Interactive Media Representation

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INTRODUCTION

In a paper first published in Visual Anthropology (Coover, 2001) and later revised in the CD-Rom Cultures in Webs: Working in Hypermedia with the Documentary Image (Coover, 2003), I discussed how semantic theories of metaphor, cinematic theories of montage and cognitive theories of what Goodman (1978) called 'worldmaking', might be reconceived as strategies of ethnographic media production. Drawing examples from the films of Gardner and Östör (Forest of Bliss, 1986), Trinh (Naked spaces: living is round, 1985) and others, I will look at how approaches combining these strategies might advance ethnographic praxis.

This chapter expands these themes from the perspective of multimedia presentational practices. I will discuss ways in which digital tools might further the integration of diverse disciplinary and modal strategies in cultural research and representation, and I argue that new media tools transform how users engage with materials. The essay draws upon issues that arose when I was making multimodal interactive works, among them Cultures in Webs (2003), Outside/Inside (2007a) (see Figure 32.1) and Voyage Into The Unknown (2008). The chapter gives special attention to ways that techniques of layering and compositing contribute to how works are made, and, in drawing parallels with Certeau’s description of walking in his essay, ‘Walking in the City’ (1984), I will consider how digital panoramas and other scrolling environments raise possibilities for user agency.

RHETORIC AND POETICS

From note-takers to cooks, amateur photographers to telephone conversationalists, we are all medium-makers. Whether one is simply forwarding emails with attachments or designing complex systems, almost everyone who uses a computer is a multimedia-maker. Digital technologies shape how one imagines, constructs and exchanges ideas. Our electronic communications are shaped by pre-existing conventions (of writing, pictorial representation, etc.), technological constraints (of the processor,
memory, software, data transfer, etc.), interface, and use.

Digital theorist Lev Manovich has been a proponent of the argument that digital tools are giving rise to a new language, albeit a hybrid one – a way of communicating that includes both prior methods of expression and new ones (Manovich, 2001). In writing about the impact of design software like Adobe After Effects® on how images are edited and how they are used, Manovich writes,

(Th)e working method is neither animation nor graphic design nor cinematography, even though it draws from all these areas. It is a new way of making image media. Similarly, the visual language is also different from earlier languages of moving images. (Manovich, 2006: 5)

Layering and compositing are among the processes shaping this visual language. Layered tropes, juxtaposed paths, modally varied arguments, and active choice-making are all devices of the digital rhetoric and poetics of the language(s) of digital media which are being incorporated by the makers of media works and are being interpreted by users, who may in turn, even directly within a work, become makers themselves. The impact on documentary production is significant.

First, hybrid spaces that combine text and video in shared environments challenge single-channel cinematic conventions of linearity and montage. The debate about the seemingly dialectical aspects of cinema – a debate characterized but never resolved by many of the great texts of film theory such as Eisenstein (1947) and Bazin (1967) – dissolves when, in digital works, long takes coexist with montage sequences. The practical result for the creators of motion media works is that much of what used to end on up on the cutting-room floor or as

Figure 32.1 *Outside/Inside* is an interactive scrolling panorama that was commissioned for the Museum of the Philosophical Society, Philadelphia, and exhibited 2007–2008. © Roderick Coover 2007.
little used master video tapes on the edit room bookshelves is now available. In interactive works, users may have the opportunity to access source materials and judge the maker’s choice-making. This also allows one ethnographer’s process to be compared to another’s, and another’s and another’s.

Secondly, interactive formats enable video material to be combined with text elements such as original writing, field notes, primary documents, secondary documents, interview transcripts, and so forth. Furthermore, digital tools facilitate the inclusion of other kinds of visual materials into a project, such as maps and photographs, which can be compared with cinematic representations. Practically speaking, questions of design are not so different from those of writing or editing; the ethnographer/mediamaker creates paths (arguments) via research materials. One difference for interactive works, however, is that the research materials may be included and the processes of research and representation may be revealed. Users may be able to follow the maker’s choices and decisions that went into building an argument out of the fragments of experience and data. In the face of alternatives, the researcher encounters an increased need to present supporting evidence for how and why particular routes through the material were valuable, but may face less pressure to gel materials in narrative or expository constructs.

