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**THE RHETORIC OF THE REGIONAL IMAGE: INTERPRETING THE
VISUAL PRODUCTS OF REGIONAL PLANNING**

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Texts and Technology
in the Department of English
in the College of Arts and Humanities
at the University of Central Florida
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ABSTRACT

The Rhetoric of the Regional Image: Interpreting the Visual Products of Regional Planning investigates the manner in which visual conventions and visual contexts of regional visioning scenarios affect their interpretation by urban and regional planners, who use visual communication to meet the technical and rhetorical demands of their professional practice. The research assesses Central Florida's "How Shall We Grow?" regional land use scenario using focus groups and interviews with planning professionals, a corresponding survey of community values, and rhetorical analysis to explore the "How Shall We Grow?" scenario as persuasive communication. *The Rhetoric of the Regional Image* proposes specific recommendations for technology-based visual communication and scenario development in urban and regional planning practice, while contributing to literature in technical communication and rhetoric by examining planners' professional communication within their discourse community.

I dedicate this work to my husband, Anthony Torres, for his unconditional love, support, inspiration, and for the advice he gives me “speaking as one artist to another,” and to our children, Alana Torres and Marley Torres, for their love, humor, stories, talents, and our soccer games in the house.

I also dedicate this work to the memory of my mother, Jerie Barber—there are no other words for that.

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I am grateful for the following things that kept my mental health in shape toward the end of my dissertation: the ESPN SoccerNet and Football Weekly podcasts, the long-awaited FIFA World Cup 2010 in South Africa, and my beloved FC Barcelona. During this long campaign, *ens hi hem deixat la pell*.

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INTRODUCTION

With this dissertation project, I propose to place urban planning and technical communication literatures in conversation to assess the manner in which visual conventions and visual contexts of regional visioning scenarios affect their interpretation by urban and regional planners, who use visual communication to meet the technical and rhetorical demands of their professional practice. Technical communication has a diverse literature, ranging from workplace communication assessments within specific professions to complex studies of communication practices across networks and organizations. While professions that contribute to placemaking and the built environment, like engineering and architecture, are represented to some degree in that literature, urban and regional planning is an unexamined profession worthy of similar theoretical scrutiny. Similarly, technical communication literature does not include extensive study of the visual communication practices within professions, focusing research efforts primarily on textual and verbal communication. As planners' work centers on the creation and evolution of built and natural environments, my assessment focuses on the manner in which these places are created, interpreted, and replicated in the visual practices of the profession.

In examining this profession, I use a project that represents emerging best practices in urban and regional planning—regional visioning, in which community members work with planners to develop and depict a regional-scale “future place” that represents the ideal articulation of community goals. Visioning processes have been an important

aspect of public participation in local community planning process for decades (Myers and Kitsuse 222-224; Helling 335, 344). However, it is now a best practice to address important elements of community planning at a regional level (Alpert et al. 143), although corresponding evaluations of regional planning are not represented in the literature. For my dissertation research, I will focus on the visual communication used in Central Florida's "How Shall We Grow?" project, which included seven counties in a regional visioning process, through investigation of how planners who must help to implement regional scenarios truly interpret them.

Urban and regional planners need regional scenarios to function effectively as visual and technical communication, as they are intended to be used as templates to evaluate proposed changes in land use at a local level that "add up" over time to the regional scenario. (For example, local government planners are in the position of evaluating and making professional recommendations on developer and landowner-proposed changes in land use from rural areas to single family housing or commercial shopping centers.) In essence, scenarios act as "instructions" to communicate a future place and corresponding community values at a regional scale to a changing audience of planners over time. This process helps facilitate the evolution of the physical place to the desired "future place" envisioned by community stakeholders.

To explore this dynamic, I am adapting the methods of Kevin Lynch, who interviewed residents of three cities to determine their "image of the city" (Lynch, *Image* 15). As

Lynch explored residents' "mental maps" of their communities, my research will determine mental "images of the region", or visual contexts, among planners implementing a regional visioning scenario. As planners work both individually and in groups to make visual interpretations in their professional practice, my research uses both individual interviews and focus groups to reflect these conditions in planning practice. I also will use rhetorical analysis to address scenario themes and assess the degree to which the "How Shall We Grow?" reflects community values defined during the project to draw conclusions about its ability to communicate technical and policy information.

While visioning may be regional, implementation is always local, conducted by myriad local governments over a period of years and involving numerous individual land use decisions. The coordination of these decisions on a regional level is critical to the success of regional visioning and planning efforts, but the geographical interconnectedness of these areas is not enough to ensure the required level of coordination (Alpert et al. 148). To ensure the eventual success of regional visioning, it is vital to understand the manner in which the visual communication used in these regional processes affects their "translation" and implementation at the local level by the planners tasked with this role. I will use the "How Shall We Grow?" regional visioning scenario to outline best design practices and evaluation methods for scenarios as visual and technical communication, while addressing rhetorical considerations in planning from a visual perspective.

Planning practice requires a deeper understanding of the implications of technical and visual communication to facilitate the design and implementation of regional visioning projects that become local ones more easily and successfully. This work offers the opportunity to apply the work of diverse theorists that are part of the Texts and Technology program within the broader framework of what often is characterized as “digital humanities.” Within this arena, technical communication theory offers many resources that aid that understanding of scenarios as information artifacts. At the same time, this engagement offers technical communication theory new territory for its critical focus on visual communication, service learning, and rhetoric, while expanding research into visual communication practices of a profession and discourse community. The rhetorics and poetics also represented in Texts and Technology theory inform this work, based on its focus on technology within the realm of professional communication and its exploration of poetics as a method to solve applied community problems. Regional visioning processes have various practices of composition, invention, and argumentation within a rhetorical context that are of interest within a Texts and Technology framework, involving larger questions of how knowledge is organized, condensed, and produced, mediated by technology.

CHAPTER 1: INTERPRETING VISUAL PRODUCTS OF REGIONAL PLANNING

To provide context for the materials used in my assessment, in this chapter, I define relevant urban and regional planning concepts and demonstrate the growing importance of regional visioning processes to the practice of planning in the United States. I introduce the central argument, theory, and research methods comprising the dissertation, and I describe its focus on regional land use scenarios, which often are used in regional visioning processes to represent the outcomes of policy alternatives in the natural and built environments for a designated horizon year or years (Hopkins and Zapata 9). In this light, I introduce “How Shall We Grow?,” the Central Florida regional visioning project that is the foundation of this research. (It is important to note that this research includes a distinction between regional visioning “projects”, a scheduled series of events that culminate in scenario acceptance, and regional visioning “processes”, which are intended to include the project and the subsequent implementation to varying degrees over a period of years.) Finally, I critically assess the adopted “How Shall We Grow?” scenario, called “The 4C’s”, in the context of existing literature on scenario development and application to create a framework for analysis later in this work.



Figure 1: Cover Detail, How Shall We Grow?: A Shared Vision For Central Florida, Final Report.
Source: myregion.org.

Planning processes, like regional visioning processes, often are comprehensive and long-range in nature, taking many years to bear fruit. This prevents a thoughtful assessment of their successes for some time. In this light, while I discuss several aspects of stakeholder dynamics in this chapter, I do not attempt to determine whether “How Shall We Grow?” was successful in achieving overall project objectives or in affecting planning documents or processes in Central Florida over the long term. The scope of my analysis is confined to Central Florida’s urban and regional planners’ interpretations of the “How Shall We Grow?” visual communication to determine its potential success in articulating community values for implementation by this same audience. However, I do note issues of concern with the project’s process relative to the creation and implementation of its visual communication later in this chapter.

Research Methodology

Research Questions

The central research question of my analysis is how the “How Shall We Grow?” scenario’s visual conventions and contexts act as technical and rhetorical communication to urban planners. In this setting, visual conventions are defined as the visual design and symbology that that organize or communicate meaning within an image to a discourse community (Kostelnick and Hassett 16, 23-24). Visual contexts are defined as the mental contexts that affect the image or perception of place by an individual (Lynch, *Image* 15). Investigating this research question illuminates the scenario’s use in practice as a visual artifact with a variety of communicative effects.

In investigating this question, related questions also are integral to my analysis. How do scenarios help planners facilitate the regional place envisioned by the regional community, and do the scenarios express the community’s values determined during the regional visioning project? Is a regional sense of place or identity creating visual contexts that affect planners’ interpretation of scenarios? What alternatives to a two-dimensional scenario image could be considered to better communicate community intent and values? These related questions also inform my analysis, which incorporated focus groups and interviews to observe scenario use "in practice", rhetorical analysis, and comparison to the community values survey associated with the project, all to see how scenarios work as visual "instructions" to create a future place.

Research Methods

Scenarios only can function as persuasive and technical communication if they can easily be interpreted by their intended audiences. My research incorporates “How Shall We Grow?” as a case study, as this method is well-established in planning and social science (Fischler 185-187; Healey, *Urban* 9-10) to investigate these dynamics among urban planners as an intended audience and discourse community. Based in part on this choice of audience, my focus group and interview questions incorporate the themes from Kevin Lynch’s *The Image of the City* to see how planners situate themselves within the scenario, how regional-level imageability and visual contexts are communicated, and how the scenarios are embedded with information conveying corresponding community values.

Lynch’s important work in planning and urban design, also influential in environmental psychology and a host of other disciplines, involved focus group interviews and the creation and review of mapping products to investigate the “imageability” of Boston, Los Angeles, and Jersey City (Lynch, *Image* 140-145). Lynch conducted his research project by working with teams of graduate students to interview community residents using a questionnaire, then asking the residents to draw maps of their communities. Lynch compared these maps to maps of the cities’ urban form created by teams of graduate students trained in urban design and planning. This review compared the residents’ community-based knowledge and place identity to note common elements

between maps and what residents' considered distinctive enough about the urban form of their cities to include within their own maps, which Lynch was using to define and apply typologies of urban form. The research included interviews of 15 to 30 residents in each city and their participation in the mapping exercise.

From this research, Lynch defined "imageability" as certain qualities in the physical environment, such as "shape, color, and arrangement", that create "identity and structure in the mental image" (*Image* 9). Several planning theorists have extended Lynch's work and provide themes and methods relevant to my research. In using Lynch's *The Image of the City* as a critical lens within planning theory, Neuman argues for debate about the place for images in the governance of regions, presenting the "image of a future physique of the city in the form of a land use map...representing the city and being the focal point of the institution of city planning" ("Planning" 61, 63). Neuman outlines the relationship between the physical place and its corresponding image within planning functions (Figure 2). At its essence, Neuman's argument is for a return to planning's historical roots in the mapped image as part of a more sophisticated visual practice within critical theory of planning communications, rather than its recent focus on verbal discourse and Habermas (Neuman 65-68).

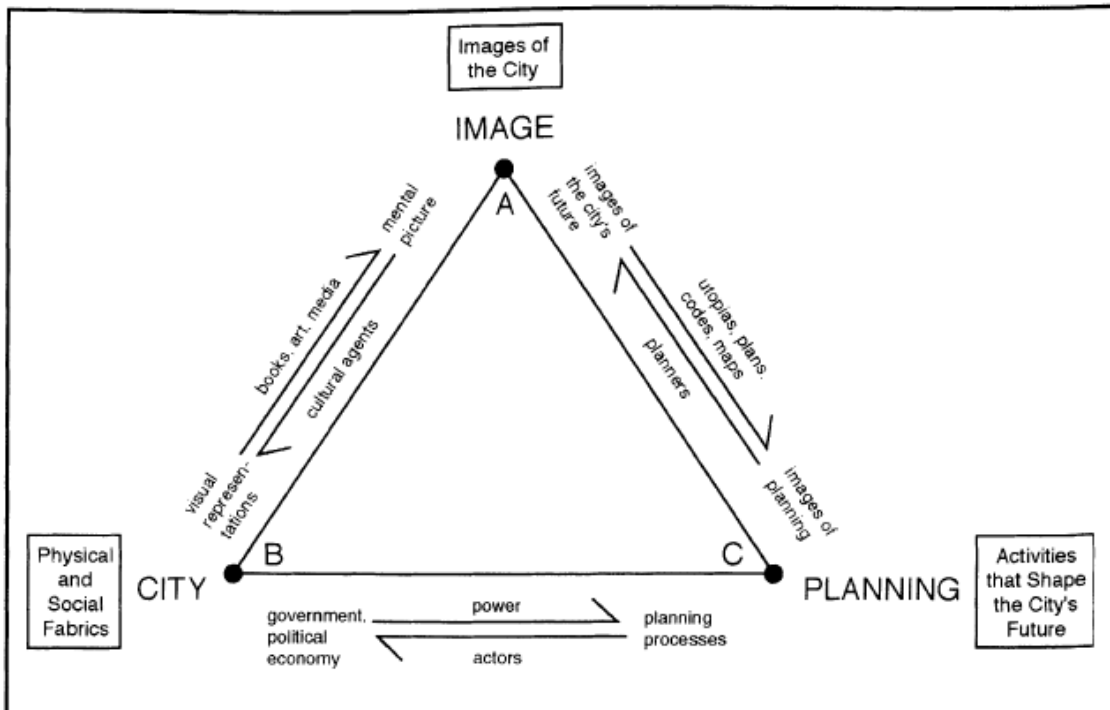


Figure 2: Images of the City as Defined by Neuman.
Source: Neuman, "Planning" 64.

Lynch's influence has not made *The Image of the City* and its methods immune from critical consideration. Low and Altman have characterized the evolution of research on place as becoming increasingly accepting of phenomenological approaches embracing subjective experience, which were not always viewed as productive research methods amid the positivist approaches of the time (2). In a similar vein, Lynch's methods have been viewed by some social scientists as not including enough participants for generalization and validation in the social science tradition, which often is where planning research is situated. Lynch himself acknowledged this concern in a

contemplative essay he authored 20 years after *The Image of the City's* publication, noting "we asked people what came to their mind about the city, and to make a sketch map of it, and to take imaginary trips though it,...to describe its distinctive elements, to recognize and place various photographs, and (with a smaller sample) to go on actual walks with us" ("Reconsidering" 152). I note with interest that these methods may have met with concern in a social science environment, but parallel the research and pedagogical methods of the Florida School guided by Ulmer, which I discuss in Chapter 2.

In essence, Lynch characterizes the criticisms of *The Image of the City* as relating to sample size, methods, and urban design's later turn to scientific methods, but asserts these concerns have been discredited by the similar findings of the many similar studies conducted in his wake ("Reconsidering" 153-157). Regrettably, the evolution of a city image and the holding of multiple images are needs not addressed in his work and subsequent studies, and those concepts are particularly relevant to a regional scenario that will evolve over a period of decades. However, Lynch's insights and typologies have had a decades-long influence in planning and urban design and continue to resonate today. In this light, I adapt his methods in my research design, even as they may be subject to the same concerns about methods and as constraints in scope and application prohibit the full replication of his methods.

Research Design

In contrast to the methods of Lynch, who primarily focused on residents of particular cities with no training or expertise in policy, planning, or the built environment, my research is focused on planners as the technical audience for scenarios to provide insights into the design practices and visual conventions most relevant to planners' use of scenarios within their discourse community. My research is comprised of several elements, including focus groups of urban planners, interviews with urban planners, comparison of their interpretations to a community values survey, and visual and rhetorical analysis using a heuristic from Healey (*Urban 209*). Focus groups contribute specific recommendations for effective information design of visioning materials and products, taking into account Florida's context for planning and growth management and the regulatory role and interests of affected local governments. Focus groups mirror the group decisionmaking and review processes that are an aspect of planning practice in larger planning agencies, while interviews simulate the individual consideration that takes place in smaller local governments, which often have one person conducting planning functions.

Focus groups and interviews also provide insight into effective practices of visual representation to convey community values through comparison of participant responses to an independent study of community values for the "How Shall We Grow?" project. Harris Interactive, Inc., conducted the community values study, titled

Envisioning the Future of Central Florida: Building on the Personal Values Underlying Growth (Values Study), in August 2005 for myregion.org, the organization that conducted “How Shall We Grow?.” The Values Study provided an objective heuristic for evaluating scenario outcomes, as it defined several values as indicators for community preferences, yet stands independent of the scenario development and community rating processes. Both the interviews and focus groups of planners asked participants to characterize their responses to scenarios in the context of community values noted in the Values Study.

The research design incorporates human subjects as participants, which required approval from the University of Central Florida’s Institutional Review Board (IRB). The IRB reviewed the research design protocol and all project materials, including recruitment flyers and consent forms for participants. The IRB approved all protocols and materials on March 9, 2010, issuing IRB Number SBE-10-06785 (Appendix A).

I responded to all inquiries from potential participants by forwarding an IRB-approved Consent Process form (HRP-302e) documenting the research and its responsibilities in more detail, including a \$10 honorarium for participation. Eligibility for study participation only required that a participant be employed as an urban and regional planner within the seven-county “How Shall We Grow?” study area. Participants were enrolled on a first-come, first-served basis. This sample was not supplemented with stratified sampling or

other qualitative research techniques, based on resource constraints discussed in the next section of this analysis.

I recruited urban planners as research participants using several methods. I distributed study recruitment materials approved by the IRB (Appendix B) to the Orlando Metro Section of APA Florida. APA Florida is the state chapter of the American Planning Association, the national association of urban and regional planners in the United States. The Orlando Metro Section membership comprises planning professionals in Lake, Orange, Osceola, Seminole, and Sumter Counties. “The How Shall We Grow?” regional study area is comprised of Brevard, Lake, Orange, Osceola, Polk, Seminole, and Volusia Counties. The Orlando Metro Section membership includes several of the “How Shall We Grow?” counties, and the exception, Sumter County, accounts for fewer than 20 of the over 500 members of this organization. For this reason, recruiting from their membership is considered a viable means of obtaining a sample population, albeit a relatively small sample that relies on convenience, due to resource constraints.

APA Florida representatives published study announcements on the organization’s website and in a broadcast electronic mail newsletter sent to all members. A member of the APA Florida board of directors who also serves on the board of directors of the Florida Planning and Zoning Association (FPZA) local chapter published the announcement in the FPZA newsletter (Appendix C) and announced the opportunity to participate to attendees at an FPZA luncheon event for members. Finally, I sent portions

of the approved study recruitment flyer as an electronic mail message through LinkedIn, the social networking service, to 21 urban planners at public and private agencies in Central Florida inviting participation in a focus group or interview.

My research included five individual interviews with urban planners, and the total number of interviewees was largely contingent upon response to the recruitment announcement. Each interview lasted approximately one hour and took place through face-to-face meetings with participants, so that planners could be observed in interaction with the scenario document and to ensure consent was appropriately obtained. I arranged interviews at locations proposed by or convenient to the interview participants, which included two different restaurants, a conference room, and a participant's home. I did not conduct any interviews in participants' workplaces to avoid compromising their privacy. I also did not collect participants' names at focus groups or interviews for privacy, and responses or comments cannot be attributed to participants by name, only coding number.

My research design included two focus groups, one with five planners participating and the other with four planners participating. As a neutral location not associated with the "How Shall We Grow?" project, the Central Branch of the Orange County Public Library served as the focus group location. The library branch is conveniently located in downtown Orlando with accessibility to Interstate 4, State Road 408, bus transit, and

parking for participant convenience. Conference rooms are furnished with tables and chairs that were arranged to help engage each participant and to facilitate audiotaping.

During the two focus groups and all interviews, I facilitated participant discussion and scenario review using a script that asked participants to give open-ended opinions and to conduct user-centered design “tasks” of visual identification. Participants were asked to note landmarks of their choosing that may be identified within each scenario.

Participants also were asked their perceptions of each scenario relative to the values communicated. As a resource, the script was influenced by Lynch’s detailed script outlined in *The Image of the City* (141-142), used to great effect in his original research.

To enhance dialogue in both interviews and focus groups, participants viewed the scenario in situ within the “How Shall We Grow?” report, printed by myregion.org in full-color bound copies. This design choice allowed me to observe participants interacting with the codex and to avoid projecting scenarios on a screen and diverting attention elsewhere. Facilitation allowed participants to suggest additional values as part of open-ended questions as not to “direct” responses and to promote dialogic review of scenarios among participants. The research design includes both focus groups and individual interviews to reflect conditions in planning practice, in which an urban and regional planner may be interpreting scenarios individually (especially working for smaller communities with planning responsibilities assigned to one person) or in group settings, such as within larger planning agencies or within a network of professional

associates. These exchanges within planning practice help to create and evolve the rhetoric of the regional image, born of hundreds of small decisions and interpretations through time.

Limitations and Constraints to Research

Like many research projects, my research was subject to resource and design constraints. Primary among them is its regional focus, as the place literature and Lynch's own work reflect that place concepts largely are influenced through direct experience with the place, which is difficult to replicate and investigate on a regional scale. A broader-scale research project would incorporate several components of participant discussion and interaction with scenario documents, perhaps in different geographical areas of the region.

Another constraint is the small sample size of urban planners that were recruited to review the scenario. Within the planning field, Ewing describes empirical thresholds in image-based research using the Visual Preference Survey™ (VPS), a process of evaluating design options through visual review of photographs that Ewing notes may involve as few as 15 participants for valid testing, although 50 to 100 participants is the norm (Ewing 271, 278). These findings bode well for the research design and testing protocols, as available resources and the geographic extent of the "How Shall We Grow?" region precluded more extensive testing within my research project.

However, the “mixed methods” approach also brings some compromises in measurement and relationships among methods, in that the research contexts are not exactly similar, but feedback is obtained on the same inquiries and combined. Research participants are not assumed to offer the same responses independent of whether they participated in a focus group or interview, but sample sizes are far too small to be able to definitively sort and extrapolate responses based on method of participation or to conduct cross-tabular analysis of responses compared to participant characteristics. Both methods are included to simulate conditions in practice, but more research in both focus group and interview settings with much larger sample sizes would be required to draw conclusions about the implications of each method.

Relative to the scenario’s ability to communicate community values as a research element, the Values Study is considered in this context to represent the expressed values of community participants in determining whether or not scenarios communicate values effectively, as the study was part of the overall “How Shall We Grow?” project. The professional quality and sampling sizes of the Values Study are appropriate for consideration in that context, but it is possible that the public’s values may have changed in the five years since the study was completed, especially in light of local recessionary conditions, high rates of housing foreclosure, high unemployment rates, and lower rates of population growth in recent years. Similarly, mobility rates of residents moving within and moving to Central Florida are both in decline, and residents

are staying in their communities longer. While resources are not available to independently test current community values within the scope of this analysis, I would recommend myregion.org, as part of their continued implementation of “How Shall We Grow?,” update the Values Study to determine the longitudinal effects of current trends.

Another resource constraint relative to community values is the limited number of primary sources available for discourse analysis of individual responses. In the research design, I considered discourse analysis on the few sources available in the Values Study, but the uniformity of these sources suggested these text artifacts were shaped by the specific survey instrument, which was not available within the Values Study. This is a particular concern with the inherent limitation of public participation on a regional level, the difficulty of ensuring representative input from community stakeholders. Textual analysis would be helpful to supplement and structure assumptions about values embedded in scenarios.

However, it is difficult to examine layers of complex features, like personal and community values, simply from that process if inputs are controlled to the extent they were in the “How Shall We Grow?” process. Myregion.org, in their public participation efforts, has claimed to receive input from over 20,000 stakeholders. At the same time, many of these inputs were votes received on scenario options through various electronic means, as opposed to more complex opinions and value statements. To offer a contrasting example of methods, the visioning project Imagine Manatee, conducted in

Florida's Manatee County, captured participant ideas directly through an online feedback form, collecting an inventory of over 2,000 ideas and opinions. While more resources are needed to collect and analyze responses with this approach, it offers richer and more complex information about community values and more direct public engagement with the process in the manner recommended by Arnstein (217-222) and would be an ideal component of any updates to the regional visioning project or design of future projects.

Finally, Vorkinn and Riese (255) note the difficulty of conceptualizing place attachment, an aspect of the visual context of planners, in the measures used in quantitative surveys. In their own research, gender, age, education, occupation, household size, income, and other standard sociodemographic questions were supplemented by asking if the respondents were born in the municipality under study and, if born elsewhere, how many years the respondent had lived there (Vorkinn and Riese 255). Vorkinn and Riese note place attachment develops through individual experiences with a place and may not be an important factor on a regional level (261), but years of residence and individual experiences with place are included in participant pre-test surveys to discern the information recommended in this literature.

Interpreting the Regional Image

Regional Visioning Defined

In 1984, Gianni Longo, a planning consultant, conducted the first visioning process in

Chattanooga, Tennessee (Shiple and Newkirk 409), setting the stage for a new planning method that would see wider use with each passing decade. Beginning in 1986, visioning increasingly appeared in the planning literature, but with little definition and no critical analysis (Shiple and Newkirk 408-9). Grant defines visioning as using a participatory public process to determine community participants' goals and desirable community futures (41), and I use this definition in this analysis. Since its inception in the 1980's, regional visioning has emerged as a key land use planning strategy (Avin 104, Friedmann 253) in fast-growing areas of the United States, as represented by Envision Utah, Sacramento Region Blueprint 2050, Reality Check Plus: Imagine Maryland, and Atlanta's Vision 2020, among other regional visioning projects (Moore 19, 31; Avin 105 ; Helling 348).

Regional visioning processes often involve the construction and discussion of a series of regional land use scenarios, which depict the arrangement of areas of future land development and conservation to represent potential future land use, transportation, environmental, and other planning and policy options. Taking the appearance of "maps" of the future place, scenarios then are used as a dialogic tool to identify and represent community preferences during the course of a regional visioning project. Often, at the end of a regional visioning project, community residents select a preferred scenario that represents their goals and preferences developed and articulated during the visioning project.

It is important to note that assessments of “regional” planning are complicated by the variety of scales and jurisdictions seen in “regions” across the United States. While there are over 3,000 county-level governments in the United States, their geographic extents are highly variable from state to state. The seven Central Florida counties comprising the “How Shall We Grow?” project’s region are Brevard, Lake, Orange, Osceola, Polk, Seminole, and Volusia. These counties comprise a total of 9,010 square miles, including 7,485 square miles of land area, larger than the states of Connecticut, Delaware, or Rhode Island (U.S. Census).

However large the regional area defined, scenarios created in regional visioning processes act as “roadmaps” to a community’s preferred future outcomes (Hopkins and Zapata 9) and, ideally, would guide subsequent land use decisions on the part of local governments that implement regional visioning. This implementation of regional/spatial planning at different scales throughout the region over time invests the community’s preferred land use scenario with enormous weight as a visual product and “keeper” of this vision, but the specific meanings and interpretations attributed to these scenarios by multiple stakeholders are not well-understood. In this context, the scenario embodies a set of community directives and values, while simultaneously being situated in and furthering a mental image of the place represented.

Conducting a Regional Visioning Project

Across the United States, regional visioning projects naturally will vary in their specific design, based on community goals, specific areas of focus, and other variables.

However, to provide structure for the discussion of “How Shall We Grow?” regional scenarios, I will provide some general guidelines as to the structure of regional visioning projects, which share many principles with visioning projects for smaller geographical areas and “best practices” for involving the public. It is interesting to note that the design of regional visioning projects may vary widely, although the Urban Land Institute’s “Reality Check” regional visioning projects have been conducted in a number of U.S. cities and reflect a more standardized method. In describing these projects, my perspective is based on practical experience with visioning projects over my 15 years of experience as an urban and regional planner working in both local and regional projects, as well as my limited participation in the “How Shall We Grow?” project. (To disclose the full extent of my personal involvement in the project, I attended one community meeting, at which land use preferences were discussed and partially defined by attendees, and I was a member of the Technical Committee for the project. The Technical Committee provided input regarding project design and methods, selection of data indicators, and analysis using Geographic Information Systems.)

To start a regional visioning project, interested stakeholders, such as business organizations, local governments, or community residents, organize themselves and

define an area of interest to develop related regional goals, policies, alternatives, and evaluation criteria (Avin and Dembner 25). Often, the boundaries of interest are debated, as community and regional boundaries may not be clearly delineated or exactly shared by consensus unless part of a political subdivision (ex. a collection of counties with geographically-mapped boundaries). Once formed, this region becomes the subject of data collection and analysis, often termed an “existing conditions” analysis, which is presented either to define problem statements with community participants or to present why problems were defined as such by organizers. Myers and Kitsuse, in their analyses of future-oriented scenario-based planning, characterize this stage of data development as helping define policy alternatives, while providing “underlying themes for project components and narratives” (223), an apparatus both for understanding the project and defining the range of allowable outcomes. These policy alternatives, based on community values and opinions, then are applied to scenario development to create scenarios that reflect discrete policy choices (ex. the extent of land development or environmental preservation).

Concurrent with or immediately after data development and analysis, regional visioning projects begin an extended phase of public outreach and involvement. This may take a variety of forms based on project design; while community meetings or workshops are standard throughout projects, the number of meetings and the design of feedback exercises are not standard. Project organizers invite residents to participate in the

series of community meetings and/or workshops through media promotion, direct mailing, and/or other means. Also, some projects include community stakeholder committees (e.g., community association representatives and residents), policy committees (e.g., elected officials), and/or technical committees (e.g., agency and local government representatives). The “How Shall We Grow?” project incorporated a Policy Committee and a Technical Committee. With this context in place, I now turn to discussion of how scenarios are created in regional visioning projects.

Creating a Regional Scenario with a Community

Regional visioning projects may feature several vehicles for community resident input, such as participatory discussions in large-group assembly, small-group facilitated brainstorming of policy goals and alternatives, and/or voting through shows of hands, electronic keypad polling, or online balloting. For the development of regional land use scenarios to represent policy alternatives, activities include mapping exercises, for which participants may use stacks of Legos, “dot” stickers of various colors or colored “chips” (Moore 31), and/or annotations and notes to depict areas on regional maps where the participants would like to see new development and population growth concentrated, natural areas preserved, transportation systems developed or improved, and/or other aspects of future community growth and change. Relevant stakeholders constructing the scenario may include local elected officials, local government urban planners, business and development interests, homeowner associations, civic groups,

and community residents, all likely with different and often competing interests. As technical communicators in practice, urban and regional planners must interpret and apply the community's policy "instructions" as they emerge from various types of participant "brainstorming" sessions, group interactions, and scenario mapping exercises during these projects, which often involve one or more iterations of scenarios for community response and revisions.

