(RE)-CONSTRUCTING MEMORIES: SOME THOUGHTS ABOUT CONSERVATION

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ABSTRACT The notion of memory plays a central role in the discourse on the preservation of cultural heritage. However, the term is often used in an ambiguous way. This article refers to research work on individual and collective memory that can contribute to a clearer definition of the concept and open up new perspectives for conservation theory. It focuses on impermanent artworks that are available in a physical way only when they are performed or installed, and argues that they are particularly at risk of being forgotten. In fact, memory items do not automatically persist in the long-term memory of a group but need to undergo a consolidation process. If impermanent artworks are not archived, made accessible to the attention of the public and recalled regularly, their memory cannot be consolidated. At the same time, as this paper points out, retrieval is not an objective act but a reconstruction process that can modify memories. In this context, some key concepts of conservation such as reversibility, reconstruction, consolidation and artwork identity are considered from the perspective of memory.

Introduction

Remembered memories have no substance; 'they vanish once the rememberer's attention is diverted'.[1] In order to support the process of remembering, museums, archives and other institutions have traditionally preserved objects of material culture such as documents, historical sites, monuments, ruins, physical artworks and other items for posterity. Such objects, which in contrast to remembered memories can be located physically, are available for public attention. Those items that are selected, related together and placed in context – i.e. interpreted – serve the formation of long-term memories.[2] Since the end of 1990s, art historians and curators have showed increasing interest in process-based works that do not consist of fixed materials, such as art installations or performances, and many museums and other institutions have begun to collect them. However, these works are not permanently accessible since they can only be experienced if they are installed or performed, whereas works of traditional art forms, such as paintings or sculptures, remain available physically even

when they are in storage. As Erika Fischer-Lichte rightly notes with respect to performance, it 'is irrevocably lost once it is over'.[3] Nevertheless, even performances can leave material traces, such as props, relics, descriptions and documentation on film, video and photographs. Although such materials cannot replace the direct experience of the works, they 'create the conditions of possibility to speak about past performances at all'.[4] This article deals with the role of material remains, documentation, reconstructions and new staging for the memory of works that are not permanently available in a physical form. In this context, I will focus on the notion of memory in particular.

In 2007, Paolo Rosa, a member of the Italian artists group Studio Azzurro, in a reference to video installations, stated: 'I often say that these works don't clutter. … They don't clutter museums, cellars or squares. They simply disappear and if they are of any worth they will persist in people's memory'.[5] In times of overflowing museum depots, this statement initially seems promising, perhaps even environmentally friendly.[6] Despite the fact that technical equipment and data storage are actually far from being

immaterial,[7] Rosa's affirmation suggests that time-based media do not depend on material and that their storage does not take any physical space. According to Rosa, such works can be preserved 'in people's memory', even if they are not instantiated at the moment. But is any work automatically stored in the long-term memory of a group?

In the first part of this paper, I argue that works that are accessible in a physical way only when they are performed or installed cannot directly attract attention as long as they are not instantiated. Therefore they are particularly at risk of being forgotten unless they leave material memory traces that can catch attention and possibly support the formation of long-term memories. I also argue that memories are constructed and not simply stored and while, on the one side, we need to recall memories regularly to consolidate them, on the other side, retrieval is not an objective act but a reconstruction process that can modify memories. In order to discuss these issues, I describe the process of memory formation both on an individual and on a collective level. In this context, I consider 'archives as collective memory buffers'[8] which make items available to the consolidation process of collective memories. I also refer to Jacques Derrida's deconstruction of the archive principle and show that remembering and forgetting are inextricably linked with one another. In the second part of the article, I introduce some practical examples and show how different interpretations of a work can leave traces in the collective memory buffer and have the chance of being consolidated. Finally, I highlight some findings of memory studies that might offer new directions for further research in the field of conservation theory.

Memory: construction, reconstruction and deconstruction

The notion of memory plays a central role in the discourse on the preservation of cultural heritage. However, as pointed out by Viejo-Rose, the relationship between memory and cultural heritage is often taken for granted in the literature and not explicitly explained, so that sometimes it is not clear how terms borrowed from disciplines that investigate the formation of memory are used in the context of heritage studies.[9] The term 'memory' itself has been used in so many different ways in disparate fields that its meaning can be ambiguous. Therefore, in the following I will briefly summarise how the formation of individual memory in the brain is currently described in cognitive psychology and neurology and subsequently proceed to the notion of collective memory and the preservation of (contemporary) art.