**TROPES AND MONTAGE**

Ethnographers are translators of cultural experiences. The translation occurs on-site between the researcher and those s/he meets; it also takes place between the researcher and
the intended audience(s). Classic works of ethnography such as Evans-Pritchard’s *The Nuer* (1940) and Geertz’s *The Interpretation of Cultures* (1973) demonstrated the necessity of developing strategies for making sense of signs and symbols in the cultural contexts in which they were encountered and then translated to others.

The translator searches for terms of interpretation and re-presentation that might enable ideas expressed in one cultural context to be understood in another; the process is never exact. Tropes, such as metaphors, are among many tools for this kind of translation. Metaphors for example, a class of tropes, bridge semantic domains. A metaphor may provide a means of understanding some abstract notion through another more concrete one whose characteristics have been previously established: *love is a rose*. Semantic domains are bridged: ideas of love are expressed through things known about roses, and perhaps, vice versa, roses acquire aspects of the idea of love – aspects which give them enhanced symbolic exchange value. However, the semantic ‘bridging’ also illuminates gaps between the concepts being drawn together; metaphors can both express similarities and define differences.

Evans-Pritchard’s study of cultural perceptions of cows and Geertz’s famous invocation of a story about knowledge and turtles demonstrated attention to metaphors in the process of sense-making and translation. Victor Turner (1974), James Fernandez (1986), and George Lakoff and Mark Johnson (1980) are among the anthropological theorists that have expanded understanding about metaphor in cultural analysis.

While tropes such as metaphor, metonym and irony are based in language, others, as Friedrich (1983) wrote in his essay ‘Polytropy’, extend beyond words. Tropes may bridge language and non-verbal kinds of knowledge – such as with images and music – and they may bridge modes. In the
representation of actuality through non-fiction media, choices such as the use of minor scale versus major scale notes, of using blue-toned color palettes or film stocks versus ones with warmer tones, or the selection of slow editing rhythms versus rapid and accelerating montage all shape interpretation. Researchers such as Taussig (1993) and Stoller (1989, 1997) have advanced understanding of what a sensorial system of tropes might mean for anthropology and cultural research.

In film, tropes are constructed through edits as well as through structural analogies and mise-en-scène choices (such as color palette, lighting, etc.). In his famous essay on the dialectics of montage, Soviet film director Sergei Eisenstein (1949) delineated ways that montage can be used to propose interpretations of time-based visual content and evoke tonal characteristics of actuality, and how it can help construct visual tropes. Such cinematic practices correspond to ways that tropes are used in speech. In both cases, the tropic devices point to gaps between elements (between images and/or semantic domains) that the viewer–reader is invited to bridge. The act of pointing (drawing attention to ambiguities of meaning and classifications) is something that characterizes interpretive research both in writing and in film.

However, there is no one tool or method good for all seasons. Some ideas are well expressed through a series of images, while others may be better understood via forms of expression such as expository writing, spoken poetry, music, dance, or even a meal or a walk. The gap that is bridged by language tropes and montage is a kind of conceptual space; the bridging creates a context in which the connected elements might share that space, whether the space is imaginable in concrete terms of actuality or in abstract terms. This conceptual space frequently clarifies ways of understanding...
connotative aspects of experience and expression.

The linearity of film imposes constraints on poetic and rhetorical movements between images. Frames follow each other sequentially and in a temporal constant established by the presentation technology (e.g. the cinema projector, the video player, the television). This temporal constant is an authority; it is an over-arching force that moderates all others. When, in Robert Flaherty’s (1922) documentary Nanook of the North viewers watch Nanook catch a seal, they do so in a time frame and temporal mode set by the camera which, in 1922, included time-expressions constrained by the physical length of the film reels and the temporal limits of the manual crank. The film was famously praised by Bazin (1967) for its use of inclusive shots and relatively long takes. The objectivity Bazin praised reflected the trust he gave to the mediation of the technology itself. The camera created a copy of the visual data before the lens that was translated through the medium.

This translation can be limited by a number of factors, such as light requirements or the borders of the frame. It is also constructed through the camera’s shutter speed and frame rate. Although the frame rate may be altered ‘for effect’ in recording, in most instances (both in recording and playback), it is a controlling (and largely imperceptible!) constant. The single channel, linear time qualities of film and video limit switching into other modes of media reception, such as reading. Generally, single channel projection media do not allow viewers to escape the temporal constraints – or authority – of the projection mechanism. For example, they cannot read at their own rates or move back and forth through the text.