This development and iteration involves consolidating diverse community feedback about values, current or future development, environmental preservation and myriad other topics into land use scenario graphics. This feedback also varies from crude visual representations created by community participants, written comments on evaluation forms, and participant dialogue. All of these utterances are consolidated visually in draft scenarios for representation of a future place, often aggregated or mediated by Geographic Information Systems, Adobe Photoshop, and/or other technologies. From that point, draft scenarios often are presented to the participants for comment and revision in a dialogic process. After revisions and at the end of the scheduled regional visioning project, a preferred scenario often is selected to represent the participants'—and by extension, the community's—preferred future community.

One can imagine an observer of these projects might react with disbelief to the idea that this dynamic can create a credible scenario that represents the will of hundreds or thousands of people participating in various forms in a regional visioning project. Harvey

describes planning's evolution from modernist philosophies to a distributed network of pluralistic strategies, rather than on one large-scale plan (40,66), while noting the difficulty of remaining in postmodernity's fragmentary and discontinuous states (44). I surmise this difficulty is compounded by the variation within regional visioning project designs. For example, the iteration of scenarios may be more limited throughout the process, creating merely one major revision of scenarios and more pressure to "get it right the first time". Methods of compounding the "dots" or "chips" placed by residents on maps are different, ranging from planner or analyst judgment in interpreting and placing features to various statistically-based methods applied within the perceived neutrality of Geographic Information Systems software (e.g., Inverse-Distance-Weighting and kriging for scatter point or surface analysis). Finally, there is an inherent difficulty in capturing and visualizing three-dimensional places in the two-dimensional realm. In sum, these projects require some "suspension of disbelief," compression, technical manipulation, and potential exclusion, and I explore several of these issues in more detail below.

The Visual Products of Regional Processes

Regional Visioning Products

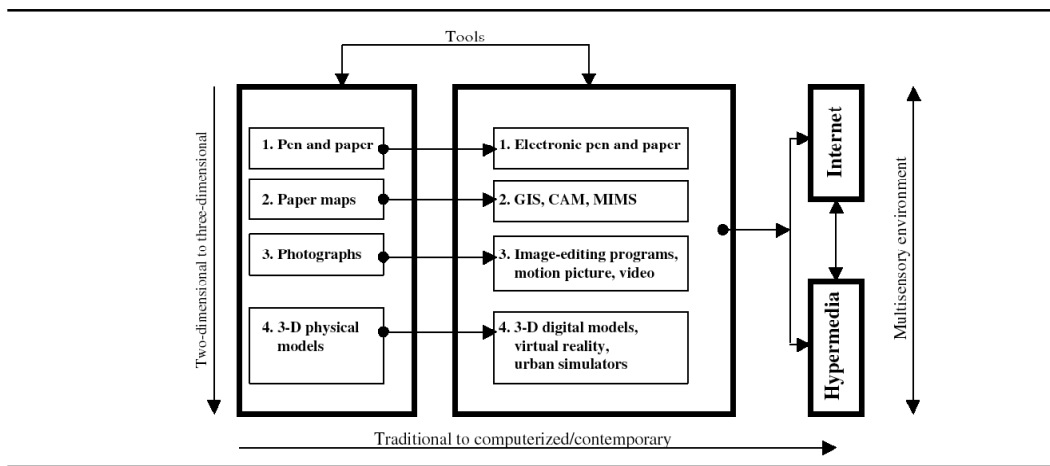
The "How Shall We Grow?" scenarios embody many intentions in the placement of dot stickers on maps by community participants, which coalesce into meanings carried throughout a regional visioning process. My research focuses on visual communication

in regional visioning projects, while acknowledging that the scenarios are found within a framework of these text products. Regional visioning projects' text components often feature guiding principles, detailed policy guidelines, scenario titles intended to convey "branding" of each as a distinct concept, and accompanying background or overview documents. The documents may include technical information about the community's issues, growth trends, or demographics. Project descriptions and implementation tasks also are components used in planning and regional visioning projects.

However, the scenario often "fends for itself" in an iconic manner, with only the title accompanying it, based on inherent space and design limitations of the online and print media in which it is presented. At times, the scenario is presented without a legend interpreting the scenario's visual language, an additional constraint. Once chosen, a regional scenario does not evolve or adapt visually, but continues to be presented in an iconic manner. Also, viewers' attention for the information presented in this media may be limited, as reflected in the trend for the redesign of print newspapers' online websites to feature shorter and more graphic content. Viewers may not extensively review the text documents accompanying scenarios, making visual information essential.

Despite its very limited assessments of the success of regional visioning projects, planning theory may conclude regional scenarios succeed as they are presented, as Albrechts notes scenarios are very useful for "envisioning integrated images" (255). In a planning process, scenarios may reflect the "inherent human preference for visual

information” (Al-Kodmany, “Visualization” 190). Planning projects use a spectrum of visual media (Figure 3), and the quality and accessibility of these technologies is increasing. This increase is matched by higher expectations from the public for better visual representation and access on the World Wide Web for public participation in policy issues of land-use planning (Sipes 52, Cohen 222).



Note: GIS=Geographic Information Systems; CAM= Computer-Aided Mapping; MIMS= Mapping Information Management Systems.

Figure 3: Visualization Tools in Urban Planning.
Source: Al-Kodmany, “Visualization” 191.

In urban and regional planning processes, often the public is asked to contribute to or make decisions based on a variety of technical data and peer feedback that affects one or more planning “horizons”, which can range from the present day to 50 years into the future. These dynamics create a potentially confusing process, especially given the diverse backgrounds and technical abilities of participants, and some planning and design theorists address these issues, in part, by strongly advocating for visual

communications and technologies within planning and regional visioning projects. Bossard highlights the need to use technology to “find, filter, transform, model, and synthesize data,” and then apply it to explaining conditions and making planning decisions to facilitate action (5). Visual products involving 3D rendering, photo montages, and architectural drawings are particularly effective in communicating visions and options (Snyder 117), but largely are not incorporated into scenario products.

In place representation, visual and dimensional planning graphics that can illustrate and explain the abstract and technical nature of some planning concepts and solutions are essential to moving between regional and local scales, but the capacity to visually interpret these graphics may depend on the specific design of the scenario. For example, Abbott and Margheim note the importance of comparison between new surroundings and more familiar points of reference in establishing meaning and relevance (199). Regional visioning projects identify, articulate and depict places that are futuristic and only communicated, with no exact parallel in the current physical environment. They must then perpetuate them in the larger context of the regional visioning process. With its depiction of an idealized, stylized, potential future place, a regional land use scenario is a rhetorical trope that creates perception among viewers, but the dynamics of this process are not explored in planning literature and merit investigation. This regional perception likely is embedded in a sense of place “branded” by communities, media, and/or the regional process itself, as well as that experienced

by participants through the process, although perhaps not materially. In Lynch's focus group research, the participants' mental maps include more detail from living in rich, complex urban environments (Hiss 81), and it may be that Central Florida residents have varying visual contexts on a regional level from the area's diverse environments. It remains to be seen if residents can conceptualize image on a regional level, as Lynch and others have demonstrated is possible on the local level.

Defining Places of Power

In his influential work in planning theory, *Planning in the Face of Power*, John Forester urges planners to understand how power relations affect planning to empower community participants and improve planning analysis (*Planning* 27). Forester reminds us that planning and policy analysis inherently involve exercises of power in political environments (*Deliberative* 9) and urges planners to consider power relationships in their accounts of planning practice and relevant stakeholders (*Deliberative* 14, 29). In this section, I review aspects of "How Shall We Grow?" stakeholder groups to note dimensions that affect the design and implementation of "The 4C's" scenario.

In regional visioning projects, one of the key design decisions is which region will be represented, which may be defined by political, cultural, social, historical, and resource factors. Few regional boundaries are entirely based on environmental and geographical barriers, and most involve a decision or decisions about "who is in or out". For the "How Shall We Grow?" project, a combination of seven Central Florida counties was selected

by program organizers and participants, largely based on their correspondence to U.S. Census-determined Metropolitan Statistical Areas to facilitate data collection for existing conditions analysis. There were no regional agencies or existing regional concepts among regional residents or other stakeholders that fully corresponded to the project boundaries as defined.

Very few regional organizations in the United States, with the potential exception of the Atlanta Regional Commission, have the administrative and regulatory powers to implement these regional scenarios, requiring continuous implementation at the local level across jurisdictions. As examples, scenarios often contain new centers of jobs or housing, new transportation systems or connections to existing systems, and/or areas of new or expanded environmental protection, and all of these components require local governments to make land use decisions, environmental land purchases, and/or transportation capital investments to make the scenario possible. Greater involvement by a wide range of stakeholders increases the likelihood that plans are implemented (Burby 44), and for “The 4C’s” scenario to be successfully implemented, some of the 93 local governments within the seven-county “How Shall We Grow?” area must incorporate its provisions into local government comprehensive plans (Figure 4), which are statutorily-required to guide land use planning in Florida.

Stakeholder	Role	Interest in How Shall We Grow?
Myregion.org	Project organizers and part of the Central Florida Partnership/Orlando Regional Chamber of Commerce	Establish and promote a regional “brand” for Central Florida for community and economic development purposes
Metropolitan Planning Organizations	Policy/Technical Committee participants, Reviewers of draft scenarios	Coordinate project scenarios with agency-created technical plans
Environmental Agencies	Policy/Technical Committee participants, Reviewers of draft scenarios	Coordinate project scenarios with agency-created technical plans
93 Local Governments	Policy/Technical Committee participants, Reviewers of draft scenarios	Coordinate project scenarios with agency-created growth management plans
Residents of Study Area (“the public”)	Reviewers of draft scenarios	Comment on project scenarios based on preferences for desired future community

Figure 4: How Shall We Grow? Stakeholders.

Combining extensive public outreach and technical planning analysis, the “How Shall We Grow?” project staff produced multiple scenarios through the life of the project that articulated different policy choices for growth and development options in Central Florida, while using two distinct visual styles. The first style was more geographically precise and included four scenarios—named by project staff “Trend 2050” (in essence, a representation of choosing to continue current development trends), “Choice A—Green Areas”, “Choice B—Centers”, and “Choice C—Corridors”. These scenarios depict varying degrees and locations of “Urban”, “High-density suburban”, “Low-density suburban”, and environmental conservation areas in “activity centers” (clusters of development) linked by transportation systems.

Using these four scenarios, the “How Shall We Grow?” project involved public voting online and through cable television with voting enabled by selections on the television’s remote control. Central Florida residents selected their preferred scenarios, based on individual values and preferences, and over 9,000 total votes were cast using these processes. For various reasons, including the lack of a convincing mandate for one scenario and concerns from regional transportation authorities about the use of scenarios, the project organizers chose a new, more abstract visual style to create additional scenarios. Metropolitan Planning Organizations, in their role as regional transportation planning agencies, were concerned that the activity centers in the scenarios would lead to a mandate or perception that these be served by transit, as

transit capital projects and service planning normally are done using extensive ridership, transportation, and financial modeling. Perhaps in response, these new scenarios (Figures 4, 5, and 6) represented marked differences in visual style and corresponding information, defining concentrations of population shown by extruded three-dimensional boxes, rather than specific activity centers seen in prior iterations of scenarios. New categories, such as “Hamlet: less than 4,999 [population]” and “Small City: 30,000-49,999 [population]” emerged in three new scenarios.

This iteration of scenarios, initiated by select stakeholders in this process, offered less specificity, affecting the ability of other stakeholders to determine with precision where new activity centers may be located from a land planning perspective. “How Shall We Grow?” project organizers now began to refer to these scenarios as “artistic renderings”, potentially to deter interpretation of them on a map-based, literal basis. These scenarios reflected current conditions (“Central Florida: What We Look Like Today”), a year 2050 scenario that continued current growth trends and densities (“2050: What We Will Look Like...If Current Trends Continue”), and a new “The 4C’s” scenario that theoretically combined “Conservation, Countryside, Centers, and Corridors” (“2050: What We Will Look Like If Our Vision is Realized”). This last scenario (Figure 5) is the subject of my research with Central Florida urban planners, and the other two are presented for comparison (Figures 6 and 7). Following the scenarios, Figure 8 presents a text element supporting one of the scenarios in the report text to highlight the visual-verbal

relationship among scenario elements, often including rhetorical and persuasive elements as scenario outcomes (ex. “cities will meld into one another”).



Figure 5: What We Will Look Like...If Our Vision is Realized (The 4C's) Scenario.
Source: How Shall We Grow? website, myregion.org.



Figure 6: What We Look Like Today Scenario.
Source: How Shall We Grow? website, myregion.org.

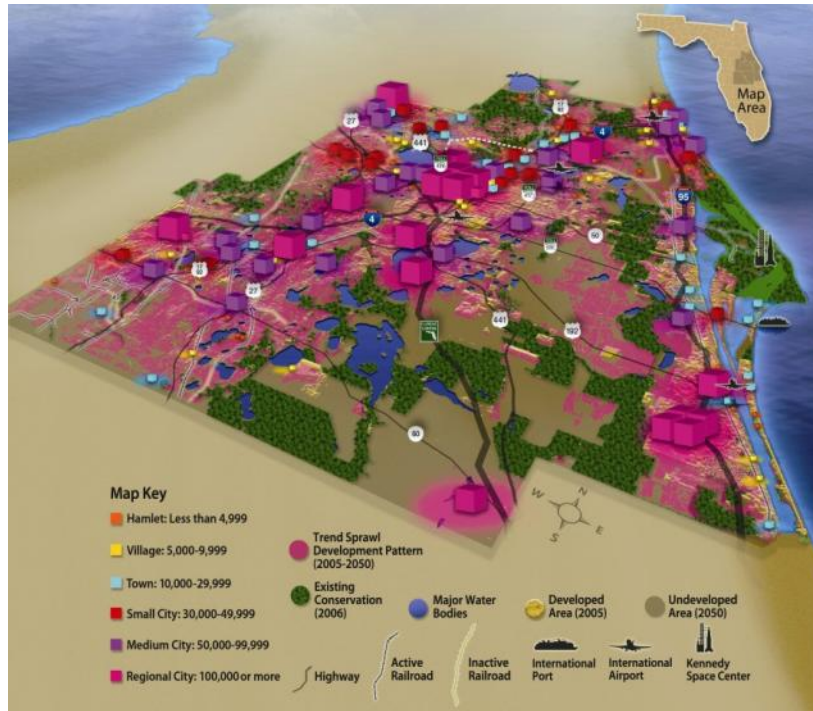


Figure 7: 2050: What We Will Look...If Trends Continue Scenario.
Source: How Shall We Grow? website, myregion.org.

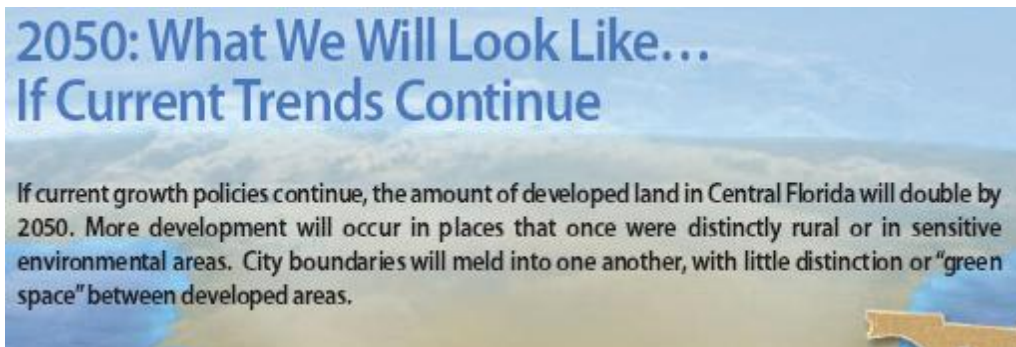


Figure 8: Text Element Describing What We Look Like Today Scenario.
Source: How Shall We Grow? Final Report, myregion.org.

It can be seen from participant responses, discussed in the Research Findings section later in this chapter, that the decision of project organizers to consider the interests of one stakeholder group, Metropolitan Planning Organizations, and to transition scenario

design from activity centers to population centers created uncertainty in scenario interpretation. While project organizers gave the option of designating population centers to local governments, asking them to select and place centers on the scenario map, this decision privileged the interest of one stakeholder group to the detriment of others, who now have fewer tools for scenario interpretation. However, although “The 4C’s” scenario was not itself presented to residents for online voting or community meeting discussion, it still is invoked within the rhetorical situation of this regional visioning project as a scenario that needs to be implemented, based on community involvement in the original scenarios’ development.

Regional visioning projects vary in their levels of citizen involvement and outreach, an important distinction. Invoking community support as ethos is a complicated dynamic for all of these reasons, particularly if only a few residents or other stakeholders attend or if other relevant stakeholder groups are not present. While my analysis does not address political economy or the inclusion or exclusion of particular policy alternatives or stakeholders in depth, it is important to note that community participants may vary throughout regional visioning projects, in that not every participant may attend every meeting, especially as projects may extend over a 12 to 18-month period. One exception would be projects that use one or more defined community stakeholder committee in an input and/or oversight capacity, as membership is invited and participants accept a responsibility to attend every meeting to the extent possible.

In the design of other regional visioning projects, like “How Shall We Grow?”, community meeting participants may drift in and out of participation opportunities or attend only one meeting. Participants may be vocal, angrily addressing concerns or voicing support and questions. Conversely, they may be silent, tacitly agreeing or disagreeing with meeting discussion or the overall process. Participants may be only attendees, merely passing the time waiting for a more interested companion to finish participation. Despite these varying elements of participation and the polyvocality of participants, regional visioning projects’ community meetings introduce a new rhetorical element. Once meetings have occurred, they provide the opportunity to invoke the community’s participation, support, and values as ethos relative to the integrity of the project or the selection of a particular scenario, as seen in the “How Shall We Grow?” project. Arnstein, in her influential 1969 work “A Ladder of Public Participation”, defines for us eight potential stages of citizen involvement that vary by the control given to community participants and that range from “manipulation” to “citizen control”, although she considered “both planners and planning participants” to have “mutual obligations and responsibilities” in planning processes (243). Forester also affirms the importance of citizen involvement and urges citizens to learn about the effectiveness of strategies, about the potential outcomes of policy alternatives, and about themselves and other stakeholders (*Deliberative* 202).

After the community involvement process, “How Shall We Grow?” project organizers continued to invoke the level of community support and input during the regional visioning project. However, the nature of this involvement, largely restricted to meeting comments and online/cable system-based voting, did not create a larger constituency to facilitate continued awareness and implementation of “The 4C’s” scenario, as judged by the current level of media coverage of the project and scenario, little formal implementation of the scenario by local governments, and no continued engagement of citizens in the manner envisioned by Arnstein and Forester. (As noted previously, this community involvement also did not occur after the development of “The 4C’s” scenario to receive community feedback or support.) These conditions have led the media to specifically question if myregion.org has “enough to show for the effort”, citing the concerns of former board members and area politicians about the relevance and lack of implementation of their efforts (Stratton and Damron).

While a number of Central Florida’s local governments continue to move their comprehensive plans to a “smart growth” policy orientation that arguably is similar to the “The 4C’s” scenario without being named as such, only Polk County has formally continued the work of scenario development and implementation. After the “How Shall We Grow?” process concluded, Polk County conducted a subsequent visioning exercise using “The 4C’s” scenario. The scenario served as the basis for community dialogue. Polk County organizers attempted to extend “The 4C’s” scenario from a regional to local

level as part of a larger Polk County “Growth Matters” project. In this process, community participants placed candies on the scenario to depict desired areas of focus (Figure 9), but apparently were not revising the original scenario (Figure 10). In this sense, “The 4C’s” scenario remained an idol of sorts, unable to be altered, extended, or disagreed with. The Polk County process largely provided visual clarification through place naming. Although this is one element described as a necessary enhancement by research participants in my study, the Polk County process perhaps represents a missed opportunity to iterate “The 4C’s” scenario to reach unmet aspects of its potential.



**Figure 9: Polk County Participants Conduct How Shall We Grow? Process.
Source: Polk Growth Matters, Polk County Planning Department.**



Figure 10: Polk County Iteration of How Shall We Grow? “The 4C’s” Scenario.
Source: Polk Growth Matters, Polk County Planning Department.

Research Findings

The fourteen participants in this research had diverse educational backgrounds, levels of professional planning experience, places of residence and employment within the region, and other characteristics, which I review in this section to contextualize research findings. Friedmann has noted that urban planners undergo diverse professional training that may be situated in schools of architecture, social science, or public policy, which develops particularity and difference in both approaches and visual skills within the profession (251). Friedmann’s finding is reflected in my participant group, which has educational backgrounds in a variety of fields (Table 1). Several of the participants have

Master's degrees, as many professional planning and planning agency management positions require this education level, especially in Florida.

The diverse educational backgrounds of participants, thought to influence their visual analysis and perspectives, also are reflected in the fact that they hold a variety of specializations within the planning field (Table 2). However, all but one participant had a specialization in land use and comprehensive planning, the preparation of regulatory policy and mapping documents for entire jurisdictions. This condition reflects Florida's long history with state-mandated comprehensive planning activity, dating from the implementation of the 1985 Growth Management Act. Several other states, such as Georgia and Maryland, require similar comprehensive planning activity of every jurisdiction. However, that is not replicated across the U.S., disproportionately concentrating that specialization among planners in those states. Planners outside of these areas may have different interpretations of scenarios on that basis.

Participants also were asked their years of experience in the planning profession (Table 3) and their previous exposure to the "How Shall We Grow?" regional scenarios (Table 4). Participant experience was evenly distributed, with some concentration in the 11 to 15-year range, but the diverse visual communication training of planners and lack of literature and training within the field on this topic may mean that years of experience may not be a primary factor in interpretation of scenarios. However, participants had reasonably significant previous exposure to the "How Shall We Grow?" project (Table

4), including reading media articles, participating in a community meeting, and other activities. Eleven of the fourteen research participants had viewed an article in the media about the project, and almost half had viewed a television news item about the project. This exposure speaks well to the media outreach efforts completed as part of “How Shall We Grow?”, but few participants had attended a community meeting (3 participants) or voted on a scenario choice (2 participants). Only two participants had used “The 4C’s” scenario to review local land use proposals for changing comprehensive plans, the primary implementation mechanism for the scenario.

In the research protocol as influenced by Lynch, I asked participants in both focus



Figure 11: What We Will Look Like...If Our Vision is Realized (The 4C's) Scenario.
Source: How Shall We Grow? website, myregion.org.

groups and interviews to identify any landmarks in “The 4C’s” scenario (Figure 11), such as particular cities or neighborhoods, which were apparent to them. Participants identified a wide range of landmarks, and a representative sample is listed in Table 5. Participants showed no apparent pattern other than a primary focus on Orlando as a reference point and some mention of transportation facilities within the region, highlighting the diversity of their individual regional concepts and the role of transportation facilities in orienting viewers within the regional scale. From the outset, it is apparent that no cohesive regional image can collectively be accessed by participants, even for tasks as direct as orientation, which does not provide fertile ground for scenario interpretation and application.

To further investigate the depiction of landmarks within the scenario, I asked participants what they believed the place icons depicted in the scenario (Figure 12) are intended to communicate. Participant responses are summarized in Table 6 and represent several aspects of scenario representation that were confusing to participants. Participants generally had no clear perspective of the logic of place icon creation, placement, and relationships, as seen in participant responses confusing the place icons with building heights or interpreting each individual icon as a separate city. While the legend identifies place icons by population ranges, there is not a clear rationale for how they have taken the visual forms used and how place icons are depicted in conjunction with each other. This dearth of spatial logic has negative

implications for scenario implementation in local comprehensive plans, as participants likely cannot be guided by icons in making specific land use recommendations.



Figure 12: Place Icon Detail from What We Will Look Like...If Our Vision is Realized (The 4C's) Scenario.

Source: How Shall We Grow? website, myregion.org.

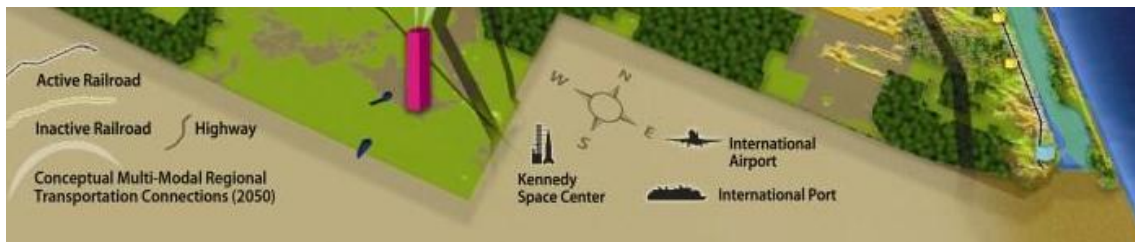


Figure 13: Map Key (Transportation) Detail from What We Will Look Like...If Our Vision is Realized (The 4C's) Scenario.

Source: How Shall We Grow? website, myregion.org.

To address transportation features, which form the paths—and often the edges—within Lynch's typology, the focus group and interview script included a question about what participants thought the lines in the scenario are intended to communicate (Figure 13). The question did not specifically note “transportation features”, as not to guide responses to identify them as such, in case that was not apparent. Participant

responses summarized in Table 7 indicate a large degree of confusion about their intent, particularly relative to the white arches identified in the legend as “Conceptual Multi-Modal Regional Transportation Connections (2050)” (Figure 13). Five responses noted general ideas about connection or connectivity, but one response referenced economic partnerships and another specifically noted the belief that the lines did not represent surface transportation because they connected at the tops of place icons (Table 7). This design may reflect a purposeful ambiguity on the part of scenario creators, referencing concerns from Metropolitan Planning Organizations discussed earlier in this chapter, as to avoid conclusions about transportation mode choice or transit stop location. However, with several participant responses not specifically referencing transportation in their conclusions, despite depiction in the legend, this is a potential area of improvement from a user-centered design perspective.

To incorporate additional feedback and reflection from research participants, I asked an open-ended question about whether participants found anything confusing or hard to understand about the scenario elements as described in the scenario legend (Figure 14). As excerpted in Table 8, participant responses show the legend, often the most informative part of a map by design, was challenging in “The 4C’s” scenario and appeared to create more questions than it answered relative to the recommended areas of future population growth, conservation, and new communities. Specific concerns included the locally-unfamiliar hamlet/village nomenclature, the inability to distinguish

intent of “vacant” areas relative to “conservation” areas, unclear sense of time relative to current and future populations and the need to specifically distinguish areas of population growth and the elements of nonresidential development in the land use mix. Issues with the scenario’s legend constrain the scenario’s ability to meet its design intent of shaping future land use decisions at the local level and as expressed through local government comprehensive plans.



Figure 14: Map Key (Place Types) Detail from What We Will Look Like...If Our Vision is Realized (The 4C's) Scenario.

Source: How Shall We Grow? website, myregion.org.

Conclusions

Planning as a field of practice uses a “structured social process” to collectively understand and manage future outcomes in the face of uncertainty (Abbott 238; Fischler 194). Regional planning processes involve creating possible futures, a desired future, and the means to get there (Abbott 246), given change factors in urban regions with varying actors, timeframes, and combinations of political, environmental, social, and behavioral influences (Abbott 241). Given this complexity, successful regional visioning

processes must use “information, persuasion, and other means to bring about mutual understanding, minimize or resolve potential disputes, and achieve consensus on a course of action” (Burby 34). However, planning’s increasing orientation to social science directs the field largely to empirical investigation of the past, rather than imaginative pursuit of the future (Myers and Kitsuse 222), which limits the field’s tools to visually depict the future and determine its success in doing so. In the rhetorical situation presented by regional visioning, the scenario is the embodiment of current instruction about future direction, an articulation of how participants want their community to change as a result of actions both public and private. The scenario functions as both technical and rhetorical communication, memorializing a regional visioning process and acting as an artifact designed to maintain the momentum of the process, often over a period of years.

Within the practice of urban and regional planning, scenario building is a widely-used tool that has evolved over the past 50 years and that has strong narratives that model potential places (Albrechts 255). The field appears to extend wide latitude to the use of regional visioning processes, with assessments of its effectiveness emerging only recently. Despite this emerging literature, assessments of regional visioning processes remain limited, and none found in review of the literature address the efficacy and effectiveness of their visual communication among residents participating in these projects or urban and regional planners. It is apparent from participants’ responses that

the “How Shall We Grow?” scenario design was not successful in creating a scenario that effectively communicated visual information to urban and regional planners, and subsequent chapters address additional dimensions of these dynamics. However, project organizers and stakeholders could not be guided by a well-articulated literature on visual scenario design, and in fairness, this situation must be acknowledged.

Regional visioning processes often are based on the design, iteration, and selection of a preferred scenario (Hopkins and Zapata 2,9) to visually represent a community’s potential future outcomes, with that scenario emerging as the “regional image” of what the future may hold. Resident participants in these processes are asked to collectively select a preferred scenario based on a consensus or majority vote of preference, often compared to policy goals outlined during the process (Avin 112), but process design often does not allow for surveying of individual participants’ understanding and perceptions of scenarios, especially at later stages of the process. These scenarios then are presented for local government implementation, which must compare subsequent policy decisions, in part, to these visual products. Similarly, visual representations, such as Anton Nelessen’s Visual Preference Surveys™, are used in community planning to represent desired community elements or preferred futures, but the specific responses created by this methodology and visual representations are not well-understood or documented in the literature (Ewing et al. 270). While images are fundamental to planning (Neuman, “How We Use” 166), they have not received a

degree of analysis in the planning literature that corresponds to their stature, especially in a “visual age” of American culture increasingly reliant on the visual and visual technologies.

This chapter has noted the limitations of scenario design and interpretation relative to specific visual design choices, including the scenario legend, to provide a foundation for consideration of individual elements in more depth in subsequent chapters. Participant concerns and issues with scenario interpretation have begun to delineate particular limitations of “The 4C’s” scenario. In the following chapter, I will address additional visual conventions and contexts to determine other areas of focus, including the constraints of a two-dimensional regional scenario as a vehicle for the level of technical information it is required to hold and the potential inability of visual conventions to have enough longevity for its future communicative role across decades. The scenario may require more poetics, 3D representation, modalities, and interaction to fulfill these communicative obligations. I argue the rhetoric of this regional image is unexplored, much as the physical place the scenario represents is elusive, and my research attempts to begin that conversation among local urban and regional planners charged with bringing that place to light.

