

Anticipating Obsolescence

Documentation as a strategy to preserve immersive media

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Abstract

Institutions in charge of the preservation of immersive media are struggling to keep up with the technological developments and as there are no international guidelines, they are forced to define their own strategies. It is inevitable that immersive media will become obsolete, which increases the importance of documentation as the final remaining trace of an artwork. Tate Modern and NISV have collaborated in the creation of the 'Preserving Immersive Media Knowledge Base' (PIMKB), to centralize their knowledge regarding the preservation of immersive media. This study aims to contribute to the PIMKB by recommending implementations on how it can support institutions in defining sustainable documentation strategies for immersive media. Based on a review of five esteemed documentation strategies and interviews with professionals and artists, Annet Dekker's three phase framework – process, presentation, recreation – was tested to the documentation of two case studies. The sample of case studies was selected for their extensive available documentation. Analysis of the documentation strategies resulted in a synthesis divided into the categories: tool, documentation phase, characteristics and institutional aim. The synthesis was used to make recommendations into the documentation strategy of the case studies proposing a complementing strategy to the existing documentation to achieve a holistic approach. From the results, it was suggested that the PIMKB should take Dekker's framework as a procedural structure, to demonstrate the various characteristics and iterations of an artwork. This allows for a holistic understanding of an artwork's behavior and artistic intent for future recreation or for conservators to make weighed decisions in the future. Further research could complement these findings by exploring how this could function from an institutional perspective, looking more specifically at the affordances of the archive and information systems.

Keywords

Documentation, immersive media, obsolescence, preservation, authenticity.

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*“Who controls the past controls the future.
Who controls the present controls the past.”*

George Orwell, 1949¹

¹ George Orwell, *Nineteen Eighty-four* (London: Penguin Books Ltd, 1949), 44.

1. Introduction

1.1 Context

As the material world and the virtual world are becoming increasingly intertwined, artists are reflecting upon these developments using similar digital mediums to convey their message (Hoffman 2020, 211). This contemporary reality presents issues for preserving artworks that use modern technologies to foster immersive experiences. With this research I aim to affirm and support documentation for the preservation of immersive media, by identifying what can be gained from esteemed documentation strategies and by analyzing what differentiates immersive artwork documentation practices from other contemporary art forms.

Documentation, as defined by ICOM refers to “all paper and other physical records and electronic records of information relating to an object or collection; the term is also used for the process of creating records pertaining to each object in a collection” (ICOM 2004, 207). Widely used formats for documenting media art include videos, photos, artist interviews and installation outlines. For this research I regard documentation as the act of creating textual, visual, audial, spatial and time records of an artwork, in order to conserve, archive and re-install artworks (Wijers 2007, 14). In doing so, documentation functions as the future reference of an artwork, when it is not on display. Van Saaze describes this as follows, “an artwork’s visual and written documentation as a form of materialised memory is considered invaluable to its perpetuation. This is the case for traditional art objects, but even more so for complex, variable, contemporary artworks” (Van Saaze 2015, 56). Due to the variable qualities of immersive media, this broad conceptualization of documentation is presented as a starting point, leaving room to explore different strategies and approaches which can all be encompassed in the combined conceptualizations by Van Saaze and Wijers.

According to ICOM-CC, the International Council of Museums Committee for Conservation, conservation is divided into multiple components. One of them is preservation, which is defined as the “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.” (ICOM-CC, n.d.). Documentation is in this study perceived as a form of preventive conservation and is becoming more recognized as an important aspect of preservation in media art, as it connects a work of art to documents of knowledge on how a specific work will manifest over time (Muller & Jones 2008, 418). In doing so, documentation is used to anticipate the unavoidable change that these artworks will undergo in response to the conservation principle of authenticity. As media art is inherently unstable and variable, it demands specific strategies for documentation, such as strategies

that can adjust and adapt to the preservation needs of an artwork. The unstable properties make it difficult to apply established conservation-ethical principles such as authenticity, minimal intervention and reversibility (Van de Vall 2015, 8). This research will explore documentation as a strategy for preserving immersive media, where “documentation has become the focus of conservation and presentation strategies [for media art]” (LIMA 2020, 3). By assessing best practices for documentation and exploring in-depth case studies, this research aims to support cultural institutions in anticipating obsolescence of born-digital immersive media by defining a documentation approach to support their preservation goals. The research originated from the exploration of the open questions in the ‘Preserving Immersive Media Knowledge Base’ (PIMKB), a centralized knowledge hub that aims to support individuals and institutions dealing with the task of preserving immersive media.

