Bridging arts and socials sciences: animated and interactive panoramas in visual research

Roderick Coover
Temple University

Follow this and additional works at: http://repository.cmu.edu/gigapixel

Published In
Dr. Roderick Coover  
Associate Professor of Film and Media Arts, Temple University  
2020 N. 13th St, Philadelphia, PA 19122  
Email: rcoover@temple.edu  

Paper proposal  
Fine GigaPan International Conference on Gigapixel Imaging for Science

The essay considers how the digital panorama combined with techniques of motion media and interactive layering can provide makers with ways to integrate diverse research materials in a common environment. The paper goes on to consider how such uses of panorama also enable user agency, choice-making and learning. Examples include the author's works *Something That Happened Only Once* (2007) and *Outside/Inside* (2008).

**Something That Happened Only Once: Continuity and contiguity in motion and interactive panoramic visual research and presentation.**

...(T)he 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.

Lev Manovich, on design software like After Effects in Millennium Nos. 45/46, Fall 2006

Layering is among the ways that the nature of the documentary image is being re-imagined through the use of digital tools and the impact is significant. Layering, compositing and animation tools available in post-production software like After Effects are allowing video artists and documentarists like myself to reconceptualize and integrate conventions of panoramic photography and cinema. Most notably in my recent work, this
has entailed the integration of the cinematic pan and photographic panorama to create what I think of as cinemascapes – interactive cinematic, panoramic environments. In some of these works, such as *Something That Happened Only Once* (2007), events occurring in differing moments are combined into a single field in a cinematic pan or a seamless but open-ended shot that appears to be circular but might have another shape altogether. In other works, such as *Outside/Inside* (2008), which was an installation at the American Philosophical Society museum, viewers scroll across a vast panorama to discover various elements embedded in the landscape. These elements include video clips, archival films, and text documents. In these works, viewers create their own unique documentary viewing experiences through the navigation choices through the clips and materials that they make.

These new forms of motion media panoramic presentation enable viewers to follow edited linear sequences or diverge to further study individual interviews, archival materials, original outtakes and supporting documents. For documentary media-makers, they can be used to integrate or juxtapose differing modal forms of exploration and of presentation; the maker can incorporate diverse perspectives, secondary field observations, or even differing styles and genres in a common field. Further, the media-maker can develop side stories and clusters of supporting materials that are often excluded from linear works. As a media-maker with a primary background in visual anthropology, I find this form allows one to develop parallel narratives, expository arguments and perspectives while also allowing for greater discourse about the authority of the camera and how it situates its subject.

As an expansion of other kinds of interactive documentary cinema that I and others have been making, the digital panorama offers a 21st Century means to bridge popular 19th Century and 20th Century forms in ways that challenge their conventional aesthetic and
authoritative message. Some digital panoramas are time-based and function similar to a typical cinematic pan. Others are navigated through the use of a mouse, joystick or other device. These interactive documentary works are projected, viewed on computers or created for immersive environments, such as CAVES. Examples of cross-genre and interdisciplinary uses of panoramic media environments include Tirtza Even and Brian Karl's ethnographic-political projects, Jeffrey Shaw's recent historical-educational installation projects in Asia such as PLACE-Hampi, John Cayley's *What we will have of what we are: something past...* that combines fictitious and documentary aesthetics, and the documentary DVDs of the Labyrinth Project including, most notably, the autobiography, *Mysteries and Desire: Searching the Worlds of John Rechy.* In the latter project, three panoramas provide the basis for transgressing traditionally distinct modes of representation; videos and animations feature dance, stories, scrap-book anecdotes and comic strips about differing aspects of the gay experience in 1950s-1970s Los Angeles, so as to illuminate taboos, role-playing, and the expression of desire. Of course not all digital panoramas challenge objectivist conventions; some, such as those used in real estate and security systems, are simply new manifestations of panoramic contiguity and continuity with no apparent seams and sutures and are, in more ways than one, expression of possession through vision.

In my own work, I have been developing three approaches to panorama and horizontally scrolling form, each with differing advantages. My initial exploration of the horizontal scroll interface was in the multimedia ethnographic project "The Harvest", which grew as an expanded notion of the cinema storyboard and not without inspiration of the works of John Berger and Jean Mohr, whose photo-essays in *Another Way Of Telling*
raise fundamental questions about how images generate meanings. In "The Harvest", a reader-viewer scrolls through 56 photographs shot at a vineyard in the village of Bouzeron near Chagny in Bourgogne. The photographs chronicle the harvest experience, with special attention given to the relationship between the temporal flow of lived experience and the representational categories, tropes and narratives that, in their various ways, express this flow. The work uses a digital interface to offer reader-viewers a means to bridge visual and verbal ways of learning.