CHAPTER 2: THE VISUAL CONVENTIONS OF THE REGIONAL IMAGE

In Chapter 2: The Visual Conventions of the Regional Image, I return to the role of visual communication within the professional discipline of urban planning to apply technical communication theory's arguments and heuristics related to visual communication, including the functions of visual conventions within regional scenarios . Literature by Foss, Barton and Barton, and Kostelnick and Hassett has been influential in considering visual communication within the context of technical communication theory and practice. However, the technical communication literature does not address the visual products produced in various professional and disciplinary contexts to the same extent it does written products. In pursuing this endeavor, I consider these theorists and others to describe the "How Shall We Grow?" visual language, including assessment of "The 4C's" scenario as visual rhetoric and in the context of research participation from Central Florida's urban planners reviewing and interpreting this scenario. Their interpretations ranged from concerns with specific visual elements to assessments of broader themes embedded within the scenario, and all are insightful in articulating how the visual language of "The 4C's" scenario communicates values and design choices.

Several implications are apparent from Kostelnick and Hassett's research (74), including that the local discourse community of planners likely will not sustain conventions needed to interpret the scenario over its intended life, the year 2050.

Technology may make this more likely, especially as the ability to model three-dimensional perspectives is continually improving, perhaps making the two-dimensional scenario perspective appear outmoded to future audiences. If one or more of the component communities changes its size significantly or does not grow as anticipated in the scenario, it is possible the distended relationship among elements, compared to the physical reality experienced by the discourse community, will cause the scenario to appear less relevant before 2050.

Within the domain of urban planning, the importance of visual communication is widely recognized, although corresponding theory regarding its rhetorical functions is more limited. The consciousness of planning discourse as a rhetorical activity done among a number of competing stakeholders also emerges at a time when urban planning decisions and outreach are increasingly facilitated by technology, but I believe the prevalence and impacts of these technologies must be qualified in noting their outcomes. In many jurisdictions, community residents use the World Wide Web to access planning and related public hearing documents, online mapping websites, and streaming online media of public hearings at which legislators deliberate planning decisions. As noted by Cohen, these Web-based tools have brought additional means for the public to interact with planning processes, bringing wider public involvement and action “supported by access to high-quality, media-rich information about development

proposals and the issues surrounding land-use planning decisions” (222) and raising public expectations of information accessibility and visualization quality.

At the same time, these expectations have not been applied to technologies that many of these same citizens are using in their daily lives. Visualization and simulation of planning alternatives, online discussion boards and forums, and other options using currently-available technologies are not as prevalent. Social media outreach strategies using Facebook and Twitter are only beginning to be seen among a few Central Florida local governments, and none are using Foursquare, Gowalla, BlockChalk, or any of the rapidly-proliferating geolocational social media platforms. The gaming industry and Second Life enjoy widespread popularity, but that has not yet translated into a public demand for planning alternatives, like scenarios, to be depicted with the same interactivity and media-rich immersive environments. As the urban planning field is positioned in a moment of technological evolution, technical communicators have the opportunity to apply their discipline’s interests in visual communication, visual rhetoric, workplace communication, and technology applications to these community-based problems. In this chapter, I will review the dimensions of these interests, then provide context from research participants’ responses to note their applications to “The 4C’s” scenario.

The Visual as Technical Communication

Visual Methods Within the Planning Field

In communicating planning visions and options as described by Snyder (117), Talen believes “paper maps and cardboard models are not as effective at representing spatial complexity...that may be important to the expression of preferences” and recommends representing perceptions...in multiple dimensions” (Talen 281) in community planning processes. Relative to planning technology, planning activities and processes increasingly rely on the use of Geographic Information Systems (GIS), a system of mapping tools for the collection, storage, manipulation, and display of data in a spatial manner (Cohen 214) in either two or three dimensions. GIS and other multimedia technologies are useful in communicating abstract data to novices, simulation, and virtual navigation (Cohen 216), and Saper envisions GIS databases as being important tools for research in the humanities (3-5). However, Curry identifies several limitations with GIS representations, including their basis in limited and defined paths of reason and language, constraints in their representation of space, and their grounding in location technologies and focus only on information (11).

Visual Communication and Scenario Constraints

Relative to technical and rhetorical issues, many policy and visual choices are endemic to creating scenarios. Scenario visualizations may be constrained by usability, scalability, aesthetics, and the need for those using the visualizations to have prior

knowledge to provide appropriate context (Chen 12-15). Curry notes the visual consistency of images like the scenarios is “constructed and ..[an] appeal to a notion of what belongs” (40). In an example described by Curry (40), an architectural drawing of a streetscape or neighborhood (often called a “rendering”) usually contains buildings, trees, and streets, but no people, mailboxes, trash cans, utilities, or other artifacts of public infrastructure and everyday life. The spectrum of omission can range from relatively innocuous (ex. old cars, unmowed lawns) to practically subversive (ex. cultural diversity, the homeless). Regional scenarios are subject to similar aesthetic choices, and these rhetorical strategies and implications are explored in detail in Chapter 4 of my analysis.

As referenced previously, there is difficulty in representing space with the complexity with which it is experienced or in a three-dimensional manner within a plan or scenario document, a difficulty also noted by George (64). As one way to help make meaning despite this inherent limitation, a group of scenarios is most useful when comparisons are made among scenarios, most often relative to land consumption and across time and space (Deal and Pallathucheril 225-227). Currently available technologies, such as Adobe Photoshop and Google Earth, facilitate the depiction of “before/after” scenarios, alternatives analysis, and aesthetic choices that are situated in particular environments at a variety of scales. Modeling the built environment and being able to interact within it over the Web represents a paradigm shift for the planning and design process that has

the potential to fundamentally change the way in which planners communicate ideas and developments to the public.

These new technologies enable the temporal and sensory experience of place to become non–place specific, and these techniques can elicit audience engagement (Al-Kodmany, “Visualization” 190). Al-Kodmany presents examples of participatory community visioning events conducted in 1999 that used both an artist creating freehand sketches and a GIS for technical analyses (“Combining” 31-32). These processes easily now may incorporate new digital multimedia technologies, as it now is “relatively simple to integrate digital site video and digital still images with site animation” (Pihlak 68). Also, the popularity and accessibility of Google Earth is leading to new applications that explore the relationships between information more intuitively, with increasing public interest (Butler 777-8), including annotation by the public with photographs and 3D models developed in Google SketchUp. Yet these technologies are not represented in the two-dimensional scenario often created during regional visioning processes.

I would characterize the planning literature as only beginning to apply the analysis of power seen in the work of Forester, Healey, Innes, and others to a visual setting and visual analysis, rather than in traditional dialogue or textual analysis. Bouman notes mapping adequately represents relationships among regions, people and goods, but not knowledge, power, technology, and other elements “that have begun to dominate our

world” (54) and that are reflected in the regional analysis heuristic of Healey reviewed in Chapter 4. Visual assessment literature in planning is comprised of four books and several studies, dating only from the late 1980’s (Ewing et al. 271), and these works do not assess visual rhetoric. Even within this limited theoretical framework, it is fair to ask if a regional scenario, a relatively new technological application of the traditional mapping construct, is achieving the planning objectives for which it was created, as in its analysis as technical communication. However, Bouman’s challenge illustrates the deeper themes identified by Healey’s heuristic, but does not recognize the map as a technology. Anderson notes how mapping is key to creating a community and a nation’s sense of self, and it is these themes that likely must be reflected in a regional scenario to forge a new sense of a Central Florida region among its residents, whose sense of place may be more local.

Visual Analysis in Technical Communication

In my review of visual theory in technical communication, I draw primarily from the work of Barton and Barton, Kostelnick, and Kostelnick and Hassett, due to their focus on mapping and on visual language in professional contexts. (I will consider the work of Foss in the context of visual rhetoric in the next section.) However, the study of genre and discourse communities within disciplines primarily has been limited to verbal language (Kostelnick and Hassett 3), constraining this analysis to some degree.

In their essay, “Ideology and the Map: Toward a Postmodern Visual Design Practice”, Barton and Barton direct the visual turn in technical communication to the study of how visual signification sustains power relations and ideologies (50), finding “warrant in the perceived general importance of the map to contemporary information designers (52). In doing so, rules of inclusion and exclusion are defined by Barton and Barton (53-68) and parallel the concerns expressed by Healey (*Urban* 209). Rules of inclusion determine what elements are chosen for inclusion, how they are symbolized (ex. the place icons in “The 4C’s” scenario), the arrangement of elements (such as by centering or placing on the edge of an image), and by ordering visual elements. This ordering is explored in Healey’s query regarding “front” and “back” regions (*Urban* 209).

Rules of exclusion are expressed as exclusion of visual elements, the repression of individual differences between elements (ex. the place types in the scenario), naming practices, suppression of the act of production, and other means (Barton and Barton 59-68). In her case study of litigation by the Natural Resources Defense Council, Propen extends Barton and Barton’s focus on progressive visual design to incorporate explicit consideration of mapping as “persuasive and communicative objects...[that] convey meaning and contribute to the rhetorical situation” within a larger visual culture (Propen 237). These themes are important considerations in evaluation of “The 4C’s” scenario later in this chapter, as research participants noted related concerns in their review.

Kostelnick and Hassett (74) link visual conventions to the centuries-long tradition of rhetoric through their common birth and life in communities of practice, while recommending pedagogical research within these communities of practice to better understand visual training and enculturation (230). They also note the meaning of visual language's connection to the Bakhtinian argument that language's meaning is always particular to the user's experience, intentions, and needs (Kostelnick and Hassett 222).

The use of conventions is intrinsically rhetorical, as selected by designers to achieve design purposes, but conventions serve as a "cohesive force for visual language in professional communication" (Kostelnick and Hassett 10-12) across the spectrum of document types and design forms. Kostelnick and Hassett (58) delineate the fragile nature of conventions as resulting from their continuous change and evolution, likelihood that users will not sustain individual conventions over the long term, the incorporation of new elements in a design that distract from conventions, varying interpretation among readers, and other factors.

Visual Rhetoric

Foss defines visual rhetoric as visual communication that is symbolic, involves human intervention, and is presented to an audience for communicative purposes ("Framing" 303-304). From this perspective, Foss outlines a schema of explanation, function, evaluation, and the evaluation of function ("Rhetorical" 215-217, "Framing" 307-309), which is part of the emerging literature on visual rhetoric. However, as technical

communication and rhetorical studies have defined this emerging territory within the field, it has been situated largely within the media and cultural studies realms, such as in rhetorical assessment of advertisements, photographs, and films (Helmets and Hill 2), limiting its application to wider consideration of community visual artifacts and practice-based visual communication, as represented by the “The 4C’s” scenario.

Foss has produced visual rhetorical assessments of objects, such as public art, furniture, and a building (Mullen and Fisher 185), but those applications are rare.

Rhetorical practices have produced many insights, but the application of these practices to professional communication, especially in community-based settings with the public, appears absent in the literature, even as rhetoricians are incorporating calls for examining buildings, landscapes, and public memorials in rhetorical contexts (Hill 25, Janangelo 300-301, Emmison and Smith ix). This presents a challenge in determining what rhetorical elements, such as warrants and appeals, are most effective in a visual context, but my analysis attempts to frame these components before turning to the outcomes of dialogue with research participants in their examination of “The 4C’s” scenario as a visual rhetorical artifact.

The rhetorical situation includes a dialogue between planners creating scenarios and the public, then shifts to planners and elected officials applying scenarios in an iterative, interactive process that includes the public’s additional input and scrutiny. Returning to

the framework established by Foss, visual rhetorical analysis must consider identification of the visual's function, an assessment of how the image communicates the function and its support in the image, and critical review of the function itself ("Rhetorical" 215-217, "Framing" 307-309). Mullen and Fisher, in applying Foss' technique, note function data include "subject matter, medium, materials, forms, colors, and other visual components" (187). If this process is to inform planning communication, it is likely that training would be required, given Kostelnick's insight that visual rhetoric is a social process that requires conventions be constructed within a discourse community that uses cultural knowledge and aesthetic tastes of the time, dependent upon "readers' interpretations in specific situational contexts, one reader at a time" (Kostelnick 239).

The regional scenario must be understood in the context of its intended movement and interpretation through time, requiring decades of interpretation and use in a complicated landscape of public policy and land use decisionmaking across numerous agencies. Hill warns that in deploying visual rhetoric, "the individual rhetor is faced with the danger that any particular element may be forgotten or get drowned out in a sea of information, anecdote, and argument" (27-28). Conversely, Blair notes that visual rhetoric largely relies upon "*enthymemes*—arguments with gaps left to be filled in the by participation of the audience" that are tacit and not easily expressed (52). I am particularly concerned by the complexity in the rhetorical situation of regional visioning, which is complicated by the need to evaluate multiple scenarios against each other, the need for longitudinal

analysis of past effects and future implications, and the potentially fragmented nature of the dialogue among multiple stakeholders.

In arguing for a spatial turn in visual rhetoric, much as the technical communication and rhetoric discipline has undertaken in recent years, Dickenson and Maugh note that places are always perceived and constructed in a visual manner that encompasses material relations and embodiment of self, while acknowledging a theory of these practices is a difficult problem with only partial solutions to date (260). At the same time, Dickenson and Maugh outline a landscape of particular relevance to regional visioning and scenarios that provides impetus and urgency to their study, as follows:

“We want to suggest that one of the functions of postmodern visual rhetoric in the everyday built environment is to negotiate the contours of dislocation characteristic of postmodernity... Where once we might have gained identity based on long-established, geographically bound communities, we are now in a situation characterized by urbanization, migration, and immigration, and the fragmentation of locally coherent culture. Combined with the globalization of capital and media, it is increasingly difficult to distinguish one place from another....As the distinctions between places disappear behind postmodern economic and cultural forces, personal identity cannot be founded on locality.”

(Dickenson and Maugh 261)

In this context, Dickenson and Maugh would suggest that the ties to local identity are thin, complicating the ability to build a regional community with a distinct aesthetic and emotional brand that may constitute a stable regional image and visual context.

“How Shall We Grow?”’s Visual Language

Assessment of the Scenario as Visual Communication

In the context of visual conventions (Kostelnick 239), a concern underlying scenario construction and dissemination is that scenarios act as “false idols”, unable to be understood in their particular context in a future context that has no tether to the scenario’s creation. Once completed, these visual works exist “independent of [their] production” (Foss, “Rhetorical” 215), even relative to their component visual units, as seen in the Visual Preference Survey™ (VPS). Often used in the planning field as a major visual practice in design and community engagement, the VPS isolates community elements (i.e., trees, street furniture, roadways) to be viewed and rated by participants to elicit emotional and value-based responses individually that comprise and articulate larger community preferences, but the visual elements in this setting are not understood in the context of policy choices or in relationships with each other. Ewing advocates restructuring the VPS into a visual assessment that controls for viewer effects and tests for statistical significance of image differences (269-270) to enhance its information, but even this modification would not allow it to act as a medium for

invention or conduction, the poetic reasoning from one element to another that is particularly appropriate for visual products (Ulmer 10),

In testing visual products, Tory and Möller (8-9) point to the need to evaluate visualizations from professionally-accepted heuristics for graphical user interfaces, general visualization tasks, and qualities unique to the system being evaluated to parallel accepted methods for human-computer interaction measurement. Planning theory and practice do not offer defined visualization heuristics, and the Visual Preference Survey™ and Lynch's typologies essentially are visual heuristics for urban form, not for the aspects or quality of visual representations. As heuristics are developed, they should be informed by technical communication's focus on user-centered design, which may incorporate physiological and sociocultural aspects, among many others. However, at this time, the planning discipline provides limited assessment of visual preference in practice, as noted by Ewing (270). As this line of inquiry is extensive, it is clearly outside the scope of this analysis, but is recommended for further research.

In doing visual research, representation conventions of visual material being analyzed must be understood, such as by comparison to different cultural fields (Emmison and Smith 63). Emmison and Smith note that content analysis may be applied to visual research to enhance the rigor of the analysis, but only with appropriate coding categories applicable to the entire data set (61). Emmison and Smith caution against

postmodern cultural studies that do not explain how codes and classifications are defined and whether the analysis can be generalized to other areas and populations (96). Kostelnick and Hassett (189-190) note many studies of user performance and efficiency in information processing fail to account for the “conventional grip” of design forms with which users have experience, although visual language now is seen as context specific to a set of “perceptual and rhetorical variables” that can’t be generalized to other contexts. In their words, “because discourse communities constantly reshape visual language, empirical results are short-lived and reflect only the fleeting social constructs adopted by the subjects studied. Viewed this way, empirical research...charts their conventional maps at a particular historical moment” (Kostelnick and Hassett 190). To address these research constraints, Kostelnick and Hassett (192-193) recommend describing research subjects and their discourse community adequately to allow information designers to design for that specific audience and conducting usability testing to evaluate a design product in context with specific target audiences of users.

Relative to the particular visual genre of regional scenarios, Avin would criticize the “How Shall We Grow?” Trend scenario as containing an unlikely linear extrapolation of current trends without clear definition (105, 107). Avin discourages the use of an obviously negative “straw man” scenario (107) that primarily serves as a rhetorical device to motivate participants to action or selection of an alternative scenario through

their alarm at the depiction of a catastrophic future. At the other end of the spectrum, Avin also cautions against the “imposition of ideal urban forms, such as satellite cities or corridors and nodes...unless there is some inherent or explicit logic or narrative sequence of plausible events that will give rise to these spatial patterns” (108). As this narrative does not accompany “The 4C’s” scenario, Avin’s insights provide initial guidance on potential means of revising the scenario to enhance its usability, in the context of participant recommendations in the following section.

Research Findings

To evaluate urban planners’ interpretations of “The 4C’s” scenario, I asked research participants various questions regarding their perspectives on the scenario’s design intent, how scenarios would compare to similar visual products within the profession, and what text support would assist in divining intent and applications. Table 9 reports participants’ insights into the aspects of the scenario’s design that best helped them understand its intent, presented verbatim. Much of their visual attention was captured by green space and conservation and transportation features, noting the importance of color and transportation facilities as primary means of orientation and information. As noted by one participant, “the scales, location, and amount of recommended conservation lands (2050) show the intent of the program on the importance of developing a regional growth model”; another participant found “the green areas showing conservation are prominent in this perspective and imply its importance to the

regional growth vision” (Table 9). Clearly, the depiction of conservation areas was successful in communicating that indicator, largely due to the extensive green coloration on the scenario acting as a relatively direct visual element.

Participant responses also referenced a need for more information, particularly identifying the roadway network, city identification, intensity scaling as areas that required further data for interpretation (Table 9). One participant vented his frustration very directly, characterizing “The 4C’s” scenario as “ a very busy, confused, and scattered agglomeration of disparate data poorly put together by untrained, would be map makers with no background in the subject they are trying to communicate” (Table 9). This perspective was an extreme view, as many participants actively attempted to “talk through” areas of confusion with other participants. However, participants almost uniformly did not reference supporting text in the codex, the report in which the scenario is displayed—only one participant exhibited that text search and only on one occasion. This behavioral pattern cannot conclusively be used to generate findings, based on the small sample size, but I recommend further research with a larger sample, particularly using a protocol/task-based analysis from a user-centered design perspective.

At least two comments in this dialogue reflected a preference for city name labeling, which is not present in “The 4C’s” scenario, as presented in the Final Report or on the project’s website. However, perhaps recognizing that concern, project organizers produced a clear acetate document overlay later in the regional visioning project that

lists all centers by county and has a key to identify them, if needed. The only other information is a title reading "2050: Central Florida's residents and leaders are choosing a different path", not what "The 4C's" are, the scenario's scale, or other data. Based on the overlay only addressing individual centers and their counties, in this research design, I chose not to include it in the groups. From a technical communication perspective, the difficulty is that the scenario graphic is depicted and used either "with or without" the overlay, seen in the East Central Florida Regional Planning Council's Strategic Regional Policy Plan and in the WMFE television shows on the project. As such, knowing it solves only a small component of information needs, it can be identified in my analysis as a clear option relative to participant comments that cities can't be recognized in the scenario, but it perhaps doesn't offer much utility beyond that.

Research participants also identified and evaluated particular elements of the scenario that they found confusing or hard to understand (Table 10). To provide context for participant comments, Figures 15 and 16 depict portions of "The 4C's" scenario at the eastern, western, and southern edges. Participant comments discussed a perceived lack of multimodal connections between points on the scenario, the depiction of conservation areas traversed by connections, among other issues. A particular concern is that participants were not able to access an overall logic for why population centers and connections were spatially depicted within the scenario, as recommended by Avin (108), a challenge for local implementation. Participant comments reflected a

preference for “an electronic format that’s zoomable” and “more in-depth analysis on the ground” from this regional starting point (Table 10), comments that inform my recommendations for scenario revision in Chapter 5.



**Figure 15: Detail of Eastern and Western Edges of What We Will Look Like...If Our Vision is Realized (The 4C's) Scenario Depiction from How Shall We Grow? website.
Source: myregion.org.**

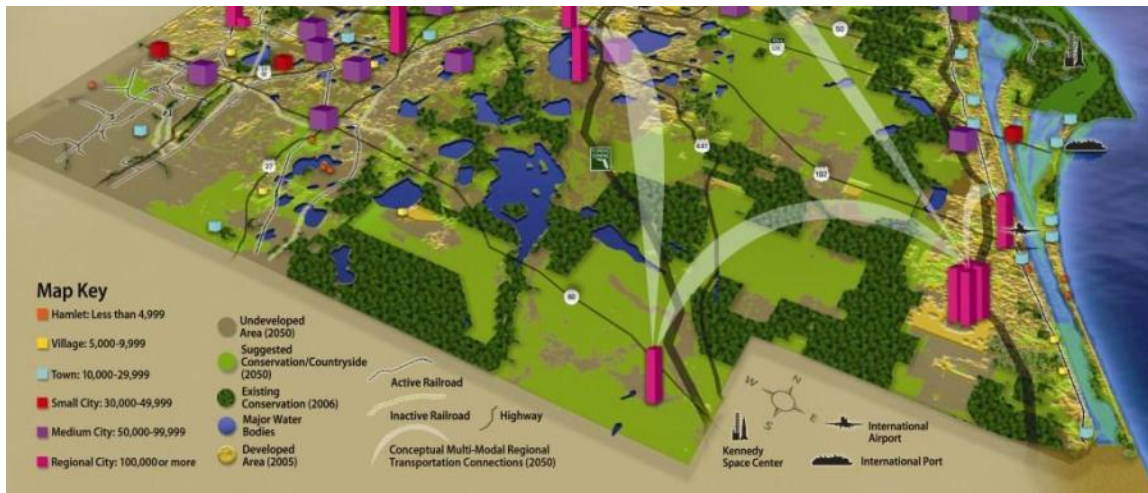


Figure 16: Detail of Southern Edge of What We Will Look Like...If Our Vision is Realized (The 4C's) Scenario Depiction from How Shall We Grow? website. Source: myregion.org.

Turning to the application of scenarios in professional practice, research participants compared “The 4C’s” scenario to their mental image of scenario plans they may have encountered in their workplaces, such as the local government comprehensive plan’s Future Land Use Map (FLUM). This is of particular note, as the FLUM is required by Florida’s growth management laws to designate allowable uses for each land parcel within every Florida county and municipality. In this role, the FLUM is the primary local mechanism for “translation” of “The 4C’s” regional scenario to a local level. The FLUM also serves as an important visual artifact shaping planning’s disciplinary enculturation and visual conventions, as seen in participants’ summarized responses (Table 11). Several comparisons to the FLUM were very favorable, as participants complimented the scenario’s “broader view”, graphic appeal, and ability to “draw you in” (Table 11). However, participants largely noted their local FLUM had more detail about proposed

land uses and community gathering places, and participants found “The 4C’s” scenario to have inconsistent coloring and a confusing layout (Table 11), raising issues with scenario interpretation.

In this research, participants offered many specific suggestions on potential design changes for the scenario’s visual style and visual data, which are presented verbatim in Table 12. Many comments relate to the locational orientation, place icons, scale, and context of the scenario, offering insights into areas of concern in application.

Participants listed a number of specific design interventions for potential scenario design and revision, which may further additional dialogue or research on visual conventions within the field. Two participants recommend “overlaying 3D population projection bars/concentrations over a colorful and well-designed regional 2D map” and incorporating a plan view perspective (Table 12), suggesting a mix of perspectives to enhance cognition and engage interest.

These inquiries were followed by comments on the textual support participants would recommend for the scenario. The specific research inquiry was, “What text would you recommend be added to or used with the scenario to make it easier to understand?” Many comments, presented in their entirety in Table 13, centered on revisions to the legend, presenting the underlying spatial logic for production and arrangement (as noted in Barton and Barton 62-64), and identifying place names, as done in the acetate overlay sometimes used with scenarios in print contexts. One participant recommended

“more items in the key, more parameters, more about the generators and attractors that cause the need for the multi-modal connections” for more intuitive understanding of the scenario (Table 13). While Lynch acknowledged the difficulty of creating a regional image (*Managing* 120), it is insightful to note several of participant responses recommend elements defined by Lynch (*Image* 46-48, 105-108), such as nodal organization and place naming, as text support relevant to scenario interpretation. Figure 17 presents textual elements from the scenario’s support text and legend as reference in interpreting these recommendations.

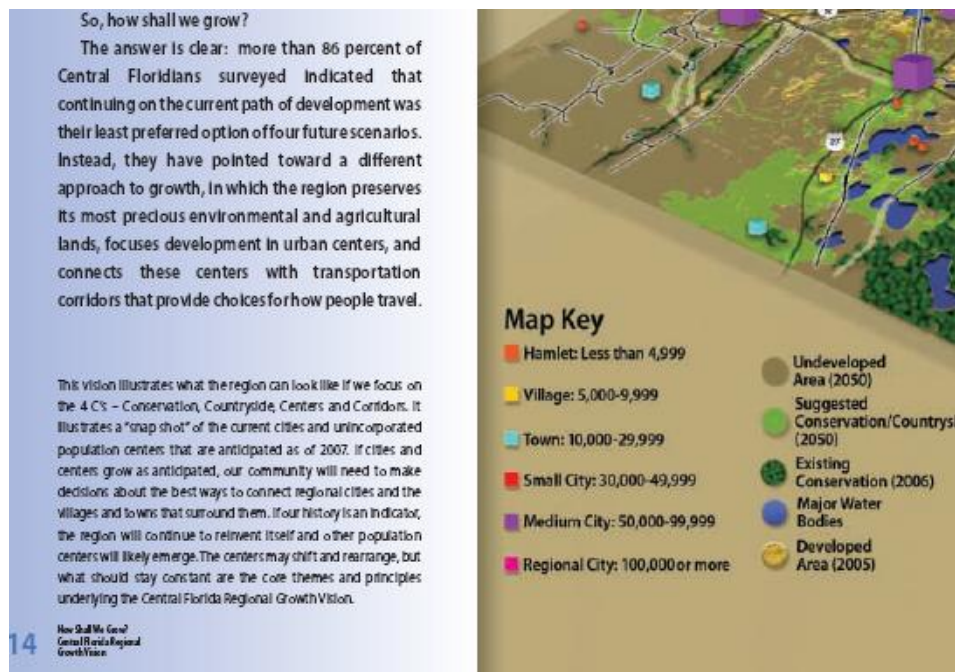


Figure 17: Textual Element Detail from Page 14, How Shall We Grow?: A Shared Vision For Central Florida, Final Report. Source: myregion.org.

To conclude their dialogue about “The 4C’s” scenario, participants offered open-ended comments that are listed verbatim in Table 14. Participant comments again reflect the hold of visual conventions of standard color spectrum, the desire for traditional elements of cartography seen in other disciplinary products, and additional data and textual support for map elements and the community values statements. To illustrate, one participant specified “the map needs to be more intuitive, use the standard color sets (water is blue), orient the map north, the colors should not detract from the story the map tells (sic)” (Table 14), presenting a set of visual adjustments that readily can be made in scenario products. One participant noted “the written results of HSWG must accompany the graphic we reviewed and will better explain the complete vision that residents wish for” (Table 14). This recommendation for additional modalities in communicating scenario values and design intent should be addressed in scenario iteration, and I recommend techniques to address this concern the following section.

Recommendations for Research

Relative to visual communications, there are a variety of visual elements in scenarios that require testing and a variety of potential testing methods. Recommended research in this area would address the following needs: the optimal relationship of textual support to the visual scenario, the ability to evolve and perfect visual conventions for regional scenarios for enhanced interpretation by existing and future audiences, examination of the potential migration of scenario-based visualizations of future places

to a 3D environment, and assessment of the ability to “translate” 2D conventions to 3D equivalents.

Also, Barton and Barton reference the postmodern interest in envisioning mapping as collage and the interest by design scholars like Edward Tufte in annotating the map (70-73). I suggest that the technological moment presented by Google Earth and geolocative social media makes these possibilities easier to realize and heed Bouman’s call for maps of “a completely different caliber: three-dimensional maps, diagrams, search engines, animations [that] help you understand the world a little better” (54). Community-based online mapping sites and georeferenced layers of user-contributed content already are present, but require application to the urban planning sphere. These artifacts then require user-centered design and usability testing, which requires careful consideration of appropriate techniques for all research themes noted.

North (6) notes that visual products can be evaluated effectively by usability testing, heuristic evaluation and “cognitive walkthroughs” as proposed in this research, arguing for controlled experimentation to determine the level at which visualizations promote complex and qualitative “insight” (8). North advocates “an open-ended protocol, a qualitative insight analysis, and an emphasis on domain relevance” (8), while acknowledging these methods require additional time, resources, and domain expertise (9) that must be considered in future research into scenario interpretation at regional and local levels. However, Grabill cautions that usability studies, while currently

enjoying popularity in technical and professional writing studies, do not inform about the use of information artifacts over time and “is a poor way to capture collaborative or cooperative work” (17), like the processes that develop or interpret regional scenarios, requiring a separate research protocol that is similar to Spinuzzi (48-50).

Conclusions

Scenarios only are persuasive communication if they can be interpreted in a clear and effective manner. In a sense, they can be “demystified” by categorizing them appropriately as information graphics, although the extents to which verbal language and visual language are represented in scenarios vary. Often scenarios are used without text accompaniment, except for a title establishing the primary value of the scenario to communicate its “brand”. Note that “How Shall We Grow?” does not name scenarios consecutively by number or letter, but communicates the primary value and/or objective of each.

