is a seminal work in this regard on the 1945 destruction of Dresden. More recently, W.B. Sebald's (1997) *On the History of Natural Destruction*, specifically his chapter entitled 'Air War and Literature', argues that the lack of German war-time literature on the aerial war from 1943-1945 verifies many of the assumed cultural and social problems stemming from generational guilt and trauma via complicity with Nazism, the Holocaust, and the general disrepair of German national identity. Some of Sebald's detractors claim otherwise with respect to the specifics of the air war, saying such accounts do exist while other argue the inappropriateness of guilt with respect to the harm and trauma imparted by Germany during the war. Suffice to say, these larger issues have been interrogated in German literature (Volker Schlondorff's *The Tin Drum*) and in New German Cinema, with filmmakers commenting in the damaged status of the German ethos. Most recently, Susan Vees-Gulani's (2003) *Trauma and Guilt: Literature of Wartime Bombing in Germany* (New York and Berlin: Walter De Gruyter) offers a wider study of the discourses of trauma in the cultural context of German guilt and wartime bombing.

intelligence rendered by the ACIU now on display in *Evidence in Camera*—now stand as a

record of the "final act of destruction of the German people." After the war, the economic

miracle of the Marshall Plan designed to revitalize Europe—and ensure the maintenance and

proliferation of an export-based war-time economy—proved successful because of the

reduction of territory, especially Germany, to Year Zero: the landscape put under devastating

erasure, the reorientation and re-engineering of a whole territory of ruin was the result of "an

operation performed with brutal efficiency by the bomber squadrons." (Sebald 2001: 12)

The mean geography of Germany approached zero as well, flattened under bombardment

produced by the *logistics of perception.*

The archive is noticeably silent on this in its public virtual orientation. Its spectrum

of historical register in relation to an ethics of war, especially in the context of complicated

and sensitive mnemonic tropes of trauma and memory, also fail to address in any larger way

the issue of Allied strategy and the perpetuation of the Holocaust. Along with the question

of German suffering, the large assembly of discourses of the Holocaust are curiously

absent.[12] These constellations—especially the Holocaust, an assembly with an undeniable

historical and cultural efficacy—intersect in any consideration of trauma, destruction, and

suffering in the context of a history of the Second World War. They locate an extreme set of

protracted limit-events consistent with practice of total war.

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[12] Discourses of area bombing are entirely absent in TARA. In relation, the BBC's *WWII History* website offers
a page, "British Bombing Strategy in World War Two" written by Detlef Siebert. Despite the "change of
policy" and the switch to strategies of area bombing, Siebert carefully maintains the tag of "strategic bombing
campaign" while writing under the rubric of one of the main hubs in the British state heritage apparatus. See
<http://www.bbc.co.uk/history/wwtwo/area_bombing_01>. Note further the internal discursive tension: the
URL contains "area bombing" in the web address. Regarding the delicate discourses of the Holocaust, TARA
links directly to the Yad Vashem homepage <http://www.yadvashem.org.il>, an Israeli state-sponsored portal
designed for enquiries and the acquisition of materials concerning histories of the Holocaust. The second
Holocaust related site, through Global Security, addresses the reasons for the failure of photo interpreters to
detect and recognize extermination complexes and other related genocidal apparatuses incidentally captured in
war-time aerial reconnaissance photographs. This problem, again, is one of the index of appraisal and
interpretation, and is explicitly taken up by Harum Farocki in *Images of the World and the Inscription of War.*

Yet, TARA memorializes a politically-prioritized version of events; its memorial attempts to fix the "correct" allocation of suffering and trauma vis-à-vis British heritage. Andres Huyssen, in "Present Pasts: Media Politics Amnesia", claims somewhat convincingly that discourses of memory and commemoration are policed and regulated by the historical centrality of the Holocaust as a dominant mnemonic trope. This trope prevents other kinds of memorializing, in topic and form (Huyssen 2000: 23) and this is to say that considerations of the Holocaust should themselves close down or impair other kinds of commemorative approaches and contents. Yet, TARA's token nod to the Holocaust amounts to a subtle discursive closure.[13] The area-bombing campaign and the role of the ACIU—monumentalized in TARA and commemorated—is also made silent and suppressed. In all this, the central discursive node of the archive is firmly the role of aerial reconnaissance as a proactive and necessary technology. *Vision* is left to stand on its own: the appreciation for the efforts necessary to orchestrate both victory and history requires that the strategy of visualizing a version of history through TARA necessarily enables visual fascination while eliminating the problem of the messy aftermath below.

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[13] Alternate discourses suffer in comparative valuation, lacking a discursive opening in an economy of trauma that privileges one constellation at the behest of others. TARA could ostensibly further directions and kinds of inquiries for Holocaust and genocide studies. There is a whole series of exchanges within discourses around the war, aerial reconnaissance, strategic bombing, and the Holocaust in reference to what Joseph Robert White calls "the mission never flown": the bombing and direct attack on extermination camps (White 2001: 1). Strangely, White refers to this "mission" as a singular act. Dino Brugioni, elucidating the procedures of photographic interpretation in the context of tasking and these "missions", writes that after finally bowing to political pressures put on the military to attack extermination camps, logistical problems ensued: "When the bombing specialists were ordered to formulate plans for bombing the Auschwitz-Birkenau Extermination Complex, officials of the Air Ministry, the Royal Air Force Bomber Command and the U.S. 8th Air Force bemoaned the lack of aerial photographic coverage of the complex. In fact, such photos were readily available at the Allied Central Interpretation Unit at Royal Air Force Station Medmenham, 50 miles outside of London and at the Mediterranean Allied Photo Reconnaissance Wing in Italy. The ultimate irony was that no search for the aerial photos was ever instituted by either organization. In retrospect, it is a fact by the time the Soviet Army reached Auschwitz on January 27, 1945, the Allies had photographed the Auschwitz-Birkenau Extermination Complex at least 30 times." (Brugioni 1983:) Harum Farocki demonstrates this process in his film, *Images of the World and the Inscription of War*. They were literally pulled off dusty shelves. During the operational, military context of the war, the camps were not prioritized; they were not rendered visible because they were not deemed relevant targets or threats, contra Brugioni's ironic assertion.. Interpreters were not tasked with seeing them "'down there"; they did not have specifically established signatures to use for evaluation and reference.

Looking at What Was "Seen" in the Public Showcase

The release of TARA was anticipated with much fanfare, a media event in and of

itself heralding, in celebration, the new capability for Web-users to encounter the

monumental events of the war. The release conforms to a narrative of patterned and

mundane cheer for the dissemination and increased profile of the materials to an audience of

curious cultural citizens. TARA's release staged and promoted the public intersection

between the demand for materials with an enduring cultural and symbolic value and the

ability of the Web to provide both preservation and virtual handling without disturbing the

act of conserving and maintaining.

The official Keele University press release (of January 2004), with its self-

congratulatory tone, was culled and smattered across a range of different media sources,

both online and in the commercial print media. Newspaper articles and Web-based wire

services covered the release, effectively bringing the contents of TARA into a popular public

sphere with a wider- intended audience. Hobbyists and aficionados, historians, technical

web-design experts, and Second World War buffs comprised large parts of the spectrum of

audiences addressed by the fanfare.[14] Yet, public interest pieces permeated popular news

dailies like *The New York Times*, London's *Times*, and Canada's *The Globe and Mail*. The press

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[14] For reference, this is a brief list of the press releases and treatments of TARA's new home and institutional
role: "This week at Keele: The Aerial Reconnaissance Archive", January 23, 2004, <http://www.keele.ac.uk/
news/week/archive/2004/0123/0123-02.htm>; "RAF WWII Aerial Photos Go Online", January 2004,
<http:// www.magweb.com/tourmw/news/0401/1q11/rafp.ht,>; "Web Archive offers new perspective on
the war", January 17, 2004, <www.ladlass.com/archives/001334.html>; "AP: British WW2 Recon Goes
Online", January 17, 2004, <http://wwwsptimes.ru/archive/times/936/rest/r_11436.htm>, January 19, 2004,
<http::/ /www.usatoday.com/tech/news/2004-01-19-ww2-aerials_x.htm>; "Popularity of World War II
Aerial Photos Overwhelms Web Servers", January 2004, <http://www.crt.net.au/etopics/ aerial
reconnaissance.htm>; "Vintage and Warbirds Newsgroup: Britain's Second World War Aerial Photo Archive",
January 2004, <http://celeains.com/blog/blueskies_comments.php?id+262_0_8_0_C>. I include these to
sketch a sense of the coverage of the release. One could question how the release was discursively framed and
given a context in its coverage: for some, the release was a technical event preaching the capabilities of web-
and computer-based resources while others greeted it as a historically valuable contribution.

releases were advertisements—*advertorials*, even—public-awareness pieces designed to generate consciousness of the archive's new home, inviting and promising visitors a spectacular and participatory encounter with sensitive and "top secret" contents concerning the war. The vault had been opened.

According to journalist John Allemang of *The Globe and Mail*, TARA's re-entry into the place of public and popular culture ensures access to the "riches" of the archive. The place of the new archive is, following the essay's title, "Where History Meets the Eye". Allemang's short essay is notably presented in paper's *Focus* section. There is somewhat of a leisurely bent to it as it is inserted into a lifestyle-oriented section for Saturday morning contemplation over coffee. I cite Allemang not to denounce or take issue with his representation and conceptualization of TARA but simply to offer a sample of the revealing de-mystification of TARA's contents and the subsequent re-mystification of the new magic terms of access and historical narrative transport. The media coverage of the release contributes greatly to the intended operationalization of the organ of TARA. Allemang writes, "Today's technology is allowing historians and the public to see these iconic images of the Second World War in a whole new way, in pictures that were technological developments in the their own era." (Allemang January 31, 2004: F4) Allemang keys on the iconic value of the aerial photograph as one significant formal marker that denotes the war itself and connotes the war as a place of rapidly emerging technical developments, especially technologies that impart an index and logics of how space is rendered and things are seen based on optics and perspective. That those historical developments, likewise, are located in relation to contemporary visual media technologies (in the incorporated circuit of the Web) hit the ideology of heritage on the head: the organ of TARA as a place of supply, a place of the logistical management of history, is capable of providing that historical experience, much

like the technical capabilities of the surveillance and faith in the apparatus of the ACIU provided the impetus for "victory".

The archive is less a place of official and administrative reference and becomes both a metaphor and a practice for the sensing and seeing of memory and history. The framing of TARA as significant in that its actual *mode of presentation*—traveling, displaced, and extended online—is trumpeted by many of the reportage pieces primarily because of the emergent web technology employed, a kind of fetishizing tendency documenting the ease of inventing a coming-out event for the collection. In this coming-out, the prolific capability of remote Web access to the collection is arguably a primary story frame vis-à-vis the actual contents of the collection, remarkable in and of themselves. It is a weird little self-sustaining loop: it lends legitimacy to the coverage, the vent of release, the potential encounter with collection, and the efforts of the heritage organ and the British National Archives.

"Looking" Down and "Seeing" What?

Empirically, five-million aerial photographs attest in evidence to the fact that it is all "down there". Yet, depending how one "looks" and "senses", what one "sees" and perceives is indeed a matter of supply based on the index of interpretation applied to the field below. This logic operates in the discursive context of the photographs serving as transparent windows into the past; and at the meta-discursive level of the archive itself as a signpost fixing a version of historical and public commemoration. The issue becomes one of contingency and proximity: what are the kinds of enforced encodings and intended decodings? In TARA, a series of different coding processes occur. The re-articulation of the potential archival user and visitor—and the re-mapping of what constitutes the geography of the archive—defines the emergence of TARA as a process premised on a range of different

technologies. Some are technical, mechanical, and specifically machinic: Web technologies, Web browser interfaces, personal computer capabilities in rendering images, scanning and digital tools used to transfer the collection. Others are normative and durable cultural practices, "technologies" as systematized and habitual methods of doing things: of living through technologies of sight, of looking at images, of conceptualizing the world with the power of vision.

If, as according to Ron Burnett, the semiotic economy of images is always necessarily co-opted and articulated via some external "excess" and extra-textual body of knowledge (Burnett 2004: 14), it is precisely the coded elements of interpretation that make this attachment and affixing of semantic and epistemological filters and prompts possible. The vision and meta-visualization of war-time action collectively presented in TARA is staged with this excess in mind, which represents an effort to regulate and govern an encounter with both the apparatus of the archive as a state-heritage organ, and the immense bundle of knowledges and feelings constituting the topic of the war in a historical context.

TARA recycles these material records—already *re-presentations* of finite moments in space and time—and arranges them to function as opaque, monolithic monuments *presenting* the past as real. The images are invoked out of context; that is, outside the process of the comparison-based interpretation. As single images, the potential for evocative spectacle allows them to function as ahistorical objects that signify preferred and "legitimate" political and cultural narrative of the war. Across the millions of different photographs constituting the collection, the archive discursively packages "aerial reconnaissance" into a single and finite event so as to commensurate the ethical and political tensions of presenting images of war for spectacular visual encounters.

An encounter with TARA—by web users online, "new visitors", or cultural citizens browsing publicity spots and articles about the archive—is an exercise in oscillation: the collection anchors a genealogy of the development of an operational, clinical method of conceptualizing the world in a military intelligence context; and, further, in moments of consideration, the images slip toward a status of *pure attraction* as overt aesthetic display and astonishing spectacle. There is complimentary tension between the "artful" contents of the photographs and the clinical, sterile value of the images. The sheer power inherent in the aerial perspective and the coverage of geography offered; the identification with that perspective; the panoramic-like content and the similarity to kinds of vision-based attractions and ephemera; and the effacement of the trauma ongoing "on the ground" during the moments of supposedly sterile photographic capture—all contribute to TARA's rather bulging status as some normal, ordinary collection. The legacy of war-time success and the legacy of victory in a hegemonic, imagined cultural narrative of heritage is both a sanitized and streamlined overwritten layer. It is instituted at the behest of denying a culpability and complicity, by viewers and by the provisional state heritage organ in general, with the acts of destruction and devastation allowed for and accommodated by the operational images now serving as hallowed and venerated monuments to the past.

Performing Interpretation

Regarding the rhetorical constitution of a particular viewing strategy in relation to TARA, the archive cultivates an approach and mode of address that essentially invites visitors to assume the role of *aerial photographic interpreters*. By elucidating the original material process and practice of interpretation, a series of connections can be established that assist in both diagnosing and translating what in fact occurs when the intended political and cultural

practice of looking at these images becomes mobilized, induced, and actualized by the precession and process of archival exhibition.

The interpretation process is framed as the a means to the ends of victory, without any regard for the dimension of regulatory, operational, and organizational directives that governed the conduct and application of interpretation techniques, nor the successive actions and practices the accumulation of those techniques subsequently prioritized. The simplification and erasure of the "art and science" of aerial photographic interpretation is problematic within TARA's refurbishing and revitalization. Though TARA intends to provide an interface with the spectacle of aerial power and the ability to provide a comprehensive survey of Europe, the actual act of encountering the photographs enables an arresting perceptual encounter that is initially affective, continuously attraction-like, and subsequently uncanny. The potential for fascination, intertwined with the intended and overriding historical impetus of the archive, rests greatly on the expression of an alternate supply of historical material, namely the celebrated role of aerial reconnaissance during the war.

A New Panoramic Attraction

Rendering space and territory manageable in a simulated and conformal visual package is a logic in and of itself to provide the grounds for an arresting and astonishing visual attraction. This basic logic structures any interface with TARA at *Evidence in Camera*. Consider the stereoscope: its first articulation was that of a leisurely form of mass entertainment; it was then eventually applied by interpreters as an operational tool. TARA itself subscribes to this logic of leisurely spectacle: available now through the Web, it is a relevant standing-reserve of materials circulated to allow for further visual encounters,

encounters which blur the boundaries between now-public spectacle, the historicizing of

cultural memory, and entertainment. As an kind of *en masse* attraction, the images in TARA

offer a visual perspective of the ground in a way similar to the mass-entertainment

phenomena of the panorama. The word *panorama*, in Greek, denotes "all view" (Hughes

2000: 1). Stephen Oettermann contends that the panorama, in both painted and early

photographic forms, was a distinct and specific mass medium providing visual, pre-cinematic

entertainment in Europe and North America the late 19th century. In (1998) *The Panorama:*

History of a Mass Medium, Oettermann outlines the historical genealogy of the panorama as a

popular mass medium, much like the emerging medium of cinema.

The panorama is a visual technology that scales space, rendering territory visible and

manageable so as to allow its consideration from a fixed point or perspective. Panoramas

intentionally emphasized the horizontal spread in the figuring of a particular space;

panoramas especially composed and *fabulated* this accessible plane to produce a

representation. As such, the panorama anticipates the distorting effects of extreme and

alternate perspectives. The emphasis of vertical remove inscribed on aerial photographs,

therefore, aligns the aerial photograph and the panorama in that both, in their respective

functions, serve to make a space manageable and operable, to provide a survey or map of a

larger *a priori* incomprehensible scene. Both function in relation to a similar kind of visual

grammar designed to construct a totality, and thus, imagine an aspect of control of the

various figurings constituting the image field. Further, both provide and amplify visual

information that is and was otherwise, from other normative perspectives, *invisible* and un-

apparent. That panoramas indeed provide "overviews" of events and spaces in a omniscient

perspective "above the fray" loosely links them as related visual practices and attractions

Toiling By Lamp Light

The potential for the unfolding of astonishing images, visual attractions, and curious contexts in TARA is forwarded on the assumption of re-articulating knowledges constituting the war. The invention of "aerial reconnaissance" as a popular topic of war-related historical consciousness and memory is incorporated into naturalized and expected recollections and commemorations of the war.[15] Relating to images is natural and normal in this cultural context; further, everyday life and its habitual expectations and routes and trajectories funnel through these familiar topical pathways, which is to say that days are not spent concertedly re-constituting our knowledges. The war is an archive of consigned materials written deeply into Western (and British) cultural life, something cemented.

The *Evidence in Camera* homepage has a banner running across its top. The banner offers a visual assembly of the various entangled threads that converge in TARA: a reconnaissance pilot being either briefed or debriefed in his cockpit; two discernable aerial
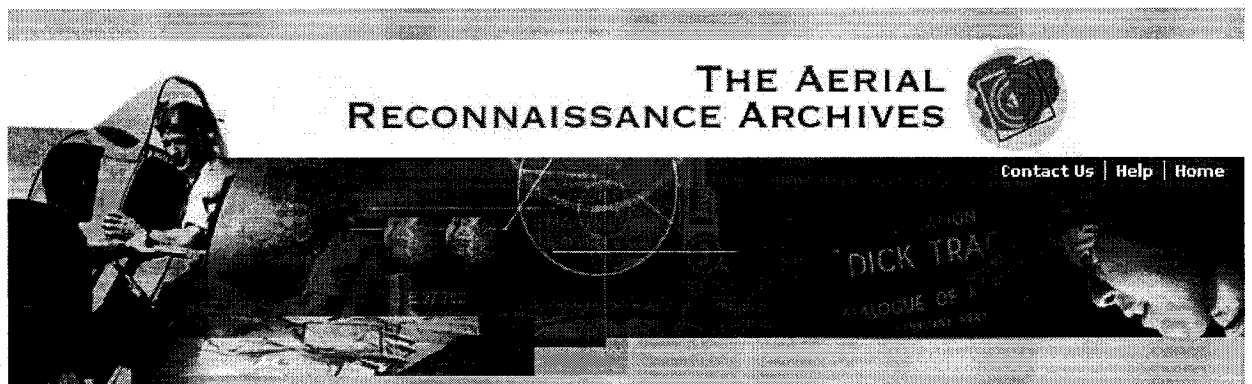
figure 5.1   Homepage banner, *Evidence in Camera*, TARA

reconnaissance photographs; a table of maps and various instruments; a graphic, text-book-like image of some sort of mapping/geometric process; a "top secret" operation catalogue

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[15] The "opening" of this topic is something that I discuss further in the next chapter.

entitled "Dick Tracy"; and finally, what is assumed to be a downward-looking interpreter, his glance cast studiously on the table below in photographic analysis. The images are superimposed across the banner from left to right, unfolding with apparent narrative coherence, from pilot to interpreter. Interestingly, the images are rendered in fuzzy black and white—presumably to simply connote their vestige of "pastness"—save for the image of the interpreter, which appears in colour. The interpreter appears posed and recently composed; unlike the other "authentic" images, the interpreter on the banner is not an "actual" interpreter. The image of the interpreter working, hermetically cloistered in a darkened space lit by a lamp, perusing and analyzing photographs, provides an instructive point of reference: it visually signifies "interpretation" and also the archival interloper searching for files in the exclusive zone of the archive. Interestingly, the low-angle light reflecting off of his face suggests lamplight rather than the new blanket of horizontal light projected by new TARA via the larger monitor screen of a desktop computer.

Cultivating new archival users, TARA invites visitors to embody and perform the role of a war-time photo interpreter. This is the method of participatory historical and commemorative awareness: pretend the role of the interpreter, that noble and contributing cog in the industrial production of integral of war-time intelligence upon which victory hinged. The virtual and modular capabilities of the Web and most Web-browser programs make it possible to "handle", appraise, and evaluate the photographs in the context in which they are offered; that is, as incorporated commemorative devices and as available modular components of "useful culture".

The role of interpreter to be performed and enacted by visitors prioritizes the spectacular and fantastic aspects of viewing aerial reconnaissance photographs. Yet, notably, the ancillary processes and the often mundane and ordinary actions that constitute the

assembly of intelligence are not showcased. Archival visitors do not partake in recreating the kinds of necessary interpretation reports that were systematically generated, which can also be presented as iconic reminders of the residue of war-timed memory. Visitors and users do not embellish or engage in the semantic and syntactic permutations of jargon or codified language. Arguably, providing some kind of "intelligence generated" interface would be absurd; my point is that the opening of the archive allowed for historical identifications constructed entirely upon the economy of visual spectacle and visuality. The effacement of the detailed and time-intensive processes that constitute the manufacture and fabrication of operational intelligence—as translated from aerial photographs—do not lend themselves to spectacular encounters with the representations and presentations of the war. Bureaucratic forms and internal organizational communiqués do not cut it for the recuperation of historical fantasy and enchantment.

9.7.42.

INTERPRETATION REPORT NO. 3681.

NORWAY.

Photographs taken on 7.7.42.

LOCALITY: ALTEN FJORD – ARNOY – TROMSO –
BARDUFOSS – BOGEN – FOETTEN FJORD –
LO FJORD.

1. ALTEN FJORD. (Admiralty Chart 2315).
N/587 7.7.42 10.3 hrs. Oblique Photographs (F.L.14") 16,000' "A".

   (i) SHIPPING.

      (a) Only part of the southern end of the Fjord is seen on good
          oblique photographs and the shipping visible consists of 1 medium
          M/V alongside and 1 medium M/V lying off.

   (ii) SEAPLANE STATION.

      (a) This Seaplane Station, which is seen for the first time on P.R.U.
          photographs, is situated at the southern end of ALTEN FJORD at
          a position 69° 59' N. 23° 19' E. which corresponds very closely
          with the position given in the official list for ALTA Auxiliary
          Seaplane Station.

      (b) 4 Ha 138's are present, three of which are afloat whilst a fourth
          is moored to a jetty.   (Photo. 3.10).

2. ARNOY. (Admiralty Chart 2314).
   N/587 7.7.42 1045 hrs. 1/13,200 (F.L.14") 15,500' "A".

   (i) GERMAN NAVAL UNITS OFF ARNOY ISLAND.

      (a) A German Naval Force consisting of the Battleship TIRPITZ, the
          Pocket Battleship ADMIRAL SCHEER and the 8" Cruiser ADMIRAL
          HIPPER with an escort of 7 destroyers is seen turning westwards
          off the S.W. point of the island of ARNOY in a position approx.
          70° 2' N. 20° 30' E.

      (b) The whole force is seen to be leaving LANG FJORD, an inlet
          about 5 miles long, on the south side of ARNOY ISLAND.

      (c) The TIRPITZ and the ADMIRAL SCHEER are proceeding in line ahead
          with the TIRPITZ leading and the ADMIRAL SCHEER approximately
          2,000 yards astern.

      (d) The ADMIRAL HIPPER is about 1,000 yards S.E. of the TIRPITZ and
          is seen heading due westwards.

      (e) Three of the escorting destroyers are to starboard proceeding in
          line ahead on a S. Westerly course whilst the other 4, to port
          of the major units, are proceeding on varying courses,
          the 2 leading destroyers heading almost due westwards.

      (f) The escort consists of 4 NARVIK class destroyers, 2 MAAS class
          destroyers and 1 destroyer partly seen and not identified.
                                     (Photos. 1.20, 1.22, 2.19, 2.20, 2.23).

   (ii) SHIPPING IN GRUND FJORD.

      (a) The ALTMARK tanker 500' T.57 is seen proceeding at speed out of
          GRUNDFJORD on a W.S. Westerly course.

                              / (b) She is

figure 2.4   Interpretation Report, page one, ICCD

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1 M/V 200/250'.
3 vessels 150/200'.
3 coasters 100/150'.
2 small vessels
Small craft.

Departure of:
1 raft similar to Stickenhorn unit.
1 M/V 400/450'.
1 M/V 300/350'.
2 coasters 150/200'.
8 coasters 100/150'.   1.11.

INNER HARBOUR.
1 T.L.C. (with forward part open)
1 coaster 150/200'.
2 coasters 100/150'.
Numerous small vessels and craft.

Arrival of:
1 T.L.C.
1 coaster 150/200'.
2 coasters 100/150'.
Departure of:
1 probable E/R boat.
1 M/V 200/250'.
1 coaster 150/200'.
1 coaster 100/150'.

On the building slips:
1 vessel 150'
1 small vessel
2 Small craft.

Arrival of:
2 small craft.
Departure of:
1 small vessel.   5.18.

STEAMSHIP QUAYS.
1 M/V 250/300'.   )
1 M/V 250' approx.   ) much
1 M/V 200/250'.   ) quayside
1 coaster 180/200'.   ) activity.
3 small vessels.   )

Arrival of:
1 M/V 250/300'.
1 M/V 250' approx.
1 M/V 200/250'.
1 coaster 180/200'.
3 small vessels.
Departure of:
2 M/Vs 200/250'.
1 coaster 150/200'.   5.17.

