

Collective memory and virtual architectural reconstructions

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Abstract: During the past decades, the digital realm is influencing more and more disciplines. It has become a defining component of the architectural field and is increasingly used in the fields of architectural history and archeology. Virtual reconstructions are becoming very popular as a mean of researching and representing historical buildings. In many cases they are preferred over conventional physical reconstructions, both because of financial reasons and because of their ability to be changed in light of new archeological findings. But do their temporality and their ability to be altered justify a tendency towards inaccuracies on behalf of their creators? For the sake of realism, accurate references to sources are sacrificed. This paper deals with the influence of virtual architectural or archaeological reconstructions on collective memory and the responsibility of the historian, creator of such models towards the public. Further it discusses methods that can turn a virtual reconstruction to a proper historical documentation of the past.

Keywords: virtual reality, collective memory, cultural identity

Collective memory

The way we experience our present, largely depends upon our memory of the past. We experience the present in context, which consists of our past experiences or even sometimes the lack of them. Different people can experience the same event differently according to their pasts. Therefore, experience becomes a subjective matter that partially depends on previous occurrences.

In general, we tend to think of memory as an individual faculty. There are psychoanalytical writings that study memory in people by considering them as isolated individuals. However, it is within society that people obtain their memories. When recollection of memory is examined a little closer, it is concluded that most memories come back to us when parents, friends or acquaintances recall them to us. In context is how we evoke past events and experiences.¹

Thus, memory is acquired and exists within a social context. The experiences of individuals place them within a social framework, while participating in it, being shaped by it, as well as shaping it. The memories of an individual become a part of the memories of the individuals around them, and therefore of a collective memory. The collective memory is the sum or combination of individual remembrances of many members of the same society.²

Collective memory can serve to classify and define a certain social group at a moment in its history. It is the common past - or more specifically the common memory of this past - that gives a social group its unique characteristics, traditions and way of life. It is the memory of the past and not the past itself, because not all experiences or events are preserved in our memory. Recorded history, including

history textbooks and teachings, is not a truly comprehensive account of everything that has occurred. Rather, it is a small part of it that we have come to preserve as collective memory. It is when individuals identify with a group's memories and collective past that they acquire their cultural identity.³ Reconstruction models, in a similar way to history books, can help reinforce collective memory. As in the case of history books, a reconstruction model is not a faithful recording of what was there. Rather, it represents what was there through the lens of the scholar who created the reconstruction, based on the information available, or on the perspective he or she thinks is important. Collective memory is associated and can be evoked by a variety of cultural components (the elements that compose cultural identity, such as language, religion, nationality, art, and architecture).⁴ Architecture is an important form of cultural expression. Physical structures constantly evolve and are adapted to the different cultural needs of each society. Collective memories lie within these physical constructs, and while time moves forward, it is such physical sites that are markers of a common past. Historic buildings can evoke reflections of the past and can recompose an earlier cultural image.⁵

Reconstructing collective memory

How is collective memory conveyed and sustained? Collective memories, as part of the totality of thoughts that belonged to a group, can be recalled when individuals place themselves in the perspective of the group. Memories are passed on from generation to generation within social or cultural groups.

This transmission of memory can occur through several media, including personal, religious or national rituals, language, literature, art, architecture and various teachings (oral or written). The most formal and organized transmission of memory nowadays happens through the teaching of history in school. At the same time, there are other vehicles of transmitting memory; formal ones like museums, lectures, archeological sites, and informal ones like oral traditions and anecdotes within a group. Even sensory experiences can be transmitters of memory, like smells or sounds. For example the smell of a traditional dish or the sound of a certain kind of music can evoke memories.