It can be seen that the visual conventions of “The 4C’s” scenario present difficulties with scenario interpretation by Central Florida’s urban and regional planners, who seem firmly in the grip of particular visual conventions of scale, orientation, color ranges, and others expressed within the FLUM genre or similar products and are concerned if these conventions are not adhered to in a scenario product. It also must be considered if the two-dimensional form of the scenario inherently constrains the ability to communicate meaning over several decades and bring about the future community. To be “real”,

visualizations must allow deCerteau's pedestrian (91-110) to use strategies and tactics (34-39) to navigate, such that movement is intuitive and the apparatus invisible, potentially within both 2D and 3D environments. Cosgrove also sees a mandate from current visual technologies to seize "opportunity for creativity in shaping and recording urban experience...and critical attention to the making and meaning of both public and private urban spaces" (157).

With "How Shall We Grow?," planners do not have that rich vein of commentary to draw from in interpretation of scenarios, only a "policy compact" and limited textual artifacts from the process. This does not allow "creation of relevant knowledge structures through the use of visual displays...in design problem solving", with additional instruction and context (Casakin 261). In contemplating how conventions gain currency among communities, Kostelnick and Hassett (79) identify key elements: conventions must solve typical information design problems shared by many users, be widely distributed, be economical to implement, and represent a viable alternative to existing conventions among users. The information design concerns embedded in the "How Shall We Grow?" scenario are insightful to practice, but may limit its ability to bring visual conventions and its own intentions forward to meet the future without additional text support to communicate clearly across time and space. Theorists in the Texts and Technology program and digital humanities, the transformation of data into humanities knowledge (Saper 1), have the potential to provide insight into these concerns, and I will

outline this approach over the following chapters.

CHAPTER 3: THE VISUAL CONTEXTS OF THE REGIONAL IMAGE

This chapter considers the visual contexts being used by planners reviewing “The 4C’s” scenario, seen as their personal interpretation of Central Florida as a place translated into the construction of the mental maps, as explored by Lynch. Lynch’s methods in *The Image of the City* were early efforts within the field to help articulate how research participants, each city’s residents, conceived of the places they lived through their own drawings. His efforts showed that place is personal, and focus group and interview findings are contextualized and illuminated by the alternative conceptions of place considered in this chapter. As meanings of and landmarks in scenarios are not explicit, Lynch’s imageability themes also may be recognized in research participants’ discussions of regional land use scenarios, based on the individual participants’ visual contexts of the Central Florida region.

This image also can be characterized as informed by the rhetorical concept of chora, the atmosphere of place that creates a mood rendering an image coherent (Ulmer, “*Chora*” 20). Saper defines chora in terms of “countryside, land, location, place, and place-making logic” (7), noting its importance to creating meaning from chaos. As an example of its application, Nedra Reynolds has replicated Lynch’s experiments in Leeds, England, with students of geography (86-93), finding that even with their training, their images largely were rooted in personal experiences with places, encounters with

residents, and anecdotal information from friends, incorporating elements of Ulmer's mystory addressed later in this work.

Theorists in the first section of this chapter provide a framework for assessing how these meanings are created. I am not positing that this is a linear or direct relationship, as individuals' concepts of place involve many complex mental and emotional threads, as seen in literatures discussed in this chapter. Planners could be evaluating the scenarios in this research against their mental image of Central Florida as they have experienced and remembered it personally, viewed through the media, referenced in history or by their peers, or by other elements, some fragmentary and elusive. My discussion of place theory, with its corresponding themes of place attachment and identity, is intended to move toward a framework for articulating how research participants may be interpreting regional land use scenarios against their personal regional image or visual context, potentially acting as *topoi* in concert or conflict with each other within the rhetorical situation of planning.

As noted by Janz, there is an enormous body of work on place across dozens of disciplinary fields (3), and assembling a framework to assess relevant contributions is difficult, even with a few key theorists important in several of these disciplines. This is particularly the case in trying to assess which disciplinary or philosophical approach is most applicable to the discipline of urban and regional planning. Planners are not as concerned with place as one might assume outside the field, and the field has largely

neglected consideration of place and place attachment (Manzo and Perkins 336), even as it has concerned itself with “placemaking”. Urban designers, as a subdiscipline, often refer to the concept of placemaking as a disciplinary activity or goal, but that often is confined to attention to the physical elements of space, not place in its totality. Recall that our primary audience of planners for the scenario are those engaged in comprehensive and long-range planning, which in Florida, unfortunately is primarily concerned with regulatory activities and the planning of enormous geographies, challenges to placemaking activity. However, as Barton and Barton remind us, the maps with which they practice contain ideologies embedded in them that operate as visual rhetoric (50), even as these maps are consulted as technical communication to bring the intended community to light over time. In mapping regions, the emergence of the influential LA School of postmodern geographers and others present Los Angeles as a national and international model for understanding dynamics of regional change (Engh 1676).

As I discussed in Chapter 1, the definition of a region and its corresponding identity as a place are far from intuitive. They are negotiated boundaries, often politically determined and possibly contested, and a region may have a negative identity or almost none at all. Regions as territories may follow the map, as in the “How Shall We Grow?” collection of counties, or they may follow the heart, as groups of people band together to share a common identity and affinity for a place. The second section of this chapter explores the

dynamics of two pronounced regional identities, in Santa Fe and in the Great Plains area, before noting Lynch's own concept of what regions may need for identity and a sense of place.

In the final section of this chapter, I use these insights to discuss what regional visual context the "How Shall We Grow?" region may have or be developing. If regional land use scenarios are to be viewed consistently and collectively as an image that brings about a future place, it is important to note what the starting point for these efforts may be in the region we have today. A strong identity may facilitate that interpretation, as well as promote the commitment to interpreting the scenario and working to enact this future place through many efforts by different stakeholders over a period of years.

To consider how a sense of place may serve as the core of this regional identity, "place" is a space that is known, invested with personal values, and that has deep meaning to individuals (Manzo 337). Manzo's definition of place in the context of both space and meaning (337) has particular relevance to regional visioning processes, but for a precise definition, must be extended further. For this analysis, I define place as "space given meaning through personal, group, or cultural processes" (Low and Altman 5, Vorkinn and Riese 252). Group and cultural processes are of particular relevance to the regional planning process under study and to the process of making meaning through shared dialogue and understandings (Manzo and Perkins 341). Understanding of place as a concept has migrated toward "mutually formative relationships which bind together

material manifestations and human activity” in an iterative, evolving manner (Smith 7), unconsciously paralleling the effort needed to create and implement regional scenarios.

The broad theoretical literature on place incorporates philosophy, environmental psychology, and many other fields detailed by Janz (90-91). From this literature, related concepts of place attachment, place identity, and its relationship to space all are insightful in understanding this concept and its effects. In engaging these concepts for research in technical and rhetorical communication, I am encouraged to note that place often is contextualized in rhetorical terms, even contested in them. Place attachment, an emotional connection between people and places, is identified as a “dynamic and dialectic process” (Manzo and Perkins 337). Tuan sees the formation of place identity, value attached to the particular by naming a physical place (18), arising from “dramatizing the aspirations, needs and functional rhythms of personal and group life.” (Tuan 178), requiring discourse. Discourse also is applied to space, as the semiotician Roland Barthes conceived of the city as a discourse that represented its own language (Ellin 284). Young identifies this dialectic as taking place between the individual and community “in which each is a condition for each other” (240), presenting an ideal of the city as a space that welcomes difference and the representation of diverse groups (253).

Although Lynch’s approach was grounded in his research subjects’ experiential awareness of the place in which they lived and its imageability, a host of other theorists

have engaged and articulated place and related concepts from different theoretical perspectives. These fields include anthropology, architecture, psychology, sociology, architecture, social ecology, and others referenced by Low and Altman (1), to which I would add philosophy for its contributions, some of which are highlighted in my analysis. The insights of these diverse fields create a variety of perspectives on how a sense of place is created, communicated, and in the case of scenarios, potentially replicated. However, many of these fields cannot be adequately explored in one analysis, being the subject of hundreds, so my analysis is confined to the theoretical perspectives that best illuminate the knowledge work and methods of Kevin Lynch and planning in general. This choice reflects the resonance of his work within the urban planning and design fields, recognition that it has influenced many others, his use of mental mapping in relationship to cognitive perceptions of scenarios, and the parallels between his “coding” of city elements and similar semiotic and visual design structures.

The Nature of Place and Meaning

Low and Altman identify Tuan, Bachelard, and other phenomenological scholars as making some of the earliest contributions to the study of place attachment, focusing on people’s emotional experiences and connection to places, often the home and places considered sacred (Low and Altman 1-2). Tuan’s work identifies the manner in which individuals invest undifferentiated space with meaning, based on values and experiences, to create the concept of place (Tuan 6, Manzo and Perkins 337, Manzo

49). In addition to its vast contributions to understanding of place, Tuan's work has interesting implications for the growing planning practice of regional visioning. In Tuan's view, individuals acquire an understanding of visual media that is organized into a "spatio-temporal structure", based on the visual influence of paintings and photography (Tuan 123-124), paralleling the regional visioning processes. Regional visioning helps participants "get to know" the region by discussing regional issues and viewing this visual media, then organizing it into a scenario that also is invested with value.

However, Tuan reminds "people differ in their awareness of space and time and in the way they elaborate a spatial-temporal world" (Tuan 119), which does have implications for understanding the "region in future year" thinking that is inherent in these processes.

While the political dynamics of how various stakeholder groups perform these acts is outside the scope of my analysis, these dynamics may complicate the participants' attachment to scenarios and long-term commitment to them, suppressing what could be a powerful constituency to help ensure they are realized. Compounding the effort it takes to understand this larger district, Tuan laments that it takes an unfolding of experiences over years to know a place, and mobility of the population may create only superficial connection to place (Tuan 183). He asked: "How do we promote the visibility of rooted communities that lack striking visual symbols?" (Tuan 202), and his question is as relevant today or more so, in this American era of national franchises, commodified architecture, and relentless mobility, all much in evidence in Central Florida. Tuan offers

us insight that may help divine an answer, as he credits experiences, such as where people live, shop, and socialize, as helping constitute their definition of what comprises their neighborhood, but any larger district “acquires visibility through an effort of the mind...then becomes a place” (Tuan 170-171). Perhaps through the shared experiences of others, collaboratively engaged in dialogue about the region, this new visibility may take place. However, I would argue this visibility requires a viewer to move between a scale of local place and regional scenario, as well as between three-dimensional lived space and its two-dimensional representation in a scenario context, both challenging endeavors that cannot be assumed.

Extending the analysis of functions of the image, Benjamin’s assessment of the effects of mechanical reproduction, particularly germane to an evolving digital age in planning, may be applied to regional land use scenarios. Benjamin posited that widespread reproduction and dissemination (“exhibition value”) made a visual work a rhetorical object with “entirely new functions” (224-225), one which also lost its “presence in time and space” (220). Benjamin’s thesis predicts that these scenarios will take on rhetorical meanings and directions that may not be intentioned or initially envisioned, especially as its testimony is affected and alters the “authority of the object” (221) and the authenticity of these visual objects, as the exhibition changes meaning. Relative to scenarios, the invocation of community support and voting also may be seen as an appeal to establish authority. Although the intention of exhibition is not to have scenarios change authority

or authenticity, Benjamin warns us this may occur, and detachment from a textual grounding in policy or analysis perhaps encourages the rhetor to use the scenario to direct audiences to accept a rhetor's interpretation, rather than a fundamental grounding in community values that accompanied scenario development.

In essence, Benjamin's work also asks if scenarios, when so widely available, lose their meaning relative to individual places and concepts. From a rhetorical perspective, within the specific political context of planning, I would see Benjamin's insights as pointing to a wider spectrum of participation, often a perceived benefit within the field, but offering complicated futures for the "operations" of scenarios. If meaning is being lost, and then created by these stakeholders by rhetorical invention and invocation of scenarios as ethos, will that bring the scenarios further from their original design as "instructions to the future" creating a particular place incorporating specific values? Benjamin's new functions may range between these missions of instruction and invention for scenarios, creating both richness and uncertainty for their futures, as mechanical reproduction favors transitory and elusive content over unique and permanent artifacts, as suggested by Harvey (346).

From a phenomenological perspective, Martin Heidegger's work in "The Question Concerning Technology" illuminates the potential for regional visioning processes to act as a technology with enframing characteristics, as scenarios that hold alternatives in "standing reserve" (Heidegger 329). This allows various meanings to unfold to different

audiences in the dynamic processes of scenario creation and implementation by multiple stakeholders over a period of years and, likely, in different political jurisdictions. This implementation is challenged not only by the political nature of such processes, but at its core, the ability to articulate a visual language that communicates the essence of a regional visioning scenario across time and audience. Heidegger finds this process holds “the danger that man may misconstrue the unconcealed and misinterpret it” (331) as the future is revealed in its “continuous unfolding in time” (Myers and Kitsuse 225). Neuman (“How We Use” 174) identifies in Heidegger’s work another important concern for planning, the idea that nature being transformed into standing reserve becomes artificial in its control by humans using various technological means, such as the Geographic Information Systems discussed in Chapter 2. This idea is particularly germane to visual representations in regional scenarios, which often must represent myriad and complex environmental concerns (wetland areas and systems, the presence of diverse species) as uniform green “blobs” on a two-dimensional scenario, devoid of this complexity.

In contrast to the phenomenological perspective represented by Tuan and Benjamin, Janz identifies deCerteau as making significant contributions to aspects of place theory from a symbolic and structural perspective (90). DeCerteau sees places as stable physical environments shaped by “fragmentary and inward-turning histories” (108) where “stories... constantly transform places into space or spaces into places” (118).

They include civic, cultural, and personal histories (Beatley 12, 26) that animate the built and natural environments and that may be part of a larger culture or a smaller, perhaps oppositional culture, each personalizing the space as their own. This contribution of narrative to place requires, in part, an “active and reflective mind” (Tuan 18), as place has a mental image that must be created (Hiss 28), in a manner reflecting Barthes’ concept of the readerly text. However, DeCerteau’s work focuses strongly on the pedestrian realm (91-110), and the application of his theories at a regional level is limited. Crawford and other Everyday Urbanists have attempted to apply deCerteau’s perspective to the built environment of Los Angeles, a city at a regional scale that is celebrated by the L.A. School of postmodern geographers, but not always successfully.

While individual, collective, and cultural processes all may contribute to formation of place attachment, personal experiences in physical environments create particular resonance at the local level (Vorkinn and Riese 250). Proshansky’s articulation of place identity as an emotional apparatus partially derived from “memories, ideas, feelings, attitudes, values, preferences, meanings..related to the physical environment” (Vorkinn and Riese 251) also reference physical places as a touchstone, compared to the cultural or economic processes that provide critical lenses for theorists using other approaches. Hummon investigates the manner in which self and social identities are embedded and articulated through the built environment, with buildings acting as a nonverbal communication medium (259). However, he depicts many of these related

research traditions as taking place at a local and neighborhood level (Hummon 261), providing little insight into a regional tradition and how it may emerge. I argue this is important to establishing emotion, physical impressions, and cultural traditions in the built environment as key indicators of place, but I must turn to other examples of how regional image have been created to fully articulate the manner in which “How Shall We Grow?” regional scenarios may be interpreted within a larger regional place context.

Creating the Regional Place

As noted by Anderson, all communities larger than villages, where face-to-face contact is the norm, are imagined, distinguished not by qualities, but by their images (6). For example, in the United States, Americans will never know every other American or even most of them, but have “complete confidence in their steady, anonymous, simultaneous activity” (Anderson 27). Young criticizes this unity, as it is directed toward defining identity, as inherently excluding elements that “lie outside the essence” (235). At the same time, communication technologies have furthered the confidence described by Anderson, which arises from the standardization of print languages (44) and the growth of literacy (75-77), but now has defining significance from the map, as “colonized zones entered the age of mechanical reproduction” (163), echoing the concerns of Benjamin. Modern nations emerged from colonial states by initiating “maps-as-logos”, detaching states from context, allowing transfer and recognizability, and entering popular imaginations (175). A land use scenario created in a regional visioning process is, in

effect, the map as described by Anderson creating a new regional future or nation of the mind, and we must consider how modern regions may emerge, as well.

On a regional level, the challenge in establishing the context of place for interpretation of regional maps and scenarios is that place-based experiences often occur on a street or collection of streets in a city (Tuan 18, Soja 20-21), not on a regional level. Soja refers to this tendency in postmodern geography to “overprivilege the local” (Soja 20), which may be based, in part, on its focus on deCerteau as one of several central theorists, although Baudrillard’s “simulacra of everyday life” (Soja 19) and Baudelaire’s concept of the flaneur (“city walker”) creating knowledge and experience (Manovich 270-273) are other insightful postmodern examples of this geographic scale. DeCerteau defines space as places transformed by pedestrians (117), which is hardly possible at a regional level. This focus on the street level is powerful, but reduces the extent and ability of the “critical spatial imagination” (Soja 314). However, deCerteau’s notion that stories and relationships being central to creating place (118) can be applied to examination of visual communications in regional processes to examine what stories and relationships may be communicated by them.

Even within the urban planning tradition, theorists have prioritized the “loose, improvised assemblages of individuals [on] streets” described by Jane Jacobs (Johnson 92), as stories take place at the street level (Johnson 97). Whyte’s vivid descriptions of Lexington Avenue in New York City (297) also correspond to these themes. As such,

the mental image of place is important at a variety of scales, as scenarios require translation from the regional to the local scale. With the inherent complexity of place, my research conceives of regional place functioning as a combination of both experience and idea. To illustrate this possibility, Abbott and Margheim note that a regional sense of place is found in Portland, Oregon, in part, due to its Urban Growth Boundary (UGB), a focus of public attention (197). Abbott and Margheim note the UGB has captured a unique place in the public imagination, as “this modernist land use regulation has experienced a postmodern apotheosis: It has become a text! [emphasis the authors’] People read complex meanings into the UGB that go beyond its simple legal function. They try to capture and claim its essence through metaphors, depict it in paintings and photography, write poems about it (texts about a text), and interpret it through performance” (199). I return to this example in Chapter 5 to discuss how these themes and actions represent poetics of place that have the potential to generate knowledge and research inquiry.

With this emphasis on the visual and metaphorical, this approach to regional place echoes Ulmer’s concept of the “mystory”, which presents perception as an aggregation of experiences and emotional relationships embedded in “psychogeography” (Ulmer, *Internet* 81) that, as a genre, can function across all media (Saper 7). The mystory functions through the layering of career, family, entertainment, and historical references and experiences. This assembly, made conscious through personal discovery and

insight, creates a larger “image of wide scope” as a resource for effort and agency. This psychogeography may be important to the interpretation of visual products in regional visioning, which I will explore in focus groups and interviews conducted for this research. Use of Ulmer’s mystory as a framework for community analysis is particularly relevant for urban places and spaces in a literal sense. Ulmer’s quadrants of career, family, entertainment, and history all have unique relationships with urban settings. For example, career choices and the perception of better career opportunity are largely attributed to urban areas, as reflected in Central Florida’s enormous population growth over the past several years, which has diminished during the current economic recession. The image of wide scope resulting from the mystory informs the personal “contribution to a knowledge domain” (Ulmer, *Internet* 19), such as personal or group interpretation of regional visioning products and corresponding land use decisions at the local level. I return to Ulmer’s theoretical framework to discuss its pedagogical implications in Chapter 5, but now consider the process of moving between these regional and local scales.

In “Institutionalist Analysis, Communicative Planning, and Shaping Places”, Healey expands deCerteau’s street level view to a regional level, linking interactions between mental and material states to larger relationships that shape actions on a regional level, using “particular values and histories” to create attitudes and values that become “systems of meaning” (113). However, these meanings rely on mental models that are

challenged by the different “spatial range and temporal reach of the relations that transact the *space* of a place” (Healey, “Institutionalist” 115) and that may not be shared. With diverse cultural communities, such as those seen in Central Florida and represented in the diversity of urban and regional planning professional, that have alternative systems of meaning, a variety of local knowledge structures emerge and require mental and social mapping that can emerge through collaborative planning processes (Healey, “Institutionalist” 116).

Although an important theorist in urban and regional planning, Healey articulates an important and nuanced definition of place that encompasses the physical, experiential, social, and cultural:

Places are social constructs, given identity and infused with value through the experience of living, working, and doing business in them and through a historical accretion of value that may sustain an identity even among those who rarely visit a particular place. Any geographical area may be the locus of multiple place identities, developed in the different webs of relationships which transect a place. Within the social relations and cultural resources of each, places are given identity and value in the context of a particular system of meaning. This provides a way of integrating the different aspects of placeness...and the relations among, past, present, and future. (Healey, “Institutionalist” 118).

These dynamics are particularly important in forging a new concept of Central Florida's residents as part of a collective regional experience and identity, with the present condition of its community extended through a future aspiration. What is this regional vision, and how do the regional scenarios represent it and help to bring it to light? The regional imageability of this new "future place" cannot help but be affected by current perception of regional identity. To illustrate how these identities are created, I now turn to several examples of how regional identities were enacted in regions across the nation before considering how that may occur here in Central Florida.

Garreau's Nine Nations of North America

As a journalist with the Washington Post and subsequent author and lecturer, Joel Garreau has observed many facets of the growth and development of the United States and published *The Nine Nations of North America* in 1981 to describe his experiences with regional identities across the country. While perhaps eclipsed by his subsequent and popular *Edge Cities: Life on the New Frontier*, which described new patterns of intense suburban "sprawl" development at the urban fringe across the United States, his earlier work does much to establish an analytical framework for the study of regions by describing their particularity and nuance. His descriptions address image, symbolism, and other elements to describe cultural affinity and identity within "nine nations" of the United States and Canada, which defy traditional political and national boundaries. He is not alone in this view; Robert Kaplan characterizes Garreau's work as more relevant

than when it was originally published, as he applies Garreau's methods to describe regional differences that he argues will lead to the dissolution and reframing of cultures and territories in the United States that parallels movements in Canada and many of the world's nations (Kaplan). Garreau's work is not a time capsule, in spite of subsequent demographic and migratory shifts in the United States and its southern "Sun Belt" unaddressed in his work, but a framework for understanding regional character that embraces particularity.

Garreau traveled almost one hundred thousand miles and conducted hundreds of interviews (xi) to complete his book on these Nine Nations, based on the premises that "your identity is shaped by your origins" and that new concepts of regionalism provide "a better understanding of yourself" (xvi). Interestingly, Garreau divides Florida into two Nations, with Central Florida combined with his "Dixie" Nation, and South Florida combined with the Caribbean in a Nation termed "The Islands". For the specific geographical area addressed in "How Shall We Grow?," Garreau does not offer detailed insights, as he does not address Central Florida communities directly. (I surmise that is because this work predates Florida's huge in-migration of population from the 1990's onward, which leads to the Central Florida city of Maitland being characterized as an "Edge City" in Garreau's later publication.) However, his qualitative framework for analysis does provide a framework for invention and respect for culture and cultural identification in the analysis of regional identity. It can be argued that the "How Shall We

Grow?” process design did not facilitate the personal understanding and cultural connection referenced by Garreau, such as by the submittal of resident-generated content about the region or by personal mapping of landmarks in the Lynch tradition.

Extending this consideration of regional identity to the present day, Collie provides specific insight into the current demographic trends in South Florida, as “some call it the Accidental Region” (Collie). He paints a vivid picture of the same population influx that motivated the “How Shall We Grow?” process, as South Florida’s “regional identity is still a work in progress...the result of a hundred small cities that have spread like blotting ink over sand and marshland for the past 50 years” (Collie). Collie’s perspective is that this unplanned nature is difficult and formless, but brought about by the significant influx of younger, mobile, and increasingly Hispanic and foreign-born residents, demographics similar to Central Florida’s. Collie highlights differences in cultural affiliations, whether to countries of birth, native (not Spanish) cultures of Latin America, religious groups, and other identities that are not geographically linked to their place of residence, “a megalopolis that is already larger than 35 states” (Collie). Through interviews with residents of different ages, races, and incomes, Collie illustrates the mobility, difference, and technologies that create a shifting South Florida regional identity, which merely exists as a collection of the particular and multifaceted identities of its residents. These dynamics also serve as a lens for the “How Shall We Grow?” region, with its similar migration and demographic patterns.

The “Buffalo Commons” Concept

In 1987, Popper and Popper published “The Great Plains: From Dust to Dust” in *Planning*, the magazine of the American Planning Association. In this work, the Poppers threw down a gauntlet, arguing that great portions of ten states in the U.S. should, in the long term, be restored to “their pre-white condition, to make them again the commons the settlers found in the nineteenth century” (“Great Plains” 17) to make this vast area a historic preservation project and enormous national park (“Great Plains” 19). This concept, which they termed the “Buffalo Commons” (Popper and Popper, “Great Plains” 19), was based on their assessment of the area’s climatic conditions, historic trends of farming devastation (such as seen in the “Dust Bowl” conditions of the 1930’s), population decline over decades, existing federal government ownership of tens of thousands of acres of land, unfavorable market and investment conditions, and environmental decline from past farming practices and a lack of water supply. Describing the influence of this concept twenty years later, Donovan describes how the Poppers speaking at a 16-state Western Planning Conference covered by the Chicago Tribune led to national media engagement with the Buffalo Commons concept, spreading it throughout the region within months (Donovan). The Poppers’ work was a well-argued work of rhetoric, not of consensus, and it set off a firestorm of controversy and debate across states, as a range of stakeholders engaged the concept in “town hall meetings” and published works. As the Poppers toured the states speaking at these

meetings, such was the emotion inspired by this work that one meeting in Kansas had to be cancelled when the Poppers received a death threat (Donovan).

To many residents, business owners, and other stakeholders in the Great Plains, the Buffalo Commons became a relay for identifying and clarifying identity, as it “highlights a region’s distinctive, valuable features, defining what is worth protection” (Popper and Popper, “Storytellers” 18). This regional metaphor, with its strong visual image of the buffalo, is intentionally open-ended and ambiguous, offering a lens for personal identity similar to Ulmer’s mystery. The Poppers note of their work: “The metaphor uses the word ‘buffalo’ rather than the more accurate ‘bison’ because it is more familiar to the public and taps more allusions—buffalo as wildlife, myth, and merchandise” (Popper and Popper, “Buffalo Commons” 36). The Poppers do not take credit for creating this regional sense of identity, strongly forged by the difficulties and particularities of life in Great Plains states, only giving it a venue for expression, as residents “variously interpreted the metaphor as a general assault on their way of life, an evocation of a fabled past, a vision of a feasible future, or a distillation of what they were already doing” (Popper and Popper, “Buffalo Commons” 32). Clearly, the Buffalo Commons concept offers Central Florida a rich example of the enormous power of regional metaphor to animate community dialogue and, perhaps, regional scenarios, even with the area’s current lack of engagement and affiliation with a regional identity.

Creating “The Myth of Santa Fe” by Visual Practice

In *The Myth of Santa Fe*, Chris Wilson articulates how successful attempts to promote the widespread use of architectural and urban design styles commonly associated with Santa Fe, such as adobe building materials and a muted range of colors, created a regional image of Santa Fe that is both a reflection and manipulation of its history. This “invention of tradition” was initiated through the development of state symbols and powers, culminating in a “climate of support for regionalism” that furthered extension of this image through art and architecture (Wilson 4, 277). In the 1920’s, a consensus emerged around building style and uniformity, incorporating Spanish and Mexican influences (Wilson 100-101, 103-104). Wilson identifies the cohesiveness of the image, based on the restoration of this ideal to replace and supplant alternatives as part of building and design review (232, 252), which resulted in almost total uniformity in the built environment of the region. Ultimately, Wilson’s “myth of Santa Fe”, which he describes as a “constellation of arts and architectural revivals, public ceremony, romantic literature, and historic preservation” (8) eludes simple characterization and has complex effects.

I am reminded of Anderson’s focus on common symbols in forming a community identity, an outcome also noted by Wilson (4). My assessment is that this process of rhetorical invention, extended to the realm of the visual, elaborated a cultural narrative that was perpetuated not only by government and business leaders, but by the

populace to the extent the narrative perpetuated a unique regional identity. While Wilson decries a “subjective apparatus of selection, distillation, and interpretation” (8) in crafting the regional image without mentioning specific stakeholders, that apparatus must be extended to the public to note their involvement in it, as constituencies to whom government and business ultimately are accountable through their need for public support. Using Wilson’s template for analysis, it is clear Central Florida lacks the visual uniformity to create identifiable visual contexts and images, even within individual cities in the region.

Lynch’s “Sense of a Region”

In *The Image of the City*, Lynch did not theorize how the mental image of place is formed and did not find that one comprehensive place image was shared by all participants (Neuman, “Planning” 66). Subsequent to *The Image of the City*, Lynch’s *Managing the Sense of a Region* attempts to apply sensory and perceptive qualities that contribute to place to articulate them on a regional scale and noted the particular difficulties in doing so. Interestingly, he couched these difficulties in narrative terms. Lynch cites standard mapping languages of regional discourse as inadequate and not unified, “if indeed a unified language is possible” (Lynch, *Managing* 120).

In this work, Lynch’s analytical methods changed from *The Image of the City* (Neuman, “Planning” 66) to broaden the scale of application and argue for regional focus on experiential and sensory qualities of a place, incorporating consideration of the “look,

sound, smell, and feel of a place”, however complex this may be in practice (Lynch, *Managing* 4). While acknowledging these difficulties at a regional scale, Lynch advocated analysis of “perceptible features of an environment together with the capabilities, values, and situations of its perceivers” (Lynch, *Managing* 8). The image of place is not created through a linear or straightforward process, especially on a regional level. In part, this dynamic is attributed by Lynch to the “size and complexity of regional phenomena, their constant cyclical and secular change, the importance of human activity and human images, the continuity of regional management, and the multiplicity of factors involved” (Lynch, *Managing* 120).

Lynch found access and movement through a space and the recognition of places to be aspects of a created mental image (Lynch, *Managing* 23), presenting potential difficulties for conception at a regional scale. Lynch presents a long list of potential strategies for enhancing public access, information, and experiences in regional spaces, incorporating aspects of visual identity, mapping, and public access to territory (Lynch, *Managing* 28-30). In *Managing the Sense of a Region*, Lynch also specifies actions to improve communicative parameters (32-34) and environmental parameters (35-36), recommending formation of a regional agency to address diagnosis, policy formation, regulatory functions, and design services (54), in effect creating the visual myth identified by Wilson in Santa Fe. Lynch also recommends research methods to assess regional place qualities with residents (112-120) that can be used as a framework for

developing this regional image with Central Florida residents in the context of “How Shall We Grow?”