SOUTH HARBOUR.
5 'R' boats.
1 coaster 150/200' (timber on quayside)
1 vessel 100/150'.
1 ferry under 100'.
Harbour and small craft.

Arrival of:
5 'R' boats.
1 coaster 150/200'.
1 vessel 100/150'.
Departure of:
2 'M' class minesweepers.
1 coaster 100/150'.   5.16.

KULLAGER (S.E. of TROMSO).
At Southern Entrance to TROMSO SUND
5 T.L.C.

Arrival of:
5 T.L.C.   2.8.

SKATORA.
At Northern Entrance to TROMSO SUND
Aircraft Depot Ship FRIESENLAND with
2 Ha 138's on board.   2.15.

R.A.F. STATION,
MEDMENHAM
DKB/MLH/C.

The Materiality of Interpretation

TARA users and visitors are compelled to look and consider images as if they were historical maps of the locations covered, as if they were singular things rather than vertical reconnaissance photographs that are the result of a set of photographs taken as a series, and perhaps as a set of series over an extensive time period (i.e., the "cover" of multiple sorties over the same area over the course of a few years). Not surprisingly, the original materiality of the production of aerial reconnaissance photography is disavowed and distinctively absent from the ways in which the archive frames and espouses the value of experience and encounter with images. This slippage—from the original material process that served to carefully generate military intelligence to proxy memory objects serving as maps for a historical version of the ground below—is significant because it alludes to the semiotic and discursive labour performed by

TARA to subsume both the inner workings of the reconnaissance apparatus and the ultimate *destructive* project implicit in the generation of knowledge derived from aerial surveillance.

The original process of photographic interpretation is an activity and practice based on a series of semiotic strategies. Allan Sopko, in tracing the specific military development of bomb-damage assessment, outlines the variable collaboration in the ACIU to create suitable assessments following the application of strategic air power in bombing campaigns:

> This analysis featured collaboration between photo-interpreters and industrial engineers, allowing for an appraisal of both the area and locations of the industrial system and the functional components of the system. This process was a precursor for any subsequent damage assessed against a particular target. The post-attack analysis summarized the damage from the bombing strikes in a damage interpretation report. From this report, options to re-attack, feasibility of re-attack, and the degree of production loss were assessed. The meagre beginnings of a damage assessment cell called the Allied Central Interpretation Unit created the art and science of battle damage assessment. (Sopko 1999: 2)

The conversation and collaboration mentioned differs from the privileged and private unicity of virtual visitors' experiences with single images.

figure 2.6   Renault Factory (Eastern France), *Evidence in Camera*, TARA

War-time interpretation was inherently procedural and was organized as such. The logic that underlies the industrial production of military intelligence through aerial photography and interpretation essentially operates according to axes of systematic limitations laid out by the interpretive organ itself—a *modus operandi* developed to produce the clinical gaze necessary to "read" the inscriptions of war on the surfaces below. Interpretation was codified and the act of "looking" and "seeing" subscribed to an indexical visual lexicon. The visual effect created by the vertical aerial perspective established the grounds for a process that was scientific. After transforming actual space—both the grid of aerial space negotiated by planes and the territory of co-ordinates to be surveyed on ground—the successful generation of information and knowledge rested in a consistently programmatic approach. The transformation of visual information into "evidence" motivating further military action affirms a process of conversion: specific practices of "looking" proceed toward a moment of specifically "seeing" war inscribed below.

In what is essentially a system of feedback and self-regulation, the decision determining what, in fact, interpreters *were* looking for, or how the *optics* were attuned and adjusted, was a matter of *tasking*, which determined priority projects for the trained and predisposed "eyes" of interpreters. Tasking established the logical causality and direction of interpretive labour. Tasking defined three standard phases of interpretation (Newhall 60: 1969): *first-phase interpretation*, which was a quick and preliminary scanning of negatives retrieved from plane-bound cameras to seize and acquire immediately visible and apparent tactical visual information; *second-phase interpretation*, which represented the more mundane aspects of interpretation, and was a rehashing of routinely-photographed, more-permanent

locations repeatedly over-flown, like bomb-damage assessments and the surveillance of

industrial or built installations; and intensive *third-phase interpretation*, which was an exhaustive
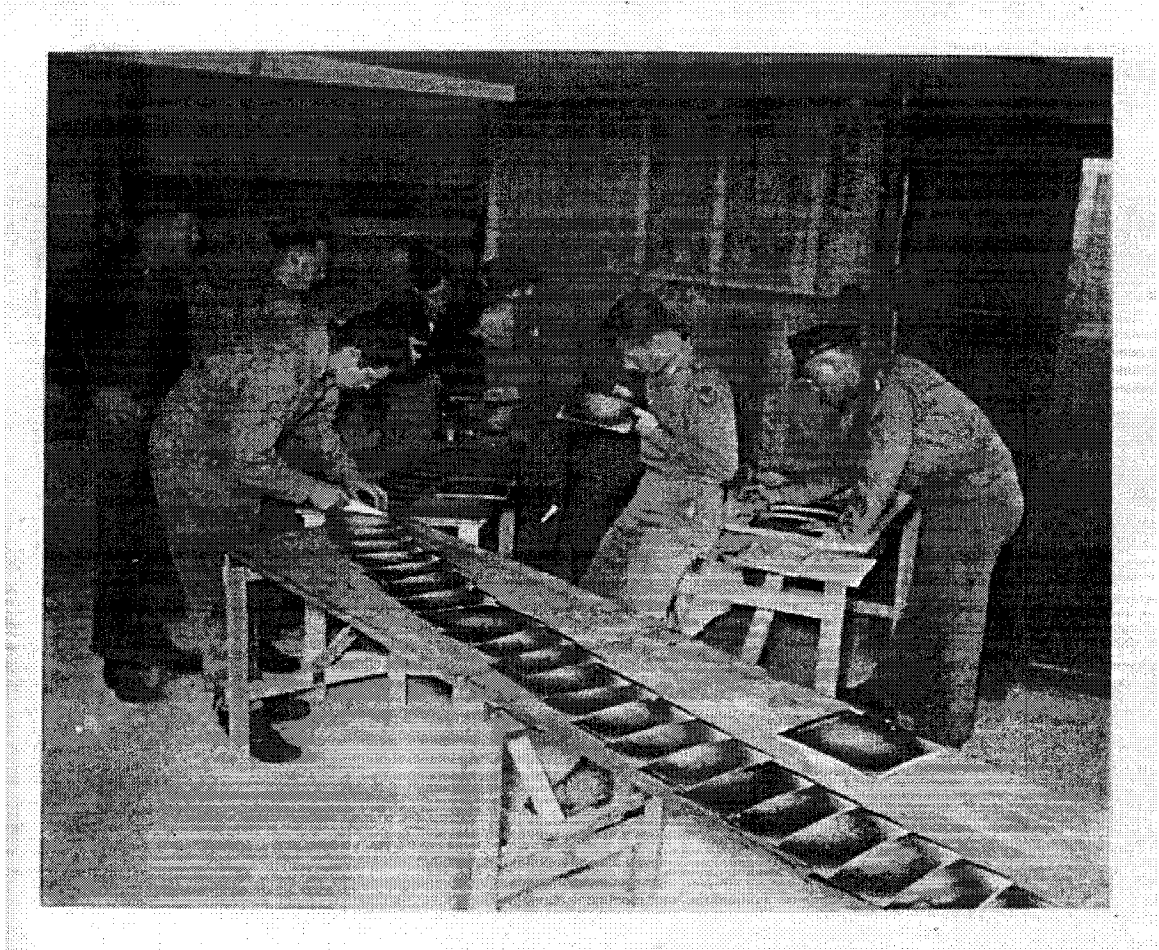
figure 2.7   Photo Interpreters, Edgerton Manuscript Collection MIT Archives and Special Collection.

re-examination of areas. This last phase is essentially comparative: tracking the serial runs

and juxtaposing the coverage of the same space over time in order to establish and detect

recognizable threats posed by permanent places, installations, or sites.

In these phases, interpreters viewing photographic results of sorties were compelled

to act critically but in complicity with the photographs, to be affected by the photographs

while still maintaining the proper index of techniques at their disposal. This is the power

inherent in photography, inherent in the analog capability—in the original ACIU and

currently, despite digital encryption and coding at the level of storage and retrieval in

TARA—that resonates in a contemporary the viewing encounter with *Evidence in Camera*.

Roland Barthes, in *Image Music Text*, writes of the analog:

> Certainly the image is not the reality but at least it is its perfect analagon, and is exactly this analogical perfection which, to common sense, defines the photographic index which, to common sense defines the photograph. This can be seen the special status of the photographic image: it is a message without a code... (Barthes 1977: 17)

Furthering this point, Ann Norton, remarking on photography's emergence and its powerful

cultural and technical authority, writes:

> Photography [was] then a medium that simultaneously denied and asserted its own authority. The assertion "the camera never lies" was a claim that the medium was transparent, neutral and impotent, unable to alter that which it brought before the eye. Yet this assertion of impotence was accompanied by a claim to offer access to the real: to pronounce finally, truthfully, authoritatively...Photography's claim to neutral representation enabled those who it served to pretend to objectivity...The transparency of the medium echoed the claims of coercive rationality [and] compelling agreement...Anyone could see. Everyone, therefore, could see the facts... Everyone, therefore, must concur in a common, anticipated conclusion. (Norton 2002: 34)

The supposed ability to create transparent windows, amplified by dominance of air space

and the ability to survey from above, activates both the desire to invest in "evident" and

apparently visible truth while also allowing for a certain arresting astonishment, an affective

perception akin to awe.

Reconnaissance and interpretation were comprised of many component technologies

to vision this "truth". The appearance of automated transparency was a multiple layering of

minor mediations. The optics, lenses, and technical components bear the marks of a

historical visioning and imaging technique valuing and validating *quatrocentro* perspective.

Historically specific and culturally normative, this perspective was conceptually absconded,

its technical aspects denied (i.e., eliding the systematic marks of enunciation with claims of

"truth") but internalized nonetheless into the process. The territory below was a space to be

visually divided and conquered with vision and then subsequently re-territorialized in analysis

and interpretation in order to become "legible". The early processors and serial developing

machines—like the widely used Williamson Multiprinter—could enlarge negative prints

thirty-five times and rendered a specific and legible version of the photograph based on the

needs of interpreters[16]. The play between realism as simply reproduced and the nominal

values immanent in any visioning intervention—reconnaissance, surveillance, or otherwise—

cross-pollinate one another. The pressures of what was required to, in fact, become visible

aided the development of components that, to produce this, became enmeshed and invisible.

In this, the claims of the collection as a record of realism inherently imparts a

rhetorical and implicit confession of the lurking threat of not getting it correct, of failing to

adequately fabricate reality. Coincidentally, "objective"—referring to "value free"—is also a

component in the lens-ocular assembly. It mediates, which is to say that objectivity is less

about the lack of value and more about the filtering and mediating of what is rendered and

seen. Much like the war-time interpreter's gaze, TARA's commemorative perspective passes

through an objective that is designed to "see" and assuage threats to heritage and the

political expediency and efficacy of visual experience, which *operationalizes* the experience

offered cultural citizens browsing with a mobilized virtual gaze. To presuppose a lack of

mediation on the part of aerial surveyors is to ignore how the selective training of a camera

on any site of location alters or changes the environment by way of the assessments and

interpretations: the will to "see" is also the will to frame and impart significance, to ensure

that, in attending to something, arresting significance will be recognized.

The basic mathematic and geometric specificity of perspective is opposed to simple

transparency. Perspective, then, is a function. In relation to the processes of mapping and

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[16] The Williamson Mulitprinter, designed by Williamson Manufacturing Co., was able to print images quickly and efficiently by minimizing contact and handling of the photographs. Williamson also designed some of the first synchronized gun cameras, which allowed pilots to fly, maneuver, and fire their guns in synchronization with the aerial photography. See both Virilio, (1989) *War and Cinema*, specifically the second photo appendix after page 70; and also *Flashback Magazine*, online at <http://www.raf.co.uk/flashback/williams.htm>.

photogrammetry (the process of making measurements for maps from aerial photographs), John Wood argues a fundamental aspect of any map or image, photographic or otherwise: "Every map is good for one thing, but not another." (Woods 1993: 57)[17] Perspectives are designed for *textualizing*—fabricating images and translating visual information into "text"— and interpreting inscriptions, the aerial reconnaissance organ historically presupposes *conformality* rather than what Woods calls "equal area scale". The two terms are mutually exclusive. Conformality refers to a map conforming in its form to the use that determines its generation, rather than the equal area scale, which is the impossible attempt at maintaining a perfect relation between actual geography and the textual object of the map (the Borgesian paradox of the 1:1 scale map fits here). Conformality is an exercise in nominal valuation and shorthand while equal area scale is an impossible attempt to "get it right". TARA's images, though significant in that they collectively refer to the attempt to cover in large scale an entire continent, were and are still subject to this concept of a meta-conformality. The collection is conformal in that it conforms to the operational role the images were intended and designed to play; an subsequently, it conforms to the historical function the images now serve. Thus, the territory and geography visible in the photographs are more than mere *re-presentations*; they are *presentations* of exercises in visual documentation that are part of a causal and determining chain of technical and interpretive events.

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[17] The basic conundrum around perspectives in photography and further into mapping is well-known to interpreters, cartographers, and geographers. In relation to map projections, the predispositions of the Mercator projection, a projection historically developed for nautical navigation, are well-known to distort the northern portion of the map, hence enlarging the northern hemisphere. The symbolic, semiotic, and discursive effects of this function points toward the power built into the technology of the map, making durable the larger scaled European and North American land masses and minimizing the southern hemisphere. Size equals relevance and the symbolic function of this kind of map extends in ways that are arguably more than coincident with respect to the north-centric of global, cultural, and capitalist hegemony. The Peters Projection, conversely,. more accurately reflects the actual size and scale of the earth's land mass and avoids the distortions of the Mercator, itself a historically specific material effect of a ideological mode and paradigm of conceptualizing the world.

Much like the careful design and planned pathways for aerial runs and covers of areas, the division of space and the co-ordination—the making of co-ordinates on a graph of longitude and latitude—facilitating the conquering, controlling, and the benefits of subsequent interpretation all ascribe to the labour and effort plugged into a system designed to punctuate territory, to make it legible. In de-territorializing the surface and re-territorializing it both in camera and in the rooms of the interpretation section, an affirmation of orbital capability and a *politics of verticality*[18] emerged as always-becoming components in a genealogy of aerial surveillance and sight.

Inconsistencies and Corrective Adjustments

The visual information contained in the aerial photographs was complimented by debriefings of pilots when they returned, especially in conjunction with the production of low-level oblique photographs, where pilots were more likely to have had close visual access to the site. Though whipping by at high speed, they could cast a glance and add some further context to the informatic content. For vertical, high-altitude images, the majority of intelligence generated depended on the labour conducted in third phase interpretation (Gavish 2004: 1). The interpretive framework privileged seriality and the juxtaposition of photographs that existed across a set or sets of photographs. Signification relied on the semiotic relay of duration across these photos, a sort of cinematic measure of time elapsed that become a unified whole, signifying a specific place at a particular juncture in time. Extended examination and comparison often heralded greater precision:

The intelligence stored in a photographic document is not revealed on direct and immediate examination – a fact that the British photo interpreters discovered only in the midst of the war, and which gave rise to three

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[18] This is a term conceived by Elia Wizeman to describe the near-total if not at least comprehensive control of air space and aerial capabilities exercised by the Israeli Defense Forces in the context of the conflict between Israel and Palestine. For more, see "The Politics of Verticality", <http://www.opendemocracy.net>.

phases of interpretation. In the third phase, the least urgent, the interpreters could afford to devote time to a deep and comparative analysis. A document issued by a photo interpretation unit near the end of the war suggested a clear-cut distinction between "photographic research interpretation" and "direct interpretation." ...The single photograph depicts a temporary situation. A series of aerial photographs taken at different times creates a chronological sequence revealing the situation "before" and "after", and allows for a comparison and measurement of the changes...The assemblage of solitary events into a historical sequence imparts to the series an independent quality, and offers invaluable accessibility to points of time in history. Nevertheless, even in a chronological sequence there are hiatuses and blank areas between one photograph and another, which must be filled in with information, if not speculation, so that the gaps can be closed. (Gavish 2004: 1)

The "hiatuses" were the gaps between photographs in moments of planes travelling at high-speed at altitude, and the temporal gaps between consecutive runs of coverage over specific locations or sites. The gaps were the points of leakage, where the *operational bleed* took place.[19] The interpreters were tasked with filling those gaps to create a coherent and contingent image based on minor variances in perspective and major variances in time.

Within the sequence of overlapping photographs constituting one run[20], interpreters were required to compensate and calibrate their results for the mechanically-induced phenomena of *parallax*. Parallax is "the apparent displacement of the position of a body with respect to a reference point or system, caused by a shift in the point of observation" (Avery 1969: 318). Coincidentally, it is virtual. Like the stroboscopic effect and *phi* phenomenon in continuous motion picture film, parallax is an effect of movement over time elapsed; it is a measure of difference. The motion of the vehicle—here, the plane—provides both the platform for intervention as well as the problem for interpretation. Formulae were designed to adequately adjust and absorb the effects of parallax. The temporary situation of the single photo essentially amounts to the documentation of not only space as seen but space as a

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[19] The need for overlapping photographs to correct the operational bleed is written into the process of both the aerial photography and the subsequent interpretation. Planes could not hover and low level passes obscured the ability to accurately assess things, especially with respect to third-phase interpretation of extensive installations. Now, contemporary surveillance practices and technologies (satellite imaging, drone cameras) offer continuous live-feeds and streaming for this kind of consideration.

[20] Figure 4.6 refers to how a photographic sortie is plotted. Paul Virilio, in *War and Cinema*, includes two telling instructional images (30, 31) from (1982) *Photo Intelligence* (Sidgewick and Jackson) documenting the proposed lay-out of overlapping photographs during coverage runs.

figure 2.8   Arnhem 1944, pre-Operation Market Garden, *Evidence in Camera*, TARA

figure 2.9   Arnhem 1944, post-Operation Market Garden, *Evidence in Camera*, TARA

chronology of intervals as time elapsed. As third-phase interpretation was tasked with

discerning more permanent structures of strategic value, assessment was *topological*[21] and

geared to measure the properties, heights, and distances of objects rendered in

photographs.[22]

To alleviate the problem of parallax (and render the photos useful), interpreters

turned to a reliable and remarkable piece of equipment: the stereoscope. Used as a visual

enhancement to produce stereoscopic vision, the stereoscope had a prior cultural life as a

mass-produced pre-cinematic visual attraction; essentially, with a series of thematic

interchangeable plates and slides, the stereoscope was a platform for visual entertainment in

the form of a gimmicky, popular toy. Appropriating hand-held or table-top versions,

interpreters employed the scopic capability of the tool for the comparison of subsequent

images across a series of photographs or between sets of runs or covers of areas. In the

context of the interpretation process, stereoscope use is described by John Avery:

> By modern standards, the photo interpretation equipment used in World War II can only be classified as
> primitive. Photo interpreters used stereoscopes with lenses capable of magnification four times the original
> imagery (about like that of a magnifying glass). In addition, tube magnifiers with a seven-time magnification
> capability were also used in scanning the aerial photos. Photo interpreters [often] performed the interpretation
> from contact paper prints rather than film duplicates. (Avery 1969: 19)

Note the antiquated tone and the implied "progression" of interpretive techniques. With the

stereoscope, interpreters sought to connect signatures to the indexical register of consensus

developed to establish what in fact was "down there".

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[21]OED: *the study of geometric properties and spatial relations unaffected by continuous change of shape or surface of figures.*
[22] It is worth noting that this notion of topology shares much in common with the clinical gaze outlined by
Foucault in (1969) *The Birth of the Clinic*: a topological approach is designed with intent to render symptoms
visible during sickness and disease. The symptomatic method was inherent of the then-emerging medicalized
regime of vision, which coincides with the photographic gaze of the reconnaissance apparatus. Interpreters are
symptomologists; the aerial photographic itself became the sign of this power to read symptoms.

figure 2.10   WAAF Photographic Interpretation with Stereoscope, BBC
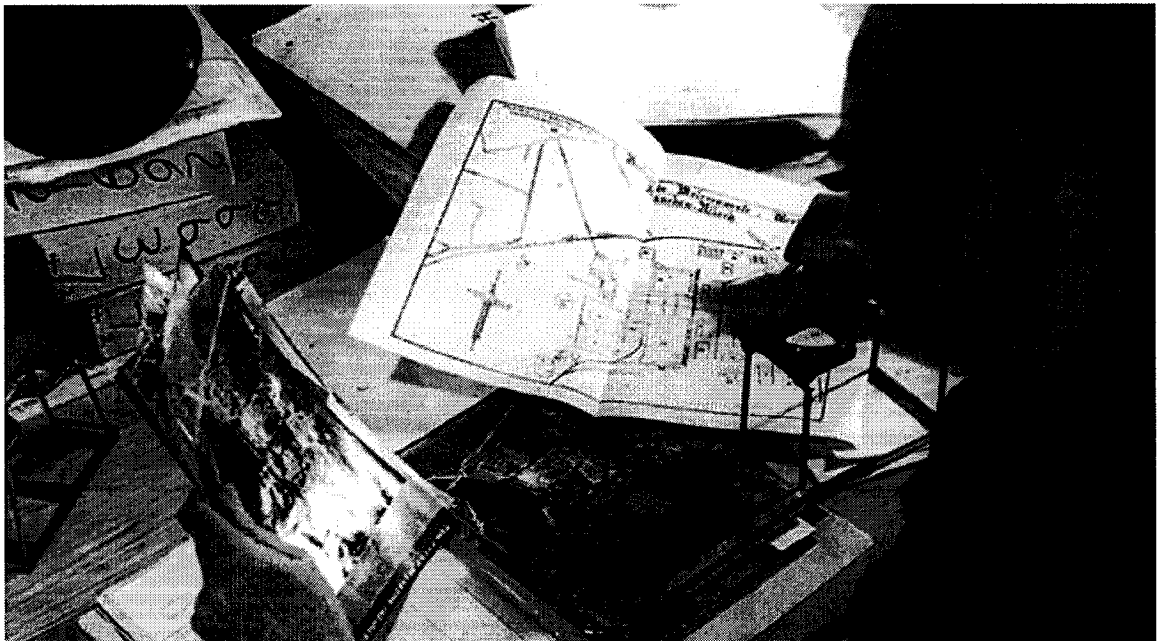
figure 2.11   Photographic Interpretation with Stereoscope, *Evidence in Camera*, TARA

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Stereoscopes essentially produce an optical illusion rendered through specifically canted lenses—a specific *optic*. The stereoscope allowed interpreters to see two images as one by way of the "vectograph principle" (Avery 1969: 38), which is the collapse of vanishing points as they converge in two parallel lines of sight. By implementing lenses to alter the stereoscopic perception of distance by way of vanishing point, the stereoscope rendered and "processed" a uniform image, from which interpreters could compare, surmise, and deduce—or produce and induce—what contents the photographic series had exposed. The still images appear three-dimensionally, allowing for more accurate and precise measurement of height and tone and texture as belied by the various planes and depth of field in the image.

So, for interpreters, generating information was based on the specific map coordinates and the coverage of locations and coordinates. Bound by the basic linear properties of light and the rate of change between images due to the displacement of plane and camera, mathematic manipulation and re-calculation of the basic visual record of a space or field was essential and presupposed most extensive acts of comparative interpretation. The geometry of aerial photography presented a basic problem in turning a curved surface into a flattened plane upon which things could be "written" and "read". With a stereoscope, a stereometre, and a parallax bar, interpreters attempted to correct and illusive photographic effects. Yet, in doing so, they acknowledged the impossibility for comprehensive and total coverage and implicitly invented an artificial corrective.

Specificity and Signatures

With the interpreter as the pseudo-software and the images themselves as the hard material objects, interpreters were organized into sections and used "keys", which allowed

for consideration and, ideally, eventual identification of features and elements in the photographs. The keys established a generic value, a map of signs. They were literally the syntax of aerial vision :

.... These keys were manuals, each containing photographs of a previously identified target. Annotations and text provided guidance on the unique characteristics (called "indicators" or "signatures") of targets which could be used to identify a newly photographed target. (Brugioni 1985: 3)

The indications made possible by the index established the signature as preceding the object or space surveyed and reconnoitred, constituting both a deductive process—where interpreters move from general and generic aerial perspectives toward more specific features internal to the photograph—and an inductive process, whereby specific signatures were read and compared to a predetermined and nominal index of specific indicators and essential semiotic relays. The invention and maintenance, then, of a consistent precedent of identification is based on degrees of resemblance and similarity, contingent on the fulcrum between generality and specificity. Signatures were and are models and copies under which "originals"—that is, the emergent visual qualities of the photographs—are subsumed. The inscriptions of war in the photographs "speak" in that they coincide and subscribe to the language of the predetermined signatures. The major principles of object recognition— shape, size, photographic tonal congruence, pattern, shadow, topographic location, texture (Avery 1969: 15)—are visual measurements imposed in the act of looking by interpreters and the induced result of what was apprehended in seeing. The changes in contrast, resolution, and the subsequent distortion and variation were noticeable features that relayed visual information.

While the collective programmatic import of signature keys was, from time to time, turned on its head (with "new" discoveries), the consistent and conventional adherence to the code is the most basic part of a larger exercise in creating an ergonomic efficiency in the

industrial analysis of photographs and mass production of military intelligence knowledge. The everyday functioning of the war-time photographic interpretation organ, with divided modes of labour and organized ways of tasking and operating (from pilot to interpreter to intelligence to activation and orchestration of resources) was a flourishing of Fordist and Taylorist principles of assembly-line production. The assembly, then, of meaning derived from aerial reconnaissance was coincident with efficiency perfected and galvanized on factory floors, especially war-time factory floors. Industrial ways of seeing converged with industrial modes of total war production; each supplied the other its ontological impetus and justification. The two were complimentary, an alignment of logistical domains.