Individual memories are not information that we simply store in our minds and that we can recall without any distortion every time we want. As psychologists have proved, our memories are constructed: 'memory is not a literal reproduction of the past, but rather is a constructive process in which bits and pieces of information from various sources are pulled together'.[10] When we receive stimuli from the outside we first select information. We cannot transform all the images, sounds and smells which we are exposed to into memories, so we do not process every experience but only those to which we pay attention. In addition, we make associations: we make connections between the information we receive from the outside with information we already know in order to understand the events we witness. In other words, the perceived information is regimented into our system of knowledge. Selection, ordering and combination of information are essential for the memory process: they help us to make sense of what we experience and to remember efficiently. However, the same mechanisms also introduce errors. In fact, we could add information to what we experience and later remember it as if it had been part of the actual event.[11]

We not only construct our memories when we encode (i.e. process) experiences – we also re-construct them when we try to recall the past. The reconstruction of memories is based on actual memory traces. However, our current belief of what happened influences this reconstruction process. If our memory of an event is not complete, we tend to fill in the gaps with our beliefs and assumptions. We interpret memories from the past in the light of our present situation. Moreover, we use memories to elaborate conjectures about the future. Since the future is never a repetition of the past, we adapt our memories to simulate future occurrences and anticipate what may happen.[12] Consequently, remembering does not only concern the past but also the present and the future.

For these reasons, retrieval is not an objective act but can alter a memory. On the other side, retrieval makes the retrieved memory much more likely to be recalled again as the brain particularly consolidates memories of things it encounters regularly and frequently. Therefore, retrieval is a key instrument to improve memory, even if it could also modify to a certain extent how we remember the actual event.[13]

In the conservation of contemporary art, an understanding of how individual memory works is helpful as background knowledge for interviews with artists and contemporary witnesses, because we realise that even the memories of the protagonists and eyewitnesses of an event are not always reliable.[14] The repeated telling of particular stories consolidates not only the memory of these stories but also the memory of the errors that slipped in, so that false memories can be remembered as vividly as the memories of facts that really happened.

With respect to conservation, both the notions of individual memory and collective memory are relevant. The concept of collective memory – the memory that is shared by a group, such as a community, a nation, a group of professionals, and so forth – was initially developed by the philosopher and sociologist Maurice Halbwachs in his book *Les cadres sociaux de la mé*moire (The Social Frameworks of Memory) from 1925, in which he argued that 'social frameworks' influenced the way individuals remember and what they remember.[15] Since then, the concept of collective memory has been used with different

connotations across various disciplines.[16] The question of how collective memory relates to individual memories is answered differently in the current literature.[17] It is controversial whether collective memory is to be considered as an aggregation of individual memories or transcends the combined memories of the individuals composing a group.[18] In this paper, I refer to the definition of collective memory formulated by Anastasio et al. on the basis of interdisciplinary work. Accordingly, collective memory is 'more than the sum of individual memories'.[19] People in groups, interacting directly and through cultural tools such as museums, archives, books etc., can form memories and recall the past in ways they could not do as isolated individuals.[20] Therefore, collective memory is a synergistic phenomenon.[21]

Anastasio et al. draw parallels between memory as described in the sciences and in the humanities. Neuroscientists and psychologists have developed conceptual models of individual memory formation that are widely accepted. Anastasio et al. argue that individual and collective memories consolidate through analogous processes. Both on the individual and on the collective level, we can distinguish between short-term and long-term memories. As neuroscientists have demonstrated, short-term memories are labile, but they can be transformed through the process of consolidation into long-term memories, which are stable, even if they can still be changed.[22] On the individual level, memory storage and processing are enabled by neurons and their interconnections in the brain that form memory structures. All labile memory items are held temporarily in a buffer. Nevertheless, only selected items that are objects of particular attention will be consolidated and passed into long-term memory. Analogously, on the collective level, Anastasio et al. consider artefacts, archival materials, newspapers, photographs, films and other cultural tools as memory items stored in the collective memory buffer.[23] The ways groups interpret cultural tools and build systems of meaning decide whether these objects support only short-term or also generalised long-term collective memory.[24] According to the authors, typologies of consolidated collective memory structures are for example belief systems, identity constructions, paradigms and museums. It is the discourse surrounding an object and not its physical characteristics that determines whether it serves short-term or long-term memory. However, the physical characteristics of a memory item 'can determine whether or not historians of a later age have access to it'.[25] Scholars and other groups can consolidate generalised, long-term memories only from items that are accessible and can be tagged for attention.

This invalidates Paolo Rosa's conviction that video installations can be simply preserved in people's memory without filling up museums and public squares. The memory of an artwork is formed and recalled through constructive processes and not automatically preserved in the collective long-term memory storage. In her article 'Time and conservation', Hanna B. Hölling, referring to the philosopher Henri Bergson, maintains that 'Duration is the survival of the past, an ever-accumulating ontological memory that is wholly, automatically, and ceaselessly preserved', and states that: 'the past is preserved *automatically*'.[26] Although I agree with Hölling's fundamental assumption that the past can only be interpreted from the present standpoint, I argue that the memory of the past is not wholly and not automatically preserved but is constructed through an ongoing consolidation process that also implies selection. If a work is not regularly presented and does not become subject to consideration in some form (for example through newspaper articles, scholarly texts, research and so on) its memory cannot be consolidated. Even works that were judged to be artistically valuable when they were experienced for the first time are threatened by oblivion if they are not presented or tagged in another way for attention at regular intervals. Paul Schimmel, the curator of the exhibition *Out of Actions: Between Performance and the Object, 1949–1979* (The Geffen Contemporary at The Museum of Contemporary Art, Los Angeles, 1998), had many historical performances and installations redone for the show and explained his decision as follows: 'There are vast number of important works that … are lost in a manner that makes it impossible to reconstruct an accurate history of art'.[27] Even if the idea of 'an accurate history of art' that can be reconstructed is more than questionable, the quote points out that impermanent works may fall under the radar of art historical narratives.[28] Therefore, process-based works that do not consist of fixed materials are particularly in danger of being forgotten if they are not archived and made accessible to the attention of the public in some way.