There are pre-digital models for combining diverse media in documentary representation. For example, in Another Way of Telling, Berger and Mohr (1982) developed
text–image works that are part exposition, part narrative and part poetic evocation. They worked with sequences of images – often accompanied by text – that were linked both by the ideas suggested by the specific images chosen (interpretive propositions), and through visual correspondences and contrasts in the images (such as formal, compositional, or aesthetic propositions). They eloquently described the kind of viewership or image reading that such a layout provided:

Eisenstein [1997 (1924)] once spoke of ‘a montage of attractions’. By this he meant that what precedes the film-cut should attract what follows it, and vice versa. The energy of this attraction could take the form of a contrast, an equivalence, a conflict, a recurrence. In each case, the cut becomes eloquent and functions like the hinge of a metaphor…. In film…. there is also a third energy in play: that of the reel, that of the film’s running through time…. In a sequence of still photographs, however, the energy of attraction either side of a cut does remain equal, two-way and mutual…. The sequence has become a field of coexistence like the field of memory (Berger and Mohr, 1982: 288).

A digital interface similarly allows for multi-directional movement, while adding more diverse media elements. It enables user agency. The user navigates an environment that extends beyond the limits of a printed page. By making her own choices in navigating a multimedia work, the user may become aware of the choice-making processes of the original maker(s) of the work. In some cases, the user may contribute to the work. For multitasking, ‘cut-and-paste’ users, elements of one work may also be incorporated into others.

To offer an example of how such opportunities in digital media can impact processes and engage translation strategies, I will reflect on my project, The Harvest (1999). In this multimedia documentary work, I explored ways to use simple HTML in a web-based environment to integrate research materials on-site, and then reflect on my
research and refine my process. The work built arguments through a combination of media and modes of presentation.

I developed the project using field notes, photographs and video I was gathering at a field site in a winemaking village in Burgundy, France. The research had two primary aims: to understand how synaesthetic experience translates into a sense of cultural place and to investigate how spoken use of the specific and historically rich lexicon of winemaking might provide insight into broader cultural issues. My project built upon the notion that there are ‘metaphors we live by’ – a concept put forward by Lakoff and Johnson (1980). This initial visit was intended to help me gather materials for a documentary film I would make later, entitled *The Language of Wine* (2005).

In the tradition of participant-observation, I worked alongside harvesters and later with winery workers, all the time taking photos and writing. I supplemented this research with interviews, studies at other wineries and research in libraries and museums.

As a way of sorting through the materials I was collecting, I arranged my photos and notes in a horizontally scrolling HTML (web-based) environment. This allowed me to scroll back and forth across the materials to look for correspondences, emerging themes, and motifs around which to develop my documentary film project, in a way that is similar to sorting scraps of printed materials on a tabletop. I intended to develop a cinematic storyboard; however, as I began to lay my notes and other text below the images in this format, another kind of work began to emerge. Words and images simultaneously occupied the screen space without one dominating the other. The layout allowed more of the research materials and choice-making processes to be visible than in the pre-digital formats I had previously used for my projects. The result was a work in which three bands of text ran beneath a collection of 54 photographs. Users may discern how differing compositional approaches, conventions, and writing styles directed attention to differing details; the same...
images and segments of text connected multiply to other images and text elements, including side materials such as pop-up videos and slide shows. The format allowed for multiple interpretations of the same content.

Juxtaposed images draw attention to similarities and differences. Some elements that seem of little importance in a single image gain meaning through their static or changing recurrence in later images and vice versa. Photographic images of actuality generally contain a plethora of elements (objects, individuals, expressions, actions, light qualities, formal compositional characteristics, etc.), all of which may gain meaning through context. Juxtaposioning is one of the strategies that enable contextualization by provoking users to see similarities and differences between the images (or other media) of the data set. The process of pointing to relationships allows users to draw fragmentary bits of information together to develop a sense of the whole, building what Berger and Mohr called ‘the context of experience’ (1982: 289). Users are given a means of interpreting unfamiliar objects or imageries when they are placed in relation to elements that have already been introduced or which are commonly understood. This is not unlike the ways metaphors are frequently used to characterize abstract ideas in relation to more concrete ones. As with metaphors, which Fernandez (1986) described as being tools that humans use to draw the fragments of experience into a unified sense of the whole, so too do the multimedia processes of scrolling, juxtaposing and linking enable users to draw disparate elements together.