The lessons of this work shaped the development of my panoramas such as Something That Happened Only Once (2007) and Outside/Inside (2008) in which large panoramas (gigapans) were transformed as video and interactive installation environments. In Something That Happened Only Once (2007) a looping animated panorama is built through layering and compositing hundreds of elements recorded on one day in 2006 at a plaza in Mexico City. The work revolves in front (or on all sides) of the viewer as a slow moving pan with both static and motion elements. Audio is also layered. Found-sounds mix with fragments of text spoken and sung by a narrator-protagonist who is trying to express her own sense of place and displacement looking out upon the plaza. Trying to make sense of what she sees, she constructs projections, each of which is denied but the events that unfold, thwarting the realization of narrative potential. Events occurring over the course of a day in the Coyocan Plaza in Mexico City are layered to present a composite documentary pan. Select visual interventions draw attention to the visual construct and draw out relationships between characters and actions initiated elsewhere in the video.

The panoramic expression of time is transformed in this format through layering and compositing. Unlike the traditional photographic panorama or cinematic pan, here the
panorama is a collection of moments that may be independent from the seemingly definitive but fundamentally illusory authority of the framed contiguity. Each cycle appears to last about 11 minutes; however a viewer quickly recognizes that the cycles differ. The spaces and narratives occurring within them are changing as time passes, and, all the more significantly, they are changing at differing rates.

A conventional panorama is a collection of moments seamlessly combined; it is not one moment. Actions in the cycle in *Something That Happened Only Once* float freely liberating individual actions (and the worlds of individuals who performed them) from the singular authoritative time frame of the camera. The free floating elements — composites in diverse rates of frequency and order — run counter to the usually dominating singular order of time given by the technological apparatus of the pan. As the image turns, the viewer will recognize that the second time around is *not* the same as the first. Elements that make up the panorama, such as images of individuals, follow actions at rates shaped by their own narratives and not by the singular structure of time (as traditionally established by the recording device).

How time functions in the documentary image is further brought into question by employing the organizational structure of a Möbius strip in which some events that begin in the first cycle conclude in the second one, while other events begin in the second cycle and conclude in the first. And, individuals who are seen in one part of a panorama may appear in another — they are not spatially confined to a single zone. Some individuals engaged in fore-fronted activities may appear several times in a single cycle as the individual actions function independent of the time it takes to complete a cycle. These strategies, although contrary to many conventions of panoramic representation may be truer to cognition that
the conventional long take or pan. In looking at the world in-action, attention jumps this action to that, pursing changing interests and building a picture of the world active choices and eye moments. Viewers eyes jump to areas of activity glossing over areas that are bland, only to turn to them later when, through changes in the narrative and symbolic structures these other details gain value.

With the project Outside/Inside, an element of user choice-making is added. The user scrolls the panorama essentially creating her own path in a vast landscape. She makes her own narrative out of the elements that are available -- she becomes a researcher. The inclusion of embedded elements in the panorama bring a vitality to the image; she will find things in it she might not have expected, and it further problematizes the illusions of contiguity and continuity that are generally associated with panoramas. Two kinds of representation now exist in presentation as they do in cultural research: the image of what is before the researcher and the knowledge of differing texts, viewpoints and knowledge sets that contribute to that experience.

Users in these screen-spaces make their paths among the data. They can see how arguments are build out of research materials and consider what other choices might be made. The critical reader-user can also consider the alternatives; the result is the construction of arguments that contain within them the range of complementary or co-existing 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.

Like Michel de Certeau's “walking in the streets,” participation with cultures from the ground up -- something that ethnographers frequently take pride in -- requires continual
adaptation, additions of new information, interpretation, and translation. Interactive environments offer researchers tools to gather materials and build interpretations through sifting, sorting and path-making. The production is also its presentation. The tools sustain a critical working practice that becomes part of the history of a work. For users, the environments promote re-interpretation, contextualized by agency, exploration, path-making, choice-making.

ENDNOTES