“How Shall We Grow?” and Orlando as a Regional Place

How can cohesive regional concepts, like the Nine Nations, Buffalo Commons, and the visual image of Santa Fe, be established or uncovered in Central Florida and Orlando to inform regional visioning and collaboration processes? The mental image of place can form a conceptual foundation in its interaction with images of experience (Neuman, “How We Use” 166) and concepts of the future (Avin 109), influencing the interpretation of scenarios in the regional visioning process, whether positive or negative. It is clear the possibilities exist for scenario creators to use images as iconic representations contributing to persuasive, future-oriented planning “stories” (Neuman “How We Use” 166-167; Myers 71), utilizing place-based metaphors in the manner of the Buffalo Commons. However, it is not clear “The 4C’s” scenario can do that in its present form without iteration at different levels and with different modalities.

Figures 18 and 19 present examples of the manner in which the “How Shall We Grow?” project report attempts to create that regional image, specifically in the context of an “imagining” action and largely incorporating content reflecting growth and development dynamics (ex. land developed or preserved in conservation). Note that even in this envisioning posture, project organizers did not rhetorically appeal to a specific identity of Central Florida or Orlando in this project literature. Manzo points to place attachments

as engaged with “people, activities, processes, and places involved in the attachments..[and] nurtured through continuing series of events...” (52-53). As an alternative, project organizers could appeal to a series of landmark and/or events, such as the establishment of Kennedy Space Center, Walt Disney World, the first time the reader went to a Central Florida beach or freshwater spring, or readers’ attendance at one of Central Florida’s colleges and university. The challenge for regional identity and attachment is the degree to which these events take place and are shared, especially at a truly regional scale, but these types of appeals could allow a dynamic regional image to emerge that could be iterated during regional visioning processes with accompanying visuals and user-generated content across media.

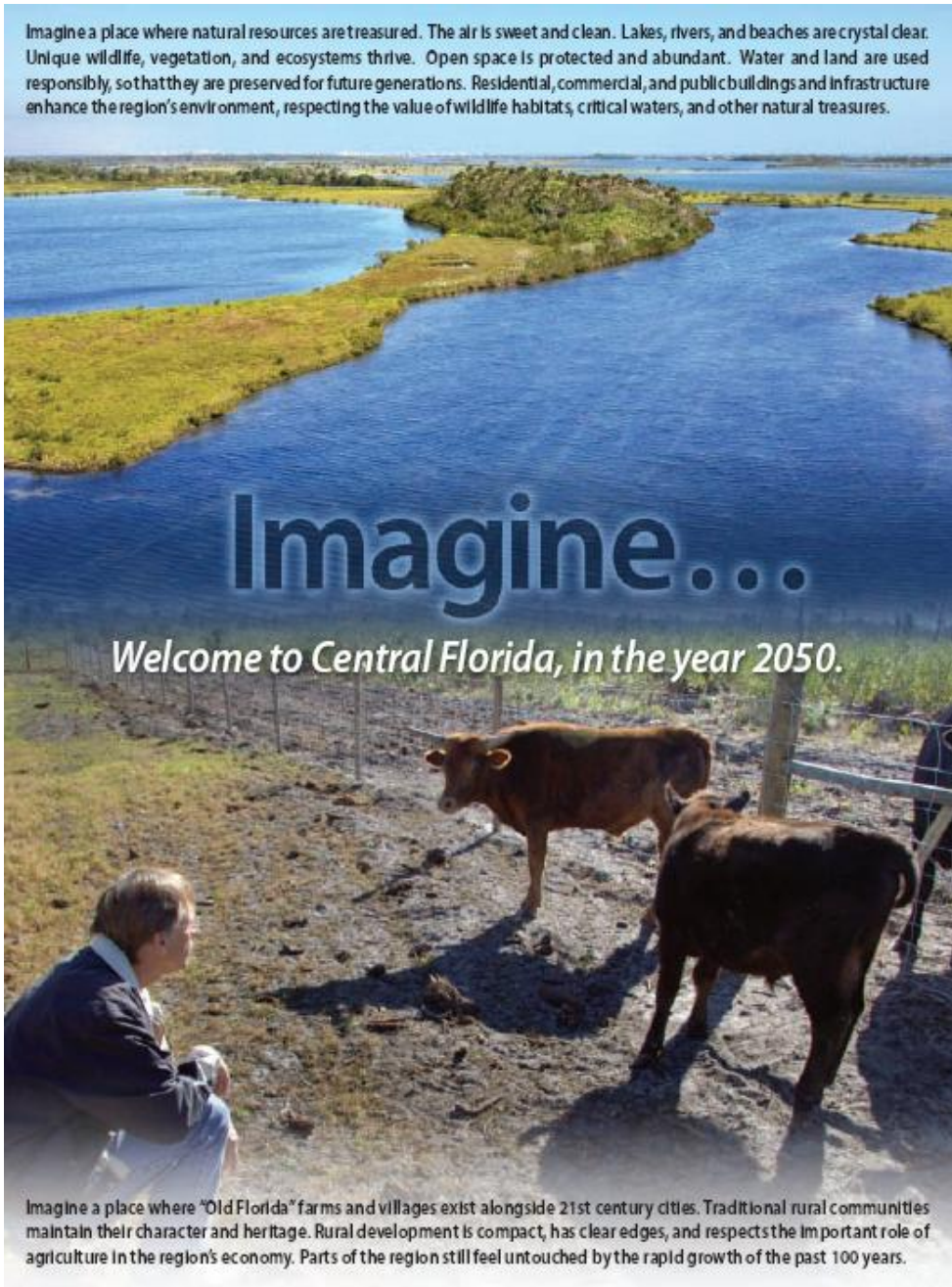


Figure 18: Imagining Place Detail from Page 6, How Shall We Grow?: A Shared Vision For Central Florida, Final Report.
Source: myregion.org.

Manzo identifies a gap in the extensive literature on place and space relative to how places “hold meaning for people outside of natural environments and local neighborhood places” (57), which may point to the need for sustained residency in the Central Florida region to create this experiential identity over time, absent the regional “brand” of a Portland, “Silicon Valley”, “Research Triangle”, or other regional metaphor that a new resident may access to construct regional identity. As noted by Low and Altman, “at a broad cultural level, the history of New World Western cultures has been one of instability, migration, and change, with research emphasizing how people seek out and adapt to new situations, rather than focusing on how they affiliate and attach themselves to their new locales” (2). Current migration behaviors in the United States, and Central Florida’s in-migration in particular, aggravate these long-standing cultural themes, as people shift between regions or states. In Central Florida and Orlando, this migration would lead to a need to continually provide a regional locus of identity for access by changing audiences, presenting a rhetorical and educational opportunity for “The 4C’s” scenario.

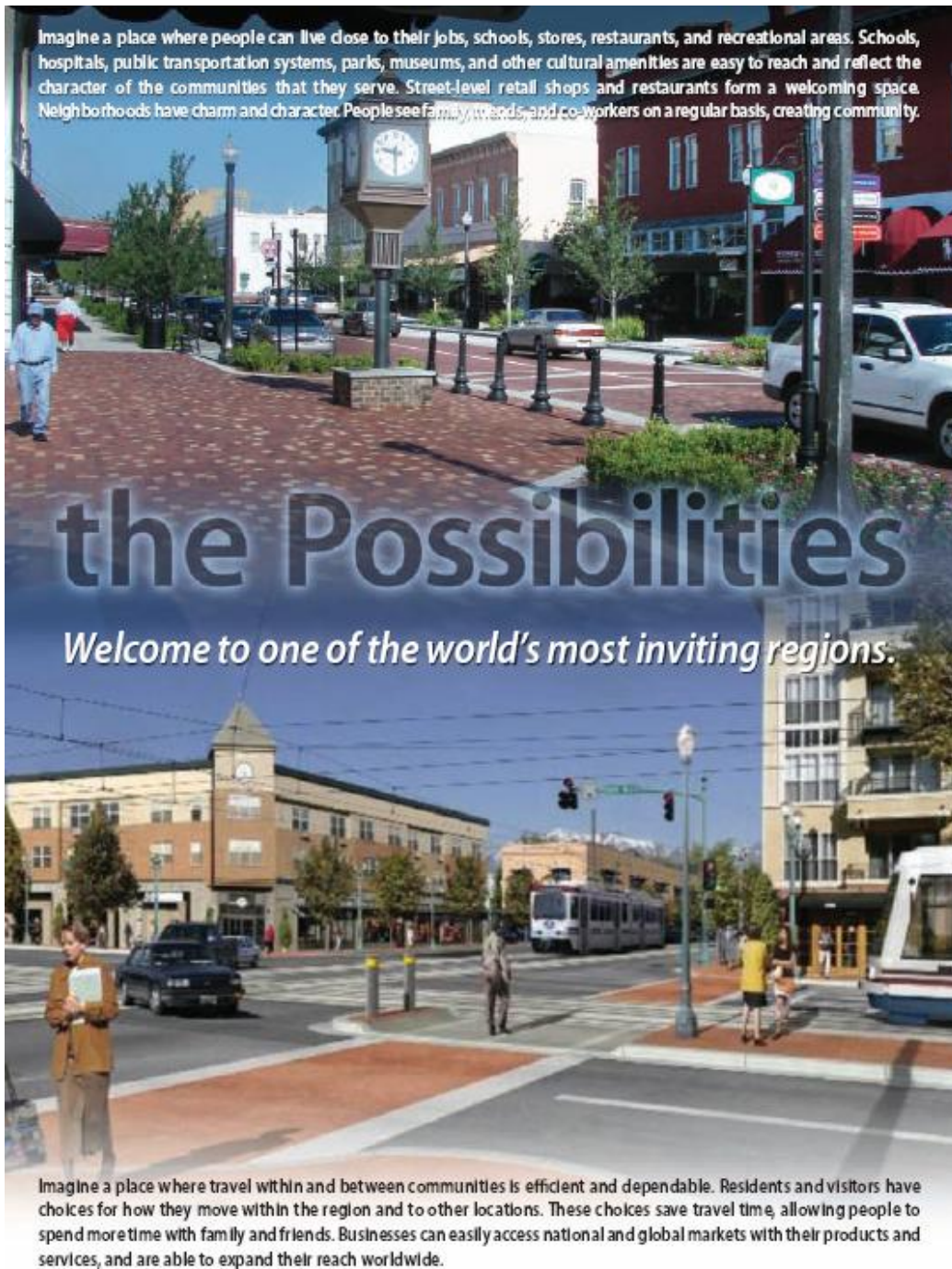


Figure 19: Imagining Place Detail from Page 7, How Shall We Grow?: A Shared Vision For Central Florida, Final Report.
Source: myregion.org.

As a social historian of Florida, Mormino eloquently describes the lack of attachment seen in Florida's new residents, characterized by former Governor Bob Graham as the "Cincinnati factor", residents (mostly retirees) "who moved to Florida physically, but never emotionally" and continued to subscribe to newspapers and root for sports teams from their former hometowns (Mormino). In essence, "How Shall We Grow?" asks residents who may not even have conceived of themselves as Floridians or attached to this place in any way to suddenly conceive of themselves as part of sustained collective action at a regional level and to embrace "regional citizenship" and identity. However, in the potential absence of these conditions, it presents an opportunity for the scenario to be a catalyst for its development, while it may require new or iterated forms.

The "How Shall We Grow?" adoption of a community input process highlights a process by which regional identity may eventually be revealed, as seen in the Buffalo Commons debates in many communities. Manzo and Perkins (341) note the planning tradition of community consensus-building through sustained small group dialectic, which Manzo and Perkins characterize through reference to Innes and Booher (1999) and Innes (1996), can facilitate social capital that creates shared place understandings and meaning (341). However, while I refrain from engaging the political economy, process dynamics, or organization of the "How Shall We Grow?" project in this work, it not clear the project had community meetings and facilitation processes sufficient to create place meanings to the degree described by Manzo and Perkins. Organizers held public

meetings in many parts of the region, but did not have consistent and committed participation from the same group of community stakeholders, such as seen with committees organized in some regional projects nationwide, and would require additional efforts within the overall regional visioning process to uncover Central Florida and Orlando's regional visual context.

What is at stake if Central Florida and Orlando do not have a regional visual context or regional sense of place? The "How Shall We Grow?" project will lose the chance to direct the future of the Central Florida to a sustainable, connected, and economically thriving future in which various places flourish and citizens are connected to a regional identity. It is a grandiose vision, but one that can be realized by degrees and in different parts of the region. To illustrate this possibility, I return to Abbott and Margheim's discussion of the regional sense of place found in Portland, Oregon, as a "modernist land use regulation...[that] has become a text! People read complex meanings into the UGB that go beyond its simple legal function. They try to capture and claim its essence through metaphors, depict it in paintings and photography, write poems about it (texts about a text), and interpret it through performance" (199).

In Portland, land use planning became inventive possibility. It is perhaps less germane to speculate if the image inspired the methods or the methods inspired the image—it is enough to say the image is enacted by these poetics, and the poetics bring dimensions of the image to light. Within planning theory, Albrechts outlines these possibilities,

recommending “offering the actors the possibility to express themselves in more than one language and communicative form (writing, oral, drawing, maps, music) could help to remove barriers to creativity when they are taking part in debates and decisions about places”, which he characterizes as corresponding well to the nature of scenarios (264). This logic informs my recommendations for iterating “The 4C’s” scenario, and to draw upon it further, I now turn to discussion of poetics in these endeavors.

Poetics as a Visual Research Method

With this emphasis on the visual and metaphorical, one potential approach to regional image development could be heeding Ulmer’s urging to use poetics and assemblage as a lens for inquiry and agency in solving applied community problems (Ulmer, *Internet* 81). Within technical communication theory, Jeff Rice illustrates this process of creating meaning from cultural and personal experiences with his treatment of Detroit’s Woodward Avenue, in which he applies meanings to a “rhetoric that moves meanings for purposes of exploration, a rhetoric that understands Woodward’s topology as not a fixed topos, but instead as a series of meanings merging in unestablished ways “(239-240). Within planning theory, James Throgmorton simultaneously weaves the story of Louisville’s urban transformation with his own narrative and that of Muhammed Ali, both as natives of this community. In doing so, Throgmorton notes “to make any city-region more sustainable, the people of that place need to begin telling a persuasive story that makes narrative and physical space for diverse locally grounded common urban

narratives” (“Inventing” 239). Rice and Throgmorton’s experiments create a loose, inventive process of image making, while accessing the rich tradition of spatial practices that ranges from the practical outlook of Jane Jacobs and William H. Whyte within planning theory to the poetic nature of deCerteau.

Again, we are confronted with the possibilities of the local and the tension of extrapolating them to the regional. While some hints of this ability exist, such as Mark Hinshaw’s collection of local vignettes that collectively establishes a regional idea in his *Citistate Seattle*, there is a need for training and methods to make Rice’s and Throgmorton’s experiences potential templates and practices for articulating regional identity and image. As Barry Mauer has suggested in personal communication, “training in metaphor and image making are required” (Mauer), presenting a pedagogical opportunity that also may incorporate the visual. Describing aspects of this training, Mauer articulates the process of collecting what Barthes termed the “image repertoire”, the visual images that arise from engagement with the cultural and institutional superstructures within which the author is embedded (Barthes 20 as quoted in Mauer, “Nietzsche” 246) to form an assemblage that provides insight through aesthetic, not argumentative, reasoning (Mauer, “Nietzsche” 251). Mauer argues that this aesthetic approach and production and associative process can create expertise and knowledge that is situated both in the experiences of the author and in the world (Mauer, “Nietzsche” 262). As a significant resource in this endeavor, Rice and O’Gorman offer a

wealth of strategies for incorporating various poetic methods of the Florida School into specific pedagogical activities (8-17).

Embracing praxis in the form of an “EmerAgency” that brings his theory and artistic invention to investigate solutions to community problems, Ulmer describes how the Florida Research Ensemble used his “heuretics”, theory as a creative poetics, to bring “electrate” reasoning to assessment of modes of representation of the Miami River as a place (“Florida” 22). In his treatment of this case, Ulmer positions the EmerAgency in opposition an instrumental logic that would consider the Miami River concerns able to be resolved through solely orderly methods and the application of technology (Ulmer, (“Florida” 24), such as those normally employed in regional visioning processes. In contrast, poetic methods have the potential to extend the visual and rhetorical investigation of community-based problems, using what deCerteau termed “opaque and stubborn places” built of “the revolutions of history, economic mutations, demographic mixtures” and which “remain there, hidden in customs, rites, and spatial practices” (201). It is through these stubborn places that the chora of regional image invention has the ability to emerge, serving as a creative and unifying action to address the growth issues that are the focus of “How Shall We Grow?” and others that evolve over time.

Research Findings

In considering how participants’ characteristics may influence a regional image as a visual context, research constraints arise from the complexity of these images—a

complexity compounded by the small sample size used in my research. In that light, participant residence and experiences of regional places explored in the literature, notably by Tuan and Manzo, are listed (Tables 15 and 16), but may be inconclusive. Ten of the fourteen research participants had lived in Central Florida for more than ten years, presenting the option for wide exposure to and experience with the Central Florida region (Table 15). In turn, places of residence listed by participants varied as follows: “Orlando (3 responses), Winter Park (2 responses), Altamonte Springs, Downtown Orlando, West Orange County, Lakeland, Avalon Park, Conway, MetroWest/Orlando, Apopka, Sanford” (Table 16). These locations range in scale from the city to neighborhood level, as Avalon Park, Conway, and MetroWest are communities within the City of Orlando. Participants also work, shop, and recreate in a variety of locations across the region, with recreation also including out of region options (Table 16). There is a clear diversity in responses, which may not be the foundation of a strong regional image collectively experienced in the manner noted by Manzo and other theorists described in this chapter.

I questioned participants about their perspectives on the scenario and regional identity, and their responses are summarized as fragments in this evolutionary process of regional identity development (Tables 17 and 18). In defining a regional concept, I asked participants to define the boundaries of what they considered the “Central Florida region” as an open-ended question and found little consensus in their responses,

presented verbatim in Table 17. The responses also ranged in their precision, including answers as direct as “Inland counties—middle of the state around Orlando” to more exacting definitions, such as “Seminole and Volusia to north, Lake to West, Ocean East, Osceola and Polk to south. Volusia south to Osceola County and north ½ of Polk, Atlantic Ocean west to Lake County” (sic) (Table 17). I surmise that the variation reflects both personal attributes and the variety of planning specializations represented that are discussed in Chapter 1. Some aspects of planning practice focus extensively on mapping, but others more on policy and planning activities, a less spatial practice that requires less orientation. However, the small sample size limits definitive conclusions on that point.

In focus group and interview discussions, participants were questioned regarding the sense of regional place or identity that they thought “The 4C’s” scenario depicts. Responses are summarized in Table 18 and indicate the various cognitive approaches that planners took to devising that identity from the scenario graphic. One challenge from a visualization perspective is that participants almost uniformly focused on particular scenario elements, such as place icons, rather than the relationship of elements or the scenario’s full perspective (ex. “Blocks aren’t equivalent—only nominal large purple and pink. Shown all with same width”, as noted in Table 18). Only a few responses characterized the scenario with terms like “European” or “connected to the world” that indicate connotation of a larger concept. It cannot be generalized if this is a

characteristic of the planners, being lost in detail and not absorbing the full extent, or the scenario, relative to visual conventions and their arrangement. However, one participant noted the scenario “depicts a region that offers a multitude of living options—suburban, rural—does in way that also represents belief in connecting communities to each other and the region to the world. Would have a sense of place that’s not there now” (Table 18), an encouraging note relative to the visual context and identity that the participant feels may be cultivated by the scenario as an artifact.

To conclude investigation of regional place and identity, I questioned participants about what they think “The 4C’s” scenario communicates about Central Florida as a regional place and if it helps shape a regional identity. Responses are noted in Table 19 in the participants’ own words and, for the most part, do not reflect a coherent regional image emerging from the scenario or from the mental context used by participants, outside of vague notions of “connection”, “growth”, and “environment.” While one participant stated the scenario “helps to promote a regional identity and creates shared understandings on growth and regional partnerships”, another felt “although it emphasizes the need for increased connectivity, there is no focus on the development of a true regional identity. To me, the map really illustrates the fact that Central Florida is a textbook example of urban sprawl” (Table 19). Clearly, there was significant variation in the responses to this inquiry, highlighting the complex dynamics of regional identity. I am reminded of Manzo and Perkins’s assertion that planners aren’t focused on place in their “placemaking”

(336), not engaging place and identity in the largely regulatory functions of comprehensive planning that turn on questions of whether urban sprawl is present or not or would be in the future. This is a limited application of the planning art, and “The 4C’s” scenario could benefit the practice by extending the planning imagination.

In my replication of Lynch’s research methods at a regional scale, as recommended by Lynch (*Image* 157), my research extends Lynch’s methods to include the understanding of scenarios as persuasive, future-oriented visual communication in planning practice (Hopkins and Zapata 9; Throgmorton, “Virtues” 367). At the same time, this is complicated by the fragmentary nature of the regional image among research participants, who do not appear to hold a common visual context of the Central Florida region, as compared to the Buffalo Commons or concepts of Santa Fe discussed in this chapter. This condition renders participants less able to engage the scenario on its terms, and the scenario less able to direct Central Florida to a sustainable future sought by its residents participating in the regional visioning project.

Conclusions

In research findings, it becomes apparent that a tension exists between the phenomenological and structural approaches to the regional place represented in “The 4C’s” scenario. Returning to the literature reviewed earlier in this chapter, Low and Altman remind us that place is phenomenological (2), with many of its great theorists approaching place on an experiential basis that is rich with meaning. However, research

findings demonstrate that participants' comments both as urban planners and regional residents don't access or reflect their experiential knowledge of the regional place that is being depicted as a phenomenological process. The participants' technical and structural approach to scenario review more often favored a focus on or criticism of the specific visual details of the scenario, such as place icons or mapping perspectives. In contrast, Lynch's dialogues with community residents, often featured experiential descriptions with the "strong tendency to describe, not by visual images, but by street names and the types of use" (Lynch, *Image* 30). While the sample used in my analysis makes generalization inappropriate and limits any cross-tabular analysis, I would like to raise the concern that planners' practice-based technical orientation to the scenario may inherently present limitations to their ability to access a regional visual context that could provide the scenario richness and longevity. In contrast, planners appear to seek a structural approach that is "stable and obeys laws" (deCerteau 90). This implies that planners may benefit from training to access the phenomenological dimensions of scenario interpretation that appear may come naturally to residents, as Lynch has shown us (*Image* 30).

Politically and practically, the inability to ground "The 4C's" scenario in a collective regional identity has several implications. Can we understand the Orlando and Central Florida that is to come through scenario implementation, if we cannot understand the scenario today? The inability to effectively interpret the scenario using a strong regional

visual context may be characterized as a failure of scenario functions. The dialogue about the region's evolution, in essence, would lack a vessel for effective policy and land planning over time that would benefit residents and communities. Lefebvre argued for the spatialization of discourse theory and dialectic, expressed as a trialectic of lived, conceived, and perceived space (Soja 65-67, 74) to reflect the richness of everyday life in its representations. This spatialization has not occurred in planning practice, as Jones notes planning theory has not engaged the spatial practices articulated by Soja and related theorists "in imagining new urban space" (381), a missed opportunity for greater understanding across audiences. Within a planning practice, we have few tools at this time for understanding the dimensions hinted at by Lefebvre in a visual form, a rationale for the application of new media and new processes to scenario building.

Does this mapped image, presented at the regional scale in "How Shall We Grow?," present a framework for current or future regional identity and its expression? As noted by Mitchell, communities of the future involve "balances and combinations of interaction modes...at particular times and places...within the new economy of presence" (144), creating enormous uncertainty in the process. That is not to say visual communication cannot be effective without an articulated regional identity or a sustained regional debate, but that potential interpretation is less defined without a place-based regional image. From the perspective of each individual resident, to the 20,000 participants in the "How Shall We Grow?" process, to over three million residents living in the region

today, the sense of this regional place and its possibilities is unique, particular, and not easily represented. This places a large obligation on regional scenarios to capture the information and aspiration, and the next chapter explores the ability of scenarios to capture values expressed during the process.

Lefebvre considers the dimensions of space as including “social practice, the space occupied by sensory phenomena, including products of the imagination such as projects and projections, symbols and utopias” (133). It is this dialogue between the informal and the formal that gives space its mental and emotional presence. Ulmer would urge reflection on the assemblages of memory that create a mental pattern to which the scenario is compared that enact inventive practices for the creation of this future region and accesses the mystories of individual residents to collaboratively construct a larger narrative. Before defining a process for that collaboration in Chapter 5, I will consider how these practices unfold from a rhetorical perspective in community and stakeholder dialogue as part of the network of spatial strategies practiced by urban and regional planners.

CHAPTER 4: THE RHETORIC OF THE REGIONAL IMAGE

In Chapter 4: The Rhetoric of the Regional Image, I argue that land use scenarios used in regional visioning processes are technical and rhetorical communication within the larger context of urban and regional planning practice. Planning is a discursive activity conducted in a political atmosphere among diverse stakeholders, and in this light, I consider how regional visioning processes' visual products may be evaluated to address their meaning and graphics from a rhetorical perspective. My evaluation relies on resources from several literatures, including semiotics, rhetoric, technical communication, and urban and regional planning, to appropriately address the varied dimensions of this inquiry. I consider the works of Roland Barthes to critique scenarios before conducting a rhetorical analysis of scenarios using Healey's heuristic (*Urban* 209-210) from planning literature to illustrate the visual rhetoric of the regional scenario. I conclude by noting the ability of the "The 4C's" scenario to communicate community values statements expressed during the "How Shall We Grow?" project, as captured by the corresponding Values Study.

To situate planning practice in a rhetorical context, planning literature increasingly represents planners as consensus builders balancing stakeholders' competing needs to achieve governmental action through planning processes (Innes 9; Throgmorton, "Virtues" 367). In doing so, planning is demonstrated to be an explicitly rhetorical and persuasive activity, with dialectic representing environmentalists, neighborhood

residents, business owners, developers, and others. These diverse interests create and interpret meaning in different ways, some of which rely on forecasts and other tools (Throgmorton, "Virtues" 370), such as land use scenarios. During the 1990's, communicative action theory in planning emerged (Fischler 185) to highlight the importance of discursive practices among stakeholders, particularly in contexts where stakeholder power was not shared or equitable. To the extent that planning literature has incorporated rhetorical concerns and analysis, it largely is based on Habermas' theory of communicative rationality, the ideal discourse condition where knowledge is created through dialogue of stakeholders organized for community-based problem solving by examining claims and norms, creating shared understandings, and developing new knowledge (Tett and Wolfe 196; Neuman, "Planning" 63; Jones 380).

John Forester is credited with originating communicative action theory to planning literature in the 1970's, based on this work of Habermas (Jones 380, Grabill 125, Friedmann 250). Forester applied this theoretical approach to urban planning in a 1985 work by arguing that urban planners should focus on their discourse's comprehensibility and legitimacy, among other considerations (Tett and Wolfe 195-196). This literature evolved through the contributions of Innes, Healey, Hillier, Mandelbaum, Throgmorton, and others as key theorists (Jones 381). Within this theoretical context, the visual is not considered in analyses of rhetorical situations or composition. I believe this to be a significant limitation and difficult to understand or sustain in a field with a visual tradition

of maps and plans and which now is embedded in a visual culture utilizing sophisticated visual practices and multimodal technologies.

Outside of the planning literature, David Harvey describes Habermas' theory of communicative action as a speaker and listener engaged in reciprocal dialogue and understanding, producing norms and reason from a consensus-based process (50), and this dynamic clearly is a part of the public participation process that creates a regional scenario from a visioning process. However, the extent to which communicative action is realized in creating scenarios should be measured by the degree to which community feedback is represented and incorporated in the image. This visual process is complicated, and the verbal discourse of public participation processes is no less problematic, as illustrated in discussions and criticisms of planning's rhetorical grounding in Habermas. Neuman points to a disassociation from larger issues of planning process and political economy in favor of a micro-focus on text and discourse analysis ("Planning" 63), including Healey's 1992 analysis of "a planner's day" and corresponding communicative practice.

From the technical communication literature, Grabill notes there is a significant literature in planning-related disciplines characterizing planning as a rhetorical practice and describing specific rhetorical practices, citing Throgmorton, Healey, and Forester as major theorists (125). (To this recommendation, I would add Innes and Booher for their research into communicative action theory and specific dynamics of consensus building,

although they have not situated their analysis in rhetorical frameworks, as in Throgmorton's consideration of Bakhtin and other theorists.) From his experience in community building and action research, Grabill suggests "when citizens find themselves in a situation in which they must challengethe utility and value of the physical space they inhabit, they find themselves at a moment that is ambivalently rhetorical....At the same time they confront exigencies that demand new knowledge production on their part in order to tell an alternative story about identity, capability, and place" (14). Grabill has incorporated literature from planning disciplines to articulate his understanding of public forums and corresponding deliberative practices in civic culture (120).

Within planning literature, James Throgmorton characterizes planners as consensus builders engaged in rhetorical activities with environmentalists, neighborhood residents, business owners, developers, and other stakeholders ("Virtues" 367). These diverse interests create and interpret meaning in different ways, some of which Throgmorton notes rely on forecasts, scenarios, and other tools ("Virtues" 370). While planning theory has explored the rhetorical, or persuasive, aspects of planning communication used in successful planning practice, the planning literature does not address visual communication as persuasive and technical communication with the same depth. It is fair to note visual methodology and communicative effects of particular strategies are not well-understood or investigated (Ewing et al. 270). However, Carp, in listing the

tools of a planner's conceptual framing of his or her work as involving "maps, quantities, figures, models of structures and systems, legal histories, design and research methods, compilations of evidence, persuasive arguments, phone calls to or from political 'heavies,' and so on" (244-245), delineating a rich vein of textual, oral, and visual materials united for rhetorical purposes in a public setting. This material deserves careful consideration of its rhetorical and visual capabilities and offers compelling source material for technical communication and planning research.