The archive, interpreted to mean 'any actively collected repository of items',[29] can be considered as a collective memory buffer. Archives contribute to collective memory formation as resources through which the collected items are made accessible to the continuing collective consolidation process.[30] As the philosopher Jaques Derrida states: '*There is no archive without a place of consignation, without a technique of repetition, and without a certain exteriority. No archive without outside*'.[31]

Archives – like individual memory – are highly selective. Only a tiny fraction of cultural remains is preserved, the rest is lost. Then again only a selection of the items in the buffer is actually considered and processed. The selected items are put in correlation with other items and associated with already consolidated memories. This process is strongly influenced by the 'consolidating entity', the person or group that interprets the items, and by the framework of consolidated knowledge in which the items are interpreted.[32] Consequently, forgetfulness and destruction intrinsically belong to the process of selection and interpretation implied by preservation. This inherent contradiction is also revealed by the deconstruction of the archive principle that Derrida carries out by reference to Sigmund Freud:

> if there is no archive without consignation in an external place which assures the possibility of memorization, of repetition, of reproduction, or of

reimpression, then we must also remember that repetition itself, the logic of repetition, indeed the repetition compulsion, remains, according to Freud, indissociable from the death drive. And thus from destruction. … The archive always works, and *a priori*, against itself.[33]

This means that remembering and forgetting are two sides of the same coin. With respect to the conservation of process-based works, only the memories of those works that are archived and regularly presented to the public through reconstruction, restaging, documentation etc. can be consolidated. The works that are not provided with an 'arena for attention'[34] run the risk of being forgotten. At the same time, every presentation of the works always implies an interpretation that can have long-term consequences for the way the works are remembered.

Interpretation and reversibility

Every time we conserve, restore, reconstruct or restage a work we interpret it anew and take the risk – or the chance – of changing not only its materiality but also the collective memory with which it is associated. A prominent example of an intervention that changed the long-term collective memory of an artwork is the conservation-restoration of the Sistine Chapel frescoes by Michelangelo conducted between 1980 and 1994. Before the intervention, the colours of the frescoes appeared muted and tended towards monochrome. The cleaning removed the dark layers revealing bright colours; this intervention had an enormous impact on both the reception and the collective memory of this world-renowned artwork. After the restoration, some scholars proclaimed that as a consequence of the unexpected results of the intervention, all art history books regarding Michelangelo had to be rewritten.[35] Because of the contentious restoration and the new appearance of the work, competitive interpretations, memories, and eventually identities of the frescoes emerged and consolidated.

If the development of divergent identities is possible for a physical work such as the Sistine Chapel frescoes, it is even more crucial for works that – unlike the Sistine Chapel – are not permanently available and disappear materially between each presentation or each performance. In these cases, we need to reconstruct our memory of the work every time we recall it while it is not instantiated. Time-based media, installation and performance artworks from the past are 'recollected' in the literal sense of the word: we collect parts, records and individual memories of the work, we integrate them with our conjectures and thus we 'make up' the work by reconstructing our collective memory of it. As Derrida asserts, 'The death drive' destroys the archive, 'except if it can be disguised, made up, painted, printed, represented as the idol of its truth in painting. Another economy is thus at work, the transaction between this death drive and the pleasure principle, between Thanatos and Eros'.[36] When we stage a work and make it accessible to the

Figure 1 Otto Piene, sketch for *Lichtballett 'Hommage à New York'*, 1966 © DACS 2021. mkp.ZERO.2.IV.90, Otto Piene records, ZERO foundation, Düsseldorf.

senses, on the one hand we interpret (or maybe over-interpret) it, but on the other hand our interpretation possibly saves it from oblivion.

At this point, I would like to introduce the example of three installations that the ZERO foundation reconstructed and/or restaged in 2016 at the LVR-LandesMuseum Bonn on occasion of the exhibition *Zero ist gut für Dich* (Zero is good for you)*: Mack, Piene, Uecker in Bonn, 1966/2016*. The installations are: *Lichtballett 'Hommage à New York'* (Light Ballet 'Homage to New York') by Otto Piene, *Lichtplantage* (Light Plantation) by Günther Uecker, and *Zwischen Himmel und Erde* (Between Heaven and Earth) by Heinz Mack, all from 1966. The aim of the exhibition was to display the works in a way that recalled their first presentation form without hiding the fact that it actually represented an interpretation made 50 years later.[37]