The PIMKB “is a resource created to help share information between members of the digital preservation community who are caring for virtual reality (VR), augmented reality (AR), mixed reality (MR), 360 video, real-time 3D software and other similar materials” (PIMKB, n.d.). The PIMKB is created as a collaboration between The Netherlands Institute for Sound & Vision (NISV) and Tate Modern and is meant as a collaborative space to share knowledge and research regarding the preservation of immersive media. The PIMKB was introduced publicly on December 9, 2021 during the fifth annual No Time to Wait (NTTW) conference, a three-day conference that focuses on open standards, open media and digital audiovisual preservation, hosted by MediaArea (Sound & Vision 2021). Tate’s time-based media conservators, Tom Ensom and Jack McConchie presented the PIMKB in a Lightning Talk at the conference.

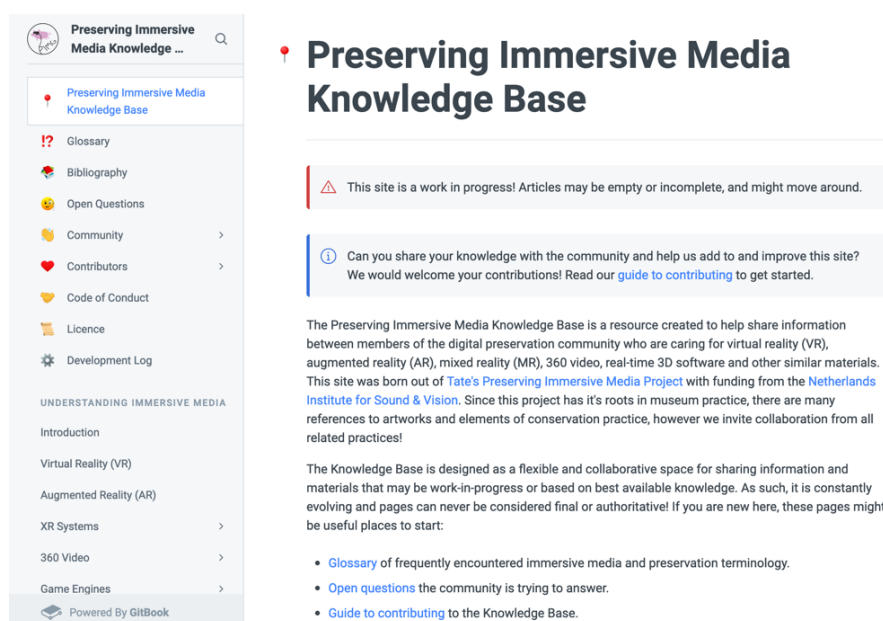


Image 1: Screenshot of the Preserving Immersive Media Knowledge Base, [website content], accessed on May 20, 2022.

<https://pimkb.gitbook.io/preserving-immersive-media-knowledge-base/>.

The PIMKB as a collaborative platform is a work-in-progress, based on the best available knowledge. “As such, it is constantly evolving and pages can never be considered final or authoritative” (PIMKB, n.d.). Since NISV, Tate Modern and other contributors are still adding contributions to the PIMKB, the state of the intervention is that of development, because the intervention is in the process of constructing insights on how to best structure the PIMKB and convey the information it contains will be useful moving forward.

An evaluation of the contents of the PIMKB served to understand underdeveloped areas. The former in addition to the overview of open questions resulted in the aim of the research in regards to the documentation of immersive media. The insights and outputs that this research produces will guide institutions in defining a practice that fits their institution’s purpose, with the intent to care for immersive media to the best of their abilities and resources. In doing so, I am contributing to the development of the PIMKB.