In acknowledging the division of the labours of looking to facilitate military "seeing" and knowing, it is remarkable that the of the act of interpretive "looking" emerged as an act of seizure, of specifically and concertedly attending to perceive an object. Though working in a meta-discursive cultural context, Jonathon Crary, in (1995) *The Suspension of Perception,* argues that visuality in modernity has been historically characterized not by the paradigmatic onset of distraction but rather by the enforcement and regulation of visual experience and perception through a paradigmatic *genealogy of attention.* Attention requires focus, emphasis, and the application of a specific surveying mode of scopic perception attuned to concentrating on a specific point of reference or utterance. This is significant as it is a revised and alternate account of much of the assumed conceptual wisdom in threads of cultural theory and critical history, which extends from accounts and conceptualizations of the deregulated and pervasive condition of distraction rather than the demand of attention. The hinge between the circuits of normative social controls and visual perception is perhaps less determined by the flood of accumulating distractions and more by a hegemony of vision premised on the specific act of looking closely so as to close down and limit the already-

intensive, distraction-rich perceptual field. Practices honed in the ACIU privileged this close attention: *seeing* required bracketing and putting on the blinders.

Techniques of *Disinterest* & Alternate Methods of Sensing

So far, aerial photographs are processual images, eventually rendered so as to allow something else to occur—reports, more aerial reconnaissance, air strikes (Farocki 2003: 1). As such, they are operational because they were one part of a larger project, providing the object upon which the labour to interpret and "see" was conducted. They anchored the direction of looking, as they do in TARA's online context, providing a portal for the transfiguration of visual information to the production of knowledge. They themselves serve as punctuation in the rhythmic flow of the larger apparatus, one delayed stop on the causal chain. They were carefully attended to as an arresting series of images, regarded with both reverence and suspicion, carefully considered by a regulatory, institutionalized optics favouring the alignment of attention in subsequent stages. The technology of careful interpretation, firmly embedded and emplaced, is the capping technology in the reconnaissance organ, the last developing solution.

Interpretation depended greatly on technique: it was and is time-intensive and also represented an investment in sets photo-runs that collectively themselves signified a concerted investment in that specific space or set of mapped co-ordinates. Yet, the potential for constant review, in terms of both a programmatic approach and methods of comparison using scopic tools like the stereoscope, permitted a relation to the image that allegedly bordered on the mystical:

The techniques of photo interpretation are simple: the careful comparison of photo coverage over days, weeks and even months; the use of stereo vision, the measurement of images to a tenth of a millimetre with a high-power magnifier fitted with a graticule; and above all, imagination. The shadows cast by objects often reveal

their profile. To a good photo interpreter, the identification of everything in a photo became a challenge; "I don't look for things. I let them speak to me," one of them once said. (Newhall 1969:60)

The self-awareness of looking and re-mystifying images that purported to sanitize the field of war and battle is telling: letting the images themselves utter and announce their own visual qualities suggests not a disenchantment of the power of aerial perspective but an imaginative enchantment and mystification of the images that can magically "speak" despite all the nominal and indexical attempts at creating consistent and consented methods of interpretation. It is a mix of Crary's attention and the gaze of a seasoned professional *waiting* for images to utter on their own. Avery writes in his manual that:

[B]ecause photo interpretation often involves a considerable amount of subjective judgment, it is commonly referred to as an *art* rather than an exact *science*. The interpreter must know how to use the scientific tools and methodology of the photogrammetric engineer; yet these objective findings must often be supplemented with deductive reasoning to supply a logical answer to the perennial question, "What's going on here?" (Avery 1969: 12)

Despite the scientific approach and the invention of a method to "think with function" (Zagala 2003: 21), interpretation leaks into—even for tasked interpreters whom we would expect to be fastidious and solemn, perhaps, about their heroic work during the war—the harnessing of a sensational and affective dimension. Interpreters were tasked with the prospect of maintaining habits and the pervasive conventions of their science; yet, in the artifice of the photographs, interpreters had to "think" in terms of the forceful imposition of a hunch based on visual sense and the *dissipation of cultivated habits* (Zagala 2003: 21). The coded procedures and preferred semiotic relays established through the legend of signatures were also open to dismantling by these experts in the field of symptoms, to un-coding so as to "see" or sense anew. Breaching the limits of the scheme sometimes garnered novel and supplemental visual information.

Parallax—the visual disorientation that is expected, calculated, and corrected—occurs at both the level of the images' creation at the moment of light on film across a set of

photographs and also at a remove in the context of the actual interface with the sets of images in interpretation. The considerable play between sameness and difference that demanded careful analysis, observation, and interpretation in the industrial production of a logistics of perception during the war pushed the development of an industrial attention, which was buoyed by the relevance of these images in the context of their operational status and the decisive strategic action activated by the knowledge generated from interpretation. The pronounced application of attention, of attending to these visual registers in an industrial context of knowledge production and generation, further incites the compelling *aesthetic* character of the photographs both in their original context and in the collection's new recycled and re-articulated application. By "aesthetic", I refer to locating the photographs as objects possessing an abstract, artful resonance. Further, this kind of resonance activates conceptions of beauty and pleasure, which confer a different set of potential considerations in contemplating image events and encounters induced by TARA.

Attempts to decode the photographs through application of attention, though, were offset by the open and *disinterested* way of looking and comparing the serial sets of photographs.[23] This aesthetic regard of the sensational quality of an image or object is, following Stephen Zagala, the affirmation of "[responding] to variations of a real experience that cannot be anticipated by conditions of possibility...Kant describes such aesthetic experiences as 'disinterested' because there is not theoretical or practical interest in the object." (Zagala 2003: 23-24). Interpreters theorized versions of what may have been visible; or further, what may become inscribed in sets of photographs after a protracted amount of time spent considering a series. In this, there occurs an appreciation and perception of

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[23] I refer here to the critical thread of Kant's approach to taste, aesthetics, and the play of pleasure and displeasure as elucidated in the *Critique of Judgement*. See Immanuel Kant. (1987) *Critique of Pure Judgment*, trans. Werner S. Pulhar. Cambridge: Hackett.

certain aesthetic cues and compositions in order to enable some sort of epistemological gain, gains which had yet to have been made in the context pre-established signatures.

Again, this is a strange moment in the apparatus. The play between cognition and precognitive affects is remarkable, as it is a distinction that distinguishes both attentiveness and a degree of affect, the kind of disinterested gaze lacking the hard and concerted effort of looking with the hope of, ironically, "seeing" without the concerted aid of focusing on patterns or marks visible to that point. This disinterest, a kind of indirect "looking", suggests an openness *to be affected*. Interpreters could be momentarily open to becoming affected, to *envision* something yet to be seen. The openness of imagination teases out both a tendential force and tension with the mastery implied by the indexical and scientific template mediating interpretation. Imaginative interpretations suggested the play between the initial affect of not knowing a signature and slowly working through the image to eventually ascribe the feature a register of value on the index.

Entering into the exercise of interpretation is a negotiation at the level of reception; some interpreters had "an eye" for these kinds of open interventions. In writing about photographic interpretation during the war, Constance Babbington-Smith remarks on her encounter with reconnaissance photographs that she eventually identified as V-2 rocket launch sites in Peenemunde.[24] Babbington-Smith describes her encounter and inability to reconcile the signatures in the set of photographs:

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[24] This interpretive event is the centrepiece of her 1957 biographic narrative, *Evidence in Camera*, a loose ethnography of the ACIU at Mendenham. V-2 rockets were long range "terror" weapons developed and used by German forces for direct attack on England after the Allies eradicated German aerial resistance and maintained fairly consistent air superiority. The rockets were not only weapons but discursive tools for both forces. Intensely framed as pervasive threat to the national British public, they rhetorically legitimized the prosecution and conduct of emerging air war waged on Occupied Europe by the Allies. In Germany, they were the anchor of similar propaganda tactics to generate support for the regime as German success waned; Germany would be saved by an arsenal of "secret weapons".

I was not the least interested in the dredging or the land reclamation, which anyway did not "belong" to me. There was a separate section at Mendenham whose sole job was to watch and report on developments at airfields. So I ignored the portentous reclamation scheme and pursued the straight road leading to the water's edge. Right at the end of the road was something I did not understand—unlike anything I had seen before…I pondered over the photographs and reviewed what I had found. (Babbington-Smith 1957: 221-222)

A few things in the passage warrant further comment. Clearly, Babbington-Smith communicates a sense of the procedural and categorical approach to interpretation: her field of vision is focused on specific things; drainage features were outside her parameters. Also, her position as a third phase interpreter designated her as an expert able to take time, to compare and identify things that, up to that point, had yet to be determined but could potentially *become visible* if added to the catalogue . The potential "buzz-bomb" had yet to emerge fully as a defined threat: it registered as a sign outside the index but was about to be recursively affixed with analysis to that object.

The interpretive scheme was pushed along exactly with these moments of failure, where the prescribed signatures failed to give reference. The breakdown pushed new considerations, new interfaces, new ways of contemplating and pondering. The effectiveness of becoming "aerial-literate" shifted based on what *could not* be adequately or consistently grasped in a recursive inversion—a *backward diagnostic creep*—of establishing registers on the index of signatures. After some debate about the appearance of what was later determined to be the rockets' launch rails, interpreters were directed to disregard features in the images, which were temporarily shelved. Babbington-Smith alleges this decision retarded the reconnaissance and interpretation of the rockets, subsequently preventing the ability of tactical and strategic air support to strike these targets: "But the plain fact that [this] almost ridiculously simple conception of how V-2s should be launched defeated Allied photographic reconnaissance." (Babbington-Smith 1957: 232) It worth remarking that the eventual interpretation of the Peenemunde photographs yielded results: on August 17, 1943, 560 RAF bombers flew a concerted and concentrated bombing mission over the

Peenemunde rocket facility. Over a kilo-tonne of explosives were dropped and 22 000

workers were killed—mostly slave labourers from occupied countries in Eastern Europe—in

what was one of the last planned "precision" bombing attacks by the Allies during the war.

Smith's notion of "defeat", then, demonstrates both the limitations of the system and the

importance of a diagnostic perceptual arsenal in mobilizing the arsenal of lethal weapons.

Exhibiting the accumulation of old applications and inviting encounters that identify

directly with these residues suggests TARA's complicity with a legacy that implicitly valorizes

an apparatus designed to render things as targets; its new allocation testifies to a heritage of

war-time destruction, further problematized once you stop taking the explicitly uniform and

naturalized narrative legacy of victory for granted. Users are supposed to identify with the

process of interpretation and further with the ability to become affected by the images. As a

new opening, TARA articulates the topic of the Second World War under the guise of new

appearances. The collection, with a newly-engineered impetus for relevance, mediates the

hegemonic cultural imaginary that loosely but powerfully controls mythologies about the

war. The following two chapters address the political and cultural function of this loose

thread of discursive control, both in the context of conceptualizing the encounter with

images of war in contemporary visual cultural and in the context of the shifting politics of

the idea of the archive itself.

Theorizing War & Supplying New Appearances: TARA in Contemporary Visual Culture

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Seen in [a] perspective [that] dispenses with both the determinism of textual essentialism and the arbitrariness of a purely contextual approach, war images are never just "war images" and they are never alike, even when they are the same. They are, on the contrary, heterogeneous and conflicting, reflecting a variety of ideological and interpretive perspectives.

-Gregory Paschaladis, *Images of War and the War of Images*, 19

Truth is a thing of this world: it is produced only by virtue of multiple forms of constraint and it induces regular effects of power. Each society has its regime of truth, its 'general politics' of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements; the means by which each is sanctioned; the techniques and procedures of the acquisition of truth; the status of those who are charged with saying what counts as true.

–Michel Foucault, "Truth and Power", 131

The symbolic "opening" of the archive—though already ostensibly public in its prior orientation—amounts to an attempt to mythologize and render the abundant fond of photographic materials that are serial in nature but perhaps "never alike even when they are the same". The particular and residual visual character of the collection translates to an ease of inventing a new war-related monument. The momentum of this visual quality contributes to TARA's usefulness: it is easier to accommodate the installation and exhibition of images. As such, the collection supplies new versions of the Second World War, effectively issuing a set of images to foster image events and encounters designed to produce and disseminate a "new" appearance of the dominant war-time narrative. Using some threads from contemporary cultural theory to frame TARA, I consider how the war is a conglomeration of memories to be managed and "musealized" and how TARA, in its new cultural integration, further allows this management to occur and proceed.

TARA: Old Abundance, New Energy

The collection, an abundant source, is refused its figurative death. Fritz Briethaput, answering Walter Benjamin's materialist treatise on the philosophy of history[25], claims history is "delayed disintegration" of matter, phenomenon, and event:

History is a history of fiction: or more precisely, history is a delay of the ending of fictions...It is a dialectical image since its two sides, the phenomenal appearance and the possibility of the condition of this appearance, only exists by means of each other and by projecting each other as its precondition (Briethaput, 2002: 194)

Though Briethaput intends for a progressive rendering of Benjamin's arguments, TARA is an example of an investment in residues and the transformation of residues into a significant cultural event. The "delay of the ending of fictions" is the delay in shelving still-resonant narratives of WWII; the aerial reconnaissance material provides a differential thread. The phenomena that the images collectively regard—the aerial activities of WWII—are in a conditional standstill with the possibility for re-appearance by way of TARA's new organization and potentially increased dissemination.

The new public availability and re-entry of the topic of aerial reconnaissance into a larger popular context is a convergence of three interconnected things: the attractive cultural currency of images of war act as provisional materials for uncanny, fascinating spectacle; the interpretive perspective of the state and its institutional *gaze*; and, in hatching the collection as an exhibition, a strategy to activate, fashion, and reintegrate a dormant set of visual records and their narrative discontents into the general politics of truth and knowledge circulating about war in correspondence with imaging practices, vision, and visual communication technologies. The collection, absconded and disused, now signifies an inheritance. It continues its legacy as a newly incorporated attraction.

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[25] See (1939: 1968) "Theses on the Philosophy of History." *Illuminations.* ed. Hannah Arrendt, trans. Harry Zohn. New York: Shocken Books, 253-264.

Image events premised upon an encounter with war photography—even when cued

by remarkably distant and seemingly sterile aerial perspective announced by the photographs

in TARA— invite intense visual and communicative experiences. TARA's success as a

candidate for the funding it eventually received is more than coincident: one can predict

strong reactions and intense responses. Before embedded reporters and hand-held digital

video cameras, the traditionally exclusive zone within which war images are generated—in

this case, the belly or side of WWII-era reconnaissance aircraft—confers authority upon

whatever body captures, manages, and administers the images in the act of display. Thus,

images of war exceed the terms of representation (*the phenomenal appearance*), the act of

looking, and the authentic depiction of actual events with a degree of veracity and facticity.

The subsequent handling, framing, stipulating, captioning, and general presentation (*the*

condition of that phenomenal appearance) of the images, a kind of curatorial power, enforces the

image in its exhibitionary context to become a semiotic relay, to become textual. The act of

presentation "quickens" the image.[26]

Images of war are rendered as both representation and presentation, as an

accumulated figuring. The implied relation between presentation and representation is

neither as linear nor causal as I make it out to be above; one can presuppose the other based

on who is handling the images and how that handling occurs. Images of war are uncanny

objects possessing a spectrum of paradoxical emotive elements; they are as familiar as

photographs and compelling in the kinds of limit-events they depict yet are simultaneously

abject, difficult, and strange. War images are complicated; the explicit contents of the images,

the acts they capture, and the arbitrary ways in which they are rendered and arranged in

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[26] John Woods on mapping and textual captions: "The text constitutes a parasitic message designed to connote the image, to 'quicken' it with one or more second-order signifieds. In other words, and this is an important historical reversal, the image no longer illustrates the words; it is now the words which, structurally, are parasitic on the image." Woods 1993, 25.

exhibition and presentation implicitly suggest questions about the political legitimacy of any

war itself (Paschaladis, 2002: 3). Images of war retain a singular, specialized symbolic power.

There is a passage toward the end of another famous Benjamin essay that suggests

the problematic terms of intense perceptual encounters with images of war. Despite recent

criticism that his work is increasingly irrelevant and anachronistic in a contemporary context,

Benjamin still provides a path toward my specific concerns. In his "Work of Art…" essay

(1936), Benjamin quotes a passage from Marionetti's Futurist poetry. He indicts its rhetorical

incitements, which beautify technologies of warfare[27], and he regards the fetishizing and

celebratory tone describing the fascinating machinic assembly of total war as ominous and

fascistic.[28]

Benjamin's seminal and historically-specific arguments have been consistently

debated in cultural-theory scholarship for the last seventy years: the so-called waning status

of aura and the process of visual contemplation of objects of art; the political potential of

shock and mass spectacle as agents of rupture and recuperation; and the continuum of

exchange between aesthetics and politics. Benjamin's coupling of politics and aesthetics in

the "Work of Art…" essay (politicized aesthetics: good; aestheticized politics: fascist, bad)—

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[27] " 'War is beautiful because it establishes man's dominion over the subjugated machinery by means of gas masks, terrifying flamethrowers, megaphones, and small tanks. War is beautiful because it initiates the dream of metallization of the human body. War is beautiful because it enriches a flowery meadow with fiery orchids of machine guns. War is beautiful because it combines the gunfire, the cannonades, the ceasefire, the scents, and the stench of putrification into a symphony.' " Benjamin 1936: 241.

[28] Benjamin's warnings are a culmination of the his thematic privileging of the problems of perception and perceptual capabilities, and the intersection with increased massification and acceleration of technologies in late modernity. Benjamin warns against fascism and the aestheticization—read, the spectacular beautification , here in Marianetti's Futurist poetry—of politics. Aesthetics for Benjamin is less form or style or even content and more the total field of cultural experience as mediated by mass culture and the increased spread of visual imaging technologies. It is a matter of encounter. Aesthetics is rational and intellectual but also phenomenological and empirical. For Benjamin, the affective nature of contemporary cultural life in his time was replete with unconscious perceptions are sensations felt nonetheless despite their lack of register on an conscious index. Benjamin, it seems, cautions against the totalizing effects and affects of technologized culture and the threat it poses in alienating individuals and subsuming the capacity for human endeavour and imagination, especially in relation to progressive social formations. See Benjamin (1936) in *Illuminations*, 241-242. These statements have hatched a historical debate about technologized culture with respect to industrialization , organs of technology as durable systems, and how these technologies alter and affect perception and apperception.

a coupling I cannot judiciously explicate and interrogate[29]—is useful here to simply tease out

the initial intersection of and exchange between both terms in the virtual version of TARA.

These threads coalesce and translate into the political and aesthetic problems of image

events, amplified in encounters with provocative images of war.

The contemporary conditions of shaping and delivering images and inducing image

events or encounters with visually-based media activate—in their very technical and

technological constituency—a potential auratic encounter. Speed, delivery, and the space-

and time-binding capacities of contemporary communication and media technologies feign

an illusionary immediacy and an ability to be everywhere at once. The increased

intensification of scopic experiences via communication technologies like the Web—

allowing a "mobilized virtual gaze"— leads Lutz Koepnick to argue for the re-tooled

relevance of Benjamin's thought in a contemporary context. Koepnick writes:

Images and scopic experiences are now as much a material force of shaping history as social or economic forces; they intimately contribute to the making of the world. What is important to emphasize, however, is that postmodern culture produces not only despatialized and detemporalized viewing subjects but also a field of visual images that appears intrinsically heterogeneous and hybrid. (Koepnick 2002: 96)

For Koepnick, aura has not been eliminated nor is it waning or in decline as Benjamin

surmised. Neither, though, is its articulation as spectacle always necessarily authoritarian,

fascistic, and "aestheticized" politics; nor has Adorno's aura triumphed over the political

efficacy of Benjamin's shock effect amid the increasing disjunctive purportedly distracting

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[29] This refusal is based on not wanting to open or close the door on assessing and interpreting the 'aura' of both the archive and its photographs, something central to historical and mnemonic processes TARA maps. In Benjamin's version of 'bad' art, the waning aura he cites as characteristic of modernity ('the age of mechanical reproduction") is re-cast by fascistic politics to re-invent aura through mass spectacle. While dealing with art and specifically cinema, some of Benjamin's current interlocutors have suggested the problem of associating any moment of aura (i.e., which has not waned) with fascistic politics, especially when many of the technical delivery systems of any kind of politics in social or culturally mediating contexts are themselves auratic. For essays elaborating, celebrating, but also problematizing Benjamin, see: Miriam Hansen, "Benjamin and Cinema: Not a One-Way Street', 41-73; and Lutz Koepnick, 'Aura Reconsidered: Benjamin and Contemporary Culture', 95-117 in (2002) *Benjamin's Ghost's: Interventions in Contemporary Literary and Cultural Theory* (Stanford: Stanford University Press).

visual symbolic economy of late modern capital. Rather, aura is retained because of the very

technologized methods of communication against which Benjamin cautioned. Koepnick

writes again:

[A]ura not only outlived mechanical reproduction but also...no longer designates a mode of textual address and enunciation. Rather, aura becomes a matter of personal projection and appropriation that ironically cannot be realized without technological mediation and exists as one tactic beside many others that make use of cultural material. (Koepnick 2002: 99)

The technical basis of the shock experience, which Benjamin laid out in cinematic terms, is

now part of the set of standard cultural communicative practices. The status of aura and its

openness—the pervasive capacity for auratic experience as a kind of media literacy—is

noteworthy in relation to TARA beyond the material contents of the images in the

collection. The technical capacity to refigure the archive as a virtual portal is a hegemonic

absorption[30] of the potential auratic encounter with the specific histories and memories

"released" by TARA. In this, the concerted effort to render intact "the integrity of the

semantic object"[31]—the war and the topic of aerial reconnaissance—so as to produce and

promote an reverent mnemonic and informatic encounter with the collection is the strategy

upon which TARA is premised.

The Cultural Context of Images of War

In attempting to frame TARA, I initially considered emphasizing the archive itself

and the institutional function and role it assumes in a digital and virtual context. Yet, the

cultural context of images of war themselves—as a culturally specific discourse with a

historical dimension (i.e., the history of war images) –is another method of framing TARA.

Gregory Paschaladis, writing about the cultural context and specificity of war images in

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[30] Hegemony: "It is a whole body of practices and expectations over the whole of living: our senses and assignments of energy, our shaping perceptions of ourselves and our world. It thus constitutes a sense of reality for most people in the society...It is, that is to say, in the strongest sense a 'culture'." (Williams 1977: 109-110)
[31] This is Victor Burgin, as quoted in Koepnick 2002: 97.

"Images of War and the War of Images", argues that rather than subjecting war images to anti-visualist critiques or the programmatic pedantry of *neo-iconoclasm*, war images must be encountered in ways that are contingent and context-specific. Orienting the analysis of images of war in such a way so as to have instances of image encounter subsumed by the logic of the archive—as an organ for retention and preservation—subtracts from the important and complimentary relation between the phenomena represented and the terms of that presentation. In considering the nature of images and visuality in Western culture, Paschaladis writes:

Images are always closely related to the processes of articulation, legitimation and/or delegitimization, of political and cultural authority… The question of the image of war must be considered within the context of a culture that privileges and values the image itself. (Paschaladis 2002: 3)

The sedimentation of vision as the default perceptual sense is evident in the development of aerial perspective: it is safer to see from afar. In a culture oriented around a visual symbolic economy, images of war take on a transhistorical iconographic specificity. They are culturally venerated prior to whatever politics or semiotic or discursive operations an analysis may tend to enframe. According to Paschaladis, there is a valuation to which one subscribes when encountering an image of war, which connotes an imaginary transport to a *diegetic* world that is exclusionary, abject, and external to the habits of everyday life. This transport extends to the panoramic properties of sanitized surveillance photos. Images of war are exotic and enchanting: they are points of convergence for contention and deliberation. Images of war inevitably document, refer, and allude to events that are difficult to comprehend. They *matter* regardless, and in mattering demand our regard regardless.

TARA's new parameters and virtual mandate are clearly defined: provide a momentous encounter with the Second World War through the collection of "technical images" (Paschaladis 2002: 5) industrially produced and compiled by an actual mechanism of

war. The functional mobilization of TARA's images initiates the colonization of popular historical imagining: "The age of the technical image is, indeed, the age of a generalized war of images." (Paschaladis 2002: 15) For Paschaladis, images of war are hinges for different positions or moral arguments about war and the technical image. Some images are complicit with the conflict they depict; others, either in aesthetic composition or technique or framing in arrangement and juxtaposition, invent a critical perspective, often ironically by auto-satirizing the very action and event they depict. Paschaladis is inclined to regard images of war as specifically singular sites of discursive and semiotic deliberation, contention, and battle:

A wide variety of political and cultural agents...[participate] in the production, collection, and circulation of [war] images, seeking to articulate and promote their own definitions and interpretations of war, death, violence, and destruction, on the basis of a variety of diverging and often conflicting ideological perspectives and cultural assumptions. (Paschaladis 2002: 15)

The heritage organ, in conjoining the visuality of photography, cultural constructions of memory, and historical narrative through TARA, can modulate and legitimize the articulation and maintenance of dominant political regimes through the production of an encounter inducing "an evocative and emotive monolith of feeling." This notion of a "feeling" arguably underwrites an epic and idealized version of the events, results, and subsequent fall-out incurred and induced by aerial reconnaissance operations in WWII.