Lichtballett 'Hommage à New York' by Piene – an environment consisting of coloured screens, slide projections, kinetic light machines and sound – had completely fallen into oblivion until art historian Thekla Zell rediscovered it through documents from the archives of the Kunstmuseum Bonn (former Städtische Kunstsammlungen Bonn), the museum in which the work had been presented for the first time in 1966 on occasion of the exhibition *Zero in Bonn*.[38] The 'Homage to New York' had not been exhibited again after 1966 and was not documented in the
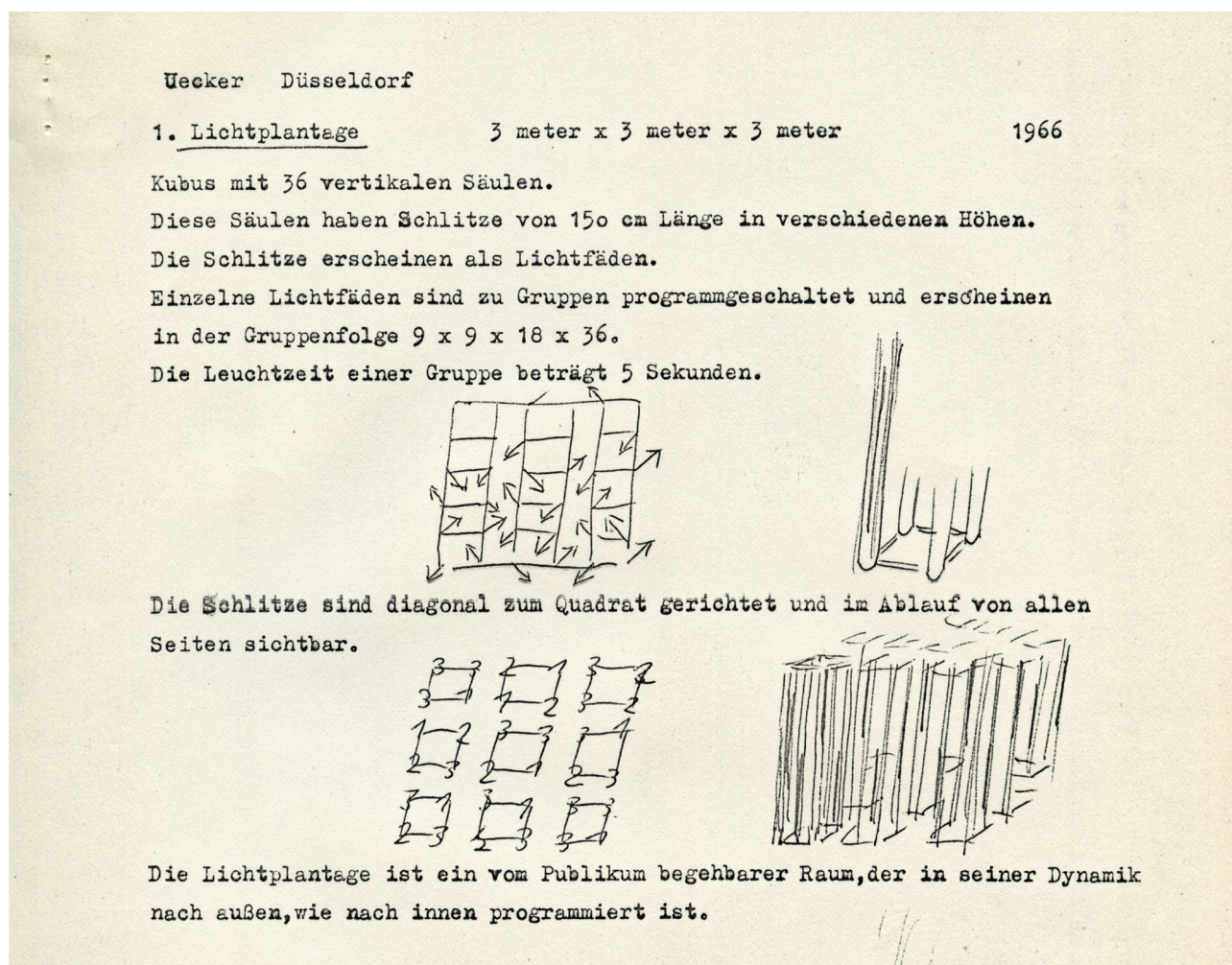
Figure 2 Günther Uecker, sketch for *Lichtplantage*, 1966 © Günther Uecker. All rights reserved. DACS 2021. Otto Piene records, Center for Advanced Visual Studies Special Collection, ACT, Massachusetts Institute of Technology, Cambridge.

literature about the artist. Thanks to the collective memory buffer, the archive, the items connected with the work could attract the attention of a scholar, and the installation was given the chance of becoming part of a discourse that may consolidate its memory. The archival materials – correspondences, notes, lists of works, photographs – together with sketches (Figure 1) and original components of the work found in the studio of the artist, afforded the possibility to reconstruct and stage the installation, albeit they also presented gaps that had to be filled in with conjectures.[39] The artist had died in 2014, so his individual memory could not contribute to the reconstruction of the installation in 2016.[40] Nevertheless, the interpretation from 2016 will be an important reference for future stagings, since it is better documented than the first presentation, and will probably play a pivotal role in the consolidation of the collective memory of the work.