The research will explore how cultural institutions can define a fitting strategy for documenting an artwork that fits their daily practice. I expect that the strategy for documentation is dependent on the mission of the institution and accordingly the purpose of documentation. Media scholar Dr. Annet Dekker suggests that “documentation can have many varied purposes - for publicity and publication, reconstruction or preservation, describing processual changes, provenance and for recording the experiential elements of an artefact” (Dekker 2012, 150). The variety of purposes should be taken into consideration when defining a documentation strategy.

1.2 *Relevance*

The amount of immersive media content is increasing rapidly, this demands heritage organizations to define a preservation practice for those materials at high speed, as the amount is growing in size (Saba 2013, 101). Moreover, media scholars and professionals are calling for action in the preservation of our collective digital heritage, especially immersive media, as it has thus far received little attention in regard to preservation. Scholars agree that “unless immediate steps are taken, we could soon talk of a ‘digital Dark Age’ in which valuable content is lost to future generations” (Dekker 2010, 4). By contributing to the ongoing efforts of preserving immersive media, this research is a relevant addition to the professional field in making documentation an embedded practice. In addition to that it supports the safeguarding of valuable digital heritage, in an effort to consolidate its societal relevance for future generations.

The contents and output of this research help to understand what cultural institutions, with limited resources i.e., a lack of time-based media conservators, financial means,

specialized knowledge and so on, require from the PIMKB in order to obtain a regulated and sustainable – with conservation and long-time preservation in mind – approach to documenting immersive media artworks. The findings can be incorporated into the PIMKB to contribute to the collaborative space and guide institutions and individuals that are responsible for documentation at their respective institution.

1.3 *Structure*

The following subchapter will elaborate upon the structure in which the research is performed and presented. First, current documentation practices will be explored to gain insights into best practices, these will be presented in a synthesis to make clear how these strategies relate to each other and ultimately guide institutions in defining a suitable documentation strategy. Second, the artworks as in-depth case studies will be explored using the process-presentation-recreation framework as proposed by Dr. Annet Dekker. Finally, the research will map challenges faced by cultural institutions dealing with documentation.

Since the preservation of immersive media is an emerging field, widely adopted standards for documentation do not yet exist (Depocas 2002). This research will assemble, present and compare different practices and suggest ways to define a strategy for the documentation of immersive media. The recommendations can be implemented into the PIMKB to support institutions in defining a documentation strategy for a specific artwork, as well as be a relevant reference book of past and current practices. In doing so, this research contributes to the development of the PIMKB and the time-based media conservation community, playing a substantial role in ensuring sustainable long-term care of this digital heritage (Graham & Sterett 1997). With that in mind, the following research questions are posed:

1. How can the PIMKB support cultural institutions in the process of documenting immersive media?
 - 1.1 What strategies are currently available for the documentation of immersive media art?
 - 1.2 How can cultural institutions define the best suitable documentation strategy for a specific immersive media artwork?
 - 1.3 What are the challenges faced by cultural institutions when documenting to preserve immersive media?

Based on the research questions that are mentioned above the outline of this document is structured as follows; Chapter 1 discussed the contextual background of the research, the rationale and relevance, introducing the discourse surrounding immersive media preservation with its variable affordances. The relevance of this research is also elaborated upon, which is in part substantiated by its contribution to the PIMKB, filling the knowledge gap that is currently lacking theoretical grounding. Chapter 2 describes the theoretical framework, introducing the main concepts and authors and scholars whose conceptualizations will guide the research. In chapter 3 the methodology is presented. Chapter 4 contains the collected data, the most relevant documentation strategies resulting from the literature review and the case studies, as well as the data resulting from interviews. Chapter 5 is where limitations and recommendations will be made for future research. Chapter 6 entails the recommendations for the PIMKB, this is where the collected data is analyzed and where specific recommendations for the PIMKB are made. The research concludes with chapter 7 in which the research will be summarized and insights will be presented.