Rhetoric of the Regional as Image

Barthes work in "Rhetoric of the Image", in essence, detailed how an idea of a place, Italy, is communicated visually, which he termed "Italianicity" ("Rhetoric" 33) for advertising purposes. I argue that a similar intent is at work with the "How Shall We Grow?" scenario, as the idea of a future place is widely promoted as an ideal, communicating particular values and amenities through visual and textual cues. Although Barthes' work in semiotics involved extensive analysis of discourse and text, as represented by S/Z and other works, his visual analyses were equally nuanced and well-established in his canon. Barthes' work, including *Image-Music-Text* and *Camera Lucida*, established him as a visual theorist, and Kostelnick and Hassett credit "Rhetoric of the Image" for initiating study of the social nature of information as cultural knowledge (3). Barthes' wide range of intellectual inquiry offers a flexible context for assessment of a variety of visual resources, such as regional scenarios. Besides photographs, for

example, Barthes' work often addressed objects (Emmison and Smith 108-109).

In using Barthes' work as a lens for scenario analysis, I am making associations at the intersection of text and the visual across Barthes' works influenced by the structure of Barthes' emphasis on codes and the flexibility that emerged in semiotics identified by Lefebvre. As he posited, basic concepts of message, code, and reading became flexible and pluralistic, even as he questioned how far can this approach could be carried (Lefebvre 161-162). However, Lefebvre called for methodological questioning within this process, noting Barthes proposed five semiotic codes "of equal importance and interest" within the narrative of S/Z, without explaining the methodological choices of creating exactly five codes or how authors chose between them (Lefebvre 162). This precision is necessary in analysis, and I do so with the knowledge that Barthes' theory of the readerly text may be extrapolated to question whether the idea of planners all viewing the same scenario and deriving the same awareness from its codes would indeed be possible. At the same time, Barthes offers too much knowledge to ignore, which invites this type of assemblage. As he contemplated the means for "Italianicity" ("Rhetoric" 33), so this endeavor contemplates a scenario's means for establishing a sense of the regional.

Barthes' Rhetoric of the Image

Semiotics is the study of agreements, and agreement is also found in the development of meaning through consensus building in regional visioning processes, described

extensively in planning literature (see Innes, Throgmorton, Tett and Wolfe). These agreements, often negotiated as community value statements or assumptions about existing and future states and their desirability, must start at that point of discourse, then incorporate the visual and extend to it. In this setting, I envision the scenario as Barthes described the “Text...[that] decants [the work of the author]...from its consumption and gathers it up as play, activity, production, practice”, eliminating what Barthes characterized as the distance between writing and reading, now creation and viewing (“Work” 162). The scenario embodies these community agreements, then enters a productive realm where it is created, disseminated, and applied to produce a corresponding regional image. It may be fraught with contested meanings or, perhaps more alarmingly, contain too few to have resonance.

As Barthes outlined, a text is not a “line of words releasing a single ‘theological’ meaning...but a multi-dimensional space” with a variety of meanings, some in conflict (“Author” 146). Planners interpreting scenarios as visual communication are engaged in Barthes’ concept of the reader, where “multiplicity is focused” as many meanings are contested and filtered to create truth (“Author” 148). At the same time, the relationship to text remains essential. Emmison and Smith have noted “Rhetoric of the Image” argues the meaning of images is always based on corresponding text to diminish uncertainty (46). Kostelnick identifies the importance of a discourse community’s situational contexts to interpretation of visual communication (239). I have explored this

creation of meaning, among other elements of rhetoric, in focus groups and interviews with urban planners in Central Florida, in my research, and I will discuss those findings later in this chapter.

To conclude, let me note one point of fascination that emerged during focus groups and interviews, conducted with 14 planners in total. During all research activities, only one planner reviewing the scenario graphic, depicted as a gatefold layout within a larger report discussing the project, ever referred to any other page of the report, which was done to answer a question from another participant in a focus group setting. What does that communicate about the use of this codex, the authority of the document, user behavior and document usability, and textual interactions? Barthes' theories envision not only a connection between the textual and the visual, but an assuredness, a mastery or sense of purposeful adventure in the invention of meaning, on the part of the reader interacting with text. It remains to be seen if this is present in these interactions.

The consideration of Barthes' influence in this work also may be united with the thematic influences of Kevin Lynch within urban planning and design theory. Similar to the manner in which Barthes has influenced generations of scholars within the humanities, Kevin Lynch's work in the urban planning and community design field has been important to practice-based dialogues defining what is considered good city design and urban form over the past several decades. In *The Image of the City*, Lynch's

work was among the first to consider how a city's residents perceive the spatiality of their city and organize it into mental maps.

In a manner similar to the semiotic structure outlined by Barthes, Kevin Lynch's *The Image of the City* defined five elements as an organizational superstructure for spatial inquiry and urban design (path, district, landmark, node) (*Image* 47-48), which he extended with ten form qualities (ex. clarity, directionality) (*Image* 105-108). Lynch named his tenth form quality "Names and Meanings", which he stated "constitute an entire realm lying beyond the physical qualities...[and] reinforce..identity and structure as may be latent in the physical form" (*Image* 108), anticipating the spatial turn of such theorists as deCerteau and Lefebvre. However, with Lynch's definition of "imageability" as the city's physical qualities evoking a strong image in the city dweller (*Image* 9), he staked an expressly visual territory for the importance of these dynamics, a rhetorical act also enacted by Barthes in his work.

Barthes was aware of Lynch's work and influence, and in reflecting on Lynch's work, identified Lynch's discovery as "the fundamental rhythm of signification which is the opposition, the alternation, and the juxtaposition of marked and unmarked elements" ("Semiology" 91-92). Barthes characterized the city as a "discourse..that is truly a language", but identified a key "scientific leap" as the ability to move this language beyond the metaphorical ("Semiology" 92), perhaps in an explicitly visual realm. This movement beyond metaphor, embracing the surprise and invention celebrated in

theoretical works by Debord and the Situationists (Ulmer, "Florida" 26-27), can produce the poetics that evolve the scenario past the current limitations of its form.

The Construction of Planning Communication

Planning as Discourse and Rhetoric

The future is a "contested rhetorical domain", and how it is represented is important to critical assessment of discourse (Dunmire 482-483). Ong characterizes rhetoric as "the paradigm of all discourse" (9), but as I have noted in this work, planning theory has not embraced it on a wide scale to date and not given attention to the functions of visual rhetoric in planning products. This deficit should concern the field of rhetoric, particularly during its relatively recent spatial turn, as planners are a discourse community engaged in spatial dialectic using "an important medium for urban spatial discourse production" that deserves informed critique (Jones 382). Also, planning and regulatory functions may be used as tropes by various stakeholders, even without a planning document. Abbott and Margheim posit that the description of Portland, Oregon's famous Urban Growth Boundary as "invisible" in press and popular accounts is a trope that stresses the "technical planning processes and regulatory language through which it is defined and implemented" (200), not its overall positive effect on landscape development or conservation.

Throgmorton expresses planning's rhetorical considerations using Bakhtin's concepts of utterance and dialogic (Throgmorton, "Virtues" 370). Bakhtin's dialogic occurs when "a

word, discourse, language, meaning (or building) becomes ... aware of competing definitions” through an exchange of utterances (Crawford 25-27). To Bahktin, these signs collectively create ideological meaning as they are exchanged between individuals (Bizzell and Herzberg 1210), as the unique perception of the audience, the influence of signs embedded in utterances, and the necessity of dialectic within and between social groups act in shaping meaning, as with the perception of land use scenarios. Throgmorton finds that “a planner’s texts act as *tropes* [emphasis the author’s] that seek to turn the larger implicit story in a preferred direction” (“Planning” 129). The planner’s “diverse stories generate differing sets of argumentative claims and evaluative criteria, with judgments of quality (is this a good plan?) being dependent on who makes the judgments”, often the issue publics or a community’s legislators (Throgmorton, “Planning” 129). In this setting, Throgmorton captures the essential role of a community’s various stakeholders, who must rely on shared understandings to make this dialectic function, despite their differing perspectives and material interests.

The argumentative claims of planners and stakeholders are represented in a variety of forums, including public consensus-building processes, informal community meetings, formal public hearings, and other settings, as well as in a variety of media. However, planners exist within this process, in part, to create plans, ranging from comprehensive plans addressing a multitude of issues for the entire community to smaller-scale plans for the development or redevelopment of a neighborhood or site. Plans also may

include social, economic, physical, financial, and other dimensions and influence a number of stakeholders with their proposals and outcomes. This creates the responsibility to distill these imaginative discourses into action that moves the will in a Baconian sense (Bizzell and Herzberg 743). Plans that are successful involve a broad range of stakeholders in their development to bring about governmental action on issues of concern (Burby 33). However, the “How Shall We Grow?” project report demonstrates how a principle of inclusion also may be a rhetorical appeal to community ethos in service of the project goals (Figure 20).

Within the discourse community of urban planning, a concept of “persuasive storytelling” has emerged to describe the rhetorical functions of planners in community settings. Conceptualizing the full extent of this shift, Myers and Kitsuse note planners’ “increasing attention on means of representing the future” and “images of the future that serve as heuristic or rhetorical guides for action”, largely “visioning, scenario-writing, and persuasive storytelling” (227). The need to create narrative futures represented by a scenario requires ongoing productive and creative strategies and corresponding activities to infuse these narratives with meaning and value (Albrechts 254), indicating the complexity of these processes. This narrative effort requires persuasiveness,

The Regional Growth Vision is dedicated to
the Central Florida Residents of Yesterday, Today and Tomorrow.



**Figure 20: Appeal to Ethos, Detail from Page 5, How Shall We Grow?: A Shared Vision For Central Florida, Final Report.
Source: myregion.org.**

Framing, narrative, and story (Myers 60; Avin 107), as scenarios need “an integrated, consistent story line, an explanation of an evolving reality” (Avin 108).

Wood illustrates the limitations of rhetorical theories embedded in planning literature to date in his rhetorical analysis of the Melbourne Docklands in Australia. While recommending Deleuze and Guattari’s work as insightful to this endeavor, Wood notes

these influential theorists have not been as influential to planning as their contemporaries Habermas, Foucault and Derrida, although related disciplines of geography and architecture have drawn critical resources from their theories (Wood 192). Wood argues Deleuze and Guattari's philosophy illuminates planning processes for this case, as it moved from a locus in the particular nature of its site, history and surrounding community, "through an unbounded, ungrounded phase of 'deterritorialization', to a phase of 'reterritorialization' with the production of new identities and desires" (Wood 192). I would argue that beyond this illustration of rhetorical dynamics at work, Wood serves this research endeavor by highlighting the extensive limitations placed on the rhetorical canon by urban and regional planners. With hundreds of years of rhetorical theory and practice available, planning theorists have much to draw from for inspiration and invention.

In planning practice and related policy discourses, metaphors structure perception and catalyze shared assumptions and action (Harris 309-310, Myers and Kitsuse 229). In this rhetorical process, stakeholders share narratives that can be vastly different and potentially in conflict, requiring planners to "set these alternate stories side by side, let them interact with one another, and thereby let them influence judgments" (Throgmorton, "Planning" 130), although this process may include invoking the ethos of community choice to narrow choices or direct to a particular scenario (Figure 21). In this dialogic process, persuasive storytelling is particularly effective where there is dissent

among stakeholders in trying to promote empathy with alternative points of view by appealing to shared values (Myers and Kitsuse 229), which visioning processes represent through the ultimate selection of one preferred scenario in a visioning process. Visioning processes often include this dynamic by design through the development of scenario alternatives, such as in the four original “How Shall We Grow?” scenarios. These scenarios represented particular points of emphasis within larger organizational value systems, identified through names like “Centers” and “Corridors”. Figures 22 through 25 present the rhetorical claims and appeals for each of the original four themes later consolidated into “The 4C’s” scenario, based on stakeholder concerns and a lack of community mandate for a particular scenario expressed through voting, as discussed in Chapter 1. It is this preferred scenario from “How Shall We Grow?”, “The 4C’s” that represents a consolidation of all four original scenarios and their value systems and that I now consider from a rhetorical perspective.

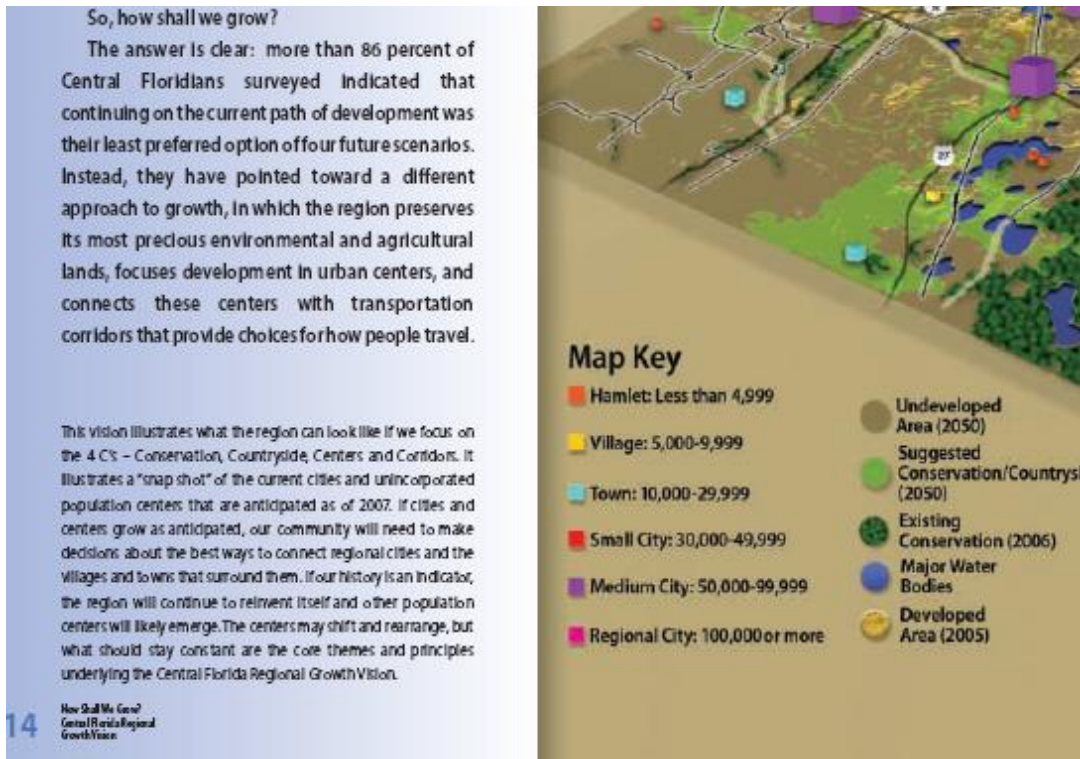


Figure 21: “The 4C’s” Scenario Descriptive Text Element, Detail from Page 14, How Shall We Grow?: A Shared Vision For Central Florida, Final Report. Source: myregion.org.



Figure 22: Description of Conservation Theme of “The 4C’s” Scenario, Detail from Page 16, How Shall We Grow?: A Shared Vision For Central Florida, Final Report. Source: myregion.org.

Countryside

Maintaining Central Florida's heritage of agriculture and small villages

Agriculture will remain a viable option for large swaths of the region's land. Local farms will continue to provide a significant portion of our food supply, as well as valuable exports to other states and nations.

Farms, hamlets, small towns, and undeveloped countryside will remain a key element of Central Florida's landscape. They will provide choices for where people live and wide open spaces for people to enjoy. They also will provide soft edges to the major urban areas, rather than

having a seemingly unending string of development.

Rural communities will enjoy a renaissance among retirees, visitors, and families. Central Florida's small towns will combine a relaxed quality of life with easy access to world-class urban centers throughout the region. They also will have easy access to markets in other regions, states, and nations through our modern transportation and communications systems.

Figure 23: Description of Countryside Theme of “The 4C’s” Scenario, Detail from Page 16, How Shall We Grow?: A Shared Vision For Central Florida, Final Report.
Source: myregion.org.

Centers

Hamlets, villages, towns and cities – a variety of places to live, work, and play

Distinctive cities and towns will provide choices for how Central Floridians live. Communities will meet the needs of residents, from those who want to live in a downtown high rise to those who desire a five-acre lot in the country.

The region's most vibrant centers will provide a mix of residential and commercial development. These will include traditional cities like Daytona Beach, Mount Dora, Lakeland, Sanford, and Orlando, as well as new urban developments including Dundee, Palm Bay, Altamonte Springs, and Deltona. Other centers will be more focused on economic drivers, such as the areas surrounding Orlando International

Airport, the University of Central Florida, Cape Canaveral, and the region's world-renowned attractions.

Rich architectural details, urban parks, and commercial and cultural amenities will create a unique feel for each center. Most urban areas will have fewer single-family homes and an increased mix of apartments and condominiums. Schools, jobs, shopping, health care facilities, and cultural amenities will be located in close proximity to residential areas. Residents will feel safe and secure and will see Central Florida as a place where they can both raise families and retire.

Figure 24: Description of Centers Theme of “The 4C’s” Scenario, Detail from Page 17, How Shall We Grow?: A Shared Vision For Central Florida, Final Report.
Source: myregion.org.

Corridors

Connecting our region with more choices for how people and freight move

Transportation corridors will provide the glue that links Central Florida's diverse centers to each other, and to the rest of the world.

Central Florida will shift from a region that overwhelmingly depends on cars and trucks to offering its residents, businesses, and visitors a wide range of travel options.

Many people in the most compact urban centers will be able to walk, bicycle, or take a bus or streetcar to school or work. People moving between centers will be able to

drive or use transit or passenger rail systems. And people and freight moving between Central Florida and other parts of the world will have a full range of choices – from high-speed expressways and rail systems to some of the world's most efficient airports, one of the nation's largest cruise passenger ports, and the nation's largest and most capable commercial spaceport.

Greater choices and shorter trips will help reduce congestion on the region's key highways, saving time, money, and stress for residents and businesses.

Figure 25: Description of Corridors Theme of “The 4C’s” Scenario, Detail from Page 17, How Shall We Grow?: A Shared Vision For Central Florida, Final Report. Source: myregion.org.

Rhetorical Analysis of the How Shall We Grow? Scenarios

Healey’s Regional and Rhetorical Heuristic

To address the visual and rhetorical aspects of the scenario as visual communication, I am using a rhetorical heuristic for analysis defined by Healey (*Urban 209*) that assesses depiction of regional-scale place and space. This heuristic unites the consideration of both visual conventions and visual contexts articulated in Chapters 2 and 3 in a holistic manner that takes advantage of Healey’s acknowledged expertise in communicative action and public participation (Friedmann 253, 255). Healey’s heuristic provides context for review of scenarios by addressing several critical questions, as follows:

“What space is being referred to? How is it positioned in relation to other spaces and places? What are its connectivities and how are these produced? How is it bounded and what are its scales? What are its ‘front’

and 'back' regions? What are its key descriptive concepts, categories, and measures? How is the connection between past, present, and future established? Whose viewpoint and whose perceived and lived space is being privileged?" (Healey, *Urban* 209-210).



Figure 26: What We Will Look Like...If Our Vision is Realized ("The 4C's") Scenario.
Source: How Shall We Grow? website, myregion.org.

How Shall We Grow? Scenario Assessment

Using Healey's first criteria, I argue that the space being referred to in the scenario can be considered a manufactured one. As discussed in Chapter 1, this is a place concept organized for the expediency of public participation and data collection, as it follows

boundaries of U.S. Census determined Metropolitan Statistical Areas. The scenario may not have been able to access a commonly-understood regional visual context, as demonstrated in the research findings of Chapter 3 noting the dearth of a regional image. However, the scenario is not designed to adequately embrace its rhetorical functions by initiating or claiming any themes specific to Orlando or Central Florida as regional places. The scenario could initiate a common understanding of a regional place defined by shared history, culture, or iconography, as in one of Joel Garreau's Nine Nations, or through a series of common events, as discussed in Chapter 3. Healey's conception of space is a vast one that seems informed by Lefebvre and Soja, encompassing surfaces, containers, actors, material sets of relations, formal rights and obligations, places of encounter, and events (*Urban 209*), and this scenario does not have the layers of signification and interplay of spaces that Healey presents, compounded by the limitations of its two-dimensional format.

The scenario's relationship to other spaces and places is not defined, as it is abstracted in space with no proximate places, as may be seen in maps of the United States or in world maps. From a geographic perspective, its relationship has no data or context as a map would, as the scenario is not defined relative to a geographic projection, geographic coordinate system (ex. State Plane), or latitude and longitude. This contributes to an aura of unreality that research participants found difficult to interpret and appeared to cause a more detailed focus on individual visual elements in the

scenario to divine meaning. Healey speaks to the interactions of networks, nodes, and layers of networks in describing this criterion (*Urban 209*), and these elements are not present. Connectivity within the scenario largely is determined from a transportation perspective, most graphically through the use of large white arcs connecting place icons. These arcs are defined as “multimodal connections” in the legend, likely not defining a specific transportation technology to avoid conflicts with the future invention or adaptation of technologies during the scenario’s 40-year time horizon.

However, the connectivities do not extend along some edges of the scenario, speaking to potential exclusion of some places from the realm of the larger area. Also, all connectivities flow through one central point, likely downtown Orlando, privileging the urban in a manner not specified in community values statements in the Values Study. It is as if to say that a place without specific connections or flows through Orlando is less primary, creating hierarchy not replicated in the physical world. The scenario is bounded by white space and lacks a scale, increasing its abstraction by design. Thus, the scenario’s ‘front’ region, as Healey inquires, can be understood as downtown Orlando, the central point of connection. The ‘back’ regions may be considered the scenario’s eastern and southern edges, which lack similar connectivities and which are isolated by depicted conservation areas.

“The 4C’s” scenario relies upon population-based place icons connected by multi-modal corridors to define its key descriptive concepts, categories, and measures, largely

reflecting the growth orientation embedded in the “How Shall We Grow?” title. However, Healey provides a rich fabric of land uses, property rights, social groups, spatial metaphors, landscape types, economic systems, and aesthetic qualities (*Urban 209*) in consideration of this criterion. Research participant responses hinted at connectivity, economic growth, and conservation landscapes in their perceptions (Table 7), but there is not enough differentiation between place icons and detail in them to realize the depth and breadth of this concept. For example, would all place icons within a similar population range be expected to have a similar economic base? Would all privilege aesthetic qualities to the same degree, such as by the adoption of architectural and urban design standards? What is the unique identity or points of differentiation between urban areas in the region, now all represented by identical pink blocks as their place icons? These points remain unaddressed in the scenario.

Healey also asks us to consider how connections between past, present, and future are established within a regional concept of an urban region (*Urban 209*). Within this scenario, despite its labeling of the year 2050, I would argue that a time-based continuum is not well established. Consider that several research participants questioned to what extent the development and places depicted exist today, as well as what would happen to development after the year 2050 (Tables 8 and 13). This confusion also extended to the transportation connections, which were not depicted with a sense of time and precision. For example, one dotted line was depicted in an area

where it may be presumed the future development of the Wekiva Parkway limited-access expressway will be constructed, but no dotted line was included in the legend with explanation.

Finally, Healey invokes the question of whose viewpoint and whose perceived and lived space is being privileged within an urban region, suggesting residents, social groupings, politicians, policy communities, businesses, developers, activists, and stakeholders as loci of inquiry (*Urban 209*). I acknowledge that this level of detail is difficult to depict and interpret in a purely visual sense within a two-dimensional scenario. However, research participants noted that the perspective of “The 4C’s” scenario privileges Orlando, particularly downtown Orlando, as a center at the expense of coastal areas, which lack connectivity and importance within the scenario (Tables 12 and 19). To further address Healey’s criterion, I look to the textual support provided to “The 4C’s” scenario by description of the four themes (Figures 22-25). I argue these descriptions are outlined in a growth/no growth, urban/rural, and, to some extent, cars/transit context that presents an oppositional tension, even as the descriptions promise every option to every conceivable stakeholder. Also, the scenario’s textual support makes rhetorical claims that the scenario will “provide choices”, “have a full range of choices”, and “greater choices”, but it does not speak if this choice equivocates to justice, to representation, and to affirming the region’s increasingly diverse communities. In essence, the descriptions speak only of what we as a community will have, almost from a consumer

perspective, but not what we will become, representing a missed opportunity for a regional image.

Research Findings

Myers describes at length the manner in which community narratives rely on shared values, perceptions and interpretations, but are difficult to achieve, in part based in differences in residents' experiences, lengths of residence, and memories (70). This presents concerns for scenario interpretation, as noted in research findings. Integral to scenario interpretation is the context of meaning, and Healey notes that the ongoing dialogic process over place qualities and its interactions can transform systems of meaning ("Institutionalist" 118) and create new regional place identities ("Institutionalist" 119). As noted in previous chapters, I did not find a new regional place concept had successfully emerged from the "How Shall We Grow?" process, despite the dialogic processes of community meetings and other outreach events over a period of several months with an extensive number and variety of stakeholders. I now look to the community values defined in the Values Study to note if "The 4C's" scenario reflects these values and their corresponding meanings established during the scenario development process. Beyond noting the correspondence of scenario and value in a technical and rhetorical sense, this question is key to noting how "How Shall We Grow?" may be better able to initiate a regional brand with resonance in planning practice and in the larger community.

The scenario's effectiveness at symbolizing community value statements through visual conventions is primary to the research question, but its presentation of visual symbols that constitute an alternative visual rhetoric also deserve attention. In evaluating these aspects of the scenario, I now turn to the insights of research participants. In focus groups and interviews, I asked participants to evaluate whether five values statements communicated in the Values Study (Harris 19-43) were reflected in "The 4C's" scenario. Their responses are summarized in Tables 20 and 21 and present a wide range of opinions on certain values and corresponding scenario information, while some values did not emerge from their evaluations. Participants uniformly noted they did not recognize visual references in the scenario for the value statements referencing the importance of neighborhoods and schools, although some comments highlighted the regional scale of the map as constraining depiction of those values in particular. However, value statements relating to growth management, preservation and enjoyment of nature, and transportation and transit prompted participants to respond with much more variation.

For the growth management value, "growth needs to be strictly managed and limited," participant responses varied widely (Table 20). Some participants stated this value was inherent in the scenario by its representation of conservation areas and the limited distribution of place icons to represent population. Other participants denied seeing that value represented and could not cite any visual elements. However, two participants

noted the influence of map perspective, seeing conservation areas to the west magnified by the perspective and thereby appearing larger than actual conservation designations would be by acreage, an issue also affecting the map to the south (Table 20). Another participant stated that a more effective visual tool to delineate managed growth would be a boundary line, such as the urban growth boundaries used in local government comprehensive plans (Table 20). While this tool may be seen as a challenge to implement at the regional level, relative to reconciling the growth patterns of over 90 local jurisdictions, using a line variation at this scale would be an option to identify growth areas more clearly. The larger context of this value is that participants recognized the manipulation of perspective and the ability to be much clearer about growth areas, displaying an awareness of alternative design choices and their implications. These conditions reflect Healey's points about the "front and back" of scenario depiction and the bounding of spaces (*Urban 209*) relative to the scenario, and interpretation in this setting appreciated these concerns.

Relative to the neighborhood value, "neighborhoods are important and create safety and security," no participant reported seeing this value represented in the scenario in any fashion (Table 20). Several participants noted the challenge of depicting smaller areas on a regional scale, recommending smaller place icons or additional graphics to make this point. This also was the case with the school value, "schools are the cornerstone of good communities," also seen as challenged by the regional scale (Table

20). Participants noted that was not portrayed in any element, but recommended that colleges and universities could be symbolized; one participant recommended depicting the University of Central Florida, Rollins College, and Stetson University (Table 20). It is clear from participant responses on both values that the two-dimensional scenario would require additional visual guidance, such as by additional maps arranged in a series or by photographs in “callout boxes” along the perimeter, to supplement the scenario in a manner that effectively communicates these values. However, Healey would ask us to consider how the selection process of neighborhoods and schools for depiction would create additional concerns relative to privileging some over others (Healey, *Urban* 209-210). For example, would high-income neighborhoods or master-planned communities be selected over urban neighborhoods struggling with poverty and in need of investment? Would higher education icons include vocational and technical schools, and is the kindergarten through twelfth grade system that serves the many residents that do not access higher education be invisible?

For the nature value, “nature should be preserved and enjoyed by residents,” participants appeared to have some level of uncertainty as to what constituted “nature” in this context, offering several interpretations and definitions (Table 20). Participants identified conservation areas and open space as visual elements represented, but noted trails, parks, and conservation corridors as natural elements that also needed representation. For this value, participants often made distinctions in terms of seeing

one element, but not others, although it was agreed that the extensive green areas depicted as conservation were generally effective in communicating the value. Relative to Healey's heuristic (*Urban* 209-210) stressing the importance of categories and connectivities, both are not in "The 4C's" scenario for this value. One participant specifically noted that residents are not connected to nature in the scenario, such as by the trails and paths sought by other participants (Table 20), communicating visually that the conservation areas and nature are not seen as assets that are integrated into population areas and connections.

The transportation value, "transportation and public transit need to be developed or improved," garnered mixed responses in terms of representation (Table 20).

Participants could not point to a visual element that represented transit, with some stating transit was absent from the scenario, despite the scenario legend's description of "multimodal connections." One participant used this legend as evidence transit was considered, but felt the connections were not specific enough to determine their underlying spatial logic. Participants also sought this logic in noting they sought road widths, traffic volumes, and a traditional hierarchy of roads in the legend (Table 20), indicating discomfort with the ambiguity inherent in this scenario. As noted in Chapter 4, the planners' structuralist approach made them seek data in the scenario, where the scenario appeared to be designed to communicate possibility. However, the specific directive of this value would benefit from a clearer identification of transit, as

“multimodal” is largely a term of art within the field. At the same time, the political concerns of stakeholders reviewed in Chapter 1 constrained that possibility, apparently to the detriment of its interpretation. While one participant noted the importance of connectivities represented in the scenario (Healey, *Urban* 209-210), another noted the region’s coast did not have connectivity, creating a “back” region and diminishing its importance.