Unlike *Lichtballett 'Hommage à New York'*, *Lichtplantage* by Uecker – an installation consisting of 36 metal pipes containing light tubes – did not need to be reconstructed. However, a sketch made by Uecker for the first presentation of the work at the exhibition *KunstLichtKunst* in the VanAbbemuseum Eindhoven in 1966 revealed that the installation had originally been

conceived with a timer switch that turned the lamps on and off according to a programmed sequence (Figure 2). Since at least 2005, the installation had been presented without a timer switch and with all the lamps permanently on. The switch sequence had been forgotten even by the artist. For the exhibition in 2016 a new timer switch was programmed according to the original sketch.[41] Therefore, in this case also, even though the artist was still alive, an item from the collective buffer played a central role in remembering the first presentation form of the work.

The same applies to the kinetic installation *Zwischen Himmel und Erde* by Mack. The work entered the collection of the ZERO foundation in the form in which it had been replicated by the artist in 2005 for the exhibition *Light Art from Artificial Light* at the ZKM / Center for Art and Media Karlsruhe: narrow metal nets hang from a black square ceiling and are reflected by stainless steel panels at the base of the installation. However, archival materials show that Mack had staged the work very differently when he presented it for the first time at the exhibition *Zero in Bonn* in 1966.[42] On that occasion, the installation occupied an entire room in which the floor had been covered with white glass wool and the ceiling with white fabric (Figure 3). Nearly 40 years later the work, which

Figure 3 Heinz Mack, *Zwischen Himmel und Erde*, 1966 © DACS 2021, exhibition *Zero in Bonn*, Städtische Kunstsammlungen Bonn, 1966. Photo © Hans Schafgans; Schafgans Archiv.

Figure 4 Heinz Mack, *Zwischen Himmel und Erde*, 1966/2005 © DACS 2021, exhibition *ZERO*, Pohang Museum of Steel Art, Pohang, 2019. Photo © ZERO foundation, Düsseldorf and Pohang Museum of Steel Art, Pohang.

had not survived, was replicated for the exhibition at the ZKM. The ZERO foundation had presented the installation twice before 2016 in a form similar to the 2005 presentation: once at the exhibition *Heinz Mack: Kinetic*, Museum Abteiberg, Mönchengladbach, 2011, and once at the exhibition *ZERO: Zwischen Himmel und Erde*, Zeppelin Museum Friedrichshafen, 2014. In 2016, *Zwischen Himmel und Erde* was staged in a way that remembered its first presentation of 50 years earlier. However, the staging of 2016 made use of parts remade in 2005, therefore it was a kind of hybrid between the first and second version of the work that also included new materials, such as the glass wool, especially acquired for the exhibition.[43] The interpretation of the first display was based on archival documents and on the memory of the artist, who contributed to the staging. In 2019, the ZERO foundation staged the installation again in the presentation form of 2005, albeit in a more open space, at the ZERO exhibition in Pohang Museum of Steel Art (POMA), South Korea (Figure 4). In conclusion, the work developed two distinct identities linked to the different memory traces left by its two presentation forms.

Another example is the presentation of the light kinetic installation *Lichtraum (Hommage à Fontana)* [Light Room (Homage to Fontana)] by Heinz Mack, Otto Piene and Günther Uecker in the collection of the museum Kunstpalast in Düsseldorf. The artists created the installation, which includes seven light kinetic objects, for the Documenta 3 in Kassel in 1964, when it was presented in the attic with sloping roof of the Fridericianum. The undressed concrete walls of the attic, which served as screens for the light projections, were painted white after the artists had already installed their work and without asking them. Otto Piene, who was responsible for the light projections of the work, was therefore asked in an interview in 1999 if he would have preferred the undressed concrete walls for the installation. He answered that the white coat actually was better for the projections than grey concrete.[44] In subsequent presentations, including those supervised by the artists, the installation was always staged in rooms with white walls and ceiling, and the colour of the walls was never questioned. However, in 2016 – after the death of Piene – the museum Kunstpalast installed the *Lichtraum (Hommage à Fontana)* for the first time in a room with black walls. This curatorial decision, intended to enhance the reference of the work to outer space, accepted that the light projections on dark walls are not as sharp as on white walls and look smoky.

All these examples deal with reversible interventions: the decisions made for the reconstruction and staging of Piene's *Lichtballett 'Hommage à New York'* do not compromise the materiality of the original components of the installation and do not preclude the possibility of making different decisions in the future; Uecker's *Lichtplantage* can still be presented without a programmed timer switch; after the staging of 2016, Mack's *Zwischen Himmel und Erde* could be presented again with a mirroring bottom instead of glass wool; and the walls of the space that houses *Lichtraum (Hommage à Fontana)* can be repainted white.