2. *Theoretical Framework*

The ephemeral nature of immersive media artworks, in constant flux, influences the way in which documentation should be approached (LIMA 2017a). In order “to preserve and document it, we must accept and adapt this transitory or transitional state. Denying this state would mean renouncing the fundamental nature of such artwork” (Ibid.) Documentation becomes a vital reference, by informing future professionals who will be responsible for the preservation of the artwork (Van Doren & Wagenaar 2020, 36). The innovative and unstable properties of media art are thus essential to take into consideration when defining a documentation strategy, and since there is not one strategy widely adopted in the field the significant properties of each particular case influence the process of defining a strategy for preservation (Langley 2011, 3). Research into the topic of immersive media documentation as a result of the literature review aim to guide institutions in making weighed decisions about the documentation of a specific artwork and initiate a paradigm shift in the documentation practice. The heterogeneity of institutional aims and purposes for documentation results in different perspectives on the conceptualization of documenting media art:

Documentation on new media art must not be a mere illustration, but rather an interpretation, an attitude. To reflect this attitude, the documentation must adopt a structure similar to its subject's. The challenge of documenting (...) lies in developing a map or interface for exploring the work rather than in trying to capture the work or contain it (Depocas 2002).

As Alain Depocas, Head of Research and Documentation at the Daniel Langlois Foundation for Art, Science, and Technology, states in the former quote each specific case study should be looked at individually to understand its components and context and be able to interpret the case for preservation and documentation purposes.

Documentation is already an embedded strategy for traditional art forms, capturing its properties and preservation process. “The documentation of artworks is essential to their preservation. Across all fields, conservators document the physical composition of artworks, identify artists’ materials and techniques, and describe vulnerabilities, condition, and damage, as well as detail their own conservation treatments” (Guggenheim, n.d.). The same goes for the field of immersive media, where at this moment in time, preservation practices are drawn from other contemporary art forms such as installation, performance and video art. Through this reinterpretation of documentation practices in other fields, documentation for immersive media challenges and draws inspiration from previously established strategies for

documenting contemporary art forms (Guggenheim, n.d.). Where other standards for documentation are aimed to capture more conventional works of art in their unique physical form, media art requires a more fluid and flexible approach with less focus on authenticity and a singular original entity, as a media artwork is “not necessarily compromised by the damage and replacement of its physical equipment. In fact, its integrity might be more endangered by representing the work poorly” (Guggenheim, n.d.). Poor representation of the artwork can for example be the result of an adaptation in light or sound intensity, using different software or hardware or by migrating the work to a technology that does not conform to the artist-intended significant properties. Documentation for immersive media should thus be approached differently. This research aims to present tools and existing strategies to achieve that shift, by presenting a procedural framework that places equal importance on all the phases of an artwork’s existence.

2.1 *Immersive media*

Media are perceived as immersive when the audience or participant is seemingly surrounded and feels completely involved in an experience (Cambridge, n.d.). “Immersion arises when perception of artwork and advanced image technology, the message and the medium, converge almost completely” (Grau 2003, 4).

Immersive media refers to a range of deeply engaging media and artworks (Tham 2018, 48). The term is used to encapsulate several related technologies, such as virtual reality, augmented reality and mixed reality (PIMKB, n.d.). “All of which have been designed to immerse a user in a virtual space or combine virtual and physical spaces” (McConchie & Ensom 2019, 5). The common denominator is that immersive media is “a product of the integration of computer technology and information technology to create an immersive experience” (Gao 2022, 5). For this research, immersive media is conceptualized with emphasis on mixed reality, a combination of the physical and the digital space (De Jorge 2021). Which means that the viewer is not confined to the limitations of a screen or head-mounted display but rather engages in an interactive installation. These types of immersive media can also be described as time-based media, as their content unfolds to the viewer over time as they have duration as their dimension (AIC 2016). While I will refer to the case studies as

immersive media art, to be consistent with the PIMKB, conservation departments dealing with these works are almost exclusively referred to as time-based media.²