Historians and archeologists are the formal investigators and interpreters of the past in today's society. Knowledge of events and activities of the past is possible through the discoveries of their traces. Such traces can be remains of buildings, bones, inscriptions, narratives, artifacts or other representations of the past. Historians study these traces as evidence of the culture that produced them, and extract out of them information about the culture itself.⁶

Historical reconstruction is the outcome of research of all sources – traces and social memories – and the presentation of this information to the group. Historians are the mediators between all the information that has been extracted and the lay person. Subsequently, to achieve a historical reconstruction, the collected information must go through a subjective filter, which is the interpretation of the data by scholars, who are themselves also influenced by the collective memory. Therefore, historical reconstruction shapes and is shaped by collective memory.⁷

Of course, historical reconstruction has potential political power, since it can shape collective memory and therefore cultural identity.⁸ Such power comes with great responsibility on the behalf of the

historian. History has often been used as a tool for political, national or religious propaganda. A state institution can use history in a systematic way to impart to its citizens a certain image of their collective memory. Totalitarian regimes have often used history and education as a tool to deprive their subjects of their memories. Or, when a large power wants to change a smaller country's national consciousness, it can use methods of organized forgetting.⁹

Coming to today, one's view of the 21st century depends highly upon what social, national or religious group they belong. The narrative of history is different for the Europeans and the people from the Middle East, for the Christians and the Jews, for the blacks and the whites. The narrative and the collective memory of each group is where individuals obtain their identity.

Virtual reality and reconstruction of collective memory

Virtual reality is used today as a tool for architectural reconstruction. With this tool the reconstructed information is conveyed to the viewer through an audio-visual, three-dimensional kinetic medium. This medium resembles everyday life experience, since it is communicated in a very similar format, namely moving through a three-dimensional space, though the participant is often immobile.¹⁰ Virtual reality methodology can be particularly insightful in architectural historical reconstructions, since architecture is a visual and spatial field.

Unfortunately, many architectural virtual reconstructions deliver a sterile building that is stripped off its cultural context. Virtual reality however, is a tool that can and should include cultural elements as well, for reconstructions of architectural history. Architecture exists within a cultural context, which influences it. The same way, cultural reconstructions can be incorporated within a virtual reality model, and can be conveyed in the same audio-visual, three-dimensional way.

Architectural reconstructions have particular significance when there are no physical remains of the sites in question. In such a case, the virtual model becomes the only inclusive vehicle for transmission of the historical and cultural narrative of the site. As the sole comprehensive representation and source of information about the original site, the reconstruction replaces the memory of the building that does not exist any more. Thus, the reconstruction itself becomes part of the collective memory of the group to which it belongs and a historical piece of information for other cultures.

As discussed above, there is immense responsibility for scholars in creating such models. The way the reconstruction is represented can shape the collective memory and, consequently, the cultural identity of a group, as well as the general historical narrative. Therefore, what sites get reconstructed and the information that is included or omitted can be a reflection of political influences and personal interests. On the other hand, the lack of physical remains of a site can result in the loss of significant memories of a group. Recording and subsequent reconstruction of information about the site is the only way to keep its memory alive.

Even though a historical reconstruction can by definition never be objective,¹¹ there are certain techniques that can make it as accurate as possible. When these techniques are applied, the reconstruction becomes an educational and informational tool. Rather than giving the viewer a

research. Reconstruction issues that are questionable should be made as transparent and obvious as possible.

To achieve such a level of objectivity, the virtual reconstruction should clearly establish that it is not an exact representation of the past. Instead, it is a representation of the state of today's scholarly knowledge on the specific subject or site. Therefore, there should be clear references to the reconstruction sources incorporated into the display. As scholarship advances and more information or archeological evidence come to light, a virtual reconstruction can be updated accordingly. Consequently, such a model can not be considered a final product. Instead it is a "work in progress" at all times. Also, various interpretations can enrich the memory about the site. For example a non-member's memories would be distinctly different than those of a member of the cultural group to which the site belongs.