Although these interventions fulfil the principle of reversibility, they will leave traces in the collective memory buffer and will influence the way the works will be interpreted in the future. This aspect is not easily reversible. Therefore, the abovementioned cases raise many questions. For example:

- The reconstruction and new staging of historical installations and performances, such as the presentation of *Lichtballett 'Hommage à New York'* in 2016, provide the chance of tagging forgotten works for attention. Are other ways of remembering an impermanent work, such as the display of its documentation, virtual reconstructions or texts about it, as effective as reconstruction and new staging in drawing the attention of the public to it and contribute to consolidate its memory? Since repetitions cannot bring back the past but only recall it by 'making it up', how can we convey the sense of loss when we reconstruct and restage past installations and performances?
- Is it legitimate to go back to an earlier presentation mode of a work as in the staging of *Zwischen Himmel und Erde* in 2016? Or should we always present an artwork in the form it was handed over to us?
- Should we encourage a plurality of presentation forms that highlight different connotations of the same work and allow the formation of disparate memories of it? Or should all the presentations be as similar as possible to preserve one identity of the work? Also, in the case of a work that is editioned and held in multiple collections, should the different institutions preferably cooperate and aim to present the work in a similar way or may/should each institution stage it independently?
- Is it ethical to make changes in the presentation of a work that are not dictated by new evidence, the artist's decisions or challenging situations but solely by curatorial purposes? For example, does the presentation of the *Lichtraum (Hommage à Fontana)* with black walls introduce an error – what psychologists call a 'false memory' – in the collective memory of the work? Or does it provide a new option? Should the unsharp projections be considered – using a concept formulated by Umberto Eco – as 'lines of resistance'[45] to the interpretation of the work with black walls? Or does this interpretation simply offer a chance of experiencing the installation in a new way?

There are no generally valid answers to these questions, but they have to be negotiated for every single work on the basis of the preserved memory traces in a discursive process. Which memory items will be stored in the long term and how they will be represented in the collective memory is continuously influenced by the results of negotiation between competing 'social hippocampi'.[46] The hippocampus – the part of the brain responsible for selecting short-term memory items from the buffer, building relationships between them and activating established knowledge – plays a central role in individual memory consolidation. Anastasio et al. argue that this function is performed on a collective

level by groups of opinion leaders that can therefore be considered as 'social hippocampi' of the consolidating collective entities.[47] The memory items that they select for consolidation and the associations that they establish between different items influence the formation of stable generalised memories in the wider social group(s) they belong to. In the field of conservation, we could regard groups that play an influential role in the attribution of values and meanings to the works and in decision-making as 'social hippocampi'.[48] These groups can be composed (also in mixed combinations) by conservators, art historians, curators, artists, artist estates, art dealers and so forth. Different 'social hippocampi' may select and relate memory traces in divergent ways, so that their interaction both within and across groups can be competing and even conflictual. In the case of the Sistine Chapel frescoes by Michelangelo, the conflict between different 'social hippocampi' became evident in the discussion on the conservation-restoration intervention concluded in 1994. Although there was agreement on the importance of the frescoes, different ideas of their identity emerged. New archival findings, new methodological approaches, new decisions by the artist or simply different interpretations can always redirect the consolidation process and even change an already consolidated memory of a work.

Conclusion

Art conservation aims to preserve artworks and their documentation for current and future generations. In this context, memory plays a pivotal role. However, the concept of memory is generally used in an ambiguous way. In this article, I have referred to work on individual and collective memory that can contribute to a clearer definition of the concept and open up new perspectives for conservation theory. The purpose is not to provide an exhaustive overview of the extensive literature on memory – even a review of its broad outlines would be impossible here – but to point out the relevance of memory studies for heritage conservation and offer some stimuli for further research.

Material memory traces and consolidation

In common language, memory is usually described through a spatial metaphor: it is conceived as a mere storage space in which information is preserved in an unchanged form over time and can be searched at will (see the conviction of Paolo Rosa that video installations will survive in people's memory). However, as we have seen above, psychologists have demonstrated that memory formation is a constructive process, although memories are based on actual facts: experiences are selected, ordered and associated with other information and conjectures to form labile short-term memories (encoding); selected short-term memories are then transformed into stable long-term memories

(consolidation). Moreover, retrieval consists in recombining stored memories, beliefs, and conjectures to form a new representation of the past.

Recent studies propose applying the concepts of encoding, consolidation and retrieval, which were developed with reference to individual memory as well as to memory on a collective level.[49] Collective memory does not rely solely on the memory traces in the brains of the individuals forming a group but also on external representations with a material substance, such as documents and artefacts. These objects, which are stored in the collective buffer, the archive, are not as labile as unconsolidated memory traces in an individual buffer. 'Indeed, the sort of external representations involved in collective memory in many cases owe their existence to their stability and durability, which is precisely what makes them useful supplements to individual memory'.[50] This is one of the main reasons why conservators have always been particularly concerned with the preservation of material and have placed increasing importance on documentation. The physical availability of a work (or at least of remains, relics etc.) and the presence of documentation allow current and future generations to rediscover the work and consolidate its memory even if it had been forgotten for a long time, as the example of the *Lichtballett 'Homage à New York'* shows. However, the preservation of material items alone does not guarantee that a group will take them into consideration and consolidate generalised, long-term memories from them. Therefore, Anastasio et al. highlight the role of attention in particular, which makes labile memory traces more likely to be selected and put into connection with already existing knowledge constructs for eventual consolidation.