“Moreover, many time-based media artworks are allographic by nature; rather than being composed of a unique original, they exist only when they are installed, so every iteration can be considered a different representation of the artwork” (Guggenheim, n.d.). As such, authenticity does not have to be the result of maintaining the original physical equipment, as is the case with traditional art objects (Laurenson 2006). Traditional concepts such as authenticity and the original should thus be revised when discussing immersive media art, since the original components could be of secondary importance to the message and experience the artwork intends to convey (Van Doren & Wagenaar 2016, 33). “The traditional notion of the ‘original’ is replaced by the notion of the ‘identity of the artwork,’ the integrity of which has to be preserved” (Guggenheim, n.d.). This paradigm shift in preservation practices has to be echoed in the approach to documentation as well. Documentation should be implemented to adapt to the fluidity of these immersive artworks, and thus encapsulate the expanded notion of authenticity and the original.

2.2 *Documentation strategies*

Documentation can acquire different meanings as a result of the preservation intent and the context in which it arises and is utilized, it thus depends on the case or institution (DOCAM, n.d.). To understand what is understood as documentation in this research, several conceptualizations will be compared. The documentation strategies and accompanying variables will be used for the comparative analysis, enabling a comparison of the many models that were encountered during the literature review. For an additional overview of applied research and documentation strategies, see attachment B: Continuous overview of documentation strategies in the appendix.

According to Annet Dekker, Assistant Professor Cultural Analysis at the University of Amsterdam, “documentation is the process of gathering and organizing information about a work, including its condition, its content, its context, and the actions taken to preserve it” (Dekker 2018, 34). As Dekker describes, documentation is the act of collecting and organizing all information that is relevant in relation to a specific artwork, in order to ensure that the documents form a complete image of the artwork. Claudia Roeck, Time-Based Media

² Examples are; Tate Modern, Stedelijk Museum Amsterdam, MoMa, Guggenheim, The Metropolitan Museum of Art and the Smithsonian.

Conservator at HEK House of Electronic Arts Basel, underlines this conceptualization in which “documentation of the work and its context is a precondition” (Roeck 2017). She states that after the process of analyzing the work, conservators have the knowledge to decide on a preservation strategy being either migration, emulation or documentation. Roeck intentionally mentions documentation as a strategy for preservation, since for some media artworks the documentation will remain as the only remnant (Roeck 2017). Alain Depocas’ approach to documentation initiates along a similar perspective, he proposes that documentation traditionally involves three steps: research, preservation and dissemination (Depocas 2002). This materializes by firstly collecting all the relevant data in relation to the artwork and thereafter caring for the conservation of those documents. His conceptualization deviates from Dekker and Roeck’s with its final phase; dissemination. Where Dekker and Roeck both propose documentation as a strategy to define a preservation approach, Depocas presents an additional third stage, focused on access to the documentation (Ibid.).

This research emphasizes that documentation should be understood as a preservation strategy for immersive media. However, it also accentuates that there is not one best practice that is suitable for every institution and/or artwork. Documentation as preservation should take the variety of artworks as well as institutions with their respective purposes and missions into account. In doing so, it is necessary to expand the term in order to encompass the different goals and phases of documentation.

2.3 Procedural framework

To assess the selected case studies, Annet Dekker’s chapter “Enjoying the gap: Comparing contemporary documentation” in *Preserving and Exhibiting Media Art: Challenges and Perspectives* will be proposed as a procedural framework, meaning that the framework is suggested as part of the PIMKB to assess a variety of cases due to its wide applicability. Dekker proposes a three-phase documentation strategy divided into process, presentation and recreation, which will be used in this study to test the documentation strategies of the selected cases in order to recommend additional tools and strategies. Dekker’s approach presents the most relevant framework to assess the case studies as it focuses on multiple stages of the artwork’s existence. The framework thus takes into consideration the different institutional aims, documentation phases and media, due to its flexible structure. The framework questions traditional conservation theory, with its focus on fixation and the goal to capture an artwork, and rather allows for a broader interpretation of documentation strategies. The different stages are defined as follows: “*documentation as process*, in which documentation is seen as a tool in decision-making processes during the development of the work; *documentation as*

presentation, or, the creation of audiovisual material about the work; and, *documentation for recreation* in the future” (Dekker 2013, 150).