For the model to convey that it is a representation of scholarship, a clear connection to the sources is necessary. Whether the sources are archival drawings, photographic material, written text or oral testimonies, they should be clearly cited along with the viewing of the virtual space. For example, a model can incorporate references to sources within the virtual model. Such can include, having photographic imagery appear in the model in appropriate views and having oral testimonies being played back when one arrives in the appropriate location within the model, as well as including reconstruction drawings in the presentation. Also, textual sources can be incorporated as links into the virtual space.¹²

Another technique to show the model as a representation of scholarship is to show in the model the information that can be found in the sources, rather than try to achieve a photorealistic reconstruction of the past. A virtual reconstruction requires a large amount of detailed information about a site or a building. Some information can be found in the sources, and some can be extracted by looking at concurrent and stylistically similar architecture. Nevertheless, there is always some information that will be missing. Instead of making assumptions, just for the sake of filling in the gaps, so that the model achieves a photorealistic look, such areas can intentionally be modeled more schematically. This lack of information in the virtual space thereby indicates to the viewer the lack of information in the sources.

By creating a virtual reconstruction that is based on scholarly research, the historian is actually helping to reinforce and shape the collective memory of a certain group. Without it, cultural and historical information about a site can be completely forgotten, when there are no physical traces remaining, thereby resulting in major losses in the cultural heritage.

Conclusion

Nowadays, we encounter contradicting attitudes towards the responsibility that comes with virtual reconstruction. On the one side of the spectrum stand the movie industry and the computer gaming industry. For these industries, the primary aim is money making. Thus to achieve consumption of their product and popularity, authenticity of a reconstruction can be sacrificed for photorealism and reinforcing the popular image about a historical time period.¹³ On the other side, virtual reconstructions

are increasingly popular methods of representations to the broader public in museums and archaeological sites. Such models are usually supported by a group of historians, archaeologists and researchers and come with a proper documentation. Like all the information that exists in virtual space, the validity and authenticity of architectural virtual reconstruction depends on their sources.

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¹ Halbwachs, On collective memory, 37-40.

² Ibid.

³ Eviatar Zerubavel, *Time Maps: Collective Memory and the Social Shape of the Past* (Chicago and London: The University of Chicago Press, 2003), 1-10.

⁴ For further discussion on collective memory, see Mieke Bal, Jonathan Crewe, and Leo Spitzer, *Acts of Memory: Cultural Recall in the Present* (Hanover, N.H.: University Press of New England, 1999) and Iwona Irwin-Zarecka, *Frames of Remembrance: the Dynamics of Collective memory* (New Brunswick: Transaction Publishers, 1994).

⁵ Christine Boyer, *The City of Collective Memory: It's Historical Imagery and Architectural Entertainments* (Cambridge and London: The MIT Press, 1994), 30-33.

⁶ Connerton, *How societies remember*, 1-40.

⁷ Ibid.

⁸ For discussion on how states can influence collective memory for a political agenda, see James V. Wertsch, *Voices of Collective Remembering* (Cambridge, UK: Cambridge University Press, 2002).

⁹ Connerton, *How societies remember*, 1-40.

¹⁰ There has been similar research that explores the role of technological media on collective memory, that focuses on the role of television. See Peter C. Rollins and Gary R. Edgerton eds., *Television Histories: Shaping Collective Memory in the Media Age* (Lexington, Ky: The University Press of Kentucky, 2001).

¹¹ See Hayden White, "The Fictions of Factual Representation" in *Reading Architectural History* (New York: Routledge, 2002), 24-33.

¹² For further discussion on incorporating metadata in three-dimensional virtual space, see Lester Yee and Cheng Hsu, "A Virtual Reality Interface to an Enterprise Metadatabase" in *Proceeding of Conceptual Modeling – Er '97: 16th International Conference on Conceptual Modeling*, Los Angeles, California, USA, November 1997 (Germany: Springer-Verlag, 1997), 436-449. Also, for information about certain types of metadata, like GIS, in spatial applications, see David Wheatley and Mark Gillings, *Spatial Technology and Archaeology: The Archaeological Applications of GIS* (New York, London: Taylor & Francis, 2002).

¹³ An example is the blockbuster movie "Gladiator" that presents the image of the gladiator fighters as strong, muscularly man, which contradicts historical evidences.