Vision and Seeing War From Above

Harun Farocki's film, *Images of the World and the Inscription of War* (1989), documents the process of surveillance in a military and historical context. The film's didactic approach is instructive in terms of critically exploring TARA. Allan James Thomas writes:

Even in those documentaries that reflexively interrogate their own representation of reality, the issue tends to remain how and to what extent our relationship to that originary reality is mediated by that image. For Harun Farocki, however, this relationship demands to be re-read entirely....This necessity of *reading* the image lies at the core of *Bilder der Welt und Inschrift des Krieges*. Here, the image is not the visible trace of an originary reality so

figure 3.1   D-Day, June 6 1944, *Evidence in Camera*, TARA

much as it is something legible, something which must be *read* as much as it is seen, or even in order that it be seen. Moreover, the legibility of this image is intimately linked to the erasure, forgetting or destruction of 'its' object: it is intimately and necessarily a form of violence upon the world, its destruction as much as its doubling. The translated title of Farocki's film gives this to us explicitly; 'Images of the World and the Inscription of War'. (Thomas 2002: 1)

What is legible and what is put under erasure is central to TARA's material and now-immaterial constitution. Farocki's film traces the historical development of aerial reconnaissance and militarized ways of seeing, of making images legible. Farocki makes a simple but powerful point: *Aufklarung*, the German word for "enlightenment" (i.e., *the Enlightenment*) also doubles as *reconnaissance*, that act of attempting to see (or simply sense) at a distance. In this correspondence, Farocki establishes the connection between seeing and the production of knowledge. He essentially provides a familiar critique of the trajectory of Western *logocentrism*, linking perspectival mastery of the visual field and the ability to determine, produce, and govern legitimate bodies of knowledge. The point, though, is not merely seeing but "seeing" as also "reading" and "knowing". Farocki emphasizes the complicated entanglement of surveillance, recognition, and misrecognition. The clinical "seeing" of things and the mastery of seeing is the very power to inscribe war—to `symbolically "write"—on an image of the world. The juxtaposition and processing of that inscription—the symbolic reading—is the moment where the image becomes an object of knowledge. The collection is a bundle of this type of ideological and semiotic labour.

The History of "Seeing From Above" as *New* Supply

TARA refers to a historical moment where there occurred an expansion and extension of the ability to transform territory at a distance, to alter and intervene in a landscape that is not occupied or possessed but that can be contained and confined by way of surveying. This intervention is no neutral thing and marks an important shift as to how

the practice of war is organized and waged; as Paschaladis writes, quoting Marshall

McLuhan: "All wars have been fought by the latest technology available in any culture."

(Paschaladis 2002: 7). This expansion constitutes part of the new appearance of war: literally,

we see war anew through images taken by planes aloft but we also see a new war with use of

the archive and online browsing, which aid and assist encounters with these residual images.

The problematizing of a specific "vision machine"—the technical and ideological

apparatus for "seeing" beginning with *quatrocentro* perspective—is inherent in considerations

of images of war and especially, to aerial-reconnaissance photography. Paschaladis writes

further:

In the contemporary critique of the relation of visuality and war we find two dominate and often interlocking themes: first, there is an eclectic affinity between vision machines and killing machines, that the historical evolution of the technologies of visual communication is closely linked to developments of the means and mores of war. Second that there is a complicity between images of war and the war itself, particularly with regard to its moral neutralization, its legitimation. (Paschaladis 2002: 6)

TARA function to anchor an the legacy of an apparatus designed to impart and facilitate

destruction suggests this complicity: the holdings in TARA verify and legitimize the actions

they both represent and present.

According to Paul Virilio, aerial and visual interventions are developments

continuous with military lines of sight regarding the aiming and surveying with weapons. The

line of flight of ballistics mimics the sightline of the eye:

The act of taking aim is a geometrification of looking, a way of technically aligning an ocular perception along an imaginary axis that used to be known as the 'faith line' (*ligne de foi*)...*[F]aith, belief* [denotes] the ideal alignment of a look which, starting from the eye, passed through the peep-hole and the sights and onto the target object. Significantly, the word 'faith' is no longer used in this context in contemporary French: the ideal line appears through the objective, and the semantic loss involves a new obliviousness to the element of subjective interpretative subjectivity that is always in play in the act of looking. (Virilio 1989: 2-3)

Again, the ability of vision to see at a distance is amplified and intensified by technical

implements. For Virilio—whose version of cultural theory locates the institutional

organization of Western society as intimately and inexorably tied to the culture and practice

of war—the logics and logistics of war are substantial moving forces in terms of a historical

narrative. Aerial-reconnaissance capabilities marked a shift in how war is perceived, considered, and waged.

Surveillance and reconnaissance are never sure things, and the actual character of the surface, of the topography, and of the environment on the ground leaks outside the detailed pictures "read" in the frame—hence the operational *bleed*. Reconnaissance is as much a product of an indexical hierarchy of interpretation as it is of what the camera renders in apparent "reproduction". The historical significance, following Virilio's remarks, rests in the emergence of an organ with panoptic power, a "sight machine" that rectifies and radically alters the "problem of knowing" in the course or action of war (Virilio 1989: 2).[32] For Virilio, war is—in its waging and in how it is supplied and perceived—becoming "derealized". Paschaladis describes Virilio's position:

War has become telescopic, utilizing visual technology that makes it more and more mediated and faceless, and hence, more inhumane and morally neutralized for combatants and non-combatants alike...[making] us all equally distant and belligerent." (Paschaladis 2002: 13)

The domain of the sight machine and its enabling of a range of perceptual fields is a platform, a "way of seeing", and is a confluence of military imaging technologies and their developmental cross-pollination with cultural visual practices (namely leisure and entertainment technologies like cinema and photography). Virilio's essential argument is a form of technological determinism where these military "ways of seeing" slide and leak into civilian forms of life. Virilio's comments apply at both the level of the technical image itself and in the larger context of how those images are presented as icons of war. This determinism has some merit: as a "new appearance" of the history of WWII, TARA aligns

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[32] With some fire and brimstone, Virilio's argument throughout *War and Cinema* traces a trajectory of the merging of technical "seeing" capabilities and the eventual automation of military perception through remote sensing and imaging technologies like infrared and electromagnetic detection systems. The fear of Virilio is based in the ominous surveying ability of military perception to see not only what is 'in view', i.e. in the frame of a photo, but to also harness in invasive ways the perceptual information "out of view", that cannot be detected by 'normal' perceptual means based on human physiological capabilities. See Virilio 1989, 2-6, for a brief exploration.

an intense relationship between populations, the perpetual supply or logistics of that population's perception, and the technologies meant to assist that perception through surveillance and control of the field of the visual image.

Air superiority and the dominance of aerial space by the allies affords the compilation of the collection a photographic character that is uncanny: they are familiar in their form and reconcilable in their basic physical status as photographs; but they have a character that is strange and unfamiliar in that they derive their generic meaning, "aerial" from their ability, in content, to "lose" a horizon, to be inherently premised on verticality as opposed to a horizontal axis:

> Alongside the *war machine*, there has always existed an ocular (and later optical and electro-optical) 'watching machine' capable of providing[…]a visual perspective on the action underway…[T]he same function has indefinitely repeated, the eye's function being the function of a weapon. (Virilio 1989: 3)

The visual capabilities are together a *line of force* and this vector, in its ocular character, is an *optic*. With *optics*, Virilio refers more generally to the informatic domain of military perception and "seeing".

The translation of visual information in the context of surveillance photos extends to the field of the photos themselves, to the network of interpretation, and to the application of the information and knowledge produced as technical and operational, but also subsequently as historical and cultural material in the case of imagining history in the archive. In TARA, the logistics of perception extend: the framing and shaping of a past and how that past is visualized, memorialized, and known in a historical context is based on how, and what, images are supplied and administered. Virilio builds a kind of archaeological argument based on the discernment of origins (i.e., the emergence of aerial reconnaissance as a military practice in the First World War that saw the literal disappearance of the relevance of the

horizon).[33] His logistical mapping resonates in the context of TARA because of the current

contextual contingency of TARA's new virtual status with the "wired" circuits of delivery

and circulation: it is the logistical supply of history that activates the records of a perceptual

logistics of war, a logistics of perception.

Archiving Images of War

In a related trajectory of inquiry, historian Thomas Richards maintains that British

imperial power was based in the fantastic drive for total knowledge. Accordingly, military

prowess is the subsequent vehicle. He argues that the historical logic of the British Empire is

premised on the accumulation and management of extensive globally-gathered information.

Accordingly, the "imperial archive" existed, "[As] the sign of war...[T]he sign of a

permanent state of emergency, the sign of a state apparatus maintaining political

equilibrium... " (Richards 1993: 30) Richards implicates the act of accumulating knowledge,

as fastidiously gathering and arranging, as the sign of a paranoid outlook, a *gaze* premised on

"seeing" and assessing threats everywhere. This assessment of threat is doubly applied to

TARA: images tracing the signatures of known threats and the collection as a response to

external threats to heritage and dominant history.

While the "imperial archive" is somewhat anathema, the structure of this kind of

accumulation and presentation underwrites the logic of supply at work in TARA. Richards

connects the imperial archive to Virilio's *logistics of perception*:

[There was] the refinement of a new logistics of perception into the archival reconnaissance of territory...
[historically up until World War One] command centres have notoriously exhibited complete disregard for the
various perceptual apparatuses at their disposal, particularly when these have produced information that
conflicted with existing configurations of knowledge... [The characters] successfully turn an intensely

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[33] Archaeology here is opposed to a more genealogical assessment (i.e., the contingent emergence of certain
formations at specific conjunctural moments, tracking change over historical time). For Virilio, the matter is
one of accumulation, acceleration, and speed, things he argues to be continuously increasing and developing in
a linear way historically on a trajectory toward the teleological goal of automated perception.

phenomenal perception of territory into a new kind of early-warning system. [They] wage a war not of projectiles but of perceptions, a war not achieved knowledge but of approximate knowledge, a war not of strategy but of logistics. (Richards 1993: 123)[34]

Further, Richards alludes to Virilio's notion of a historical development of perception:

[D]ifferent orders of information continually interact to create new orders of information. Mathematics becomes chemistry becomes ballistics becomes cinema...These connections are anything but arbitrary; a historical logic of sense exists behind each of these fluctuations in the order of knowledge. (Richards 1993, 108,168)

For Richards and Virilio, this emergent development is more than simple coincidence. The surveying technologies and techniques arising from a logistics of perception implicitly privilege and prioritize a way of looking, a surveying gaze that establishes a semiotic relay where certain things in the act of surveillance and reconnaissance are apprehended and made visible while others remain invisible and unprocessed.

While some historical continuity may exist with respect to the concept of empire, *pax Britannica*, and the British war effort, the point is more one of the connection between the posture of the reconnaissance apparatus during the war—as detecting threats and functioning in a very formative way with respect to dictating military action—and the posture of a British-heritage organ seeking to enliven and activate a dominant historical imagining with respect to the collection that is TARA. TARA is an organ of logistics, a supply conduit for perceptions of history and memory, a supply that is doubly articulated in relation to the archive's publicized content. TARA essentially becomes a grand narrative of war-time perseverance and the will to power to victory. It also signifies the will to archive, to

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[34] The *logistics of perception* developed by Virilio and extended, in application to the fantasy of the imperial archive and the comprehensive knowledge of empire, by Richards demonstrates a kind of perpetual identification of threats in a permanent state of emergency. In the context of current global security discourses, the archive's memorializing and public articulation is a silent but affective stipulation: sensing and remote sensing have been extended beyond the simple visual parameters; visuality exhausts only a portion of the possible kinds of potential perceived objects, events, and materials that can be framed and analyzed as threats in a what Virilio refers to as a state of total and pure war.

maintain an archive of threats. Richards again is helpful in this regard in relation to how the

collection, in its new virtual manifestation, is in fact arranged, orchestrated, and positioned:

[The] operational field of projected total knowledge was the archive. The archive was not a building, nor even a collection of texts, but the collectively imagined junction of all that was known or knowable, a fantastic representation of an epistemological master pattern, a virtual focal point for the heterogeneous local knowledge of metropolis and empire. Though in theory, as Michel Foucault has written, "the archive cannot be described in its totality" [...] the archive [is] often figured as a fixed place, as a discrete institution, even as a single person. The ordering of the world and its knowledges into a unified field was located explicitly at the register of representation, where, most successfully of all, the archive often took the form of a utopian state. (Richards 1993: 11)

The archive as a utopian state, as an idealized impossibility of totality and comprehensive

knowledge, is indeed a representation: *the representation* of military capability and capacity

rendered by *the presentation* and availability of a collection of surveillance photographs.

The invention and imagining of the utopian state is determined by the prescribed use

of the archive as a memorial assembly of constituent but consistent parts standing in for a

whole memory—synecdoche—of the events and actions of the Second World War. The

material comes out of the state's own informatic potential, coming off as natural and normal.

Thus, TARA is textual. It is an instructional device, designed to provide guidance regarding

the legacy of aerial reconnaissance and the war. The memorializing tact is, then, somewhat

expected. Richards again writes:

Like power, information does not exist in a vacuum. It has to be made and used. Data has no inherent function and can just as easily lend itself to open societies as closed ones... Though the archive threatened at times to overwhelm the state with a mountain of documents began to imagine it could perform feats of magic with knowledge, doing a lot more than merely acting as its curator. A variety of narratives succeeded in transforming the uncontrolled accumulation of knowledge into a fantasy of a controlled flow of information to and from the state. (Richards 1993: 73)

While the abstraction of generic and arbitrary kinds of information subtracts from the

specificity of TARA's contents, it connects to the idea of both text and cultural intertext.

This activating and application of especially sensational information in the case of TARA—

the narrative of a war told through images and the process of developing and rendering

images as meaningful—suggests both the regime of "seeing" at work in defining the

historical content of the collection and its applied contemporary usefulness. This flow of

information and data also comprises of two movements: the handling of aerial-

reconnaissance material and the subsequent interpretation of that material. Richard's "variety

of narratives" elucidates how the particular narrative of war-time military intelligence, in its

commemoration, brokered success and enabled eventual victory for Britain and its allies

during the war, something in circulation with respect to public historical consciousness. The

collection, in its new functional application, demonstrates state holdings as endlessly

inexhaustible[35], with the possibility of new affiliations and identifications forged and

articulated.

The Auratic Resonance of the Collection

The basic visual character of the collection translates to political expediency for

TARA in a semi-public cultural context. According to Andres Huyssen, the onset of new

digital-based technologies has effectively re-constituted the auratic and affective value of the

singular photograph. Following Koepnick, Huyssen writes:

In the move from the photograph to its digital recycling, Walter Benjamin's art of mechanical reproduction
(photography) has regained the aura of originality. Which goes to show that Benjamin's famous argument
about the loss or decay of aura in modernity was always only half the story: the argument omitted that
modernization itself created the auratic effect to begin with. Today, it is digitalization that makes the original
photo auratic. (Huyssen 2000: 30)

The affective quality of the photographs, as documenting wartime operational activities, are

records marking the development of aerial reconnaissance and surveillance techniques, and

these images coalesce with the emergence of industrial methods of interpretation that

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[35] See Will Straw (1993), "Inexhaustible Commodities." Straw discusses the exhaustion of commodities with
respect to popular media, specifically in relation to music. He suggests that some media commodities, in their
re-use and recycling in alternate and ancillary markets after the temporal period of initial circulation,
demonstrate an 'inexhaustibility' in that they have both symbolic and cultural value in unintended contexts or
application. For Straw, inexhaustibility signifies the movement or transmission of culture. TARA demonstrates
in its handling of older culturally-produced materials an inexhaustibility, especially in respect to the
inexhaustibility of the materials themselves as used in a memorial context and the historical marks of war and
victory which they carry.

converge within the context of developments in visual culture (i.e., the photographs are internal to, and cannot be divorced from, the historical trajectory of cultural interactions with the medium of photography). While they have *decomposed* with respect to function, they are recomposed as vectors of fact.

The collection, for purposes of imagining history, is doubly framed as a set of original records both a waning and defunct but resonant and deserving of re-articulation. What occurs in the case of TARA is a provisioning in a logistical state enterprise where newly apparent knowledges are managed and official memory established. The outward flow of "stored" possibilities in the paradigmatic warehouse connoting all things properly national—like the organized industrial management of surveillance so central to victory—induces mutation, a meta-morphological change. The old use-value of the collection certainly does not cease in its ability to be contextualized and "read" in its symbolic totality, as symptomatic of a kind of emerging technology of military surveillance. Rather, that use-value is maintained rhetorically to ground the celebration of an institutional memory that is now affixed with contemporary cultural value, its value becoming an exchange for the promissory rhetoric of national historical identity and dominant historical narratives of the Second World War.

The re-activation of old visual records and the transformation of those records into a meta-monument suggest a measure of the delay alluded to by Briethaput. In the context of Bennett and Nowell-Smith's intertextuality, the collection *always* has the "lingering capacity for connotative function".[36] This capacity is essentially mythic, a second-order semiotic articulation vis-à-vis Roland Barthes' theory of metalanguage as uncontested and

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[36] This concise fragment was graciously culled from Peter Van Wyck in an advisory discussion, May 27, 2004.

depoliticized speech.[37] Again, recall the legendary status of heroic pilots. The depoliticized

aspect of TARA is based, most basically, in the presumption that the photographs be taken

at face value as records of the war; that they are able to stand as memorial objects "of the

most living kind".

As myth, all the industrial and mundane labour and practices of interpretation and

operationalization, and all the extraordinary and affective images and actions in material

memory and as actual events, as well as everything in-between, is coded as myth, as safe, as

depoliticized and common-sense, as something to be provided and supplied to a public (i.e.,

broadcast on a network for constituents to use, to put to use)[38]. The administration of a

circuit or a collection, in being conceptualized as "useful", obscures the administration of

resources and a management of contents that constitutes the "proper" perception of events.

The once-sensitive status of the collection is now agreed upon by administrators and

archivists as suitable for public use, with enough proximity and distanciation from the war-

time events for the ensuing image events to unfold as intended. The new "transparent"

display actualizes another kind of control, a kind of censorship where display shows all,

where the images, now open and available, "speak". The dulling of the content by history

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[37] Barthes' semiotic theory of mythology amounts to a form filled with a concept (*Mythologies*, 117). Here, the form is a collection of highly affective and sensational photographs functioning collectively to anchor the Truth-function of TARA in an historical context. TARA is, following Barthes, 'a historical grammar of iconographic connotations' at the level of the photograph and larger collection as sign and at the level of the archive positioned as one organ in the institutional circuit. Both are utterances that are metalinguistic, but are of differential scales.

[38] On this point, Richards connects the war-time collection of information in an archive to Gilles Deleuze and Felix Guattari's concept of the war machine, a productive machine not for war but of war, of defiance of the order of an abstract State. Richards quotes a passage from (1987) "Treatise of Nomadology", *A Thousand Plateaus*, 405: "You don't make [anything] with a secret...if you are incapable of reproducing it, and if integrating in different conditions, of transferring it to other assemblages. Propagation and diffusion are fully part of the line of diffusion." (Richards 1993: 168) This transference is inherent of TARA online, where the act of integrating into different conditions takes on a historical dimension and trajectory. The potential propagation and diffusion of this assemblage is amplified when the cultural/perceptual value of the material in TARA was once sensitive but is now, dulled by the passage of time, consensually safe.

also sees history and historicity composed as a guided, signposted tour of historical events firmly embedded in the circuits of a state-sponsored remembering.

Recalling again Briethaput's remarks about the delayed disintegration of fiction, TARA is a machine of delay professing the energy of the mythic:

Any culture produces a system of delays...Cultural delay machines censor the immediacy of alien customs that are deferred through its codes...Any built environment constructs a system of delays through hierarchically organized spaces of confrontation. (Kutukcuoglu et al 1999: 70-72)

This "built environment" can refer to the built virtual environment of TARA as well as the built environment of both British national culture and larger formations and assemblies of contemporary visual culture, which users, as mobilized subjects and identities, encounter and confront, negotiating and deliberating. The "deferral through codes" speaks to the "proper" and intended memorial function of the archive within the diegetic memorial space created and invented by TARA.

The collection, in display and exhibition, constitutes "that mysterious phenomena of motion called culture...lodged in material and perceptual things." (Urban 2001: 42) Thus, with TARA, there is a metacultural inertia[39] specific to and inherent in the collection, a kind of inalienable mark of production that is inscribed and connotes all at once the mythic status of reconnaissance and the "too many aeroplanes" of the war while also vesting value in the "newness" of this commemoration as an implicit and internal value to conceptions of a state-sponsored historical imaginary. The residue of the past, the decomposition and entropy bleeding off the de-commissioned collection, re-commissioned after operational

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[39] I borrow this combination from Greg Urban, whose conceptualization of metaculture is an attempt at discerning and understanding the transmission and transformation of culture over time. For Urban, this movement is not something internal or external to culture, like texts or objects serving as metonymic receptacles and containers. Rather, culture itself is the thing that moves. For example, contemporary culture, according to Urban, is one constituted of newness. That is its logic. Essentially, Urban proposes a cultural logics with respect to movement over time. The recursive move to re-cast-, celebrate, and transmit an epic wartime narrative is this kind of cultural movement, one that is molded onto contemporary conceptual notions about what a post-war memorial culture should be. See Urban 2001, 41-92.

value was deemed null and void, is subsequently re-constituted for public use in through a virtual portal.

Musealization, or A Matter of Energy Projection

If TARA is able to "generate" anything, it is a projection of the basic historical energy of the collection, a morphing of the older, context-specific value of the reconnaissance images that were once part of one kind of institutionalized military framework, its "energy" transformed.[40] TARA is, then, an engine requiring historical fuel. Extending the energy metaphor into the notion of a delay mechanism, the attribution of TARA as something that should belong in a contemporary field of commemoration and memory of past events is itself further emplaced: though the photographs are dated and void of any security or intelligence value, they are made to be valuable and to belong as devices for historical imagining. With delay, "anachronism is built-in" (Kutukcuoglu et al 1999: 71). The insertion and inclusion of the collection into a circuit for access is intended to be complimentary and harmonious, its energy not dissipating but augmenting the concerted but anachronistic institutional strategy of defending heritage.

So, TARA, despite its progressive virtual home, is arguably a conservative bulwark of heritage positioned against an accelerated and disjunctive global culture. In conjunction with the perception of threats and "ways of seeing" is the realization of a contemporary

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[40] See Richards 1993, 83. Richards uses the concept of thermodynamic law as metaphor in order to characterize the imagined comprehensive capability of the Britain's imperial archive. A large part of his discussion centers on the process of entropy, and the impossibility of encapsulating and preventing the loss of energy from a system, in his context the 'system' being the ideological and political monopoly of imperial and national knowledge imagined by the archive. He introduces the theoretical thermodynamic paradox of Maxwell's Demon, an engine that can generate its own energy and does not lose any energy in the transmission of force, a characteristic in contravention of the most basic laws of thermodynamics, namely that energy cannot be created or destroyed and that energy moves from a state of order to disorder (entropy). In relation to TARA, the demon is interesting in that TARA is clearly premised on the war-time value of the collection as a sensational "energy", enough to allow for the establishment of a public-oriented organ to invite and accommodate the use of such 'energy'.

predicament: the state, in relation to its arrangement and exhibition of TARA, is responding to the threat of increased insignificance in a globally-oriented world. The state's traditional role—here, Britain, but also in abstract extension to other states governing heritage—is rhetorically in disarray. If TARA is premised as such a bulwark, it is subject to the confluence of media, politics, and the problem of memory, a convergence defined and addressed by Andres Huyssen. His concept of *musealization* is particular and specific to a period of high-technology and integrated circuits of cultural flows, idealized in the form of the World Wide Web. Huyssen's recourse to describing the abstract pathways of delivery and dissemination as inherently museal locates emerging mass media and communicative practices as having a museum-like capacity: exhibition using display devices with the infinite ability for turnover and de- and re-installation.

In the context of intertext, TARA is symptomatic of threat recognition; it is feedback, an expression of the same process it memorializes, namely the perception and eradication of targets. The post-industrial semiotic field in Western contemporary culture of "flexible accumulation" (Koepnick 2002: 88) in a "global cultural economy" (Appadurai 1995: 30) accommodating the "radical deregulation of the symbolic economy" suggests the potential for loosened institutional control. This destablized control establishes a scenario where state-sponsored projects indulging in the proliferation and establishment of an allegedly secure "culture of memory":

...fail[s] to recognize that any secure sense of the past itself is being destabilized by our musealizing culture industry and by the media that function as central players in the morality play of memory. Musealization itself is sucked into that vortex of an ever faster circulation of images, spectacles, events, and thus is always in danger of losing its ability to guarantee cultural stability over time. (Huyssen 2000: 34)

The ability to guarantee then becomes the pertinent issue for TARA: how to use a stock of old objects in a new context and guarantee some kind of cultural stability in a disjunctive network of intertext and flows that privilege more than anything the memory of media

objects rather than the contents. Huyssen's further assertion that the mass "memories we consume are 'imagined memories' to begin with" (Huyssen 2000: 27) complicates things: it suggests the relevancy of theoretical versions of contemporary culture drifting toward pure and total simulation as per the lament and moral-decay arguments of Jean Baudrillard; yet, further, it places emphasis on the specificity of context and contingency in relation to how meanings are generated and signified. "Authenticity" is not, then, qualified in a vacuum but in discourse. Giving priority to certain "imagined memories" requires concerted, if subtle, political effort.

In the attempt to protect memory, Huyssen argues that "memory culture fulfills an important function in the current temporal experience of new media's temporal impact on human perception and sensibility." (Huyssen 2000: 31) "Memory" is issued from the state, which accommodates and appeases the fear of forgetting in an accelerated and media-saturated cultural field of "intertext" by targeting a mass cultural citizenry at the global level with a publicly-oriented historical formation about the importance of reconnaissance and the Second World War.