The first stage process revolves around understanding the task of decision-making. The goal of this first stage is to explore if the artists have adopted a strategy or tool to do so, and decipher the working method as well as pinning down in what way the process develops over time and which documents should be collected to gather a complete overview.³

The second stage is documentation as presentation, which focuses on the explanation of the work and how it is communicated by the artist in documentation. In this stage the modes in which the artwork is captured are discussed, these can for example be in writing, photos or videos. This functions to understand what the artists want to convey with their documentation about the artwork. Does the documentation serve as a form of dialogue or reflection between artist and spectator, or does it present a critical interpretation, in order to overcome the fragmented view of the several components?

Third, documentation as recreation aims to understand how the gathered materials are archived. This stage includes all contributors and aims to recall the intention, concept and atmosphere that the artwork transferred. It is important to note whether it is desirable and/or possible to recreate the work in the future and if the available documentation would support that process.

2.4 *Museological themes*

This study aims to be a call to action as well as a reinforcement of the relevance of documentation for immersive media. This necessity was also raised by NISV during an expert panel, “the challenge of dynamically preserving interactive works is far from solved. There might not yet be some universally agreed-upon best practices, holding places, legal frameworks, and technological solutions, but we were able to talk about what good practices could look like” (Verbruggen 2017). By talking to professionals from the field, this research proposes a strategy to accommodate that necessity, taking an institutional standpoint to present an operable toolbox that can be used to define a suitable strategy for a specific artwork or institution, as “there is a lack of tools aimed at individuals or smaller organisations” (Langley 2011, 3). On a larger scale it also aims to encourage museums and cultural heritage institutions to take on the challenge of collecting and subsequently preserving these immersive media

³ The Significant Properties of Digital Art as presented by SBMK and LIMA can help to identify the most important components of an artwork (Van Doren & Wagenaar 2016, 35).

artworks. “Because of their complex, variable, and interactive nature, it comes as no surprise that most museums and institutes have not taken up the challenge to collect and consequently start to think of ways and methods to document interactive projects” (Dekker 2013, 159). Since preservation is in general a response to an artwork/case, and with immersive media a response to emerging technologies, the act of preservation is always lagging behind on the developments of the digital materials themselves (DPC, n.d.). “To ensure the value of digital materials in the long run we need to ensure access, which in turn means we need to understand and mitigate rapid changes in technology and organisations” (DPC, n.d.). Which touches upon three museological themes; sustainability, inclusivity and digitality. Sustainability by intending to formulate sustainable preservation guidelines, aiming to ensure sustainable long-term preservation of digital materials, instead of acquiring multiple identical hardware components into collections, which will at one point all become obsolete. Inclusivity in the sense that important digital heritage could be preserved for future generations, allowing them to access the materials that impacted the artworld. Lastly, digitality is weaved throughout the research as it revolves around born-digital materials and valuing these materials in standards and guidelines is an important step in recognizing them as part of our heritage.

To be able to understand the range of stakeholders that have a connection to the topic of documenting immersive media, this paragraph will present an overview. First and foremost, are the artists of immersive artworks, as content creators. They occupy a pivotal position in creating the documentation for their artworks as well as the significant components for presentation, as they are the only ones who have complete knowledge of the intent with which the artwork is created. Collecting institutions occupy an assisting role by managing the documentation process as a response to the artworks when they acquire or present an immersive artwork. Stakeholders inside institutions can take many forms, such as conservators, archivists, curators, technicians or registrars. They should all be aware of their institutional aim in their preservation and documentation practice. In addition to this, it is important for museum staff to take note of the challenges surrounding preservation, in order to anticipate these and implement strategies into the institutional guidelines. Archiving institutions have different aims than collecting institutions and thus represent another stakeholder group, having the intent to be able to convey what an artwork looked like, instead of being able to present the artwork in its physical form.