In the context of conservation, the term 'consolidation' is generally used with reference to friable, detached material that needs to be stabilised (e.g. paint consolidation). In this paper, I have borrowed the notion of *memory* consolidation from other disciplines and argue that it might be a useful conceptual tool for the theory of conservation as a supplement to *material* consolidation. Material traces can support either unstable short-term memory or consolidated long-term memory. The memory of the Sistine Chapel frescoes, for example, is well consolidated: the way we interpret and remember the work can still change, as we have seen, but the frescoes are not in danger of being forgotten. On the contrary, the memory of the *Lichtballett 'Homage à New York'* by Piene is not consolidated yet, although a first step in this direction was achieved in 2016. Only if the work is presented anew to the public, included in catalogues, discussed in texts and finally integrated in the general narrative of art history, will its memory eventually consolidate.

While the collective memory of the *Lichtballett 'Homage à New York'* is supported especially by material remains of the work and by documents (since the artist is dead and the witnesses that experienced the work cannot remember it in detail), in the case of ephemeral works that have left no material traces either in the form of objects or of documentation, the collective memory relies particularly

on the individual memories of the people who performed or experienced the work, which are less stable than material memory traces and need rehearsal or retrieval to consolidate. A well-known example of ephemeral works that do not leave material traces – at least officially – are the 'constructed situations' based on choreography, text declamation and interaction with the visitors by artist Tino Sehgal, who forbids each form of documentation of his works.[51] The role of procedural memory – as distinguished from declarative memory, which is the object of this article – may be seminal in these cases. Procedural memory concerns how to accomplish particular tasks, 'knowing how', whereas declarative memory is memory for facts and events, 'knowing that' (on the difference between documentation approaches based on 'knowing how' or 'knowing that' see Van Saaze 2013: 140). A museum practice that can actively support the consolidation of procedural memory and make possible the installation and performance of process-based works in the long term needs to be further developed.[52]

Identity constructions

Already determining the constitutive features of a work – and even more attributing meanings to it – involves conflicts and negotiation both in and between groups. The identity of a work is a form of relatively stable, generalised memory that is constructed through a consolidation process. Once formed, an identity can recur to influence further memory formation, since the consolidating entity tries to preserve a coherent picture of the already consolidated memory. However, some occurrences, decisions, interventions or new findings may challenge the existing identity construction and be perceived as 'rupture'.[53] Since a gradual alteration of the work's appearance is more easily accepted than abrupt changes,[54] such ruptures may be deemed problematic. Conservation traditionally aims to slow down the change processes of a work (e.g. the deterioration of its materials).[55] Therefore, ruptures may arise need for discussion.[56]

In this paper, we have seen examples of art installations that, at a certain point in their trajectories, were presented in a way that differed from the previous ones. In many cases, such changes may be reversible. However, I argue that they have consequences for the way the works are consolidated in the collective memory. Decision-makers should be aware of this and carefully document their decisions and the connected losses.[57]

Imagining the future

In this article, I advocate a long-term perspective in the conservation of contemporary art, since the memory and with it the identity of an artwork consolidate over a long time that exceeds the lifespan(s) of its creator(s) and early interpreters. Moreover, the memory of a work can actually change even after consolidation. Change – both in the materiality and in the interpretation of a work – is inevitable. Particularly in works that are defined as process-based, a certain degree of change is considered to be inherent. Allowing change may help to conserve a work and consolidate its memory. Therefore, the question is not whether or not to arrest change but rather how to manage change sustainably. In his *Contemporary Theory of Conservation*, Salvador Muñoz Viñas lists 'to envision what our descendants might expect from the objects that we are taking care of' among the kinds of knowledge and skills required from a conservator.[58] However, we cannot know what future generations will be interested in and how they will interpret the works they inherit. We can only construct our representations of the future on the basis of the same memory traces we use to construct our representations of the past, and both the way we think about the past and the way we think about the future are affected by our present situation and by our frameworks of already consolidated knowledge.[59]

Muñoz Viñas considers the notion of sustainability as a useful corrective to the concept of negotiation between different stakeholders. In his book, on the one side he argues for negotiation and on the other side he is afraid that it may degenerate into what he calls 'demagogic conservation'.[60] Since conservation professionals likely advocate the interests of the future users, Muñoz Viñas maintains that they have the authority to prevent current users from abusing an object.[61] I argue that imaging how future generations will be affected by our decisions is as much the result of negotiation between different 'social hippocampi' as remembering the past. Material memory traces and – when applicable – the memory traces in the brains of individuals are all that we have as a basis for negotiation and they are therefore fundamental references.

Memory provides the raw materials that are necessary to imagine the future both on an individual and on a collective level. Consequently, what we remember and how we remember may influence how we imagine the future (for example, how we think the following presentations of a work should be). In turn – as recently observed[62] – our conjectures for the future may reshape our memory constructions. In this sense, the future that we imagine for the artworks may have consequences on how we remember them.