TARA, following out of Huyssen's remarks, *induces* memories. The archive is an agent of induction because it induces—in its mode of address, its rhetorical and narrative strategies, and its material content—an encounter with the assembled and sensational capacity of the photographic collection. The encounter with TARA as an organ of history, memory, and as platform for photographic identification and contemplation is intended to be *affective*. Brian Massumi writes:

Affect holds the key to rethinking postmodern power after ideology. For although, ideology is still very much with us, often with the most virulent of forms, is no longer encompassing. It no longer defines the global mode of functioning of power. It is now one mode of power in a larger field that is not defined, overall, by ideology. This makes it all the more pressing to connect ideology to its real conditions of emergence...One way of conceptualizing the non-ideological means by which ideology is produced might deploy the notions of induction and transduction—induction being the triggering of qualification, of a containment, an actualization; and transduction being the transmission of an impulse of virtuality from one actualization to another and

across them all (what Guattari calls transversality). Transduction is the transmission of a force of potential that cannot be but felt, simultaneously dubbing, enabling, and ultimately counteracting the limitative selections of apparatuses of actualization and implantation. This amounts to proposing an analog theory of image-based power: images as conveyors of the forces of emergence, as vehicles for existential potentialization and transfer. In this, too, there are notable precursors. In particular, Walter Benjamin, whose concept of shock and image bombardment , whose analyses of the unmediated before-after temporality of what he called the 'dialectical image', whose fascination with mime and mimicry, whose connecting of tactility to vision, all have much to offer an affective theory of late-capitalist power. (Massumi 2003: 42-43)

The affective status of the images provide a platform for the narrative and rhetorical strategies of TARA: the heroic pilot, the interpreter working by lamp-light, the memory of loss, the commemoration of war-time industrial know-how, the contact with these once-sensitive images. There is a haptic opening, connection of tactility to vision that convey the allegedly archival but more perhaps more appropriately museal emergence of TARA as containment and actualization of that contained version.

The collection is, and becomes, fiction. It proceeds with both a didactic and pedagogical function, its transformed on-line status premised on the maintenance and incorporation of a kind of imagined historical identity. Its self-declaration—"A memorial of the most living kind"—begs the basic questions of what and whose memories are being recalled, lost, commemorated, and forgotten. With affect, what is being affirmed? What responses? Interfaces? Immersions? Interactions? As a singular thing in an of itself, is TARA a matter of the *becoming-singular of the specific?* Or the *becoming-generic of the singular* (Massumi 1993: 35), where a heterogeneous but generic number of assembled sites (internet, cultural locations, or otherwise) are managed and administered by state organs which are themselves forces in a hegemonic cultural system located within a specific historical epoch of "late capitalist power"? The former is progressive, while the latter is arguably more accurate of TARA, as one mapping of a state, historical, and cultural calibration of the "perceptual arsenal."

TARA exerts a "global vision" by imagining the world at two particular moments: a particular historical time and at a moment in a particular context making the development of this conjunctural virtual archival technology a platform for display. Gilles Deleuze, in briefly expressing the shift from a disciplinary to control society, attempts to characterize the control as openness rather than the closing down of systemic options:

Confinements are *moulds*, different *mouldings*, while controls are a *modulation*, like a self-transmitting melding continually changing from one moment to the next, or like a sieve whose mesh varies from one point to another...In disciplinary societies you were always starting over again[...] while in control societies you never finish anything...(Deleuze 1990: 178-179)

The concept of modulation is significant in relation to the collection: the photographs, while offering a multiplicity of difference, are modulated into one whole representing an assembly, documents becoming monuments. The images in the abundant collection never seem to finish. Further, TARA is modular in that it is couched within a circuit of similar organs: offered online, seemingly open and accessible, and dependent on other hubs in the circuit for authority and legitimacy. This network of hubs functions more wholly as a "technology of truth"[41] with respect to the playing out of what is and what is not the authorized version

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[41] Toby Miller, (1998) 5: "...*Technologies of Truth* goes in search of moments when the popular and the civic brush up against one another to see where truth appears in community, commerce, and government." (4) Miller's concept is the premise for his book, emphasizing Foucaultian implications of truth, power, and public-oriented bodies of discursive cultural knowledge. TARA, in its hybrid old/new form, is an apparatus that does *something* beyond preservation and conservation, namely manufacture Truth. Technology here has two meanings: first, technology as a map for lived cultural practices, as kinds of perceptual and discursive logics functioning to enable or constrain kinds of truths as accepted facts in a contingent cultural context. The second meaning of technology in this context is the circulation of this kind of logic as 'embodied in communicative form.' The former refers, then, to lived and discursive modes of perception and lived practices as dictated by dominant practices while the latter refers more generally to both the technical and discursive systems of media dissemination and delivery where the former technology is articulated, mediates, and is itself mediated and altered. The internet and on-line network technologies constitute this kind of technology. It should be noted that I am proceeding with the understanding that neither of these kinds of technology are mutually exclusive, and that they instead are dialectically connected. The archive and its discontents presuppose a certain kind of subjectivity in material culture based on what Miller's version of cultural citizenship. This kind of cultural subjectivity—and its constituencies and capacities as a kind of ideal type—is territorialized in spaces and in protracted moments where cultural and political forces merge to produce questions of truth and knowledge and extends from the ownership and governance of historical, contemporary, and mnemonic cultural and political knowledge. The archive invites an 'idealized' construction and engenders a kind of transcendental faith in these knowledges, a foundational layer or field of meanings within which a kind of historical and mnemonic knowledge emerges. Figurations of a national historical identity or a publicly recognize, which verify an

of war-time history and what demands remembrance and commemoration. The circuit is a kind of meta-archive of historically consistent possibilities producing intended "knowledge effects" (Miller 1998: 10) and the political economy of power—in shaping history and the general politics of cultural knowledge. They are a larger scale of grammar, the edited and selected materials deemed relevant for a historical and cultural encounter with the baggage of subtle but powerful political implications.

The activation of a dormant historical narrative territorializes a space of commemoration. TARA is an assembly and a re-assembly by a state-organ sponsoring heritage based on the dissemination of war photography. Yet, since nothing is sent out, nothing is necessarily received. TARA is maintained, waiting. The slippage of the archive to a formation resembling the museal is concomitant with the Web technology upon which it is premised. As such, the potential power of the Web is significant: it allows for image events and the intimate, private, and selective encounters with specific images. The rescuing of TARA would not have been possible had it not been for its contents' visual character. A massive iconic catalogue of aerial reconnaissance photographs translates easily into exhibition. The relation between the state organ offering a perspectival "view from above"—accessible through a readily available virtual visual medium (the Web)—of a series of photographs is the accumulation of a concerted attention and effort, crystallizing the opportunity to encounter new materials and new images historicizing a massive set of events past.

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inclusive national imaginary, actualizes this kind of imagined cultural citizenship. See also Lauren Berlant (1995), "The Theory of Infantile Citizenship".

Provenance is the archival principle which requires that documents created by an institution or an individual must remain together. Archivists do not reorganize archival documents so they can be filed according to subject. The original context of the records is always maintained. This ensures the greatest possible research value can be gained from the documents by preserving the context in which they were created.

- Concordia Archives Guide, 1996

The knowledge of context, provenance, and background, which is gathered by archivists during their work of arrangement, and set out by them in description, is their principal contribution to research and to public information systems, and sometimes is the substance of their personal research. All the principles and activities together amount to what Sir Hilary Jenkinson, in a powerful and illuminating phrase, termed 'the moral defence of archives'.

- Michael Cook, (1993) Information Management and Archival Data

Before [TARA] went online, you would have to visit Keele and manually search through thousands of boxes to find the photograph you wanted. Now anyone can access the archive and see images which had until recently only been seen by wartime intelligence officers. This another great step forward in the online revolution happening in archives.

- Sarah Tackaye, Chief Executive of the National Archives, Keele University Press Release

Power's precisely the nonformal element running between or beneath different forms of knowledge. That's why one talks of a microphysics of power. It's force, and the play of forces not form.

-Gilles Deleuze, (1990) Life As A Work of Art

The supposed "online revolution" in archives is a "great step forward" because it continues to legitimize the existence—and basic ontology—of the idea of the archive. The visual content of TARA accommodates this revolution readily: the archive lends itself to exhibition and exposure, providing a portal for a maximum of display. As such, TARA embodies the shifting state of artifice of the archive. With the consistent invocation of the archive as a conceptual cultural metaphor, TARA's new virtual standing forces its own archival constitution to become something else: namely, an attraction-like object of amusement riding on the mythic plausibility of the archive itself as supplemented by the

historical relevance of the Second World War. The discursive tension between the tenets of a

state project in commemoration inviting an investment in shared and co-ordinated meanings

and, in connection, the entertainment aspect of experiencing pleasure in the participation

and the recognition of war-time knowledge, is a hinge of TARA's strategy for mass appeal.

As an organ, it is installed as a kind of state-sponsored island amid the amplified immensity

of the Web.

Virtual TARA differentiates how war-related knowledge can be interfaced, known,

and experienced. Rather than quietly decaying in an emplaced geographical place at Keele

University, TARA on the Web enacts a *logistics of perception* all its own with respect to the

heritage of the war, cultural knowledge, and historical consciousness. The supply enables and

enhances public participation with a sense of historical consciousness. Online, TARA

becomes a reconnaissance organ itself, approaching in consonance and co-ordination the

logic of surveillance, the same subject that it documents; subject and object are linked.

Through the following ruminations and intersections posed in this chapter, this link is teased

out.

Archive and Metaphor: the Reconnaissance of Topics

virtual *adj* **1** *that is such for practical purposes though not in name or according to strict definition*

Definitions converge in referring to the concept of the archive as a vessel, a place of

acquisition and holding that provides space, a repository with the capacity to organize

records that have some intrinsic value in a given context.[42] The World Wide Web invites

comparisons to archives and is often invoked as the ultimate archive with respect to holding

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[42] From Cook 1993, 5: "Records are information media which are created in the course of business by an organization, and kept because they are of use to that business. Archives are a subset of records; they are records that have passed an appraisal test, have been selected because of their possible value in other kinds of reference, and have been placed in an archival repository, or at least allocated to a permanent retention category."

materials and images specific to contemporary culture. Cultural theorists consistently attempt

to frame and map the discursive and semantic constituents of the archive as a formal and

cultural system. The versions vary. Most efforts locate the archive itself as an object and site

of inquiry, aiming to elucidate the ideological and discursive status and its capacities for

various uses in a cultural or academic context. The scholarly field ranges from the poetics of

archival use to the problematic politics and the tension of constructing the authority of the

archive with respect to the power/knowledge coupling, following the "technology of truth"

model I briefly invoked above. Another trajectory of archive-related scholarship tends

toward professional/expert texts on archival organization and techniques of maintenance,

preservation, and appraisal: the technical matters relating to the operation and management

of archives.[43] This is to say nothing, of course, of the number of works, projects, and

generations based and founded on archival sources, ascribing archives value in use while

simultaneously subsuming and overwriting them.

A cursory exploration of the way in which the concept of the archive is repeatedly

invoked as a cultural metaphor furthers my own analysis in determining how the figuring of

the musealized archive proceeds in creating and articulating a didactic political organ.

Abstractions of the archive as a symbolic figuring of larger cultural tendencies, especially

prevalent in late capital culture in the West, is telling: the archive is a location with a distinct

geography and functions as a device for explaining both hegemony and the state of politics

in relation to memory, history, and the encroaching speed and delivery of new media

technologies. When Huyssen asks whether the "surfeit of memory in this media-saturated

culture creates such overload that the memory system itself is in constant danger of

imploding, thus triggering the fear for forgetting" (Huyssen 2000: 28), the question in

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[43] For a classic example, see (1984) *A Modern Archives Reader: Basic Readings on Archival Theory and Practice*, eds. Maygene F. Daniels and Timothy Walch. Washington: National Archives and Records Service.

relation to TARA becomes one of impulse: what is driving the heritage organ and its affiliated institutions to enact a kind of historical salvaging project?

Conceptually, the archive is a strategy of explanation, a whole containing the part (metonymy) and a part standing in for a cultural whole (synecdoche). David Faulkner locates the archive as a psychoanalytic trope—a "political (un)conscious"—that is a massive and unspoken storehouse for cultural memory, which serves a paradigmatic function:

> In the simplest terms, the purpose of an archive, any archive, like the unconscious itself, is to serve as an operating system for both remembering and forgetting. Forgetting, as we are often reminded, is the verso of remembering, of archiving. Forgetting is that equal and relational activity to which memory is bound—as the leaves of manuscripts, incunabula, books are tightly bound; but also bound in the sense of a direction or destination which tends—and which thus enables. What I am trying to get at is that the deposits of an archive should not be thought of as merely existing, in a passive state; they are always already meaningful by virtue of their dynamic relation with what has had to be forgotten. Remembering or saving, and forgetting or discarding, are active movements, are active movements, mental or physical, that belong to the economy of the archive, in either its 'psychical or technoprosthetic terms'. (Faulkner 2001: 192)

The economy of the archive, in actively pulling along the deposits of the past—its material traces, the analyses and arrangements of artifacts and documents—is an economy of *potentialization*, a cache premised on a future-past use. Archives according to Faulkner are progressive in the sense of moving forward: the material maintained is always actively moving forward vis-à-vis what has been left behind or discarded. Further, Faulkner describes the archive as a place of both political efficacy and choice. It is a place of options, where decisions are made about selecting and use:

> In that economy of hoarding and expenditure lies the ethical-political function of the archive. Of course, it can only serve that function when we act to excavate it, when we excavate its meanings. The archaeological work we do will force us to consider the uses of the past and the necessities we might want it to serve. (Faulkner 2001: 192)

The "we" in question refers how research is conducted, how an ethics of archival use shapes how and why materials are cited and orchestrated to corroborate facts and enable arguments or hypothesis. As such, there is an accompanying openness to the archive: it is whatever it is made to do in its excavation.

The archive's traditional function is to hold and subsequently allow access to primary and heretofore unpublished material. As the content demands an experience and expertise with specific topics, as in TARA's case, widespread public access certainly never occurs. Citizens certainly do not regularly flock *en masse* to the archive; it is not a mall, though perhaps new virtual archives may perform some aspect of *mall-ness*. Yet, it is supposedly always open and available to all. Faulkner refers more weight to academic users and researchers—expert users with knowledge of the operation and lay-out of archives vis-à-vis finding aids and search techniques—who possess the cultural capital and a familiarity with the traditional spaces of archives and extended archival encounters. With a high barrier of entry, who can and cannot access the rather exclusionary, abject place of the archive is ostensibly built into the system. The experts, at least in the case of TARA's arrangers, are the ones who authoritatively reveal the storehouse in the necessity of serving a public and political aim. While users lend a practical and literal use value to archives, the symbolic value of the archive as a regulated and regulating master storehouse is arguably the most prevalent and basic metaphor: it determines the limitations of possibility.

In the context of post-structuralism, postmodernism, and postcolonial studies within the academy, the last forty years has seen a increase in the creation of archives.[44] With approaches in cultural theory privileging critique, skepticism, and doubt in relation to master narratives, the programmatic mandate of progress and modernity, and more traditional modes of scholarly methods of inquiry, archives have become a place where knowledge is reconstituted and revised with liberating potential against the dominant grain of older and entrenched discourses and formations. Archives are re-mystified and re-enchanted. They

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[44] This is a significant claim and requires further work beyond the scope of this paper. Carolyn Steedman claims this quite early on in her book, *Dust* . While I cannot corroborate this with a figure, the incidence of archives is arguably increasing: an online search for 'archives' turns up pages of hits, beyond the increasing physical and electronic places of archival storage internal to everyday institutional bodies and organizations.

become a place of answers to be found based on an index of interpretation—discursive, disciplinary, intended effect and bearing of the research carried out—where the past "speaks" a set of "truths" up until now obscured and effaced.

Writing amid "the archival turn" about the "immanence of dust", Carolyn Steedman compiles a poetics about the re-acquiring of histories occurring in the interface with the massive reserve in the archive. Drawing on Foucault, she writes:

The archive does not so much stand in for the idea of what can and cannot be said, but rather "is the system that establishes statements and events as things"…The archive [is] a way of seeing or knowing…a symbol or form of power. (Steedman 2002: 2)

Further on, Steedman describes the capacity of the archive as a *technology*:

[The archive] loses much of its connection to the idea of a place where official documents are stored for administrative reference and [becomes] a metaphor capacious enough to encompass the whole of modern information technology, its storage, retrieval, and communication." (Steedman 2002: 4).

In using this technology, Steedman claims that the perusal and careful searching leads to something amounting always to a new knowing, or a "re-knowing" of what actually constituted—by what a record or document alludes to—a moment, era, or event:

There is always pleasure as a reader in finding something that the writer did not know was there (or that he has hidden, deep in its crevices and cracks…Indeed, in one view, the practice of history in its modern mode is just one long exercise of the deep satisfaction of *finding things*. (Steedman 2002: 10)

The pleasure aspect suggests the rewarding sense of accomplishment of discovery and the enchantment of mingling with dust, the entropic remains of the past. Dust is always immanent and never goes away. It gets clogged in nasal passages and makes eyes water. For Steedman, the dust is always circulating, always carried along, always occupying space, internal to everything.

Addressing Foucault's Distinctions

Steedman's remarks share some consonance with the very act of reconnaissance in an archival context, particularly in describing how TARA creates an opening for revised but

still-dominant narratives about the war. Briefly, I want to digress in order to elucidate a

connection that arises between the reconnaissance in the air and the reconnaissance in the

archive before returning back to Steedman.

Michel Foucault, in *The Order of Things*, distinguishes in French between two different

conceptualizations of knowledge: *connaissance* and *savoir*. Following etymological strategies

used earlier with Farocki's simple but telling observation about the German word

Aufklarung—meaning both *Enlightenment* and *reconnaissance*[45]—Foucault's distinctions are

connected to Steedman's descriptive conceptualization of the archive.

Connaissance, without the prefix "re-", refers particularly to "a corpus of knowledge…

or episteme" (Foucault 1969: 16), a particular discipline (e.g., biology, economics).

Connaissances are components, fields and indexes of knowledge in and of themselves, bodies

of knowledge with which one becomes "acquainted". *Savoir*, further, is another noun for

'knowledge' in French but alternately denotes "knowledge" in a general way that underlies all

things, determining a relation to the conglomeration of *connaissances*. Foucault, in mapping

the origins and function of discursive power, writes:

By *connaissance* I mean the subject's relation to the object and the formal rules that govern it. *Savoir* refers to the
conditions that are necessary in a particular period for this or that type of object to be given a *connaissance* and
for this or that enunciation to be formulated. (Foucault 1969: 16)

Savoir is "knowing how" or becoming able to activate in conjunctural and contingent

conditions that induce, produce, or reduce a reference to the emergence of specific

connaissances. The latter is "knowledge as the direct constant between mind and object"

whereas the former is knowledge as constituted by "historical relations between words and

things". The relations themselves are vectors of power to describe what kinds of

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[45] See Farocki (1988), "Reality Would Have to Begin", 2.

knowledges are legitimate, and in that determination establish "an instituted authority

[competent] to produce certain utterances"(Deleuze 1990: 198)[46]

The archive is implicitly tasked with the analysis and classification of sets of

knowledges; with establishing the regimes and topics and domains of *episteme*, of bodies of

knowledge in contexts—bureaucratic, organizational, industrially, culturally—as they develop

and emerge. This administration of *epistemes* and topics—a process mapped by Thomas

Richards' ever-threatened imperial archive discussed earlier—is inherently political and

ideological and it takes a historical turn in TARA, where, "[i]n the era of commercial and

industrial media culture it is increasingly important to note that *topoi* can be consciously

activated, and ideologically and commercially exploited." (Huhtamo 1998: 301) This is an

example of statements and events becoming concrete things, and becoming monuments to

an imagined past. *Reconnaissance* becomes its denotative French meaning: *recognition*. In TARA,

the act of recognition locates a potentially viable historical set of knowledge and the

recognition of how to coordinate and apply that knowledge in a "useful" cultural and

memorial context. The searching and finding is premised on the cognition that comes with

interpreting value, the awareness of something being there; recognition comes with re-

knowing and interpreting the bodies of *connaissances*, and knowing how to arrange and exhibit

them for consumption.

The archive is a durable technology allowing and accommodating these varied

processes of activation to occur. It is an appraisal mechanism, deciding what counts and

what matter *matters*. Knowledge, and knowing, then, become matters of organizing, in

controlling the scheme of classification and in classifying, supplying the proper perception of

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[46] The preceding three references all come out of a brief but incisive explanatory passage in Martin Joughin's translation notes for Gilles Deleuze's (1990) *Negotiations*. In clarifying Deleuze's use of *savoir* and *connaissance* as used in a chapter mapping out the thought of Michel Foucault, "Life as a Work of Art", Joughin emphasizes *savoir*, knowledge by description, as the definition given primacy by Deleuze and Foucault. See note 7, p. 198.

what constitutes such knowledge. The *savoir* aspect of the archive bespeaks and determines

how one would relate to such an archive. This discursive power, transmitted from an

institutional organ through public pathways sets, stipulates, and iterates what is and what is

not proper historical or culturally-proper topics of memory and history.

Returning to Steedman, her valuation of an interface with the archive amounts to an

action of the *reconnaissance* of things that are topic-specific that have yet to be re-acquired by

culturally normative forms of knowledge, specifically in the writing of historical narratives as

political and cultural productions. The need to perform reconnaissance results, according to

Steedman, from the ontological and ideological "condition of the archive":

[The archive's] condition of being deflects outrage: in its quiet folders and bundles is the neatest demonstration of how state power has operated, through ledgers, lists, and indictments, and through what is missing from them. (Steedman 2002: 68)

This process determines how archival sources are incorporated, coded and inscribed to

produce an "[i]nstitutional history [that] is the perpetuator and perpetrator of a master

narrative" (Berlatsky 2003, 122). The burden of holding is celebrated while the politics of

holding are subsequently elided. Steedman conceptualizes the archive as a place not of

prevention, though, but as a place where one can return and reconnoitre from above with a

kind of aerial perspective in order to prioritize the passage of as-yet excluded materials,

bringing them to bear on the writing and telling of the past in a cultural context that can

become a re-articulation of dominant versions of history. The archive, at its liberatory and

idealized best, renders the elisions visible, allowing new ruminations and digestions.

Ultimately, Steedman avoids privileging some imagined moment of transcendence

akin to punching through the ideological skin of the archive in order to facilitate an

anachronistic and authentic "truth". She instead argues for a careful and self-aware

encounter with the materials in the archive. They are collectively neither wreckage nor

debris, but simply what is immanent, what is *there*. The archive is re-mystified, a place of

enchantment where mutation and recombination can occur. Yet, state intervention and state-

sponsorship that brings the magic—enabling the *reconnaissance* of old records for new uses—

alters and transforms that material, its neutral transmission a fallacy:

The object (the event, the happening, the story from the past) has been altered by the very search for it, by its
time and duration: what has actually been lost can never be found…This is not to say that nothing is
found…but that the thing is always something else, a creation of the search itself and the time the search took.
(Steedman 2002: 77)

The intervention of the state is an act that announces the political spinning and branding of

the re-articulation of archival materials, the index of interpretation being the determination

of cultural and political value in the sphere of public use and public encounter.

Archival Violence

If we extend the metaphor of the archive in relation to how state organs orient the

archive as an apparatus, the archive becomes a machine making things visible and in that

actions, perpetrating violence on the larger field of normalized and naturalized cultural

knowledges. Recently, Jacques Derrida has described this violence in, *Archive Fever.* "What is

at issue here starting with the exergue, is the violence of the archive itself, as archive, as

archival violence." (Derrida 1995: 12). Like Faulkner, the archive for Derrida is

psychoanalytic; or rather, Derrida is willing to acknowledge that psychoanalytic models are

extensions of archival processes. The archive functions like the unconscious.

Derrida's analysis of the archive, in extrapolation, more precisely describes the labour

and operation of TARA in the context of re-inventing the archive online. Derrida's concept

of an *archive fever*, following the fever of history in Nietzsche, is generated as a response to

the archive's ability to both commence and command through the "consignation" of

materials: "There is no archive without a place of consignation, without a technique of

repetition, and without a certain exteriority. No archive without outside."(Derrida, 1995: 11)

Commenting on Derrida and elucidating, Steven D. Brown, David Middleton, and Geoff

Lightfoot write[47]:

In *Archive Fever*, Derrida sets out to question the notion of the archive itself [and] he does this by tracing the etymology of *arkhe*. This, he claims, contains within it two very different meanings: that of commencement, or the positing of origins, and that of commandment, the practice of law and judgment. Discovering this duality to the meaning of archive allows Derrida to ask how it is that the act of archiving itself – consignation – is tied into both commencement and commandment. Here Derrida finds a tension. Consignation institutes the archive through its power to continually add to the archival stock, but in its course consignation also encounters threats and resistance. As commandment, archiving is a political act, and it must then be expected that there will be instances where consignation is opposed or refused... Thus the very act of archiving gives rise to an opposing force which aims at sweeping away the archive...[A]rchiving depends upon consignation, a technique for archiving. This technique is something supplementary, it is a prosthesis. We need a technology for remembering, a mnemotechnics. But the introduction of such a technology ensures that the place where archiving happens is distinct from the place where archiving is initiated. And this place of archiving is also where consignation confronts the threat which it itself creates, that the archive, as an externalized and supplementary space may be dispensed with and fully overturned. (Middleton and Lightfoot 1999: 4)

The act of consigning, of holding and protecting in order to combat the threat of loss or

decomposition is governed by the value of the archive in its basic ability to command by

becoming its own material image. This is the paradox of the archive: its *optic*—its gaze—is

simultaneously self-referential and self-consuming. The archive's power rests in the

capability to justify its mandate in the very act of holding and retaining. With selective

capacities and policies, the conceptual mandate of an archive generally presupposes a

selection process for materials retained, an editing process assembling holdings based on

institutional specificity, provenance, and the general maintenance of a collection's logical

internal coherence and integrity. If archival material cannot be mobilized (militarized,

operationalized) to create, invent, or maintain dominant histories and memories, or at least

to justify its own existence as a body or organ, the archive threatens itself.

TARA announces the commencement—its *origin*, or at least coalescence—of the

teleological development of military "ways of seeing"[48] (historically, with the industrial

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[47] On the use of Brown, Middleton, and Lightfoot, their passage is concise, clear, and evokes the project of Derrida's inquiry. See (1999) "History 2.0: Performing the Past in the Context of Electronic Archives".

development of aerial reconnaissance), and also institutes an alternate and virtual way of

"seeing" with respect to using archives. It also "commands" in that it dictates a relation to a

historical past that is imagined and rendered as a valuable insight to what *should* be

commemorated with respect to the war.[49] The archive, as metaphor and as an organ

premised on *recognition* and *reconnaissance*, asserts agency, arranges and invents order. It

orchestrates the authenticity of remains. It authoritatively holds sway over all that remains,

stamping and branding materials with the mark of relevancy. It is a cover over the potential

bulging contents of a history yet to be determined. In this way, any archive maintains a kind

of continuum, not necessarily of diachronic rectilinear cause and effect across history[50], but

of hegemony and its incorporating generic circuits. The archive, as the default place of

collapse with respect to finding material to make topics and statements and things, is a kind

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[48] Derrida' commandment and commencement also suggests the play of delay as a logic presupposing the archive: "Delay is a condition linked to the assumption of an origin and a *telos*." (Kat et al 1999: 72). The *telos* imparts and structures a mandate that defines the maintenance of materials; this is the logic, defined in archival terms as the principle of integrity and provenance. From a *telos*, the origin is recursively made available. This recursive location of origins is, according to Derrida, the defining logic of the discursive and political structuring of the archive, of all archives.