The Harvest contained at least six modes of representation. The primary space included a visual, sequential photo-montage (almost a photo-roman) and three styles of writing: diary/field notes, reflections on the visual choice-making process, and historical-ethnographic exposition. There were also pop-up video clips, slide shows and other presentations. Each mode proposed ways to interpret the field experience; yet, in light of other materials, each mode alone seemed

Figure 32.8
incomplete. There is no single mode of representation that can encompass the range of cultural experience, knowledge and expression that the ethnographer engages with; some things are simply better expressed in a diary, or a painting, or a dance, etc. An interactive media approach offers some opportunities to gather together such differing modes of expression.

I found that the creative space I had developed for my own research purposes functioned as a presentation format. The work brought forward my research process within a final product – something that rarely occurs in conventional filmmaking. Users could navigate, read, view, listen, link and browse among the materials I had gathered and follow some of the ways that, in combination, the materials might pose questions of cultural meaning. The project suggested to me the potential for ‘scrolling-environments’ to contribute to solving some of the enduring challenges of documentary representation, such as those of the relations between subjects, makers and viewers and between experiences and their interpretations.

**SCROLLING THROUGH LANDSCAPES: PANORAMIC VIEWS AND VIRTUAL WALKS**

The webpage may not be a page in a conventional sense that a piece of paper is a page. Although one ‘scrolls’ in a webpage, it may not be like a papyrus scroll either. For example, a webpage is not bound by borders; content can seem to extend limitlessly in both horizontal and vertical directions. Along with the potential for such, near endless, x-, y-axis dimensions, the page also has the potential to be layered and linked. ‘Pages’ and ‘scrolling’ are tropes that organize the digital experience, pointing users to engage in materials in particular ways. However, each of the characteristics exploited for the
production of a digital work suggests the need for an apt organizing model. For example, horizontally scrolling arrangements of materials on topographically contiguous and continuous settings more resemble a panorama than a page, and with interesting consequence for research.

Nineteenth-century circular painted and projected photographic panoramas were generally presented in rotundas. They were designed to achieve a more or less unobstructed 360° view of a location, seen from a single, central viewpoint. Such panoramas offered viewers the illusion of being able to envision places in their entirety, rather than by fragments, as through a montage of related pictures.

Although viewers of those panoramas may have had the illusion of possessing the overview, it was actually the images that encompassed the viewers, in both their exotic form (panoramic rotunda) and content (representations of foreign lands, ancients worlds, battlefields, etc). One cannot grasp such a panorama in its entirety; it offers more than one can take in at a single glance. As the viewer turns, she must try to remember what she cannot see while looking in some other direction. Both in actuality and in this medium, the impression (one might say, illusion) of unity is provided by spatial and temporal seamlessness. The illusion is authoritative – it places elements in a singular and fixed arrangement and their meanings are determined in large part by the whole in which they are, unwaveringly, contained.

However, in digital forms this is not true. The panorama can be readily combined with linked and layered materials that engage the contiguous image, whether directly or by juxtaposition. This can, potentially, offer points of disruption, encounter, and difference, by creating paths into the image.

In his essay, ‘Walking in the City’ (1984), Michel de Certeau offered a similarly constructed description of the experience of
looking down upon a city from a high-rise. From a tower, one has a panoramic view of a city, the elements of which are somewhat fixed, mappable and abstract. Certeau described the sense of authority and awe that is gained from the perch above the streets. From the top of a high-rise, looking down, a viewer possesses a sense of the whole. This sense of the whole is an abstraction, removed from time and contact. From afar, the contiguity and continuity of the view cannot be disrupted. The viewer can hardly see the people or hear the noises from the streets below; the people and their noises are subsumed into an abstract geometric experience of structure and flow.