What can we conclude about the success of the scenario’s visual elements in communicating community values? To balance scenario and focus group discussion, I collected specific data about scenario performance in a post-test administered to participants. These participants’ individual responses totaled fourteen for each value, indicated by selection of the degree of success, as judged on a Likert scale (Table 21). Participants overwhelmingly felt the neighborhood and school values were not reflected in the scenario, with 13 participants disagreeing that the two values were represented in the scenario. Again, issues of regional scale are acknowledged as being inherent to these findings, as noted by participants. The scenario garnered more diverse responses regarding growth management and transportation value statements, but 11 and 9 participants, respectively, disagreed that the values were apparent in the scenario. In contrast, nine participants responded the nature value statement was depicted in the scenario, providing the best rating of the scenario’s performance on that indicator. The small sample size of participants engaged in this endeavor indicates that additional

user-centered design testing of scenario performance would be advisable. However, the majority of participants stated that four of the five community value statements largely were not communicated by the visual elements of “The 4C’s” scenario, and responses identified an alternative visual rhetoric depicted in scenario elements. These findings indicate the need for a new design, and perhaps new design methods and media, to communicate values more effectively.

Conclusions

Rhetoric, both in speech and visual forms, is important to the practice of urban and regional planning. How may urban and regional planners meet rhetorical demands of the profession? Conceptions of rhetoric within the planning literature have embraced the trope as an explanatory architecture for the rhetorical dynamics at work, as in the work of Throgmorton. At the same time, recognition of planners’ *techne*, the action and craft of presenting the trope and other narrative constructions to various rhetorical audiences, is absent from this literature, as is the recognition of the visual rhetorical considerations identified by participants in “The 4C’s” scenario’s design and arrangement. Grabill cites the work of Atwill in presenting *techne* as “transferable guides and strategies...knowledge stable enough to be taught and transferred but flexible enough to be adapted to particular situations and purposes” (Atwill as cited in Grabill 84), similar to deCerteau’s tactics (34-39). Planners must move through a process of recognizing *techne* and its strategies, aided by the expertise of technical communicators and their

sophisticated understanding of rhetorical theory, to recognize how it may provide context for scenario interpretation and other professional endeavors. This recognition helps planners to use scenarios more effectively, but also to move beyond them, if needed in a rhetorical situation, to enter the realm of poetics to create knowledge to serve the community. This knowledge requires visual and multimodal composition techniques to achieve *techne*'s inventive possibilities in rhetorical settings.

From a rhetorical perspective, the urban planning literature also does not include any specific articulation of how *topoi* as fixed places of meaning are invoked and may be functioning in these public processes and how their collective meanings are being created visually. This discovery is particularly relevant to regional scenarios, which rely on these processes of investing visual artifacts with meaning before releasing them to perform their rhetorical functions in the wider community. This evolutionary process may be considered a constraint embedded in the rhetorical situation of scenario development and review, as we consider how the scenario functions rhetorically as a *topos*, a "conceptual vantage point from which to frame and develop arguments" that may change in response to forces and processes emerging through culture (Scott 346). If regional scenarios are intended to function as *topoi* that provide meaning and order as a common point of reference, it is a concern that the scenario contains rhetorical elements that don't represent community values and that a regional image is not giving appropriate context for scenario interpretation.

In considering how meaning is created within a regional image, we must return to Barthes, who advocated “play, activity, production, [and] practice” as necessary interactions with a text (“Work” 162). Barthes has guided us to the visual communicative effects of a two-dimensional image in its depiction of “Italianicity”, based on visual elements as simple as “pasta, a tin, a sachet, some tomatoes, onions, peppers, a mushroom, all emerging from a half-open string bag” (“Rhetoric” 33). Barthes’ semiotics acted as the study of both explicit and implicit agreements and are insightful to the exploration of scenarios, where there may be none. Barthes’ reliance on codes and structure in his philosophical endeavors led him to appreciate the similar nature of urban design theorist Kevin Lynch’s similar methods, seen as embracing opposition and juxtaposition between elements in various stages of identity (Barthes, “Semiology” 91-92). If we are to divine and apply these visual systems on a regional level within planning practice, it is clear we stand only at the very beginning of these practices and must use the best technologies available to both create and critique these practices (Ong 80). John Friedmann, a widely-read planning theorist who has studied the field and its theory for over 50 years, notes of planning practice that “we can imagine something better than what we see around us, but such visions are fugitive, and our actions, imperfect as they are, often contribute to the general sense of turbulence rather than bringing us closer to imaginary futures” (251). It will take all of the visual tools available within Text and Technology theory to bring us forward to the futures we desire within our communities of location and communities of practice.

CHAPTER 5: PEDAGOGY AND TECHNOLOGY FOR THE REGIONAL IMAGE

My research investigates regional visioning scenario's visual conventions and contexts as technical and rhetorical communication to describe the scenario's use in urban and regional planning practice as a visual communication object. In this chapter, I consider how technical communication research may contribute to the study of visual communication within the planning field in a manner that may benefit both fields. To do so, I suggest strategies for visual communication pedagogies that encompass technical communication's research and pedagogical concerns, then describe potential modes of inquiry that may overcome the limitations of the two-dimensional scenario in its print form that have come to light during my research. In investigating "The 4C's" scenario, my research into the scenario's visual conventions and visual conventions used rhetorical analysis, focus groups/interviews to observe their use "in practice", and comparison to the community values survey associated with the project to determine how the scenarios operates as "instructions" to create a future place over time.

Within the planning field, scenarios often are independent of significant textual support, lack established visual conventions, and may not have a shared mental context among planners using them of the regional place that exists today or is created. In discussion with research participants, the scenario has been found to have limitations in helping planners facilitate the regional place envisioned by community residents participating in

its development. The scenario does not express the community's values well in its visual conventions, but a few had some limited effectiveness. There is no regional identity creating a visual context for planners' interpretation of the scenario, although a few participants noted the scenario may begin to reveal that identity. If the scenario is to play that role as a visual artifact, the field must consider alternatives to a two-dimensional scenario image to better communicate community intent and values. Visual and text elements need refinement, changes are needed for effective visual practice, and there exists an opportunity to change the medium.

With their understanding of visual rhetoric and visual conventions, I argue technical communicators and rhetoricians are well-positioned to share new approaches and tools with the planning field, which lacks these resources, for community benefit. To support this claim, I return to Friedmann's point that planners as a discipline undergo diverse professional training that may be situated in schools of architecture, social science, or public policy, which results in particularity and difference in both approaches and visual skills within the profession (Friedmann 251). However, in the context of knowledge sharing between disciplines, one can contextualize this diversity as potentially being productive for knowledge creation. My discussion of research in prior chapters has shown that "The 4C's" scenario may not function well as technical communication as currently designed and deployed. I have made recommendations for adopting visual conventions, using various works from Kostelnick, and reviewed how regional visual

contexts and other elements appear to be created and function in this work within the discourse community of planning.

Building a Visual Pedagogy for Planning Practice

Technical Communication Research Needs

Blakeslee and Spilka have urged technical communication academics to connect with the interests and needs of practitioners by combining technical communication research with research from other fields in ways practitioners find relevant and by collaborating on joint projects (83). While technical communication literature has embraced visual rhetoric within its canon, Brumberger identifies a lack of research and theory in “visual thinking”, which she defines as the ability to compose visually in professional communication (378) and an “active and analytical process of perceiving, interpreting, and producing visual messages” (381). Brumberger suggests technical communicators pursue pedagogical strategies of visually-oriented fields, such as graphic design and architecture, to “demystify” visual thinking as being accessible to all, view familiar settings in novel ways, articulate design as an iterative process of idea drafting and sketching, value both verbal and visual thinking, and practice within a studio environment that values an open environment within which technology is limited in favor of hands-on design skill development (382-390). Brumberger’s strategies parallel some methods of planning and urban design training, providing opportunities for collaboration in areas with which urban planners may have experience and connecting the two fields

in the manner suggested by Blakeslee and Spilka. In providing a typology for the major research questions in technical communication, Rude (“Mapping” 183) points to the need to address visual communication in what she terms the “Central Question” of the action of texts in social and professional communication, as well as incorporating visual communication as an important element for “Information Design” inquiry (Figure 27).

Visual Communication as a Public Process

As in technical communication, the planning profession requires improved methods of visual training and enculturation within this professional community for enhanced dialogue and pedagogical methods. These methods only become more necessary with increasing use of accessible digital technologies for visualization of cities, such as Google Earth and Google SketchUp. There is an important role for communication studies in illuminating that transition for planners as a discourse community, in part to allow scenarios to perform their roles as information artifacts appropriately over time and to realize the future community. This investigation requires particular consideration of the role of the public in creating visual communication, as done in participatory regional visioning projects that develop scenarios from the aggregated visual input of the public.

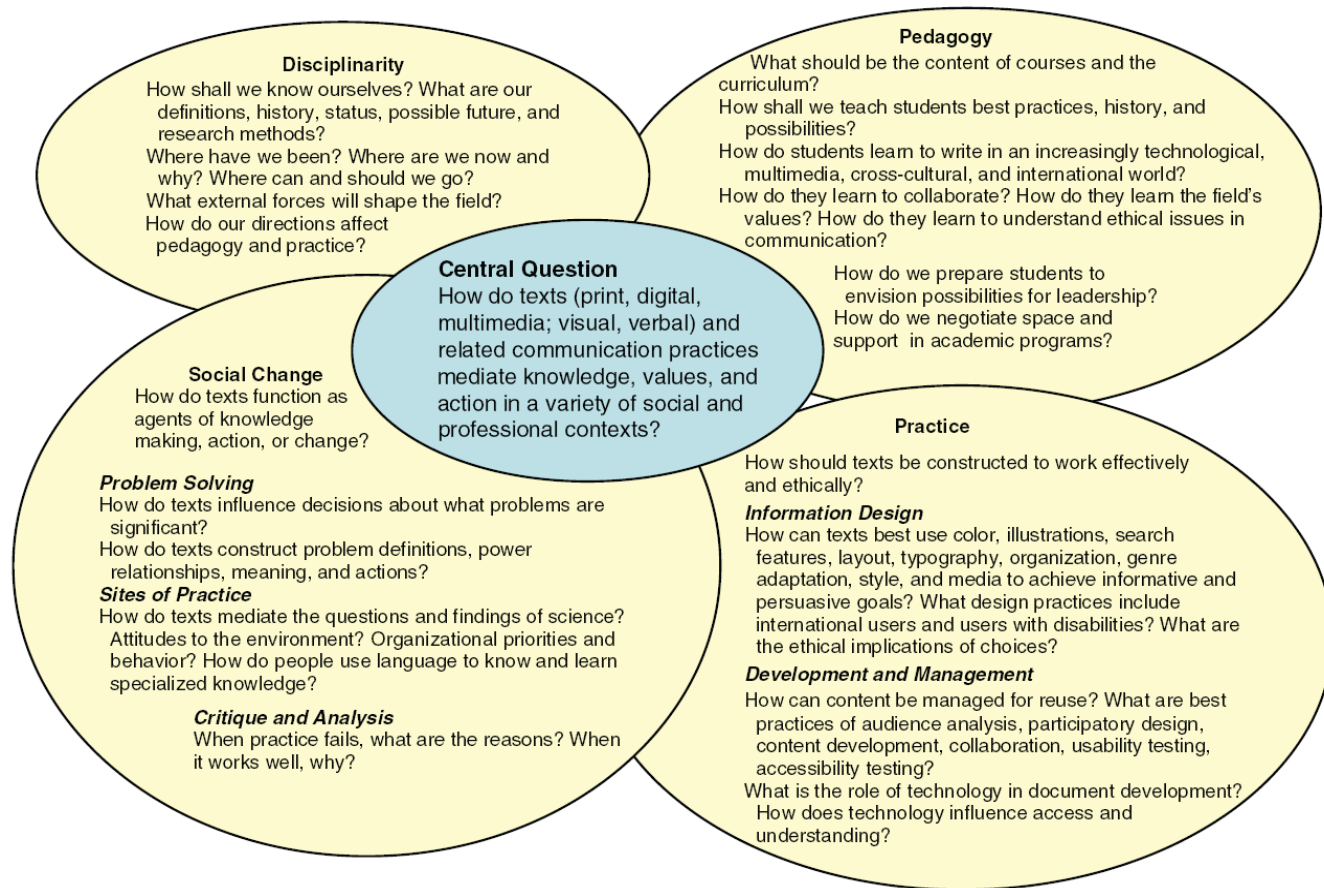


Figure 27: Technical Communication Research Questions.
Source: Rude, "Mapping" 183.

In doing research about planning communication and processes, it is clear that citizens as a public have an established and important role in that space, which has the opportunity to move to poetic and performance-based strategies in an expanded scenario medium. (This claim is based on my situated experience in practice in Florida, and planners' experiences may differ in other communities across the country.) Florida has had land use regulation since the 1970's that requires public participation, with the public taking a larger role since that time in Florida's growth management process. This role encompasses required public hearings, evening meetings in community settings about proposed policies or land development projects, large-scale visioning and plan development processes, citizen-organized forums, direct communications, presentations, and other strategies, several of which were part of the "How Shall We Grow?" process. In the context of these histories, the citizens can be powerful, with well-articulated voices and very strategic rhetorical displays. Recognizing the importance of the public in planning, Grabill identifies the public meeting as the most common mode of participation in civic life and sees skilled public deliberation as an important aspect of community building (94).

This more complex conception of the public should inform our research, as we recognize citizens' rhetorical powers and influence. This has been expanded through the use of online technical information and GIS-based web mapping tools for citizen-based research. While my local experience to date has not included examples of taking

those community-based strategies to social media and locative media spaces, such as Twitter, Ning, Foursquare, or BlockChalk, we are certainly at a point where that may emerge as part of a larger societal turn. My hope is that citizens' public participation, both through long experience and new media platforms, also may develop to the point where their power moves to the poetic, which may encourage that regional image to be created and developed in interaction with various modalities and in collaboration with urban and regional planners and other stakeholders.

Initiating Research on Visual Conventions of Scenarios

The lack of literature on the development and interpretation of regional scenarios as a new visual form is not encouraging, but reflects the larger inattention within planning literature to visual rhetoric and technical communication. What are the prospects for this emergence and new understanding within the planning field, aided by the insights of technical communicators? Low and Altman describe the history of conceptual research in social science as following three distinct stages. First, a problem becomes important and worthy of study, with an unconscious consensus about meaning, scope, and behavior. As the presumed consensus disappears, scholars engage the problem with new scholarly precision, developing taxonomies and articulating multidimensional phenomena affecting the problem and its solutions. In the third stage, scholars develop systematic theoretical positions that create defined research programs and apply knowledge to solve the problem (Low and Altman 3-4). Low and Altman recommend

that future research on place address the principles that apply to the attachment to places of varying scales to determine if they are different phenomena, as well as address whether attachments to physical places are different from place symbols or imagined places (5-6). All of these research themes, if explored, would have implications for regional visioning and regional scenario production.

As noted by John Friedmann, “every map is a model, and every model is a radical simplification—an abstraction—of reality” (251). When creating scenarios that represent thousands of square miles on one letter-sized page, planners and other project participants must decide what information is sacrificed in simplification and what is featured, constructing an apparatus and corresponding perspective. These have implications for community participation and intention and are often mediated by technologies in ways that are not transparent. The creation of scenarios, invested with the weight of community consensus and expectations, create an obligation for urban planners as a profession to meet challenging technical and visual communication needs. In the same manner that Grabill has encouraged technical communicators to engage planning literature, so John Friedmann urges planning theorists to explore a wider field of knowledge, then “translate their discoveries into the language of planning” (254). It is hard to imagine a field that has more to offer planning than technical communication. It is my hope that this work can be part of placing these two important

fields in conversation, while helping extend existing research in visual conventions to this discourse community.

Without formalizing and articulating visual conventions within the planning profession, scenarios are dependent on textual reinforcement and communicative activity over time to form interpretations and create meaning within communities of practice. Kostelnick and Hassett warn that visual conventions may be fleeting and can only be assessed as a particular moment in time (190). Several implications for scenarios are apparent, including the probability that the local discourse community of planners may not sustain conventions needed to interpret the scenario over its intended life, the year 2050. My interviews with local planners reviewing the scenarios have found that the meanings they interpret vary, often by their own specializations within the field or their own value systems. Also, two of the five community values defined during the process have not been identified within the scenario by any reviewer. Their responses highlight the challenge of defining a region, as their own boundary conceptions vary and a regional sense of place does not appear to be emerging.

In planning theory, Patsy Healey links mental and material states to larger relationships that shape actions on a regional level, using “particular values and histories” to create attitudes and values that become “systems of meaning” (“Institutionalist” 113). However, Healey finds these meanings rely on mental models that are challenged by the different “spatial range and temporal reach of the relations that transact the *space* of a place”

("Institutionalist" 115) and that may not be shared. While a regional image like the Buffalo Commons is a model template for a successful regional narrative with compelling resonance across time and space, that success is not apparent in Central Florida. Without a visible regional identity or established visual conventions, the regional scenario is in the difficult role of creating meaning without these contexts and commonplaces that could help bring the future community to light.

Visual Communication Pedagogies

Professional communication pedagogies emerging in technical communication do not incorporate visual training to a significant degree, a challenge to academe and an opportunity to make a community contribution that brings the field wider visibility and resonance. In her case study of a community HIV project, Bowdon suggests that technical communicators have much to offer their communities in their role as public intellectuals, based on their "function as liaisons between technical and public audiences and our rhetorical expertise" (327), while also demonstrating the complexities of these roles relative to genre. Blakeslee recommends cross-disciplinary work and community involvement as strategies to bring the field higher visibility (149). Rude advocates community partnerships as providing insights to the work of educators and resources for practice (269), and Grabill's significant work in this area asks technical communicators to bring their skills to the community and to diverse professions (125).

I suggest that technical communication also would benefit from this engagement, as the field's assessment of professional communication often does not incorporate visual products or visual thinking. Grabill, acknowledging Blyler's critique, asserts that technical communication research predominantly just describes workplace writing (Grabill 44), rather than incorporating visual methodologies or research subjects. Selfe's description of composition class rhetorical process (607) can serve as an appropriate model to consider for a professional communication pedagogy. Selfe also notes the importance of George's argument, supported by other theorists, that elevating writing above the visual as a privileged and intellectually superior rhetorical practice is mistaken (Selfe 609). As a resource to address that concern by expanding professional communication research to visual and spatial inquiry, Johnson-Eilola and Selber offer recommendations for incorporating service-learning and spatial considerations in the development of technical communication pedagogy, including a sample course syllabus and related readings (428-431), which they intend to help bring cohesion and structure to a strongly-interdisciplinary field.

The issue for scenarios in professional planning practice is how to ensure enculturation is taking place. The profession needs continuous engagement and dialogue or at least a better "manual" for how scenarios are produced. Spinuzzi points to the limitations of metaphor for understanding and representing visual interfaces, recommending instead that "genre ecologies" as "stable clusters of habits for producing and interpreting

meaningful artifacts” (42) be used to produce visual products. Within this framework, scenarios retain the functions and relationships of the maps on which they are based, but transform to new genres with multiple forms of data representation. Spinuzzi’s usability testing of an online database in mapping formats found experienced users drew on mental resources, such as specific place knowledge, in interpreting database reports, rather than relying solely on information presented, which often was contradictory (48-50). Scenarios currently rely on supporting text and policies to explain scenarios in detail, but the research points to the possibility that planners won’t pick up scenarios a few years or decades from now and know how to use them, if they even do today. A stronger regional identity in Central Florida would serve as an iconic mental image providing place knowledge referenced by Spinuzzi. This would help the scenario on its travels through decades, helping to assure it retains the momentum to greet and shape the future, as originally intended.

The Regional Image Created

Barthes’ Theories in Practice

With his focus on the relationship of the reader to a text, Barthes likely would disavow the idea that there is one regional image or an organized collection of themes shaping a regional place. Scenarios may be considered instructions to the future that incorporate visual communication technologies not well-understood in their interpretation, but Barthes’ theory would critique scenarios’ idea that a group of people, separated by time,

distance, and the particular nature of their being, would all look at a scenario and draw something similar from it. That premise is where the scenario's conception as technical instructions, communicating a community's preferences for a future community, as a design goal stated in rhetorical contexts must be considered as part of a locus of inquiry. My research has explored the mental context for how a particular scenario is interpreted as instructions by comparison to the Harris Interactive Values Survey, measuring the difference between scenario interpretations and the perceived community intent in creating scenarios that informed the creation of the final scenario under review. The comparison demonstrated an uncertain relationship between the value statement texts and the scenario, pointing to larger questions of the scenario's value and its potential interpretations, potentially moving away from an instrumentalist perspective of the scenario and its intent toward dialogic interaction with what the Central Florida region is or may become, especially across modalities.

Applying Technologies to a Regional Image

When we look at a regional scenario on a print page, we are looking at thousands of miles. To better represent this territory, I propose Central Florida embrace and assemble a variety of existing technologies to infuse the scenario with knowledge and experience. I envision a digital tool for the regional scenario to be a simulation-based decision theatre that extends Central Florida's local strengths as the global center of the modeling, simulation, and training industry to this community purpose. My concept

would be a regional-scale visual tool with haptic, audio, and mapping capabilities, and two existing systems may serve as a visual foundation for this tool. The University of Southern California has created an “Urban Tomography” system that takes advantage of mobile phones’ high quality video capabilities and their temporal and geolocate annotations to allow contributors to wirelessly upload video for a multi-tiled display with maps as a webpage (Krieger et al. 21). As the iPhone 4 now can shoot and edit HD video in real time on one device, we begin to sense the compositional possibilities of stakeholders documenting and annotating video products, all with geolocational options that can show precise locations within the region and allow participants to understand it more deeply in a visual sense. An “Urban Tomography” system for the Central Florida region, using the same boundaries as “How Shall We Grow?” and “The 4C’s” scenario, would help residents capture what they believe to be the essence of Central Florida’s multi-dimensional identity to create a collaborative visual bricolage that documents the region as it is and might be.

Another system that offers visual documentation capabilities is “Imaging Place”, the artist John Craig Freeman’s “place-based, virtual reality art project” (Freeman 27). Freeman’s work allows users to navigate through computer software that includes digital video, panoramic photography, and three-dimensional visual representations, which Freeman intends to comment on globalization concerns in an immersive environment (Freeman 27). Freeman has used the system in several cities around the

world, including Miami as part of work with Ulmer's Florida Research Ensemble (Freeman 27). "Imaging Place" is displayed as nine by twelve-foot projection in a darkened room, with user interaction requiring a pedestal and a computer mouse placed in a central location of the display to move users from satellite images to ground-level displays across spaces and narratives (Freeman 28-29). Freeman also has used this spatial framework within the Second Life virtual reality environment (29-30). In concert with Freeman's work with Ulmer and the Florida Research Ensemble, "Imaging Place" is designed as a method for chorography, the "relation of region to place" to define chora through the interaction of regional themes in "a scene whose coherence is provided by an atmosphere" (Freeman 29).

With Central Florida's resources, expertise, and global leadership in modeling, simulation, and training, facilities exist to explore the regional communicative possibilities of these two systems in service of regional image development. The University of Central Florida in Orlando hosts the world-renowned Institute for Simulation and Training (IST) and its Media Convergence Laboratory (MCL) in Central Florida Research Park (UCF), a potential site for a demonstration project in regional image creation. MCL has a variety of equipment resources for this endeavor, including a 2,500-square-foot test area, several tracking systems, an audio production studio, a video-capture facility with "green screen" and other augmented reality components to situate users in virtual environments, motion capture systems, and a three-dimensional

laser scanner (UCF). In particular, the facility's Riegl Z420i laser scanner can capture visual data and create texture maps for areas "as large as several football fields" (UCF) that can be "stitched together" using software to create a seamless, potentially regional-scale, interface. While usability and scalability can be issues in larger scale data visualizations, which also require interpretive context (Chen 12-15) and optimal data arrangement for perception by human eyes (Dennis et al. 11-12), MCL may offer an immersive environment to test Central Florida applications of "Urban Tomography" and "Imaging Place," displaying tiled capture of live video feeds and/or augmented reality components. MCL's facilities also could leverage these systems with additional high-quality visuals of the region and motion capture elements.

In this augmented reality setting, regional stakeholders could live inside the scenario designed in the "Imaging Place" interface, stretching its visual possibilities across time and space and viewing stakeholder-generated content. "How Shall We Grow?" project organizers could hold regional stakeholder workshops and leadership academy sessions there, asking participants to imagine and interact with the new region created by "The 4C's" scenario to iterate the scenario into new, more complex modalities and territories. The audio capabilities of this environment could capture participant feedback and storytelling around particular places to annotate the environment with this situated knowledge. Haptic capabilities could allow participants to interact with the map in a seamless and immersive environment. To complement this physical setting at the MCL,

the Central Florida “Urban Tomography” web presence would facilitate access across the region and provide a setting for community residents and other stakeholders, including urban and regional planners, to provide video and audio content arranged on the “The 4C’s” regional scenario map, viewable at a variety of scales. “Urban Tomography”-contributed content would feed into the “Imaging Place” application, providing rich visual and audio detail for invention and scenario iteration.

How can these applications scale to a regional level, and what will they tell us when we are there? With these applications, participants could “walk through” the region in a manner impossible in the physical environment, but required for the emotional environment in which visual contexts are generated. Lynch’s research method was to ask residents to map their cities from memory, based on their lived experience there, to reflect their image of the city, and these experiences also are privileged in the theories of place I reviewed in Chapter 3. DeCerteau’s focus on the city as interpreted by pedestrians and their spatial tactics (deCerteau 34-39) defines his conceptions of place, and Baudelaire’s *flaneur* and Benjamin’s Arcades Project reflect similar experiential practice that also eludes us at the regional level. The methods of Ulmer’s Florida School may be helpful to planners and stakeholders both defining and accessing this regional image and context through association and generative poetics.

These applications also encourage use of phenomenological approaches highlighted in Chapter 3 that would help planners avoid a structural approach that limits

understanding. At the same time, this inventive experiential process will help define the regional visual systems that may be variations of Lynch's path, edge, district, node, and landmark typology and that eluded Lynch in *Managing the Sense of a Region* (120), which can be applied to scenario creation. Lynch urged planners and urban designers to consider the "look, sound, smell, and feel of a place" in a complex interaction (*Managing* 4), which is very possible in a regional augmented reality setting. That regional context would facilitate interpretation, but weight is on visual elements to communicate future, with particular implications for visual research needed within the profession and aided by technical communicators.

This visual research must consider that regional visioning scenarios have diverse authorship through their collaborative generation and subsequent interpretation. Hight urges that cities be "read in the context of ethnography, history, semiotics, architectural patterns and forms, physical form and rhythm, juxtaposition, city planning, land usage shifts and other ways of interpretation and analysis" ("Narrative"), and I would argue the scenario demands nothing less if it is to represent a vast collection of cities on a regional level. Navigation through these spaces in "narrative archeology," especially through the proposed regional augmented reality system, would build a community of regional scenario authors through their individual interactivity and movements (Hight, "Narrative"), achieving Barthes' intertextuality in a spatial sense. This type of augmentation has extensive communicative possibilities that "illustrate many faces of

place in its present, past, possible futures” and depict “alternate spaces as commentary, as fused aesthetic analysis, or simply creative writing relevant to these charged and hybrid spaces” (Hight, “Writing”). Ulmer’s mystory may be developed and applied in these settings as a relay to specifically consider applications to place that work across media and use all forms’ creative potential (Saper 7), using “storymapping”, described in *Imaging Place* as a “gathering of personal images and verbal narratives” (MacLennan et al. 78) to make participants part of Ulmer’s “EmerAgency” attempting to solve applied regional issues. It is these movements through time, space, and narrative that are required. I believe Texts and Technology as a field can facilitate these movements through its understanding and application of rhetorics and poetics, while learning from the community as this potential is realized.

Recommendations for Research

In recommending a research agenda for visual communication and pedagogies, especially those situated in regional identity and image, in planning practice, I am reminded of Ong’s assertion that the transition from orality to literacy within a culture evolved over a long period of practice, as “only over time does writing become a discourse that leaves behind formulaic elements in favor of the assembly of thoughts and ideas” (26), cautioning us that progress may be incremental. Fortune references Kress and VanLeeuwen’s conception that “each mode of representation has a continuously evolving history, in which its semantic reach can contract or expand or

move into different areas as a result of the uses to which it is put” (Kress and VanLeeuwen 40 as quoted in Fortune 51), before noting the problematic tendency to see modes as oppositional, rather than intertwined (Fortune 51). Limited practice and research in this area make drawing conclusions more difficult. At the same time, it is unfortunately easy to list potential areas for research, because the regional landscape is filled with questions to which we do not yet have answers.

To start with the “How Shall We Grow?” process, further research on the communicative effects of “The 4C’s” scenario would be insightful, based on the small sample size of this research. I recommend additional testing that compares that scenario to the original four scenarios produced during the process, which had more geographic specificity and networks of corridors and activity centers in a markedly-different visual style. This could be done in the context of Lynch’s typologies to note which visual style planners find most informative. For additional research, planners could be observed interpreting the scenario in situ within their workplaces, a method found very productive in the research of Healey, Carp, Spinuzzi, and others. In this manner, researchers would be able to note discourses and interpretations of “The 4C’s” scenario, as well as comparisons to local communities’ plans and potential interactions with other stakeholders, such as property owners or developers also interpreting the scenario relative to their property holdings. Observation in the workplace could also incorporate planners presenting to additional stakeholders, such as elected officials, to assess not only interpretations, but

the rhetorical choices and *techné* employed by planners in that rhetorical situation. In that light, further research should address the political economy and power relations of regional visioning process design to note influences in shaping the visual products.

From this consideration of regional scenarios developed in one regional visioning project, research inquiry could expand to larger scale investigation of scenarios within practice, especially in the context of regional images and their textual support.

Scenarios may be compared across different visioning processes in the United States to note uniformity in visual conventions as a visual meta-analysis. Research is needed on how the branding of a scenario through references, analogies, and naming support the visual conventions in communicating an idealized future place, extending visual communication theory's focus on the relationship between text and visuals. From Barthes' perspective, more detailed textual treatment of scenarios may address the degree of difference in interpretation, and there is an important need for user-centered design testing of this textual material. Finally, the Buffalo Commons and other regional narratives with compelling resonance across time and space should be investigated to note key elements of these regional visual contexts and images for comparison.

Also within the disciplines, additional user-center design and usability testing of visual products with urban planners is required, while returning to Lynch's original methods to test residents—considering the potential of testing both planners and residents together for knowledge sharing. In doing so, planners need rubrics developed for evaluation of all

of these visual products, even as the “proof” of their success may stretch over several years and many community meetings and public hearings. Research also must shed light on the long-term communicative effects of regional visioning processes and scenarios, relative to project’s community engagement and subsequent local planning efforts, as well as public and media recognition of the project over time.