[49] Derrida's commandment and commencement are coincident with both *savoir/connaissance* and what Gilles Deleuze calls the 'object-lesson'/'language-lesson' of archives. Deleuze, following Foucault's thinking on archives, writes about the archive and the act of archaeology: "Archaeology, genealogy, is also geology. Archaeology doesn't have to dig into the past, there's an archaeology of the present—in a way its always working in the present. Archeology is to do with archives, and an archive has two aspects, its audio-visual. A language lesson and an object lesson. It's not a matter of words and things (the title of Foucault's book is mean ironically). We have to take things and find visibilities in them." (Deleuze 1990: 97) Foucault's 'dig' metaphor is both diachronic—reaching back into the figurative archive—and synchronic—a kind of differential movement concurrent to the use of the 'archive' itself, the *différance* inherent of the structure of discourse. The state organ responsible for the new orientation of TARA inverts this irony, inventing a language lesson (about the new topical field, or subject, of the war-time reconnaissance) and the object lesson of how to relate to new archives online performing in an exhibitionary and display function with political and cultural ends. TARA is a thing that has a visibility that has become exposed through an index of interpretation coding and ascribing virtual value to the standing reserve, something used for 'practical purposes' but without 'strict definition'.

[50] This is an allusion to Walter Benjamin's advice to politically "explode the continuum of history" in his (1939) *Theses on the Philosophy of History.*, XX I invoke it to trouble the automatic assumption that alternate archives *contra* dominant authorities or dominant institutions still subscribe to the same relationship with using traces of the past and arranging them in order-bringing histories. This connects to earlier remarks regarding Briethaput's notion of delayed disintegration.

of *standing-reserve*[51] of materials from which a past yet-to-be-elucidated can be recuperated, recycled, and enframed.

The Archive and the Technology of History

In the context of a standing reserve, the writing of history is the technology which begins to bring order to the reserve. According to Pierre Nora, the amalgamation of memory and its transformation into history—where "History" overwrites the mnemonic acts and practices of lived memory[52]—is a result of the increased incidence of the act of archiving and the trend using all and any archives in order to grasp at whatever can be grasped[53]. Nora writes:

The imperative of [the] archive is not only to keep everything, to preserve every indicator of memory—even when we are not sure which memory is being indicated—but also to produce archives…record as much as you can, something will remain. (Nora 1989: 14)

Nora expresses cynical dismay with this scenario: while the creation of archives may well serve to retain and protect utterances and materials and exchanges, archives are themselves spurious and innocuous attempts at consolidating the need for a cultural technology of

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[51] This is particular idiom culled from Heidegger, specifically from the essay, 'The Question Concerning Technology'. Heidegger cautions against the 'enframing' of technology that is problematic, destructive, and ultimately devastating. Conceptualizing that which technology brings forth as simply a 'standing reserve' is too utilitarian and irresponsible an approach to 'being in the world', to which cultural subjects are beholden. Calling the archive a "standing reserve" is a way of expressing the paradoxical and recursive legitimacy of the archive: it holds onto that which is valuable but is only valuable when identified when used or activated. yet, that which cannot be activated is not there, therefore creating a necessity for valuing the archive itself. The archive, institutionally, triumphs either way. The point of alluding to Heidegger is to establish that the archive is a technology that enframes a standing reserve of materials in holding for future perusal and use, yet a use that is entirely unnecessary and paradoxical if only to justify the archive's own necessity and existence as a formal cataloguing system. Just the same, the archive provides a map in that is has a capacity for the provision of this standing reserve. It is the place to "start looking".

[52] Nora is voicing a lament for the decay of memory. For him, history is merely an image, a residue of the lived, similar to Baudrillard's lament for moral decay in the age of the image. Nora's conceptualization of history and memory is an epochal argument: we live in a historical period where the conceptualization of these sites presupposes a shift into a new era, a *technoprosthetics*, where media delivery systems and circulatory pathways and hypermediacy and immediacy (time) contribute to an *acceleration of history*, a future-past.

[53] Recall here Richards' argument about the historical and cultural development of the Imperial archive, with its attempts to push holding and organizing to an impossible, comprehensive, and paranoid end in order to consolidate the power of empire implicit in the arrangement and activation of knowledges.

memory. Nora adds that "[t]here are sites of memory (*lieux*) because there are no longer real environments of memory (*milieux*)." (Nora 1989: 8). TARA, with a *website* itself, is one of these sites. The environment of memory is now a place of contingent interfaces that are site-specific. While the archive is a kind of bulwark against the fear of forgetting—the politics of amnesia of Huyssen as feared by the British heritage organ—Nora is disturbed by the recourse to memory as simply being referential, as being constituted merely by accessing a site.

"History clutters us and occupies our memory." (Foucault 1969: 216) This is Nora's primary concern: under the sign of history—"What we call memory today…is not memory but already history" (Nora 1989: 9)— memory as a spontaneous thing, as that which informs the environment of lived experience, is converted into history for political purposes:

At the heart of history is a critical discourse that is antithetical to spontaneous memory. History is perpetually suspicious of memory, and its true mission is to suppress and destroy it….History's goal and ambition is not to exalt but to annihilate what has in reality taken place. (Nora 1989: 9)

Here, history is a subsuming technology, trimming off contradictory bits to make the account of events more streamlined, more easily accesses; in a word, more convenient. Nora writes that "[w]hat we call memory is in fact the gigantic and breathtaking storehouse of a material stock of what we would be impossible for us to remember, an unlimited repertoire of what might have to be recalled." (Nora 1989: 13) Actualizing this storehouse and coating it with a "dutiful" residue is the annihilation, part of the exergue.

TARA—in developing the topic of aerial reconnaissance for treatment in exhibition—generates another vector of historical consciousness, essentially adding and supplementing the splintering clutter of knowledges and *connaissances*. It is as if there are too many histories, too many archives. While determining where the sacred shrine of reverence for the past resides is indeed relative and contingent on what optics, what politics, and what

kind of cultural relations and connections are imported and invoked, the conservation of everything and the lurking threat of traces disappearing is perhaps more significantly the pressure fuelling the state of the archival revolution. The state uses the recovered implements of war as the contents of choice for a new commemoration project "signposting" memory in a logistics of perception all its own.[54]

The Topic of Remembering Aerial Reconnaissance

A Web search for "aerial reconnaissance" turns up the TARA webpage first among listings. The catalogue of the Web, or at least the Web portions ordered and contained by the Google search engine, recognizes—in reconnaissance—the autonomy of the topic; it surveys the Web and like any organ, organizing the results. On the Web, "aerial reconnaissance" constitutes a searchable topic, a thing available for reconnaissance.

Within the multiple bodies of knowledge that constitute—or, can be catalogued under—the heading of "Second World War", the historically-oriented topic of aerial reconnaissance occupies a slot and maintains a new categorical presence. The British Imperial War Archives contains a multitude of material; yet while its catalogue is searchable online, its holdings are not available. Searches through the National Archives turn up holdings for Allied Central Interpretation Unit, as well as its historical predecessors and related bodies. Included are reports and some photographs, as well as the associations with the legacy I outlined earlier.

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[54]Nora offers further insight: "Like war, the history of *lieux de memoire* (site of memory) is an art of implementation, practiced in the fragile happiness derived from relating to rehabilitated objects and from the involvement of the historian in his or her subject...History has become the deep reference of a period that has been wrenched from its depths, a realistic novel in a period where there are no real novels. Memory has been promoted to the centre of bereavement..." (Nora 1989: 24). The war metaphor again suggests the integral role of supply and logistical management of the implementation of resources. For Nora, those "resources" are patch-work attempts at the "memory arts" on behalf of a state suffering in attempts to harmonize a field of imagined national collectivity and rhetorical constituency. See also van Wyck 2002: 107 for more on Nora, Francis Yates, and the waning of memory arts.

My point is that currently there exists an open, pre-conceived slot for "aerial reconnaissance". It is like a sub-genre of the larger generic body of the topic of war-related knowledges; echoing Massumi's remarks, aerial reconnaissance is perhaps less a matter of a singular and specific body of knowledge and more an instance of the becoming-generic of a singular thing, of one heterogeneous and distinct thing encapsulated. It is one more sub-heading under an infinitely differentiating imperative contained by a master rubric that fixes its relevancy. Indeed, there is a multiplicity of contexts and approaches within which the war can be recollected, studied, interrogated, historicized, and commemorated. Aerial reconnaissance and the historical, military, and political issues it activates and induces— especially in a larger and intended popular and public cultural context—gains legitimacy as one aspect amid the history of the war.

While bomb-disposal agencies have been using TARA's holdings for almost forty years, its new role as a monument to the war and to the development of war-time reconnaissance is significant because it explicitly foregrounds the industrial development of an apparatus increasingly relevant to the waging of war. Virilio's narrative of the emergence of a logistics of military perception describes the historical moment TARA presents and represents, commemorative function for pilots' deaths notwithstanding. TARA commemorates a conjunctural moment that saw the demands of generating war-time intelligence intersect with the continued development of air photography perfected for military purposes.

The integration of technologies—industrially, technically, culturally— is characteristic of how history is "narrativized" to be recounted, told, and measured. The narrative of the industrial march of new weapons systems—here a perceptual weapons platform—subscribes to the positivistic and teleological development of military capability.

In connection to TARA, The Michigan Institute of Technology (MIT) maintains a webpage through its own virtual archive detailing the integration and development of flash-bulb technology in response to demands for performing reliable night-time aerial reconnaissance. MIT's current research project concerning the development and design of aerial robotics is worth remarking on, if only to point out one direction of research undertaken at the institute. As an institution privileging the current development of remote or automated detection-sensing platforms, the relevancy of the institution's project explains the memorialization of past military collaborations: celebrate its relevant role and its specific heritage with respect to meaningful technological applications in a "progressive" historical narrative.

A problem during WWII was the proper illumination of target sites to be photographed in both reconnaissance and damage-assessment sorties. In an example of the cross-pollination of "seeing" and military technologies, one of MIT's then-researchers, Harold E. Edgerton, was able to implement his stroboscope and high-speed *Strobac* flash-units, which he had developed for illumination in the analysis of scientific and industrial problems.[55] The MIT site commemorates the combination and convergence of a pre-designed surveillance mechanism with the surveying potential of aerial flight and photography; it celebrates the technical know-how of MIT (in collaboration with the U.S. military) to anticipate "the clouds of impending war", framing the prolific legacy of Edgerton as a "vital contribution to Allied victory". (MIT 2002: 1)

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[55] The documentation of the coupling of aerial reconnaissance and illumination techniques and technologies at MIT is a part of the Harold Edgerton manuscript Collection, a smaller set of records in the MIT Archives. Edgerton was a prolific MIT researcher, himself monumentalized it seems. The reconnaissance-related material comes out of an online exhibit "World War II Night Reconnaissance Photographs" as part of the MIT Archives and Special Collections. See <http://www.mit.edu>.

figure 4.1   Vertical Aerial Photograph, Nighttime Aerial Photo Illumination Exhibition
                    Edgerton Manuscript Collection, MIT Archives and Special Collection

The technical-development narrative is accompanied by photographs. It documents

the ground from an aerial perspective. The caption from the MIT site reads as follows:

The nighttimes aerial photo seen above (now declassified) shows the destruction of a bridge and disruption of rail connections somewhere near the German Gustav Line between Naples and Rome during the five-month Battle of Monte Casino in the winter of 1944. The Germans' dogged defense of the Gustav Line slowed the Allied advance up the leg of Italy and led to cancellation of plans to launch an amphibious invasion in the south of France. Note the clarity of detail, the frozen motion of the plane's rapidly spinning propeller, and the numerous craters from bombs that fell short of or sailed beyond the target. The image fades to obscurity at the corners and edges, defining the limits of the flash's area of effective illumination.

The photograph announces its own production, clearly rendering the airplane—propeller

frozen—and the primary apparatus responsible for documentation, for "seeing" prior to the

interpretation process. The *clinical gaze* of the photograph attests to the celebration of the

implementation of such a technical marriage in the commemoration of an apparatus.

Peddling Value and Projecting Knowledge

virtual *adj* 2 *Optics* relating to the points at which rays would meet if produced backward

The illumination metaphor is easy to extend: MIT recognizes the need for

illuminating, in commemoration, its contribution to the development of aerial

reconnaissance. Similarly, through the historical and commemorative imperatives of the

National Archives, TARA represents an appraisal and an investment: the collection is worthy

of maintaining. It has been deemed as having an enduring value, both as a record of military

and industrial record, and as a historical and mnemonic device promoting the potential for a

larger cultural and historical imagining concerning the heritage of the war. As mentioned

above, the notion of an enduring value signifies both the relevancy of an inventory in

relation to the conception of cultural and historical heritage; and, further, allocates the

practical energy and labour required to ensure endurance vis-à-vis electronic and digital

methods of preservation.

Archivists Maygene Daniels and Timothy Walch, writing about efforts to determine the intrinsic value of an archival collection, suggest the establishment of tests outside the guide of provenance as to whether or not collections demand protection and further investment. Though their publication is dated (1984), their thoughts are consistent with some of the more conventional approaches to the establishment, maintenance, and management of archives. They lay out what is essentially optics for the archive—how the sensing of appraisal occurs.

Permanent value consists of a specialized criteria, most of which can be applied to TARA not only as an archive but as an organ of display. Following the archivists, permanent and enduring value extends from: "significant examples of form" (TARA as an moment of emergent development of aerial photography); "aesthetics or artistic quality" (the uncanny style and substance of the photographs); "unique or curious physical features (TARA as scaling time and space, as miniaturizing landscapes for consideration); "age that provides a quality of uniqueness" (TARA as initially generated during the momentous event of the war); "value for use in exhibits" (TARA as anchoring and grounding a new trajectory in the production of a dominant version of historical consciousness) (Daniels and Walch 1984: 98-99). The last possible value is again amplified because of TARA's image based contents: they are seen and supposedly, as such, easily "read" and encountered. TARA's new virtual home at *Evidence in Camera* is the preferred mode of endurance.

A Brief Comparison of Virtual Archives: TARA and the Newton Project

Institutional strategies to maintain the so-called enduring value and enable the virtual

archive are evident in another recent virtual archive project. A recent *Globe and Mail* article[56]

detailed institutional moves within the academic community to make available online the

works and writings of physicist Isaac Newton. *The Newton Project* provides some instances of

comparison for TARA. Newton's persona in popular culture and history—the apocryphal

story of the apple and the "discovery" of gravity that installs him as a popular historical icon

who mythically signifies the enchanted magic of science—is transfigured into a popular

discourse, a topic not only for scholars of history and physicists but for an enquiring public

as well. Ostensibly, the project is somewhat revisionist: its goals are to make available the

social and culturally-oriented writings of Newton so as to reveal an alternate historical

character, that of *philosophe* rather than the standard rendition of enlightened science scholar

who designed and formulated three Laws of Motion.

TARA is constituted in a similar strategic way: the revelation of heretofore unknown

materials, or materials that, according to authorities, deserve a place for public display,

consumption, and consideration. Newton, like the Second World War, is a topic and the

label for a body of discourses that are central of cultural and historical constructions of the

most basic ideas of cultural citizenship, narratives faithfully adhered to. Adherence to the

axiom of postmodern skepticism and suspicion is appeased in the sense that the new archival

projects are indeed revisions, recalibrations of old knowledges available for reconsideration.

Newton, when subjected to intensive research and scrutiny, *becomes* a figure with unexplored

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[56] See Dan Falk, "The unknown Newton", *The Globe and Mail,* August 7, 2004, F3. The Newton Project is a result of joint efforts between the Canadian Society for the History and Philosophy of Science and U.S. and British history-of-science associations. In the words of Falk, "[I]t is the largest and most technologically sophisticated project dealing with Newton, and one of the largest-web based projects involving any single historical figure." The Newton Project is accessible online at <http://www.newtonproject.ic.ac.uk>.

facets, a man "with demons" concerned not only with science but with the religious

discontents of the Apocalypse and the Whore of Babylon. The revision is remarkable in that,

in its historicity, it sheds the dominant and teleological veneer of "Newton" to replace it with

a more dynamic one, remaking Newton as deep and "real", as a contemporary of other

Enlightenment philosophers.

As such, this bid to revise and re-articulate a new Newton is filled with discursive

tension. Enabling a review and a restructuring of Newton in a historical context—to take

"Newton", the topic, and reconstituting it/his role in the standard teleological narrative of

scientific theories of physics—certainly questions the normative historical contexts,

conditions, and processes assembled under the heading of "Newton". Yet, in attempting to

offer authenticity, veracity, and a more comprehensive understanding, a subtle prescription

about how to recast a set of micro-histories to become History is stated. A model of infinite

parsing and segmentation emerges. The method of finding cracks and scraping out the

residue in the seams is, in fact, conventional and the standard mode of historical production

in a contemporary context. This is to say that alternate and revisionist history with both

social and cultural bents have become increasingly the *status quo* practice in terms of *doing*

history; the grand narratives are, for all intents and purposes, always in disarray. The archive

here becomes a self-justifying organ of history rooted in the act of exposure, in display. The

deployment and refurbishing of the archival materials related to Newton allows for this and

is represented as a normative process in the context of current archival and historical trends,

i.e., New Historicism, revisionist histories.

Newton's writing will apparently be transcribed and digitized but even more

remarkable is the presentation of images of his own notes and marginalia in books from his

library, as well as images from his original documents. The *images*, rather than mere texts,

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lend themselves more readily to display as museal objects. TARA, as a record of a "buried" process now-excavated to revise popular notions about the war is similar to *The Newton Project* in this specifically exhibitionist way. The texts, as objects, are for "public" *display*. For specialists, *The Newton Project* coincides with the new version of TARA in solving problems of research; the resource is malleable and is accessible from a geographical and time-intensive distance via the Web. Yet TARA differs in that there is an assumed and intended flow of the collection outward into more diverse and un-related audiences and user-groups, this being the most-celebrated new application for the refurbished collection.

TARA on the Web: "Evidence in Camera" or Evidence of Entanglement?

virtual *adj* 3 *Mech* relating to an infinitesimal displacement of a point in a system

Derrida's proposed threat inherent in the formation of the archive is further exacerbated by the medium of the Web. The "infinitesimal displacement of a point in a system" is what the establishment of *Evidence in Camera* attempts to stem and prevent and yet it is the system within which TARA becomes available. If the "system" is the conglomeration of lived, technical, and political technologies and networks within which everyday cultural encounters occur, TARA's mandate to extend from its physically and geographically fixed and emplaced location of deposit is evidence itself of an effort to stay current, to maintain a virtual bulwark amid the variable registers of contemporary cultural practices played out across the latest new media network. While TARA's images *represent* a set of processes that are beyond and external to their material status as photographic objects, the archive itself plays out in a mode of *presentation*. This strategy of presentation occurs prior to the representative function of the collection. The presentation *is* the method by which

state versions of history and memory are themselves configured to contest the intertextual and symbolic flows in contemporary culture.

Following the ancillary fear of forgetting and losing not only memories of the war but memories of the state as a relevant and functional assembly, the "History-from-above" strategy focuses on the circulatory and communicative systems of the Web, which are constituted by speed, acceleration, and immediacy with respect to the delivery and diffusion of cultural materials. The problem of TARA's presentational mode of address, though, is that the presentation through high-speed circuits of the Web installs a version of the past as real, a representation of the past as the properly authentic "past", a monolithic and opaque sign of the complicated processes of the aerial reconnaissance organ in its many contexts. Arjun Appadurai writes that, "The past is not a land to return to in a simple politics of memory. It has become a synchronic warehouse of cultural scenarios." (Appadurai 1995: 30). Further, he writes that:

The central feature of global culture today is the politics of the mutual effort of sameness and difference to cannibalize each other and thereby proclaim their successful hijacking of the twin enlightenment ideas of the triumphantly universal and the resiliently particular. (Appadurai 1995: 43)

In liberating the holdings of TARA from the exclusionary space of Keele University, *Evidence in Camera* mimes a populist tactic of dissemination for all. Already a state-sponsored incarnation, TARA is a universal thing, one supposed stop on the circuit of public culture. Yet, it also satisfies the "resiliently particular" in that it is a specific kind of punctuation marking the need to recall and commemorate triggered by the exhibiting and extolling of important developments as constituted in war-time technologies of aerial reconnaissance.

From the perspective of the state and the purveyors of TARA, the Web is a vessel to ensure the "triumphantly universal" aspect of the global culture TARA itself is inserted and projected into. In this way, the Web and TARA together collude to create what Paul Virilio

elsewhere calls a *speed*. The rate of speed, according to Virilio, is a historical agent

fundamentally altering the political scenarios and cultural schemes. A *speed* is:

> not a phenomenon, but rather a relationship between phenomena. In other words, it is relativity itself...speed
> is a milieu. It doesn't just involve the time between two points, but a milieu that is provoked by the vehicle.
> This vehicle can be either metabolic...or technical...and it governs societies. (Virilio 1997: 14)

The *speed* of any archive with an online conduit for access is a force because it facilitates the

revolution ongoing in contemporary archival practice while subscribing to the

"cannibalizing" logics of global culture. It *becomes* the triumphant project it purports to be all

along. *Speed*, in Virilio's assessment, governs; it is the tool of contemporary politics and the

interconnected and entangled politics of culture. *Evidence in Camera* provides the impetus for

that governing impulse as a *speed*.

The Artificial Infinite: Provenance, Intertext, and the Archival Sublime

Despite the intentionality vested in maintaining the integrity of TARA and the

Evidence in Camera website as a portal for imaginary transport into the past, what occurs is the

recurring de-territorialization and re-territorialization within the context and environment

created virtually in, and in interface with, the Web. The Web environment—as a web, or as a

rhizomatic domain—is rhetorically premised on connection and exchange. TARA is located,

in association, within a circuit of other institutions I have described earlier, institutions that

lend some context and further historical insight as to the role and development of aerial

reconnaissance, its commemoration, and its relevance.

The provenance of TARA is not compromised in the sense of its integrity as an

apparatus documenting exchanges originally generated within the original war-time

reconnaissance organ. Certainly, the collection is meticulously organized at Keele in its

paper, files, and folders; it has been re-organized, re-catalogued, and re-mapped after the

recent push to get TARA online. Yet, the same processes that ensure this dissemination and new projection also serve as the same processes that threaten the integrity of TARA. The Web, because of its capability for interconnectivity, threatens to swallow TARA whole.

Sustaining the archival revolution online becomes entangled with problems of archival integrity in a Web context. The new constitution of the online archive enables new capabilities with respect to the labour and energy required in the act of maintenance and preservation but also locates the collection within a web, a Web that is porous and premised on heterogeneity (the ability "to integrate and absorb all other media"), *hypermediacy* (the ability of web-based media to mediate and connect), and immediacy (as earlier, the ability to confer proximity and direct access without the appearance of an mediation) (Bolter and Grusian 2001: 207-208). Consider the "other media", other topics, other influences. TARA's virtual mandate threatens to overrun and overwhelm itself. As I mentioned earlier, the most resonant and calamitous fall-out of the war—memory trope or not—coalesce around discourses of genocide and the Holocaust, as well as the topics of mourning, melancholia, guilt, and trauma. These bodies of knowledge are mythologized and culturally sacred, difficult to reduce, politically and culturally sensitive, problematic to define and describe. Yet, they are alternate trajectories of inquiry that arc into historical considerations of reconnaissance. The things the history of aerial reconnaissance has to account for— especially on the Web, where those connections can be made with other documents and materials and spurious images—is perhaps too much for TARA to sustain. The openness of the archive is an opening of a series of conceptual problems with regard to what fiction is in fact being recollected, what knowledges it is has to supplement, and what bodies of knowledge supplement and supplant it.

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If the Web even begins to approach its touting as *the* penultimate storage medium,

the recourse to all these little narrative threads connected to TARA and the narrative

compiled and culminating in *Evidence in Camera* renders them merely calculable,

computational pieces of supplementary data to be processed.[57] Both the standing reserve of

the archive waiting to be *potentialized* and the new virtual space within which the archive is

accessed becomes what Scott Bukatman, working in a cinematic context in his discussion of

special effects, terms "the artificial infinite"[58]. This infinite is a kind of sublime thing to be

encountered, something that can be alluded to but that is beyond consideration; the

artificiality of the infinite refers to its manufacture and fashioning, to its assembled character.

It is inherently spectacular, a domain of spectacle with the infinite quality of things beyond

consideration, a massive abundance which requires confrontation.

This pervasive capacity to attend to things in some else-web-where is significant:

affiliations and connections can be fused and broken. This movement troubles the mandate

of simply proliferating an archival and institutional circuit to re-install waning markers of an

imagined nationally-oriented and consented perception of the events of the war. The

perspective of a nostalgic state and waning *status quo* national narrative administered and

promulgated is one utterance, one option circulating in the disparate global cultural

economy.

As a vessel for this emerging "mediascape" (Appadurai 1995: 38), the Web generates

the most infinite and artificial sublime aspect, coming close to the "everything" of the pure

archive. Bukatman writes:

[T]he language of consumption and the display of spectacle grounds the spectator/visitor, and hides the awful truth: that an environment we made has moved beyond our ability to control and cognize it…The

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[57] Interestingly, these little threads and how they are reconciled by the master historical narrative are a kind of inverse example of Lyotard's *differend*, that minor narrative that cannot be reconciled.