Ultimately, preservation of immersive media is recognized by anyone that fulfills a role in using, creating, presenting or making accessible immersive media. Tate and NISV function as experts and knowledge hubs in the creation and development of the PIMKB, centralizing

their knowledge and information about best practices, which they make available for smaller institutions to consult.

3. *Methodology*

The research follows a qualitative strategy to explore and answer the research questions. The reason being that a qualitative strategy allows for a contextualization and interpretation of the several documentation strategies and case studies. This contributes to the objectives of this study which is to gain an in-depth understanding of the challenges and considerations that institutions face when documenting immersive media.

The research design will make use of case studies to be able to study the details of an immersive media artwork's documentation. Dekker's three-phase framework will be used to examine the documentation of the cases, understand the current strategy and recommend tools to complement the documentation. For the feasibility reasons in regard to the three-month research period, two case studies have been selected. The case studies present specific immersive media artworks with their respective artist and documentation. The data will be collected from interviews with the artists, which will be recorded and transcribed, as well as from the documentation that they will supply regarding the artworks. The interviews serve to understand their process, presentation and recreation practice and how this is documented, as well as to understand why they made certain decisions in deciding how to document the artwork. The case studies will be discussed in-depth and tested to Dekker's framework to understand if the framework can foster as a holistic approach to documentation. In addition to the former, the research method consists of semi-structured interviews with 8 representatives from 5 different institutions based in the Netherlands, dealing with the documentation of (immersive) media. This form of data collection was chosen as it allows for a more informal, conversational collection of data, that can be adapted to the aim of the institutions. It also allows for more in-depth questioning, as it enables room for further inquiry, as opposed to surveys or questionnaires that do not allow this flexible form of data collection.

Building upon the qualitative research approach as presented by Alan Bryman, the steps followed were (Bryman 2016, 379):

1. Initial mapping of the field, general topic and aim were shaped.
2. Research questions were formulated.
3. Desk research on documentation, to distinguish relevant existing research and understand the context.
4. Research design and methods were drawn resulting from topic and aim
5. Selection of relevant case studies and contacting interviewees.
6. Data collection through conducting semi-structured interviews, lasting between 1-2 hours each in duration. To understand the organizational context.

7. Transcribing and coding the interviews to be able to interpret it through thematic analysis using an inductive approach.

8. Lastly, writing out findings and drawing conclusions from collected data.

The research questions which were stated before will be answered using a combination of methods. This chapter will elaborate on the ways of data collection and how this data will be analyzed in connection to the methods, (note that all data presented in this research has been collected over the course of 2022). While the problem regarding the preservation of immersive media was identified by Tate Modern's time-based media conservators, the problem spreads much wider than the contributors and users of the PIMKB. It is thus good to be aware of the applicability of the results beyond the PIMKB and the museum field.

3.1 Data collection strategy

Triangulation of methods functions as a means to answer the research questions from multiple perspectives. By triangulating the data collection methods of this study, which are; literature review, case studies and interviews, the data analysis presents a broad exploration of the documentation of immersive media (Verhoeven 2015, 162). Table 1 illustrated below, clarifies the data collection methods with elaboration on types of data collection, quantity and sources.

Data collection methods		
Desk research	Documentation strategies	<ul style="list-style-type: none"> - Website contents - Associated research - Documented case studies
Interviews	10 interviewees	Museums <ul style="list-style-type: none"> - Tate Modern - Het Nieuwe Instituut Archive <ul style="list-style-type: none"> - V2_ - Het Nieuwe Instituut - NISV Artists <ul style="list-style-type: none"> - Geert Mul - Studio Richard Vijgen Other <ul style="list-style-type: none"> - IDFA DocLab - LIMA
Case studies	<ul style="list-style-type: none"> - Shan Shui - Through Artificial Eyes 	<ul style="list-style-type: none"> - Transcribed and coded interviews - Website contents - Shared documentation (GitHub)
Attended events	5 events (see appendix for details)	<ul style="list-style-type: none"> - Research findings - Professional insights

Table 1: Data collection methods.