Acknowledgements

Notes

1. Anastasio et al. 2012: 55.
2. Anastasio et al. 2012: 91–2.
3. Fischer-Lichte 2008: 75.
4. Fischer-Lichte 2008: 75.
5. Di Marino 2007: 72.
6. Caianiello 2013: 207.
7. Caianiello 2013: 223–8.
8. Anastasio et al. 2012: 92.
9. Viejo-Rose 2015.
10. Schacter and Addis 2007: 773.
11. McDermott and Roediger 2017.
12. Schacter and Addis 2007: 778.
13. McDermott and Roediger 2017.
14. This article deals with declarative memory, the kind of memory that can be verbalised. However, procedural memory, which concerns practised abilities and embodied knowledge, can also be essential for the preservation of contemporary art.
15. Halbwachs 1992.
16. Wertsch and Roediger 2008.
17. A comprehensive literature review of work on this subject would go beyond the constraints of this article. I refer the reader to Anastasio et al. (2012) for an overview of the literature on memory from both the fields of sciences and humanities.
18. Olick 1999.
19. Anastasio et al. 2012: 50.
20. Anastasio et al. 2012: 55.
21. Anastasio et al. 2012: 50.
22. Anastasio et al. 2012: 2–3.
23. In his review essay on Anastasio et al., Kourken Michaelian objects that material memory traces are less labile than individual short-term memories. Therefore, according to him, individual and collective memory consolidation are not analogous in this respect (Michaelian 2014: 260).
24. Anastasio et al. 2012: 91.
25. Anastasio et al. 2012: 92.
26. Hölling 2017: 6.
27. Schimmel 1999: 140.
28. I am aware that this argument is also used by the art market to justify the commercial exploitation of performance-based objects that are sometimes produced especially for sale.
29. Anastasio et al. 2012: 93.
30. Anastasio et al. 2012: 94.
31. Derrida 1995: 14.
32. Anastasio et al. 2012: 105.
33. Derrida 1995: 14.
34. Anastasio et al. 2012: 84.
35. Fulford 1998.
36. Derrida 1995: 14.
37. Zell 2018.
38. Zell 2015: 414–15.
39. Caianiello 2018; ZERO foundation 2018: 59–72.
40. The reconstruction was realised with the help of Piene's former assistant Günter Thorn, who had not seen the 1966 presentation.
41. ZERO foundation 2018: 49–57.
42. Zell 2015: 408–12.
43. Caianiello 2018; ZERO foundation 2018: 31–47.
44. Piene 2005: 178–9.
45. Eco 2013: 7.
46. Anastasio et al. 2012: 115–20, Michaelian 2014: 260–63, Michaelian and Sutton 2017: 148.
47. Anastasio et al. 2012: 12, 115–20.
48. The concept of 'social hippocampi' does not correspond completely to that of stakeholders, because not all groups of stakeholders play an active role in conservation.
49. Anastasio et al. 2012; Michaelian and Sutton 2017.
50. Michaelian 2014: 259.
51. Vivian van Saaze observes that plenty of unauthorised documentation material created by museum visitors is in circulation. This material could become very important in the future to support the collective memory of works by Sehgal (Van Saaze 2015: 59).
52. Van Saaze 2015.
53. On this subject see Brian Castriota, 'Object trouble: constructing and performing artwork identity in the museum' in this issue.
54. Van Saaze 2013: 105.
55. The *ICOM Code of Ethics (The Conservator-Restorer: A Definition of the Profession)* from 1984 defined preservation as 'action taken to retard or prevent deterioration of or damage to cultural properties by control of their environment and/or treatment of their structure in order to maintain them as nearly as possible in an unchanging state' (Committee for Conservation of ICOM, Copenhagen 1984: 2). This definition was later substituted by the concept of preventive conservation.
56. In the literature on the conservation of contemporary art, traditional conservation strategies are often described as 'freeze' strategies' based on a 'freeze-frame paradigm', since their general aim is considered to be that of freezing the works in a particular condition (see, e.g. Hölling 2017: 3 and footnote 1; Van Saaze 2013: 57). However, the history of conservation theory and ethics might as well be read as the history of the criteria that different 'social hippocampi' in different countries and in different times have developed to evaluate different kinds of change, cope with them and regulate further change. Important issues of traditional conservation theories are for example: In which cases may we substitute a support? May we remove historical modifications, restorations, additions or an aged varnish? May we reintegrate losses and if yes how? May we move a work from its original setting or change its function? How does the change of taste influence restoration over time?
57. Van de Vall 1999: 200.
58. Muñoz Viñas 2005: 197.
59. Schacter and Addis 2007.
60. Muñoz Viñas 2005: 211.
61. Muñoz Viñas 2005: 195–7.
62. Michaelian and Sutton 2019: 8.

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Biography

Tiziana Caianiello, PhD, has worked as research associate at the ZERO foundation in Düsseldorf since 2009. She studied art history at the Universities of Naples (Italy) and Cologne (Germany). Her research mainly focuses on theoretical issues in the conservation of kinetic art and media art installations, on performative elements in the visual arts, exhibition history, and art of the 1960s.