[58] Bukatman draws on Leo Marx's "rhetoric of the technological sublime" (Bukatman 1998: 278).

simultaneous fascination with, and fear of, technologies in their beauty, majesty, and power reveals a necessary ambivalence. (280)

The point about ambivalence is equally taken on behalf of the state where an attitude of indifference seems to characterize the venture, where indifference is an awareness of having to go online, of having to cultivate a larger profile, having to fill a popular frequency to maintain legitimacy in the colonization of the Web by any and every cultural image, event, or meaning. This extends to how archives and museal displays in fact carve out some form of self-sustained preservation themselves, i.e., make waves, jump into the visually-oriented realm of web content, as intertext and, thus, hypertext.

Bukatman alludes to the spectacular potential of display in visual media and this connects to the virtual archive in the moments of an extended interface: He writes:

[A]s an abundance of physical data was fitted to the epistemological desires and requirements of public consciousness[…]spectacular displays [depend] on a new mode of spectatorial address—essentially you are there (even though you're not)—linked to new technologies of visual representation. (Bukatman 1998: 263)

TARA provides not only contents, but also presents a method of interaction and interface that is premised on a mode of spectatorial address that allows for an encounter with the Web; with archival materials; with a pre-figured historical narrative; and with memories of the war. The integrity of TARA online runs the risk of becoming swallowed by the sublime.

The notion of magnitude, of a sublime abundance of artifice, emerges further in a connection to popular filmmaker Steven Spielberg and his WWII *oeuvre*. The Spielberg connection is instructive because it demonstrates the ways in which the sharing and multidirection of influence accommodate the notion of an artificially infinite, archival sublime. TARA officials triumphantly acknowledges the role it has recently played as the master storehouse for consultants seeking to properly portray verisimilitude and authenticity in Spielberg's popular World War Two television series, *Band of Brothers*. Administrators

praised the producers for their extensive use of the archive's collection.[59] Spielberg's

notoriety for his war-themed films—*Empire of the Sun* (1989), *Schindler's List* (1993), and *Saving*

Private Ryan (1999)—all share in their omnibus big-budget approach and their status as

cinematic vehicles driven by a director bent on rendering History "correctly".

In *Band of Brothers*, the "correct" account, then, was a product of the references to

TARA's holdings, used to establish, corroborate, and inform the historical facticity of the

events depicted. The required logistical scale of the series and all three film productions

approach the same levels of both popular appeal and critical vitriol Spielberg received,

particularly for his D-Day combat opus in *Saving Private Ryan* and the Holocaust film,

Schindler's List. The alleged transformation into mass entertainment and the subsequent

"vulgarization" (Paschaladis 2003: 13) of the Holocaust in *Schindler's List* is one remark

challenging the validity and veracity of Spielberg's attempts to conjure and depict a

compelling, immersive, hyperreal diegetic field of cinematic experience.[60] Yet, both TARA

and Spielberg exchanged and shared each other's symbolic power, increasing popular profile

in reference to the other. Spielberg's Hollywood iconicity and his brand-power as a maker of

"realistic" war films allegedly lend authority to TARA.

The films and the archive are like agents of re-enchantment, essentially re-energizing

historical consciousness about the events of the war. Consider images 4.2, 4.3, and 4.4 as

both a connected and progressive line of derivation. The iconic Robert Capa photograph is

held as a realistic recording of D-Day events at Omaha Beach. The aerial photograph from

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[59] TARA's "Who Are We" section at Evidence in Camera specifically cites the Spielberg connection. Many of the press releases cited the same passage.
[60] The issue of representing the Holocaust is at the centre of debates in the academy around mourning, trauma, and the politics of memory in a popular cultural context. Most detractors question the problematic ethical dilemma mobilized in Spielberg's filmmaking and his technique of attempting to realistically duplicate and authentically depict the events of the war, either in *Schindler's List*, in the D-Day combat extravaganza, *Saving Private Ryan;* or in the similar *Band of Brothers*. That Spielberg was touted as "coming of age" as a director by "taking on" the Holocaust—fashioning it as an object to be worked over for his gain—is a point of contention.
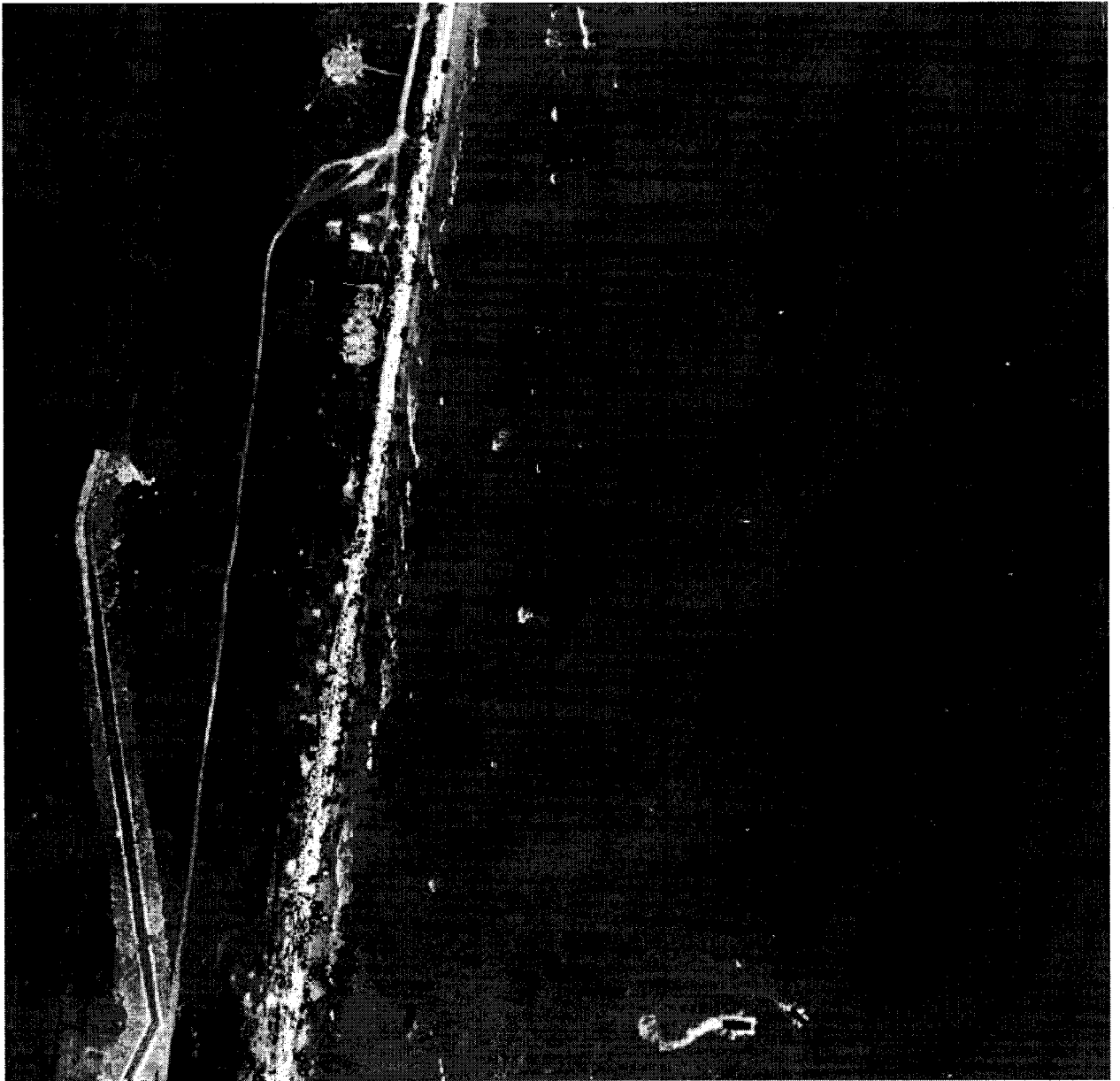
figure 4.2   D-Day, June 6 1944, *Evidence in Camera*, TARA

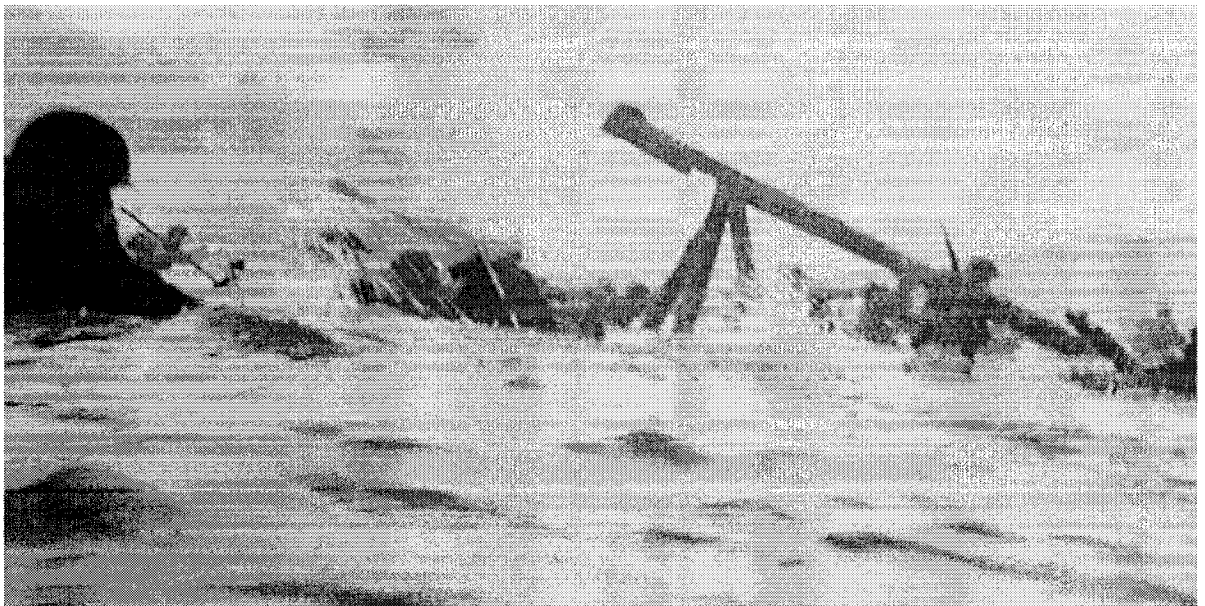figure 4.3   Omaha Beach, June 6, 1944, © Robert Capa

figure 4.4   Film Still, *Saving Private Ryan*

TARA is vertical, removed from the horizontal frame but still figuring a record of the same ongoing operations below. These two images anchors a third—a still from the opening sequence of *Saving Private Ryan*—which signifies and communicates the events as they actually occurred for popular consumption. The film's overture is the orchestral *cinema-verité* inspired opening sequence of the D-day landing at Omaha. The aerial photograph, seemingly sterile, in fact records in extraordinary relief the traumatic fallout of the battle; the realist photography verifies expectations about what constitutes the practice and production of war photography. The *Saving Private Ryan* still re-fashions and articulates the experience in cinematic simulation. The circuit formed by these three renditions—as I have arranged them—can "compel us to think traumatic memory and entertainment memory together as occupying the same public space, rather than seeing them as mutually exclusive phenomena." (Huyssen 2000: 29) Regarding the informatic repository of the archive and the supposedly privileged "reality misses the point in a contemporary cultural context. Dismissing and eschewing images due simply to their simultaneous entertainment value misses both the emerging cross-pollenization of popular entertainment and memory practices and, in TARA, the ways in which visitors are enabled to perform the burden and responsibility of cultural commemorative and communicative practices. The demands to confront the abundance of memory- and history-related material approaches sublime proportions; the materials meld together.

Naive "New" Web Opportunities

virtual *adj* 4 *Computing* not physically existing as such but made by software to appear to do so

The appearance of TARA and its emergence as I have been describing it locates a perspective, then, that embraces the opportunities of the Web despite the potential risk of

becoming swallowed and subsumed. The Web is both the medium and the vehicle. Yet, Web and Internet theorist Wendy Chun cautions against the opportunistic and emancipatory Web narrative. Her component-oriented approach to the Web and its offer of interface allows for the contention that the ability of TARA to fill the frequency of the Web and exploit its access for more popular uses of archives is a process that memorializes a narrative of integrating technologies rather than the legacy and heritage of war-time contributions.

Chun is increasingly interested in the how the Internet makes people vulnerable through increased Web use with respect to feedback loops; she alleges the tracking of this Web use constitutes the latest contemporary mode of social surveillance, specifically at the level of software (i.e., cookies, internet protocol files). While for Chun, "vulnerability does not mean endorsing paranoid narratives of global surveillance," (Chun 2001: 4), she is confounded by the automatic embrace of Internet technologies and applications, and she attempts to scrutinize and problematize the varied uses of the Web that unfold alongside the principled tenets of free sharing and exchange. Chun anticipates the Web's increasing role as a both a communications medium and cultural technology, acknowledging the difficulty of finding appropriate ways of discussing and conceptualizing the Web:

Faced with Internet's dramatic emergence in the 1990's, most popular and scholarly analyses have focused on new forms of subjectivity, agency, and visuality, new forms that seem to literalize various ideals and theories. (Chun 2001: 2)

Yet, she is suspicious of the supposedly enabling and empowering capability embedded in the rhetorical promise of the Internet. Rather than legitimate the promise of an idealized kind of deliberative public culture, Chun instead emphasizes the aggressive colonization of the Web by corporate interest and capitalist consumer culture.

Chun is dismissive and skeptical of the Web narrative of supposed immediate and

instant capacity of gain access to information—visual, graphic, textual, aural—online.

Against this naiveté, she writes:

> The erasure of software and hardware underpin theoretical understandings of digital networks that declare that distances are now erased and that all types of media have become the same. Communications are not instantaneous, nor are they unfailing—"the last mile" problem combined with network traffic means that we experience "space" as an often unbearable space of time. It also means that depending on your type of connection, the broadcast media, such as radio and television, may be "more available" than the supposedly always-available internet. As well, sound video, image and text may all now be stored digitally but this does not mean that they are all now all the same, since they are all formatted differently. Photoshop for instance will not open a sound file, not even as "raw data"…Thus [in] engaging closely all four layers of digital media – hardware, software, user interface, and extra-medial representation…my point is thus not to condemn the Internet but rather to deal with the ways it literalizes and explodes enlightenment—from the blinding light of the other to the soft artificial light needed for contemplation. (Chun 2001: 4)

Chun's sober reflection and indictment can be extended to the rhetoric around TARA and

Evidence in Camera in relation to the availability, ease of use, and the value of perpetual access.

If, as above, I have in parts described the appearance of TARA as a location to be

encountered in interaction and emergence, Chun's brief but concise insights alter in ways

how to go about conceptualizing the virtual offers of the archive.

The progressive direction and development of electronic, digital, online applications

is inherent in the capabilities offered most basically in the virtual archive. TARA rhetorically

capitalizes on the conflation of the four layers of digital media in two ways. First, regarding

the original use of the collection, the photographs were, in their original context, dependent

on how they were developed and rendered so as to be "'seen" as proper reconnaissance

records. The *Evidence in Camera* homepage offers little explanation regarding the

reconnaissance images as software, the computational "hardware" of interpretive schemes,

and the interface and extra-textual demands of what constitutes "proper" interpretation (i.e.,

which targets are militarily, politically, and politically and practically expedient). Furthermore,

in the context of actual Web presentation, the conflation of those layers enable the shift of

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TARA from physical archive to a virtual archive premised on musealized, attraction-like exhibition.

In the area of actual physical labour, TARA's portal and interface reduces the intensity of work necessary to locate and access holdings. In terms of geography and space-binding properties, *Evidence in Camera* via the Web vehicle annihilates space: the space of physical travel to access the archive and the space required to store materials. Virtual storage "frees" up space, allowing records to be removed to some even-more reclusive and permanent storage location. The collection is available by remote control, and by remote sensors—literally, remote users and visitors—removed in private sterility from the poetic dust of folders. Yet, newly oriented toward a new public audience in release and dissemination, how many visitors would have patronized the archive at Keele? The attractiveness of the website is the ease, efficiency, and ability to virtually handle materials; namely, to allow and accommodate a temporary but durable moment of encounter for mainstream public visitors curious about the uncanny traces of a war-time past.

The archive, keeping up with the demand of staying current, is reformatted, essentially *remediated*[61] and re-articulated for new, more accessible use. I have already outlined the strategy of attracting and cultivating users, visitors, and citizens by seizing and *remediating* the discourse and topic "Second World War" and infusing it with new meanings by recycling old residues and inventing a new historical topic within the domain of the history of the Second World War. The hardware—network capabilities, video cards—built into personal desktop computers and the software of web browsers and visual imaging programs like

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[61] In *Remediation: Understanding New Media* (2000), Jay David Bolter and Richard Grusian outline a theory of remediation, arguing that new media technologies are less new and more accurately agents of remediation; that is reformatting at the level of form and delivery for mass use, a veritable refashioning of antecedent forms of new media. Their theory is historical in the sense of attempting to caution against the embrace of "great divide" theories of media development and emergent in communication contexts. See, "Theory", 21-84.

Photoshop, or even the most basic viewers available (like the package-included *Image Viewer* in the recent Microsoft XP operating system) allow interface the ability to transfer photographs in digital form from the website of the archive itself to one's own "desktop"' to view, manipulate, and alter. The attraction of TARA is in part the ability to "play" with the image, to virtually handle it like the interpreter. Offering interactive entertainment, the interface allows users to "work over" photos while being able to escape the slow, mundane process of serial comparison and target analysis that characterized the original material mode of processing and production during the war. Visitors using the web interface will find the collection scalable and modular.[62] This amounts to part of TARA's moral defense of *Evidence in Camera*: arranging encounters with a mass public culture in periodic and extended intersections with the basic abilities of visual web technologies so as to amplify the importance, ease, and role of the archive.

So, besides the war and the mandate of the archive itself, what is monumentalized in TARA online is – like MIT – the integration of two formal systems: internet-web technology and the archive. *Evidence in Camera* is indicative of a utopian and imagined origin that both commences because of and is commanded by the state-organ behind the creation of TARA: the capability to make relevant and mutable and useful the archive's holdings. That is the memory established, and the energy metaphor used by Richards to describe the archive as a place for the imagined comprehensive documenting of morphology and metamorphoses of knowledge—a place generated by paranoia and threat—reconnects to the waning role of the state to matter, to recuperate and redeem itself. The heritage organ is refashioning and reconstituting its own grand narrative at the limits of visual culture and through virtual

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[62] Lev Manovich attempts to classify and define what qualities make and qualify new media as "new". He cites the scalar and modular properties of media as contributing qualities to the classification of "newness". See (2001) *The Language of New Media*, specifically the chapters "How Media Became New" and "Principles of New Media", 21-53.

archival technology, establishing a new resonance transferred from the energies stored and released in "new" forms.

TARA and Failure in "No precise vectors of distribution"

So, virtual TARA has no "precise vectors of distribution" but is purportedly and rhetorically open for business, the monument always available. Yet, there are two specific "blockages" to the TARA's intended offer of historical and commemorative experience. The act of viewing the collection is based on a rather complicated and less-than streamlined method of acquisition. Initially, TARA users were instructed to connect an external map co-ordinate website, *Multimap*, which offered a search engine that translates requests based on specific addresses to obtaining coordinate locations. These locations can then be cross-referenced with TARA's collection and a list of existing reconnaissance sorties that correspond to the coordinates is generated, upon which sets of photographic coverage can be accessed.

The necessity of consulting two or three different websites in order to locate and find the desired set of photographs does two things. First, it creates a bulge in the seamless offer of easy access; as an extra dimension of labour and navigation, the mediation of access discourages the use of TARA. Consider things likes modem speed, processor size, RAM, cache, bus speed—all electronic and digital parts of a computer running the browsing program through which TARA is accessed. The image-intense exchange and the searching can tax the capability of a computer; slower, older computers without sufficient software or hardware cannot perform the tasks a visitor would like. The searching process also necessitates some knowledge of mapping coordinates, another hurdle to gaining access. The labour required to gain access to specific runs or sets of cover and images perhaps. In some ways, part of the intended pleasure of using TARA, before the apprehension of the
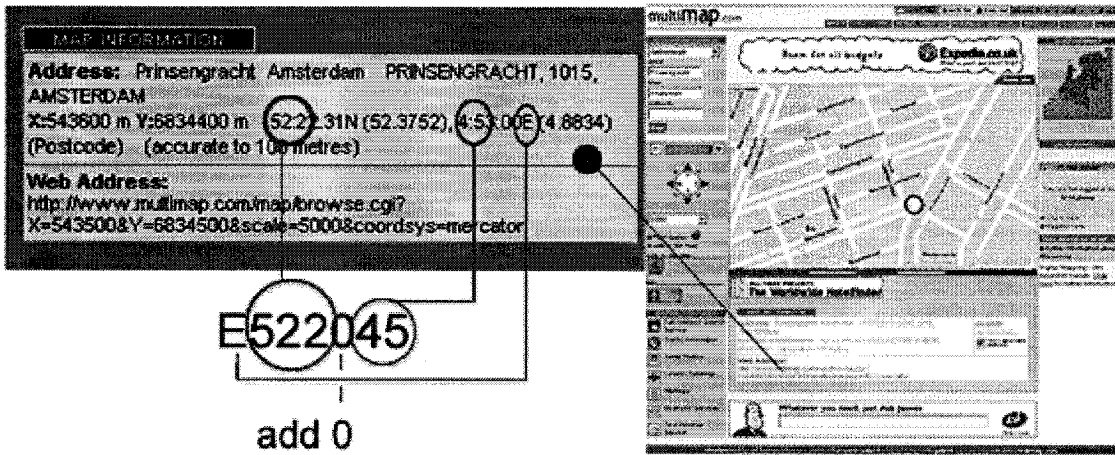
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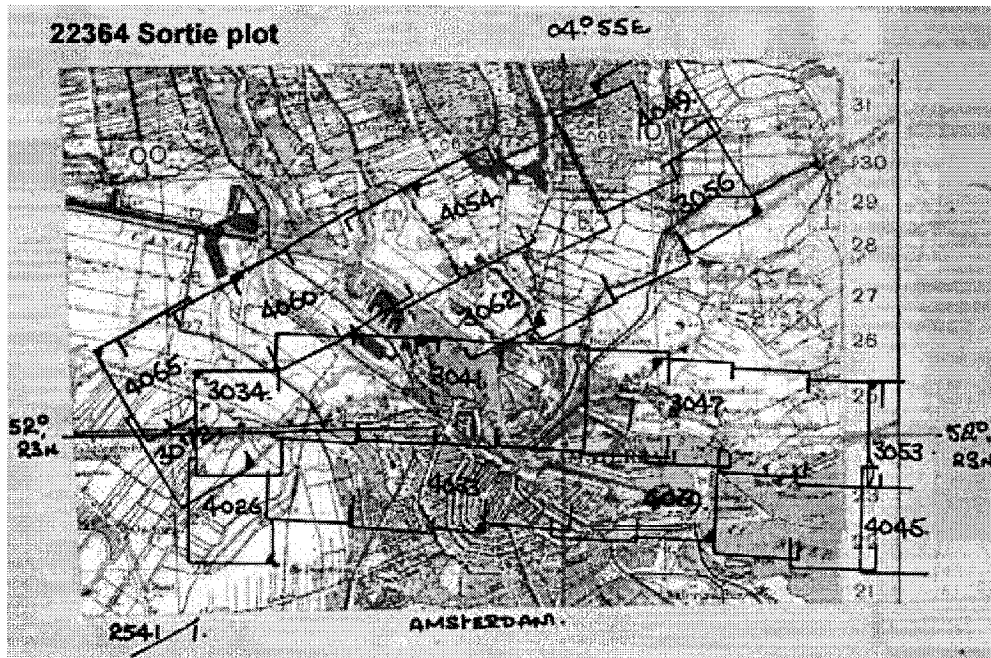figure 4.5   Search Instructions, *Evidence in Camera*, TARA

Figure 4.6   Sortie Plot Search, *Evidence in Camera*, TARA

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SEARCH RESULTS

9 items found, displaying all items. 1

Archive Reference	Geo Reference	Scale	Day	Month	Year
22361	E522045	Medium	02	August	1944
22364	E522045	Large	03	August	1944
22381	E522045	Assorted	03	August	1944
22485	E522045	Medium	03	August	1944
22507	E522045	Medium	06	August	1944
23706	E522045	Medium	03	August	1944
24060	E522045	Large	27	August	1944
24316	E522045	Medium	28	August	1944
24804	E522045	Large	10	August	1944

9 items found, displaying all items. 1

figure 4.7   Search Results, *Evidence in Camera*, TARA

photographic images themselves, is the labour of getting them. Yet, in this seems counter-

intuitive the organ's claim of immediate and easy access to the collection online.

Regardless of the searching process, TARA suffered initial problems. The new

archival technology manifested itself first in the form of the accident. Amid the fanfare,

something not unpredictable occurred: *Evidence in Camera's* search engine failed. Early on,

during the inaugural day of release, the interface—bandwidth, software, the main server, all

the component parts—designed to provide the reconnaissance of much-anticipated

photographs failed. The accident, following Virilio, was not much of an accident at all; it was

primal, basic, given. The elegance of TARA's new web solution to exhibit its holdings, and

for the anticipated function and role the archive could play in a public context, was actually

consolidated in breakdown. Just as aerial reconnaissance and surveillance attempted to

saturate the ground being surveyed—as did the later area bombing campaign—the website

was saturated as well, this time by eager historical tourists hoping for a peek into the

workings of a mythologized technology and its role in a conflict amplified by the totality of

destruction the reconnaissance organ coincidentally contributed to producing.

The system "working" is not so much the issue as is properly predicting when the

system will break; mode of destruction precedes production. The consonance between

didactic and political emphasis projected and the topic used to perform that projection—

aerial reconnaissance—is ironic in contextualizing this particular moment of failure. The

public culture organ was overrun; its designers failed to establish the necessary parameters

for access to the zone of holdings.[63] The archive, like reconnaissance, is where we recognize

and re-know and object or thing or space, where one can establish and re-establish what has

passed. The exercise is one of probability and assessment based on the point of observation

available.