On the street, individual experience is different. The individual confronts — and responds to — a barrage of noises and interruptions, only some of which can be recognized. Walking offers a kind of montage — a fragmentary series of encounters, surprises and modal shifts. In the streets, the walker makes choices. The walker selects routes and creates diversions. The walking may be interrupted by forces that the individual has no control over such the actions of other humans, creatures, natural elements and mechanical ones. The walker responds to the unfolding events taking place on the street, thinking and acting spontaneously. Such events range from the mundane (a changing traffic light) to the complex (a social interaction). The differences between enjoying the overview of a place and navigating it have psychological and political dimensions: the walker acts, speaks, participates and makes the landscape her own. The walker has agency. The walker does not have the illusion that she controls her visual field; instead, she responds to forces beyond her control and vision. The limits of her control are also reminders of her being one of a community of active agents. Certeau suggests that walking is analogous to language. The overview parallels the abstract structure like grammar, whereas walking is a kind of speaking; the choices of walking and

Figure 32.11
speaking are individual, spontaneous and evolving.

The use of panorama has been particularly interesting to me in the ways that it can be used to explore prior dichotomies of seamless representation and layering (or montage), of text and image, and of still and motion imagery. Digital panoramas, and similarly constructed scrolling environments, both maximize the objective aspects of the panoramic illusion and disrupt illusions of objectivity through the inclusion of layered, compositied, embedded and linked materials. Along with other digital environments such as chat rooms, navigable games, and virtual worlds like the three-dimensional (3-D) Second Life (www.Secondlife.com), scrolling environments allow users to become virtual walkers or explorers.

In Outside/Inside (2007a), as well as in some of my other works such as Something That Happened Only Once (2007b) and Voyage Into the Unknown (2008), I employed panoramas and other kinds of scrolling environments as organizing devices that explore these conditions. Such works layer and link materials to and within their virtual and seamless topographies.

OUTSIDE/INSIDE

Outside/Inside (2007a) was an installation commissioned by the Museum of the American Philosophical Society in Philadelphia, for its exhibition Undaunted: Five American Explorers 1760–2007, which ran from June 22, 2007 to December 28, 2008. The installation kiosk in the museum presented a layered panoramic image of the park outside the museum. The materials layered upon and around the panoramic imagery included embedded videos, photographs, maps and text.

The installation invited viewers to take a virtual stroll (or ‘scroll’ ) through a section of
National Historical Independence Park, which is adjacent to the museum, with an eye to uncovering fragmentary evidence of the differing histories of the area (about four city blocks). ‘Bands’ of original text and quotes ran above and below a spiraling panoramic image of the park. Archival photographs and etchings of the urban landscape, taken at differing stages during its (re)development, were layered upon and around the composited panoramic photograph. The videos offered viewers mini-explorations within the park.

The structuring metaphors of walking and exploring were particularly apt. The exhibition looked at how approaches to exploration, including differing modes of representation such as diary writing, map-making and drawing, shaped the formation of differing kinds of knowledge. The historic park where the work was recorded is a recreation area that had been used in many different ways over the past 200 years. Independence Hall was first constructed in 1732, at which time it sat near the edge of a colonial port on the Delaware River. A small square behind the hall was established as a park to be preserved in perpetuity, and this decree endured through the US War of Independence and the subsequent growth of the city, while the lands surrounding it were transformed by industry. Tanneries and breweries lined the edge of a creek running through the city toward the Delaware River, and a prison was built overlooking the smaller park. As the city continued to grow, the creek – which had become more like an open sewer – was covered, and the industries moved out. The industrial buildings were torn down and replaced by commercial enterprises and warehouses. Beginning in the 1950s, many of these buildings were razed for an expansion of the park. A walker would find few, discreet, signs of the land’s concealed histories in the landscape’s topography.

After visiting the exhibits in the historical museum, visitors are likely to walk in the park. Navigating actual or virtual terrains,
an urban explorer might come upon clues to its man-made and natural histories. A number of strategies were employed in the videos embedded in Outside/Inside to allow users to search for concealed pasts. For example, each inset video sequence was shaped by a differing method of exploration: one video focused on measuring; another on the wildlife that made its home in that urban setting; another on the concealed waterways that ran through it; and so forth. Each video sequence was recorded in a different season, under differing weather conditions, so that tone and light vary and each draws on differing genre styles as contrasting modes of representation. The user engaged in an exploratory process not unlike that of the original researcher; the user gathered and compiled evidence from the landscape.