Within the fields of technical communication and urban planning, we need a better methodology and pedagogy to train planners in scenario creation and visual practice, including greater standardization of visual conventions within the field, as seen with architects and engineers. Planners also should heed the advice of Albrechts, Barton and Barton, and research participants and bring additional media to the scenario exercise, incorporating annotation, photography, video, and soundscapes, then investigating outcomes, even where an immersive regional image system is not possible. Planners should bring the scenario from a 2D sheet to a 3D space and wrap it in geospatial technologies, social media, and locative media, then research the success of those efforts. Planners need to bring the community into that process and let them “mark up” a scenario with their knowledge, insights, and concerns, a readily-accessible technology even today, as a means of research inquiry. I also recommend the freely-available “Urban Tomography” software and corresponding webpage be made part of regional visioning processes concurrent with scenario development as a creative and dialogic tool in public participation, as this participatory research can reveal data and

trends about the built environment under study (Krieger et al. 28) and capture feedback early in the process.

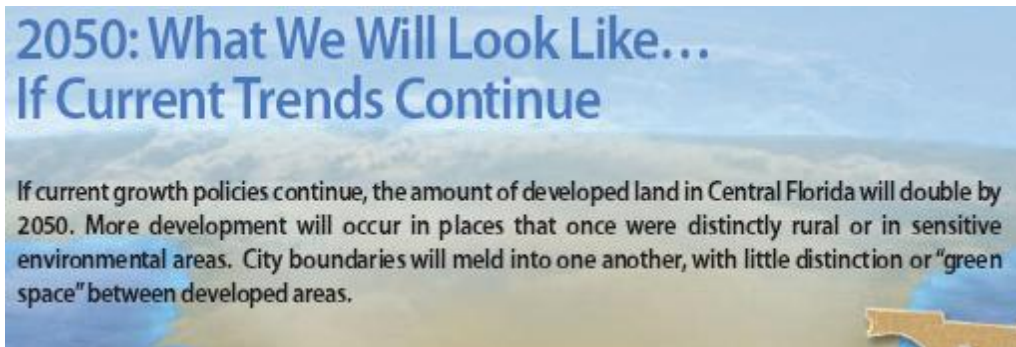
Conclusions

From the literature to the dialogue of research participants, it is clear that forming and articulating a regional image is no small endeavor and very likely to be unsuccessful. At the same time, the future of the Central Florida region is worth the time, effort, and bold invention and intervention required. Also, regional visioning efforts are going forward in many areas of Florida and the U.S. Along with Central Florida's "How Shall We Grow?", regional visioning efforts are underway or are nearing completion in St. Petersburg /Tampa (One Bay), the Treasure Coast region (Indian River south to Palm Beach), the Apalachee Region (Tallahassee), Southeast Florida (Miami-Fort Lauderdale), along the Emerald Coast (Western Florida panhandle), and the in Heartland region (Glades, Hendry, Highlands, and Okeechobee counties) (Century Commission 8). These projects are situated in communities with hundreds of thousands of Florida's residents, who require these projects to be as successful as possible to preserve and enhance their quality of life. While effective planning theory requires diverse analyses to enrich understanding (Harris 313), as does planning practice, the analyses of the visual likely are not yet to the level needed to contribute to regional visioning projects' successful outcomes and to allow these future places to be realized.

Poetic methods offer a landscape for authors creating scenarios, whether planners, Chamber of Commerce representatives, or other stakeholders, to move beyond an instrumental approach to problem formation, characterized from the project's inception as "How Shall We Grow?." This project design likely is influenced, in part, by the nascent tradition of regional visioning projects over the past few decades, in which community participants use Lego pieces or poker chips to depict where new population and jobs should be located on regional maps. At the same time, this approach limits dialogue to a reductionist query that seeks primarily to move "growth game pieces" around a regional chessboard and rhetorical concerns confined to growth issues (Figure 28 and 29), when the larger question is who we are and what we want to be like as a regional community.



Figure 28: Textual Element Describing Growth, Detail from Page 10, How Shall We Grow?: A Shared Vision For Central Florida, Final Report.
Source: myregion.org.



**Figure 29: Textual Element With Growth Rhetoric, Detail from Page 13, How Shall We Grow?: A Shared Vision For Central Florida, Final Report.
Source: myregion.org.**

Are we a Buffalo Commons or a Nine Nation now, or will we be? Is the fact that people may want to move to Central Florida the only basis for community inquiry at this scale, and is this the deepest question we may ask ourselves in a community dialogue? In a community rapidly becoming more diverse by the year and experiencing the environmental and quality of life issues we struggle with, there is a loss that accompanies that consideration and a sense of what we may never know. A new regional image can emerge from new regional technologies, produced in collaboration and across media to divine the future of Central Florida.

APPENDIX A: INTERVIEW AND FOCUS GROUP DATA

Table 1 Participant Profile—Educational Background

Bachelor's Degree

Industrial Engineering
Environmental Studies
Environmental Planning
Public Administration
Economics
Outdoor Recreation, Geography
Urban and Regional Planning
Architecture
Geography
Political Science
Architecture
Community and Regional Planning
Political Science

Master's Degree

Urban and Regional Planning—Transportation
Urban Planning
Urban and Regional Planning
Urban Planning
Geography
Landscape Architecture
Community Planning
Urban and Regional Planning
Public Administration

Note: Participants listed each degree attained, not the highest level attained, and each response is listed.
Source: Participant Pre-Test Surveys.

Table 2 Participant Profile—Urban Planning Specialization

Specialization

Land use and comprehensive planning	13 participants
Current planning and development review	7 participants)
Transportation planning and/or engineering	5 participants
Economic development	4 participants
Urban design	4 participants

Specialization

Environmental planning	3 participants
Regional planning	3 participants
Housing	2 participants
Public involvement	2 participants
Other—transit, tourism, historic preservation	1 participant)

Note: Participants were able to select more than one specialization.

Source: Participant Pre-Test Surveys.

Table 3 Participant Profile—Years of Urban Planning Experience

Experience

0 to 5 years	2 participants
6 to 10 years	2 participants
11 to 15 years	5 participants
16 to 20 years	2 participants
21 to 25 years	1 participant
26 or more years	2 participants

Source: Participant Pre-Test Surveys.

Table 4 Participant Profile—Previous Exposure to “How Shall We Grow?” Project

Exposure

Viewed news item or article in print about How Shall We Grow?	11 participants
Participated in one How Shall We Grow? community meeting	6 participants
Viewed news item on television about How Shall We Grow?	6 participants
Have used the How Shall We Grow? scenario for some other function at your employer, such as outreach to citizens or elected officials, presentations, or policy discussions	5 participants

Exposure

Viewed WMFE news program about How Shall We Grow?	4 participants
Have used the How Shall We Grow? scenario in review of your employer's comprehensive plan for a staff-initiated comprehensive plan amendment or amendments	3 participants
Participated in multiple How Shall We Grow? community meetings	3 participants
Voted on a choice of How Shall We Grow? scenarios during visioning process	2 participants
Participated in technical or policy committee to develop scenarios	2 participants
Participated in agency review and comment on scenarios during development	2 participants
Have used the How Shall We Grow? scenario in review of a development proposal or privately-initiated comprehensive plan amendment or amendments	2 participants

Note: Participants were asked to select as many options as applicable.
Source: Participant Pre-Test Surveys.

Table 5 Themes from Participant Assessment of Scenario Landmarks

Themes

Orlando, Daytona, Eustis, Cocoa, Space Center, Melbourne.

Orlando airport, I4, Cape Canaveral, Polk County, Sanford Airport, Turnpike, State Road 27.

Orlando, OIA, Orlando Sanford Airport, Sanford, Altamonte Sprints, Oviedo, Winter Springs, University of Central Florida.

Downtown Orlando, Kissimmee, St. Cloud, Winter Park, Maitland, Lake Mary, Sanford, Heathrow, Titusville.

Lake Apopka, the extent of the urbanized area.

Orlando is the series of pink blocks.

East bound is Space Coast, Port Canaveral.

I orient by roads, but can't tell Interstate 4, State Road 429, and the Florida Turnpike.

Source: Focus Groups and Interviews.

Table 6 Themes from Participant Assessment of Scenario Place Icons

Themes

Growth or population.

Roads help orient, symbols like airports give landmarks, green stuff looks like preservation, boxes are towns, bigger if more dense.

Consider to be growth centers to focus densities and intensities.

Shows current location of employment and residential centers in region and what growth projections are. How and where future growth will take place.

Intensity.

Legend explains.

Misleading where height of colored boxes suggests building height, but is actually population.

Not clear the size of column equals people—may be with clusters—nominal, but ordinal and interval here—no way of determining.

Each bar may represent a city.

Concentrations of development density and intensity.

Thought it was transportation icons.

Pink boxes say 100,000 population or more, but doesn't tell why four are together.

Source: Focus Groups and Interviews.

Table 7 Themes from Participant Assessment of Scenario Lines (Transportation)

Themes

I don't know, I have no idea [after referring to legend]—connection corridors.

Swooshes are connections.

Economic regions that have partnerships with each other.

Transportation and connectivity between places. The map represents multimodal nature of the region and the connection of centers.

Some degree of connection.

Connections.

Nominal levels shows where going, but not volume.

Themes

Doesn't suggest surface travel, as goes top of box to top of box [place icon].

Transportation corridors.

Roads and railroads—look like we're flying, as don't connect on ground. Multimodal connections and the short pink block are confusing.

Source: Focus Groups and Interviews.

Table 8 Themes from Participant Assessment of Scenario Legend

Themes

I think it's clear, but have to know the area to know where you're at.

Undeveloped—to me that would be unclear—could it be developed? Not conservation. Show highways and railroads, but not transit—thought scenario values it.

No, not really—some of ideas and concepts are not practical, and some of the places that have hamlets and villages aren't appropriate—not all are feasible.

Multitude of bars represent population. Downtown Orlando has 4 contiguous lines, and given the scale, hard to see what it represents clearly. Someone unfamiliar with region might need the cities labeled, as can't orient selves in map.

Limited to what can show on a single map. Subsets could be used in image series.

Could also add bandwidth and connectivity for economic development.

Hills could be misleading—looks like a topographical map.

White dotted lines are confusing and not on the legend.

Software limits the ability to depict—constrained in showing reference points.

Color of city boundaries could show range. Conservation areas are pixilated.

Doesn't give accurate description of where people will live based on sprawl and quarter-acre lots. What is defined as undeveloped? No definition in the legend. Also need definition of conservation area—would it include conservation subdivisions?

Suggests population, but not clear if existing or all future populations.

Color gradient would be better to show existing versus future populations or textures. Would be easier to interpret.

Would question the terms used, as people don't use the term "hamlet" and small cities wouldn't want to be called a town. Regional city of 100 thousand is an infinity increment. Ranges of population would be better.

Assumption is that 100,000 is people—could be dwelling units.

Themes

Not clear. Compass is crooked—easier if straight north. Too much deference to coast.

Eye isn't drawn to coastline.

Bothers me that vacant and conservation are different—not clear—where would we build after 2050?

Legend doesn't describe nonresidential that is in mix. Existing conservation looks forested, not wetland.

Which highways are proposed?

Roads are in the middle of nowhere.

Why are development areas both hatched and not hatched?

Color palettes usually are specific to planning—dark to light for density/intensity, and this doesn't do that.

Source: Focus Groups and Interviews.

Table 9 Participant Evaluation of Visual Elements for Scenario Design Intent

Elements

Roadways and map key (population).

Green space=conservation.

The title, the dates, roadway network and city key.

Intensity scaling—color code—transportation connections.

This is a very busy, confused, and scattered agglomeration of disparate data poorly put together by untrained, would be map makers with no background in the subject they are trying to communicate.

Population—shows level of intensity, conservation areas, multi-modal connections, however, need more detail and info.

Conservation areas show preservation efforts. White lines show the effect of connecting the centers.

The green areas showing conservation are prominent in this perspective and imply its importance to the regional growth vision.

The scales, location, and amount of recommended conservation lands (2050) show the intent of the program on the importance of developing a regional growth model.

Transportation seems to be prominent, so we can understand that this will be important to develop for the future.

The existing and proposed conservation areas.

The legend's different size—hamlets to cities.

The colors of the centers and the countryside are easy to discern.

Source: Participant Post-Test Survey.

Table 10 Themes from Participant Evaluation of Scenario Design Elements

Themes

A few city names would help—have to know the road network to know where you are.

Transportation connections are as the crow flies—connections are through green space or on existing roads—contradictory and don't know if preserving conservation or not.

Transportation and multimodal connections are confusing and potentially misleading. New cities depicting make viewer wonder why some are growing and not others (Deltona vs. Sanford). No basis for that today.

One aspect is that colors for developed and undeveloped are too close and intermingled, especially given the scale. The urban core is mixed and hard to tell detail. An electronic format that's zoomable would help. Numerous population projection bars within one area are hard to interpret relative to actual projections or to a neighborhood.

Think it is relatively clear from a bird eye view. General starting point—need more in depth analysis on the ground to implement this.

White dotted line is not identified.

Attractive graphic that is fun to look at, but doesn't tell you anything.

4C's could be the title.

Still don't know what 4 towers mean. What would growth look like compared to today?

Multimodal lines don't tell anything. What connections would be there and why?

No connections to space coast or airports.

Why do people to the northeast side of the map need a multimodal connector? What is the attractor?
Only connecting pink tower to pink tower, but people may not need to go back and forth.

Can't distinguish each city.

Innovation Way block or Avalon Park? But huge tower east of Lake Toho can't be St. Cloud? Lake Toho DRIs? DRI represented on map? This is deliberately vague to interpret any way you want.

Source: Focus Groups and Interviews.

Table 11 Themes from Participant Comparison of Scenario to Future Land Use Maps Used in Workplaces

Themes

No comparison—this is so general.

Most land use maps have more detail—policies have more identification and things that give a sense of community gathering places and parks—hard to show on this map.

Themes

This is not a regulatory document—doesn't have good scale and hard to figure out where places are. It doesn't relate to development rights. The process has meaning to work as land use planners shaping visions at a local level. Larger view than comprehensive plan.

Difficult to answer, because regional vision takes a broader view. Most communities don't take a regional perspective on growth. Much more graphically appealing and 3D. Despite the confusing layout and lack of labeling, the map draws you in.

Less detailed, broader vision, probably a clearer view of intentions of plan.

Other maps are easier to read. This map is busy, ambitious, and not clear.

The future land use map also has conservation areas. Hard to see conservation areas of various cities and relationship to small cities, especially if they aren't identified.

Coloring is not consistent and not intuitive.

Doesn't show proposed land uses, like tourist or mixed use, or show density.

Future land use map also doesn't show community assets, like schools—all designated blue institutional.

Green is rural. What shade? Light green is golf course.

Water color looks like sky.

Source: Focus Groups and Interviews.

Table 12 Participant Recommendations for Scenario Design Changes

Recommendations

Add a few key cities for quick reference.

Explain the blocks increasing height=more density, show transit routes and hubs.

Adding a scale and deleting the transportation connection—confusing.

Overlaying 3D population projection bars/concentrations over a colorful and well-designed regional 2D map.

Orient map top to bottom for easier viewing.

Have your mapping created or at least reviewed by a geographer or cartographer.

Better legend, more nominal data, descriptions.

Remove the columns depicting the cities/towns. They are out of scale.

Change perspective to straight-on top view, depict boundaries of counties for more orientation.

Recommendations

Incorporating elements that will help readers identify where they are (city, county boundary), including a better/clearer population, illustrating proposed regional corridors.

The colors, the icons of the population? Or houses?, more icons for places.

1 clarification of the population centers—population vs. density/intensity 2 inclusion of more symbols for significant places (Disney, colleges, etc.) 3 inclusion of county boundaries 4 more clear delineation of major roadways 5 different symbolization of existing conservation land (it all looks like dense forest) 6 perhaps suggested conservation/countryside should have been broken into two separate categories

Define if its population or units. Explain “or more”. Explain the smaller hot pink boxes.

Use a plan view. Highlight corridors more. Show connectivity along the coast.

Source: Participant Post-Test Survey.

Table 13 Participant Recommendations for Text Support of Scenario

Recommendations

Explain 4C's on legend—how corridors and centers with concentrated growth help preserve conservation and countryside.

A disclaimer about entitlements.

Perhaps a “how to use this map” primer to help residents understand what the scenario is trying to convey.

Major developments—points of interest.

A scale and the data in the legend represented at ordinal and interval levels, not just normal symbols spread across the page like so many children's building blocks.

Name of places, boundaries, land uses, density/intensity.

Names of the cities, lakes, county boundaries, schools. Add trails/bike paths.

Replace terms hamlet through regional city with others most people use and reconsider population ranges. Retitle with the 4C's.

City names, lakes, major landmarks/attraction.

More items in the key, more parameters, more about the generators and attractors that cause the need for the multi-modal connections.

1 clarification of the nature of the population centers, 2 clarification of what constitutes multi-modal transportation 3 explanation of where rural/agricultural uses fit into the mix 4 clarification of the nature of undeveloped areas.

Geometry relates towers only, use volume relief of the land instead.

Recommendations

Define the centers in the legend, as population or units. Place a heading over the “centers” in the legend. Define “undeveloped (2050)”.

Source: Participant Post-Test Survey.

Table 14 Other Participant Recommendations

Recommendations

May need indicators for neighborhood—walkability index, schools, shops and restaurants.

Maps require 5 elements. 1. A title that accurately describes the data 2. A scale as a representative fraction or a bar describing distances as a ratio 3. A north arrow 4. A legend which describes data at nominal, ordinal and interval level which best describes the data 5. A citation which allows you to find the base data the map was based upon.

I think the written results of HSWG must accompany the graphic we reviewed and will better explain the complete vision that residents wish for.

The map needs to be more intuitive, use the standard color sets (water is blue), orient the map north, the colors should not detract from the story the map tells.

Still needs the revised graphic to make a difference addressing the issues raised in question 1 [correspondence to values statements].

If the intent is to be vague, since it is a long term vision, then this scenario works.

Source: Participant Post-Test Survey.

Table 15 Participant Responses—Years Residing in Central Florida

Years

0 to 5 years	2 participants
6 to 10 years	2 participants
11 to 15 years	2 participants
16 to 20 years	4 participants
21 to 25 years	0 participants
26 or more years	4 participants

Source: Participant Pre-Test Surveys.

Table 16 Participant Responses—Place Profile

Communities Participants Live In:

Orlando (3 responses), Altamonte Springs, Downtown Orlando, West Orange County, Lakeland, Avalon Park, Winter Park, Conway, MetroWest/Orlando, Winter Park, Apopka, Sanford

Communities Participants Work In:

Orlando(3 responses), Maitland(3 responses), Bartow, Sanford, East Orlando, Lakeland, Orange County, Kissimmee, Downtown Orlando, Lake Mary

Communities Participants Shop In Most Often:

Orlando (7 responses), Longwood/Altamonte Springs, Altamonte Springs, West State Road 50, Lakeland, Florida Mall and Millennia Mall, Millenia area/Orlando, Sanford

Communities Participants Recreate In Most Often:

Orlando (4 responses), Georgia, Altamonte Springs, Downtown Orlando, Home, Anna Maria Island, Econ Trail, Polk County, Metro West and Dr. Phillips/Orlando, Utah, Sanford

Source: Participant Pre-Test Surveys.

Table 17 Participant Responses—Boundaries of Central Florida Region

Boundaries

Daytona to Lakeland, Ocala to Haines City.

Inland counties—middle of the state around Orlando.

Seminole, Orange, Osceola to St. Cloud over to Poinciana, eastern side of Polk County to US 27, Lake County, South Volusia County—Deltona.

Orange, Seminole, Osceola Counties.

Polk, Hardee, Lake, Highlands, Orange, Osceola, Hendry.

Orange, Seminole, Osceola Counties.

North—Sanford, South—Disney, East UCF area, West—Apopka.

North—Sanford/St. Johns River, East—east Orange County, South—Kissimmee, West—Lake County line,

Boundaries

Orange County, Osceola County, Seminole County, Lake County, Polk County.

North: Volusia County (north county line), South: Polk County (south county line), East: Brevard County coastline, West: Lake County (west county line).

Seminole and Volusia to north, Lake to West, Ocean East, Osceola and Polk to south.

Volusia south to Osceola County and north ½ of Polk, Atlantic Ocean west to Lake County.

Source: Participant Pre-Test Surveys.

Table 18 Themes from Participant Responses—Regional Sense of Place and Identity

Themes

Can tell it's Central Florida by map area inset.

Airport, spaceport, cruise ship jump out because of symbols—tourism related and concentrations of jobs.

Think that this would be a well-planned vision and a more urbanized form—a more urbanized city with more controls on green spaces and more European in nature than American.

Depicts a region that offers a multitude of living options—suburban, rural—does in way that also represents belief in connecting communities to each other and the region to the world. Would have a sense of place that's not there now.

Multijurisdictional layout—intention to tie together needs of a larger population.

Would think would have a lot of outdoor recreation opportunities.

Multi-centered area with one center as the largest. Would think others would be catching up here.

Blocks aren't equivalent—only nominal large purple and pink. Shown with same width.

For one center and all else are supporting and pointing at the main center.

Doesn't give a sense of scale relative to counties.

Should identify the cities.

Boring—no Disney, tourist corridors depicted.

Deliberate? Want identity to be different from tourism.

No iconic building or landmark.

Only iconic building is the space center.

Source: Focus Groups and Interviews.

Table 19 Participant Survey Responses—Regional Sense of Place and Identity

Responses

Not really, knowing the areas, it does provide a picture to some degree.

Environment is important. Airports, cruise ships, space are tourism-oriented.

A community that wants to change the way it plans growth and development. Yes, it helps to promote a regional identity and creates shared understandings on growth and regional partnerships.

The scenario represents a vision in which now separate communities can be connected to grow wisely, preserve the environment, and create a “region”.

Gives appearance of looking beyond political boundaries. Not clear on shared identity.

No.

Preserving natural environments, future transportation connections, urban centers.

Multi-center regions connected by freeways and multi-modal transportation networks.

It communicates little to regional identity other than very generalized notions of several centers, general connections, and “green space”.

I am not sure it helps to shape a regional identity, but it is a strong first step in this process. The maps shows downtown/Winter Park area is the regional center.

Looks boring—with nothing of interest, why would you want to live here?!

Although it emphasizes the need for increased connectivity, there is no focus on the development of a true regional identity. To me, the map really illustrates the fact that Central Florida is a textbook example of urban sprawl.

No, that transportation connections are the biggest concern.

Orlando appears to be the focal point. No regional identity.

Source: Participant Post-Test Surveys.

Table 20 Themes from Participant Review of Scenario Based on Value Statements

Value statement: Growth needs to be strictly managed and limited.

Yes, some indications, existing and suggested conservation areas.

Don't see anything in this.

This says that needs to be well-managed and regionally connected—well planned with existing centers.

Think it says it needs to be managed, but recognizes historic growth patterns—diffuse and multimodal. Growth can occur, but is concentrated.

Value statement: Growth needs to be strictly managed and limited.

Yes, limited distribution of icons that show intensity.

Future conservation areas, but angle is misleading relative to conservation and makes it look larger to the west. The map is sensitive to perspective.

If wanted to show, should use definite boundary line to make this point better, such as an urban growth boundary.

Developed areas on map look like agriculture.

Not really.

Looking from southern perspective, see a lot.

Development leaks into conservation areas.

Value statement: Neighborhoods are important and create safety and security.

I don't see that in this.

Not really seeing neighborhoods.

Don't think this comes across in graphic.

Don't think that is there.

Don't get that from this.

Can't even see a neighborhood.

Can't show it at this scale.

Need another graphic.

Angle makes it harder.

Major style decision in creating map.

Don't get at all—no neighborhoods, as too high a level.

Developed area not a community—only in future.

Would need smaller boxes.

Value statement: Nature should be preserved and enjoyed by residents.

I don't see that it says that in here—some conservation.

Preserve shows that—existing and suggested green space, but no trails or recreation.

Believe that's conveyed—suggested conservation and countryside vs. undeveloped area. Growth should be limited away from them.

Think preservation aspect is—enjoyed might be different. One thing the map does well is show green natural lands.

Plan indicative based on designation of a lot of green area—conservation and open space a priority.

No parks are shown.

Value statement: Nature should be preserved and enjoyed by residents.

No conservation corridors.

Didn't show regional multiuse trails from trails master plans. Could be added to show recreation element.

Residents not shown connected to nature.

Not shown at scale.

No trails or paths shown.

Value statement: Schools are the cornerstone of good communities.

Don't see schools at all.

Don't believe that's portrayed.

Not getting anything on that.

No, not even universities—could be symbolized.

Could add to legend.

Doesn't show UCF, Rollins, Stetson—could symbolize universities on map.

Value statement: Transportation and public transit need to be developed or improved.

No.

Yes, they do, but no transit on this.

Think attempting to say that, but not well. What's portrayed is too conceptual—unclear how it would ever happen.

I agree, think what is relevant to scenario is that if building or going to grow in a multi-nodal way, need connectivity that we don't have now. Airport, railroads show opportunity beyond what's currently there in terms of infrastructure.

Doesn't come out clearly and say that, but some thought given based on legend. Can't gauge from this if connections make any sense, other than someone thought of this.

Nothing to show transportation or public transit—concept, but no transit.

Only shown in white swoops, but perhaps no decision on mode choice yet.

No multimodal connection to coastline.

Can't tell road widths or traffic volumes from line in legend.

No hierarchy of transportation.

Source: Focus Groups and Interviews.

Table 21 Participant Evaluation of Scenario's Connection to Value Statements

The scenario and its accompanying text tell me that growth needs to be strictly managed and limited.

strongly agree	1 participant response
agree	2 participant responses
disagree	8 participant responses
strongly disagree	3 participant responses
no opinion	no participant responses

The scenario and its accompanying text tell me that neighborhoods are important and create safety and security.

strongly agree	no participant responses
agree	1 participant response
disagree	3 participant responses
strongly disagree	10 participant responses
no opinion	no participant responses

The scenario and its accompanying text tell me that nature should be preserved and enjoyed by residents.

strongly agree	3 participant responses
agree	6 participant responses
disagree	3 participant responses
strongly disagree	2 participant responses
no opinion	no participant responses

The scenario and its accompanying text tell me that schools are the cornerstone of good communities.

strongly agree	no participant responses
agree	1 participant response
disagree	2 participant responses
strongly disagree	11 participant responses
no opinion	no participant responses

The scenario and its accompanying text tell me that transportation and public transit need to be developed or improved.

strongly agree	no participant responses
agree	5 participant responses
disagree	6 participant responses
strongly disagree	3 participant responses
no opinion	no participant responses

Source: Participant Post-Test Surveys.

APPENDIX B: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Exempt Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Alissa B. Torres**

Date: **March 09, 2010**

Dear Researcher:

On 3/9/2010, the IRB approved the following activity as human participant research that is exempt from regulation:

Type of Review: Exempt Determination
Project Title: The Rhetoric of the Regional Image: Interpreting the Visual
Products of Regional Planning
Investigator: Alissa B Torres
IRB Number: SBE-10-06785
Funding Agency:
Grant Title:
Research ID: N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the [Investigator Manual](#).

On behalf of Joseph Bielitzki, DVM, UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 03/09/2010 10:03:34 AM EST

A handwritten signature in cursive script that reads "Joanne Muratori".

IRB Coordinator

APPENDIX C: RECRUITMENT ANNOUNCEMENT



Human Research Protocol
Recruitment Announcement

1) Protocol Title

The Rhetoric of the Regional Image: Interpreting the Visual Products of Regional Planning

2) Investigator

Alissa Barber Torres, Ph.D. Candidate, Texts and Technology Program, Department of English

Recruitment Announcement

As an urban and regional planner in the Central Florida area, you are invited to take part in a research project to assess regional land use scenarios and make recommendations about best practices in visual communication in the planning profession.

To participate in this research, you can choose to either participate in a focus group or a personal interview, each of which would last approximately one hour. During the focus group or interview, you would be asked to review a regional land use scenario and answer some questions about what the scenario communicates to you as an urban and regional planner. The focus of discussion is on the effectiveness of the scenario as technical communication providing information about a “future place”. You also would be asked to complete short surveys before and after your review of the scenario in the group or interview.

Focus groups and interviews will be scheduled in March 2010, and an honorarium of ten dollars is available to compensate you for your time. Both focus groups will be held at the Orange County Public Library, Orlando (Downtown) Branch. Interviews will be arranged at a location convenient to you as an interviewee, and the researcher will ask all interviewees to propose locations convenient to them. Interviews will not be conducted in interviewees’ workplaces, so that privacy may be maintained.

If you are interested in learning more about this research, please contact Alissa Barber Torres, Ph.D. Candidate, University of Central Florida, at alissa.torres@knights.ucf.edu or 407-968-2311.

Thank you for your interest and contributions to planning in Central Florida!



**APPENDIX D: RECRUITMENT ANNOUNCEMENT PUBLISHED BY
FPZA**

- As an urban and regional planner in the Central Florida area, you are invited to take part in a research project to assess regional land use scenarios and make recommendations about best practices in visual communication in the planning profession. To participate in this research, you can choose to either participate in a focus group or a personal interview, each of which would last approximately one hour. Focus groups and interviews will be scheduled in March 2010, and an honorarium of ten dollars is available to compensate you for your time. If you are interested in learning more about this research, please contact **Alissa Barber Torres, Ph.D. Candidate**, University of Central Florida, at alissa.torres@knights.ucf.edu or (407) 968-2311.
- Go The Distance with **Engineers Without Borders** at UCF in the Live Earth Run for Water 6K. **April 18, 2010 at 8:00a.** Proceeds benefit the Haitian Earthquake Relief, EWB UCF Water Projects, and Global Water Challenge. For more information and to register to walk, run, or volunteer, please visit www.ewbucf.org/run.

If you have an announcement that you would like to see printed in the next GRAND CENTRAL, please contact **Katie June** at kjune@vhb.com.

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APPENDIX E: COPYRIGHT CLEARANCE



Title: Visualization Tools and
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Literature

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Title: Mapping the Research
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Author: Carolyn D. Rude

Publication: Journal of Business and
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