The failure suggested the value of TARA's new form: the intrinsic value of the

collection affirmed by demand is conferred on the archive by way of the breakdown of the

search engine. Yet, that the breakdown occurred during the first day suggests perhaps that

the content itself was not the draw, though its war-based specificity served as a novelty and

certainly attracted visitors; rather, the interface, the opportunity to encounter imaginary

transport, to participate with the presentation of iconic and momentous moments in a sort

of history amusement machine designed to fascinate and duplicate the experience of the act

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[63] Following the initial expression of outright apology, TARA's homepage currently reads as follows:
"Although we are currently reconstructing the website, you can view a collection of D-Day imagery in our
Exhibition Area, and we are compiling other exhibits to go online in January. An exhibition of five posters is
also available to view and purchase. An online shop for purchasing imagery including those that are on the
website will be available in late February." (August 2005, TARA, "Who Are We?") The establishment of a
semi-permanent exhibition using images of the penultimate event of the war—at least, in Western historical
accounts—now anchors the collection.

of interpretation. Demand becomes a threat in this instance, something to predict and respond to with a sustainable and appropriate strategy.

The potential offer of making meaning through the archive, the browser interface, and real-time and automated ability to access the collection at any time was turned on its head. The online revolution, stretched thin in a moment of fulfilling its mission, instead reveals inability, which paradoxically reinforces the impetus or motivation to perfect the very organ of provision and supply which has broken down and failed. The need for the clean dissemination of consigned materials is regarded with greater importance.

To fix the problem, which still hinders the archive, TARA has installed a temporary gallery, the set of photographs representing the archive-established category of "D-Day".[64] The gallery is comprised of images that denote and connote the mission of the archive—to transmit and make useful the collection—and present in exhibition the "highlights" of the *standing-reserve*. While the specific index of determination and selection is unknown, these particular photos have to stand as the collective essence; they trim the collection and its historical basis into a streamlined and digestible generic event.

Last Metaphor: Monument to the Perceptual Arsenal

TARA and *Evidence in Camera*, a staple of the revolutionary state of artifice of the archive, is a perhaps most appropriately a perceptual arsenal. The arsenal and the archive are relations in the art of storage and the art of supply and deployment; they maintain, in the administration and transmission of supplies, a frequency amid the fray—in battle and in the intertext of contemporary culture. There is a consonance between archive and arsenal: both are, traditionally, abject places and both operate under the functional and causal rubric of

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[64] The exhibition page actually displays photographs "taken" by specific pilots during their respective sorties. See < http:// www.evidenceincamera.co.uk/exhibits/> for the images.

provision. The virtual archive is an organ designed to address and assuage the threat of

waning faith and dominant state-sponsored sentiments about the Second World War. After

all, TARA is incidentally the organization of actual military information and intelligence

fashioned as a route to historical and cultural heritage.

The virtual archive hovers between amusement and relevance; between

entertainment and some feigned sacred commemoration of loss in the age of war, an offer of

spurious images, representations *presented as reality*. The offer: See the war like never before.

The aerial perspective is doubled by the capability of the virtual archive to allow that seeing

to occur from a vantage point embracing a rhetoric that is aerial, that dispels the integrity of

the horizon where history, memory, and amusement are conjoined. The compression of

space in relation to the archive—that is, the eradication of labour of travel and the scaling of

the geography of a visit, the efficiency of online access, and the "searchability" of the

catalogue—comes at the expense of an expansion and parsing where horizons disappear,

where TARA is entangled with other discourses and bodies of knowledge despite and in

spite of its best institutional intentions.

Keele University, together with the National Archives, expounds a kind of *infantile*

faith[65] in the potential ability of TARA and *Evidence in Camera* to reach would-be users outside

the pre-figured expert groups always-already patronizing TARA. The policy infantilizes the

potential population of users, assuming a desire for the pleasure of historical associations

and affiliations with a particular politics of heritage and memory. The plenitude provided by

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[65] I am drawing here on Lauren Berlant. In her "Theory of Infantile Citizenship", writes in an American
postmodern context about the technology of citizenship. She locates and maps the play between faith in
representations of national historical narratives and the immanent cynicism and disavowal of the burden of
patronizing those narratives for the sake of the immediate financial and cultural concerns of everyday life, "the
dialectic of infantile citizenship and cynical reason." (29) Berlant emphasizes the conglomeration and
convergence of older forms of national self-identity, cultural literacy, and leisure in a global cultural economy
that "continuously reacclimates consumer identifications during structural transitions in national and
international public spheres." (30)

the heritage organ is premised on a perceptual battle with the infinite and artificial plenitude

constituting mass and popular public culture. TARA essentially *operationalizes* a kind of

pilgrimage, pushing a pedagogical and didactic lesson in historical knowledge, consciousness,

and awareness.

Further, TARA anticipates—in hoping for users to justify its own mandate—the

patronage of both national and global citizens who reside beyond categorizations of some

pre-defined interest group. In cultivating a concern for the commemoration of war-time

actions and exhibiting its holdings, TARA memorializes itself, its integration of new media

technologies, and its role as still maintaining a pertinent presence in the cultural and political

fields of everyday life, or at least in and across the cultural citizens constituted by a global

cultural economy where the "audience" is up for grabs.

The media and contents here are many: the Web, the technology of history, the topic

of the Second World War, aerial reconnaissance. The artifice of the archive, in

conglomerating these mediums and contents, is finally the most significant. If the medium

was the message according to Marshall McLuhan, Jean Baudrillard, and others, the message is

that state-organs can make the medium matter so as to enable a meaningful encounter with

materials and contents so as to disavow the traditional authority and exclusion of the

physically-emplaced archive. The ability to bend the medium to the needs of the heritage

organ is what is most resonant: the provisional authority, the organ initiating the logistical

supply, is what matters. The heritage organ itself becomes the "monumental edifice" (Nora

1989: 11) , the object in which infantile faith can be had by both the state and the

prospective audience addressed.

So, spectacle, amusement, and the *monumentalization* of the Web archive as an

exhibitionary apparatus converges around the state of artifice of the archive. Virtual TARA

is both transformed and in transition, while transforming how History is to be stipulated,

iterated, interfaced, and encountered. Carolyn Marvin, a cultural historian of technology,

writes:

Media are not fixed objects; they have no natural edges. They are constructed complexes of habits, beliefs and procedures embedded in elaborate codes of communication. The history of media is never more or less than the history of their uses, which always leads us away from the social practices and conflicts they illuminate. (Marvin 1989: 8)

The conflict illuminated is an attempt at the re-casting of edges, a fight for a perceptual

frame and a method of display. Neither TARA nor the cameras capturing aerial images are

neutral: reconnaissance always implies an contrived aim, a search rather than some idealized

and open "finding". That is the kind of mediation TARA implicitly attempts to provide; as

an organ of history and heritage, the artifice of the archive itself is the process that is

becoming memorialized, monumentalized, and commemorated.

The unprecedented acceleration of technological innovation and circulation have created conditions in which consciousness is more than ever inadequate to the state of technological development, its power to destroy and enslave human bodies, hearts, and minds. At the same time, new media such as video and the digital media have expanded the formal and material arsenal for imaginative practices and have opened up new modes of publicness that already enact a different, and potentially alternative, engagement with technology...This anti-nomic situation [...]requires understanding the practices, both productive and receptive, of technology in increasingly overlapping yet fractured, unequal yet unpredictable public spheres. *It urges us to resume Benjamin's concern for the conditions of apperception, sensorial affect, and cognition, experience and memory—in short, for a political ecology of the senses.*

-Miriam Hansen, "Why Media Aesthetics"(emphasis mine)

Contemporary critical theory treats technology as a trope or representation rather than a physical reality in the world. The "machine" is not just a metaphor for a particular technology, but for technology itself. And at a deeper level, this metaphor enframes technology within a semiotically constituted field [...]or the putting into discourse of technology.... [Yet] to retain what Derrida calls a 'politics' in relation to the image[...] we must articulate [sic] technologies as they exist in a dual space: they exist at once as representations and as material opacities.

-Belinda Barnett, "The Erasure of Technology in Cultural Critique"

The most startling aspect, circling aloft in concerted attention and analysis, is a sense of apprehension regarding the yield of the invisible. Apprehending the visible is a process that necessarily occludes, obscures, and obfuscates in relation to the continued invisibility of things lurking in the problematic assembly of political, cultural, and historical concerns specific to TARA. In fleshing out these concerns in an academic way that attempts to enforce a programmatic approach, much is equally visible and invisible; there occurs in the act of apprehending feelings of apprehension at things left undone. The technologies of the archive, of photography, of the airplane, of the multiprinter, of the computer, and of a conceptual method unfolded in the assembly of critique all accommodate and enable while also implicitly imparting regulation and prevention in relation to the set of experiences and the supply of perceptions made available.

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Can TARA—as an organ of heritage, an apparatus of memory, an attraction in visual culture—be expected to tease out and offer an encounter that adequately addresses and exhaustively connects every thread, every intangible trace? Certainly, the answer is, equivocally, no; it would be an overdetermination to assume that TARA could manage the burden of even marginally alluding to each and every thread animated in whatever approach one may take in encountering the archival assembly. Yet, TARA should allude to its own careful construction; it ought to in some way affirm and embrace its original status as an operating system—a sort of hard-drive—for the supply and application of knowledge for the purposes of destruction. Further, it must acknowledge its asymmetrical hold on the power of dissemination that is disproportionate in relation to the ability to supply knowledge regarding the war. This is an ideological and ethical issue inherent of the archive: the power to name and frame and dictate the provenance and endurance of elements, arranging how they in fact come to be understood in relation to each other in occurrence. This institutional self-awareness, throughout, is absent. The voluntary and involuntary utterances and pronouncements made by the archive evade and elude this acknowledgement.

The historical rubric of moral authority and "victory", when dismantled, appears as a durable cultural, pedagogical, and didactic technology of truth applied to govern and regulate commemoration and heritage. The regulatory role that TARA performs also has significant implications at a larger metadiscursive level: the online virtual archive is itself an interpretation of how a collection of this kind and size can function in a contemporary context. It engages with these issues, or is at least entangled with them, in spite of the archive's own self-imposed positioning.

TARA accommodates and prioritizes a specific set of politics and imaginings that induce an idealized encounter; ultimately, the project is an exercise in response to the threat

of a radically deregulated cultural economy and the waning relevancy of a substantial historical narrative about the war. The archive's new fluid and leaky virtual boundaries allow for simulated visitation to the traditional geography of the archive, actual archival access, and a temporality that appears immediate and transparent. That TARA eschews and effaces its highly contrived and original mode of production—revoking its operational impetus in favour of exhibiting spurious images of war-time Europe—suggests the validity of the question asked by Huyssen: "Could it be that the surfeit of memory in this media-saturated culture creates such overload that the memory system itself is in constant danger of imploding, thus triggering the fear for forgetting?" (Huyssen 2000: 28) The aerial reconnaissance images stand-in as "imagined memories" produced by an ever-mutating version of the past affected and inexorably unavoidably altered by new media and information technologies, which alter "how" memory is practiced and accessed (Huyssen 2000: 28). Though the line of inquiry here has come up short regarding actual visitors and users, it is reasonable to elicit that patrons will never entirely swallow whole the accounts given by TARA. Just as reconnaissance photographs write and inscribe war, the archive inscribes meaning as well: the habitual place of storage where timely negotiations undertaken can produce new versions and accounts of events. The archival permutation of TARA as it exists is conceptual in that it is part of a larger communicative act to mediate the process so as to enforce a specific politics of historical experience.

Emphasis, though, is invested by TARA in the potential image event, the encounter. A written description accompanying a recent exhibition of aerial photographs, proceeding under the rubric of aesthetic evaluation, reads:

Most rural homes in Western Canada have at least one aerial photograph of the farmstead. In many cases, a series of farm portraits is taken every few years, representing a complex bundle of fact and emotion that defines the home place. Despite their place as an iconic staple of rural culture, these photographs form a vast and unexamined archive...Another component of the exhibition are vertical aerial photographs...While

acknowledging the utility of these vertical aerials, [the curator] sees them as found art and images of considerable aesthetic interest. (*Folio* 2003: 34)

The aesthetic import of TARA's contents is startling and arresting, a virtual attraction with some equivalence to pre-cinematic panoramas now in the context of a wired visual and semiotic economy. The "found" aspect suggests further the perception of the collection: an abundant and inexhaustible set of images with a capacity to transform and convert the war's "neurotic energy into sensory affect" (Hansen 2003: 2). This inexhaustible capacity also allows an economic and thrifty approach to heritage: refurbish old holdings in affordable ways rather than generating new venues of commemorative methods and contents. In a way, these residues are a kind of pollution saturating the new circuits of memory practice,[66] flooding the emerging place of virtual cultural space with the "junk" of the past.

The *political ecology of sense* to which Miriam Hansen refers—arranged at the beginning of this chapter—gains some added weight in this context. The current ecology of memory culture requires this recycling; rumination and subsequent regeneration exploit the entropy and atrophied energy of the remains in a protracted recuperation of the old. Decomposition, though, is measured in the rate political safety and a dampened kind of mass cultural sensitivity where meta-narratives can be malleably re-cast as spectacle, an especially powerful process in relation to the scale of events that construct the topic of "Second World War"[67]. TARA is an exemplary instance of the cybernetic impulse: it is assembly demanding the management and governance of energy in a system as it atrophies and decomposes. The virtual archive is a way of literally modulating the affective energy of the past. TARA is an

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[66] Paul Virilio calls this pollution "dromospheric pollution", referring to the continued "pollution" of the global mediascape by contents proliferated by speed and the acceleration of delivery. See Virilio 1997, 19.
[67] Marianna Torgovnick recent work identifies the prolonged and inherited affect of the Second World War's cataclysmic events by outlining the symbolic and cultural weight of the war in terms of its role in contemporary consciousness. See (2005) *The War Complex: World War Two in Our Time*. Chicago: University of Chicago Press.

actual "settling up" with the past, a confirmation of how that past has been reconciled and

nostalgically reconstituted for a contemporary mass public who experience it through

figure 5.1   Auschwitz-Birkenau, *Evidence in Camera*, TARA
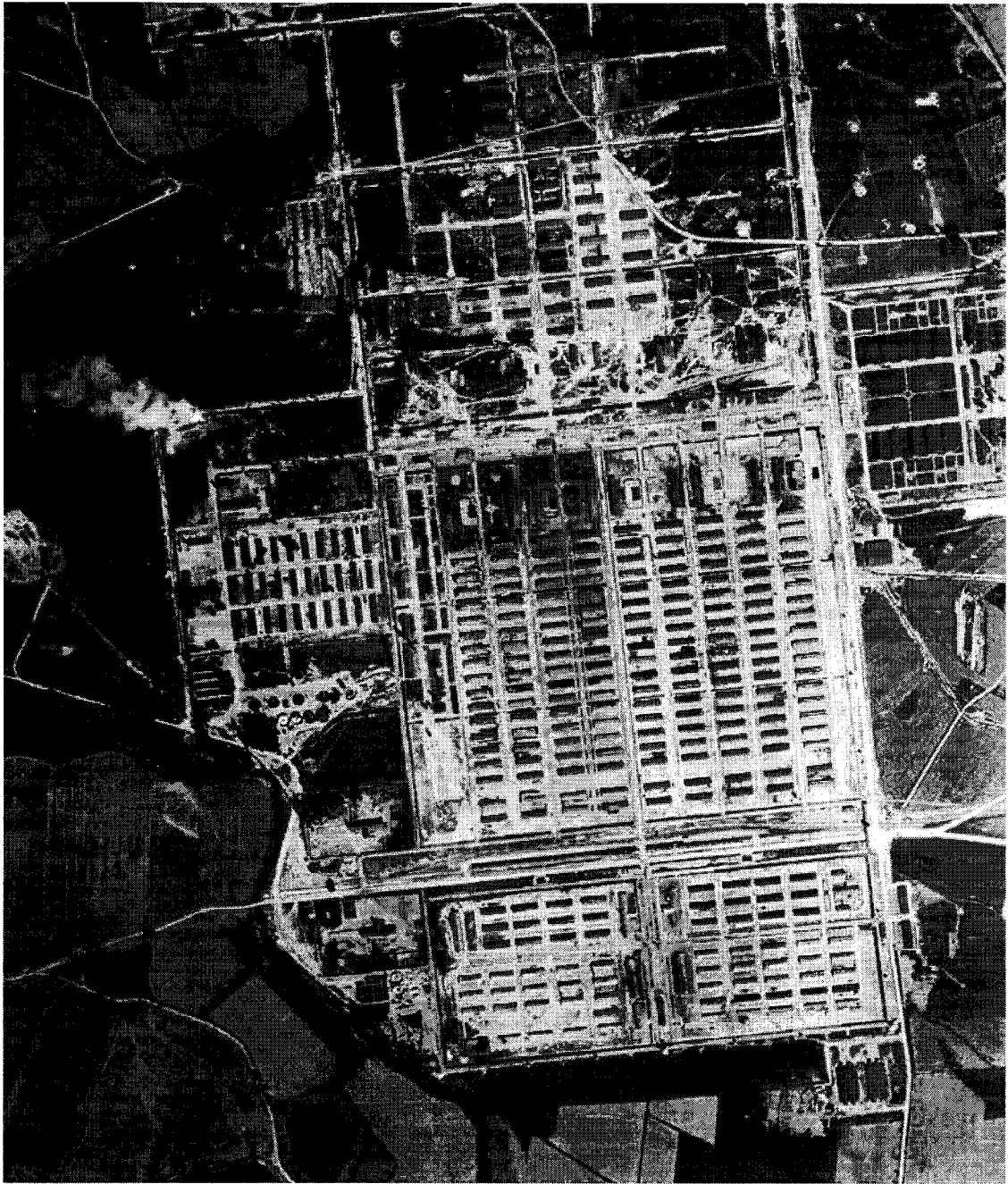
figure 5.2   Auschwitz (enlarged), *Evidence in Camera*, TARA

figure 5.3   Cologne 1943, *Evidence in Camera*, TARA

distant historical proximity. The holdings have been mobilized, militarized in an effort to provide a bulwark through the leaky Web-archive that has a viscosity sticky with the heaviness of state-sponsorship.

Converting old energy in to new affect, the economy of visuality incites an imagined but false proximity to events that are in some ways without reference save for the actual empirical experience of things "down there". Looking at the photographs, one *knows* the gnawing awareness of the impending and looming future awaiting the figures rendered and depicted a future-already-past the moment the image was seized by an intervening airborne camera. How possible is feeling it, of collapsing that sixty year hiatus? Seeing the site of Auschwitz from above (Fig 5.1 & 5.2), its neatly rendered lines and organized structures, the immensity and intentionality of the industrialization of genocide is startling as is the knowledge of realizing what was "going on down there", what was to come, and what was not regarded with importance. What does the bombed-out rubble of Cologne feel like after a devastating saturation by bombers, where the of forty-one cubic yards of rubble per citizen—dead or alive—and the death toll of nearly 35 000 were second only to the bombing of Dresden (56 cubic yards per person; upwards of 100 000 killed) in February 1945 (Irving 1963: 211)? Neither is given much emphasis by TARA and that is the problem and this is a large part of the fascinating and affecting aspect: the reverence and awe of *not* being there, of relief from the historical load of these images present. Following Paul Virilio's recent writing on the intersection of art and fear, the exhibition plays on the perception and remote experience of our worst cultural fears. The displacement of sympathy for the induction of awe and an easy surplus of gratification is troubling and dangerous. Further, as Maurice Blanchot attests, anytime one attempts to "write the disaster", to transmit and communicate the trauma, one is left with only the text that can possibly and inadequately become

"written", an exercise in abstraction that is unable to express that phenomena it attempts to fix.[68] Here the legible "writing" is the collection and, of course, that is the very disaster itself: the impossibility to approach war-time suffering, trauma, and loss of the absent experience.

TARA explicates a tension between the preferred and intended institutional and cultural role of the collection as a safe, sanitized object for public historical commemoration and its status and function as a set of miniature, schematic operational diagrams exhibited to memorialize the war by obfuscating and effacing the real terms of visceral, messy devastation and destruction. The archive implicitly activates questions of not only of war-related knowledge but of transmission and inheritance of what is spectacle, what should become revered, what *should* stir our emotions and our affect. Yet, as such, TARA enables a process that places emphasis on the catastrophe as spectacular, plying a logic of the aesthetic exhibition of things—the trauma of messy destruction below—that stirs collective cultural fears most intensely. TARA activates the legacy of technical implements of destruction, claiming and enabling them to stand-in as a potential cultural commons under the rubric of monumental and aesthetic experience. The collection, as a set of solicitations "blasted" from the past, is transformed into a culturally contextualized text that slides to a monument. Emerging from archival obscurity, the solicitations "sonorize" (Virilio 2003: 58) the domain of war-time history with another level of discursive noise dictated by the politics of dominant heritage. Rather than "speak" in silence, the archive is the hinge for a monumental publicity project, its documents now a monument.

Yet, ironically, the online archive refuses the traditional public, refuses the agora, the outside, the external lifeworld as opposed to an internalized interior private. The private terms of encounter offered by the address of virtual TARA invites interiority and access; its

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[68] See Blanchot (1984), *The Writing of the Disaster*.

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quasi-public character is facilitated further by its personal and private terms of access via browser interfaces, web technology, and the intentions and desires of visiting virtual users, who become the unwitting cultural citizens, who validate this return to the archive as a cloistered space of a different kind. Yet, the divergent requirements of the traditional public is now further splintered and difficult to assess in the context of virtually mobile and privatized technologies and practices that problematize notions of mass historical consciousness and participation. Further, "access" is contingent on an asymmetrical source of supply by the organ tasked with the "doing" of heritage; censorship, in governing what is safe to show, shifts toward a disposition of transparency, of allowing for an archive that is present and permanent but altogether disposable to the whims of trends in public and visual culture. The hegemony of the state apparatus in the case of TARA is apparent: it has incorporated and filled another available public frequency.

Like the photographs in TARA, the archive itself is no unmediated eye to the past; it also struggles, in its material assembly and conceptual constitution, against the threat of the operational logic offered by the Web environment and the logics of a deregulated and intertextual symbolic cultural economy. Further, the archive itself is never just simply a representation of something, serving as a buoy floating in discourse; TARA is designed to become an encounter of a new physical reality of memory and heritage, a technology of memory outstripping the experience of memory. It monumentalizes historical and culturally-mediated practices of looking and seeing in a contemporary context. Artifice and artificiality, then, is always the beginning of any notion of an *authentic* memory practice, be it in Nora's lived environment or as a decomposed, site-specific rendering of that past. Bukatman writes that the power and pleasure of encounter derives

from these entertainments as if they were real. Visual spectacle provided reassurance in the form of panoptic power—the human subject was, after all, capable of perceiving and comprehending the new conditions of physical reality through the projection of an almost omnipotent gaze out into the represented world. (Bukatman 1997: 255)

This physical reality, as desired by the purveyors of accounts of heritage as refracted through the historical events of the collection, is a opaque thing; TARA offers a confrontation of sorts with its monolith construction, a monument fixing and signposting the way to commemoration and proper history.

The adequacy of images in the collection to anchor some ideal participatory public heritage endeavor supplants the ability of those same images to labour otherwise: thus, the archival legacy and its exhibition is also a consequence of power. Heritage is regulatory in this context, the governing of a repository that functions as "History" in an engineered, pseudo-public venue. With this kind of cultural authority to administer perceptions about the war, the archive is a symptom of control, a molding that is open and available. This notion gains increased relevance in the context of the current debacle in Iraq. The so-called "evidence in camera" magically inherent in American reconnaissance images provided the justification and pre-text for invasion and war; Colin Powell's arguments to the United Nations was indeed the parasitic addition of words to visual text, the act of conjoining an interpretation to images in order to operationalize them in a charged political and global context. Powell's staged performance stands as an act of supply: as an orchestration, it was one component, one logistical aspect in the larger symphony of administering militarized practices and perceptions. Globally exhibited, the hazy images of structures and features were images of the world below inscribed *with* war in a display that most now realize and understand to be a lame and ridiculous method of legitimizing the initiation of the series of messy events now underway.

Steven Shaviro attests elsewhere that interpretation is a means for mastering of

trauma (Shaviro 1989:3), a method for affixing of specific significance to something based

on an index of meaning. Trauma induces the hermeneutic impulse. The process of

encountering TARA is an exercise in writing oneself into the war and a scale of trauma that

is alienating and exotic and simultaneously awesome and inspiring. Yet, what TARA includes

and excludes in its parameters as a point of departure for commemorating the destruction

and devastation of the war remains its most salient feature. The self-congratulation TARA's

own administrators bestow upon themselves for providing *what ought to matter* for re-writing

the terms of the massive and multiple limit-event of the war that is shortsighted. The five

million photographs are not comprehensive renderings but a selective, retained batch of

what is only a sliver of what occurred under the rubric of total war: the supply, the cultural

logistics of perception of the memories of the war is essential. The claims that cite the

authenticity of the collection de-emphasize the politics of investment in a consistent and

habitual cultural recourse to technologies like the archive—and, now, the Web—in order to

participate in some common legacy and heritage using technological prosthetics at a

historical distance. The abjection and induction of trauma cues a hermeneutic rendering that,

ironically, is ignorant because of the very surveying relief provided from above

The permanence of the collection is far from solid. Its enduring value to anchor a

signature of the history and memory of the war, though, is amplified in proliferation and

dissemination, whether it is encountered or not. The opening of the archive sheds light on

the past and on the terms of constituting how cultural heritage is mediated, stipulated, and

construed. The process of exposure, like light on film or light reaching the archive's shelves,

now produces the archive as an electronic and industrial function of light. This "new"

release is a confession of sorts: an illumination of safe materials and a legacy of an optics that

anchors a redemptive approach to trauma invoked by way of a set of images now

undergoing a sort of political transubstantiation. Its indirection, though, to any number of

audiences or viewers or preferred users suggests a strategy of colonizing an area or

geography of heritage from a distance. The diagrammatic reliability of TARA's photography

is a visualization of light-based data. Much becomes apparent but much has not, does not,

and will not.

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