Modes of exposition, voices and viewpoints mix. A multimedia environment offers the potential to present temporal continuity and uninterrupted (or contiguous) spatial representation, while at the same time allowing for montage, collage, layering, compositing and other forms of media mixing. These media-mixing processes, which are made possible by new tools, can disrupt expectations of verisimilitude that contiguity and continuity imply; in doing so, they can challenge the authoritative stance of objectivity that contiguous and continuous representation is often used to represent. Once dialectically opposed methods of panoramic art and cinema, such as those of continuity and montage, of close-up and long shot, or of exposition and narrative, now coexist. Historical elements can also coexist, as when nineteenth- and twentieth-century photographs of identical locations in the park were layered upon a corresponding twenty-first-century image.

The combining of modes of presentation are provocative. Cinematic and photographic viewing experiences are, equally, readerly ones. Passive ‘viewers’ become active ‘users’. As is true with web interactivity in general, panoramic web-based works can provide...
bridges to critical and creative modes of representation such as writerly modes of exposition, poetry and narrative. In the same vein, differences between researcher, artist and user may also dissolve. The researcher and artist may use the same or similar programs to gather and compose their materials; similarly, users may follow, or participate in, the processes of building propositions, arguments and/or expression. There are critical and methodological shifts from product to praxis: theory and practice merge in the (potentially ongoing) process of creative activity that may serve to integrate methods of older arts such as panorama and cinema in new and hybrid environments. This integration of process and product can play an important role for makers exploring new strategies of presentation; they are vital aspects of the new rhetoric and poetics that a multimedia-maker can choose to employ.

DIGITAL CHOICE-MAKING

Choice-making is a condition that once drew me to direct cinema and ethnographic film as a student. There are many other kinds of documentary films that are tightly scripted before shooting starts, as the camera commits a preconceived text to image. However, in both direct cinema and much of ethnographic filmmaking, the researcher-maker has little control over what occurs in front of the lens. The researcher-filmmaker must make choices in filming (and with related tasks of note-taking, audio recording, etc.) that will capture impressions of an occurrence and provide sufficient evidence from which to develop later interpretations. Frederick Wiseman’s direct cinema works, such as High School (1968), and Titicut Follies (1974), were made without scripts or even preliminary studies. Spontaneous engagement requires differing strategies from
scripted production; in Wiseman’s case these included always following a perceived sequence from its beginning to its end. Robert Gardner’s ethnographic films such as *Dead Birds* (1964) and *Forest of Bliss* (1986) examined how symbolic objects and actions function within cultural contexts; frequently, these meanings evolved through the course of production and post-production. Interactive and scrolling or browser environments may provide some of the same choice-making processes to users, who may in some cases also contribute to the works.

Users in these screen spaces make their paths among the data. They can see how arguments are built out of research materials and can consider what other choices might be made. A critical reader–user can also consider alternatives, which can result in the construction of arguments that contain within them a range of complementary or coexisting interpretations. This structure is ideally suited for ethnographic practices that so often weave together many points of view and that must take into account the continual evolution of cultural practices and their meanings. It allows researchers to integrate, organize and interpret materials, to reveal their processes, and to build arguments without excluding alternatives. It allows users to engage in this process *alongside* the researcher, following a researcher’s interpretive process, and comparing it with other options. The user in this way can enter into both the form and content of the work.

Like ‘walking in the streets’, participation with cultures from the ground up – something that ethnographers frequently take pride in – requires continual adaptation and the addition of new information, interpretations and translations. Interactive environments offer researchers ‘tools’ for gathering materials and building interpretations through sifting, sorting and path-making. The production is also its presentation. The tools sustain a critical working practice that becomes part of
Figure 32.17

This is a photograph of a building and a person standing in front of it. The text on the page does not provide any further context or information about the image.

Figure 32.18

This is another photograph, possibly of a different location or subject. The text does not provide any additional information about the image.
the history of a work. For users, these environments promote re-interpretation, contextualized by agency, exploration, path-making and choice-making.

ACKNOWLEDGMENTS

My thanks to Chris Cagle, Sarah Drury, members of the Philadelphia Cinema and Media Studies Seminar and members of the International Visual Sociology Association for their comments on this chapter.

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