First, the results of the literature review surrounding documentation strategies will be presented. The strategies that are deemed most important in the development of documentation practices in the media field will be summarized and assessed. ‘Importance’ of these cases is based on their recognition by media scholars and professionals, as well as their flexible contents that allow operability for various forms of media arts. Second the comparative case studies will be presented, this entails that the data that was collected during the interviews with the artists will be analyzed as well as the documentation that they have supplied regarding the artwork. Subsequently, the challenges that surface when documenting will be discussed, to understand what people are dealing with in their documentation practice and to be able to make weighed recommendations. Insights into the challenges are a result of the conversations and interviews with professionals, such as archivists and conservators dealing with documentation.

To deepen the understanding of the role of documentation for preserving immersive media, I have attended the summit *Possibilities* hosted by ISEA International. This summit, the second in the series by ISEA, revolved around new media archiving and consisted of a number of lightning talks and workshops from various academics and professionals in the field. The summit originated from the “need to preserve the history of the rapidly evolving field of new media arts,” and the sessions aimed to present a space to critically reflect on the discourse with researchers, archivists, curators, etcetera (ISEA International 2022). Attending the conference added another layer of applied knowledge from professionals in the field to the collected data. This will be discussed more in-depth in the data analysis. In addition to the former I had the opportunity to visit Tate Modern’s time-based media department in London at the beginning of May 2022, where the problems in regard to the documentation of immersive media were initially identified. Their identification of the problem and interest in the topic initiated the PIMKB, meeting with Jack McConchie, Tom Ensom, Francesca Colussi and Ana Ribeiro from the Tate team helped to form a fuller understanding of the principles and pitfalls of documentation in the time-based media field, as well as underline the relevance of the PIMKB as a place where knowledge regarding this topic is centralized. Furthermore, the recordings of the Preserving Immersive Media Group and of MediaArea’s No Time to Wait conferences have granted me with insights of professionals dealing with the task of preserving immersive media. This has helped me to form an understanding of the main challenges and considerations surrounding documentation and the preservation of immersive media to engage in demarcated research and to be able to interview with knowledge based on the experience of professionals, thus standing on the shoulders of media preservation giants.

3.2 Interviews

The qualitative strategy in this research, utilizes primary-source interviews as data. All interviews were conducted using a semi structured approach, allowing flexibility to adapt the questions to the respective interviewee and respond in real-time to topics that would surface, to consult the Interview guide see appendix A and for an overview of interviewees see appendix C: Consulted Expert Log. The reason for using interviews as a data source, was to be able to describe and interpret the experience of people dealing with the documentation of immersive media. All of the interviewees are selected as a result from the purposive sampling of case studies, linking the artists as interviewees to the documentation practice of the specific artwork. All of the other interviews revolved around documentation practices in cultural institutions in The Netherlands and the United Kingdom, consulting i.e., archivists, curators, conservators as experts in the field. To share their insights into the actual practice of documentation, and in order to be able to understand the considerations they make and challenges they face. Relevant parts of the interviews have been transcribed verbatim and analyzed manually.

The interviews were transcribed and a thematic analysis was carried out through the inductive approach for analyzing qualitative data. This approach, consists of three coding phases; open coding, axial coding and selective coding (Strauss & Corbin 1998). First, the transcribed interviews were labeled freely, this means that all quotes and remarks that may be relevant for the research objectives are given a label referring to its content (Strauss & Corbin 1998). Second, axial coding focused on the labels given in the first phase. Quotes that were labelled during open coding were organized into relevant groups. In doing so, the number of codes was decreased and over-arching labels were formed to structure the process. Finally, selective coding, the purpose of this final phase was to understand the differences and similarities between the different quotes inside a specific label. This phase functioned to understand the different interviewees and cases in relation to each other. The different stages should not be approached as a static process, “rather, it is a free-flowing and creative one in which analysts move quickly back and forth between types of coding” (Strauss & Corbin 1998, 58).

Working with interviewees comes with ethical considerations. This mainly concerns securing a situation of informed consent, meaning that the interviewees understand how their input will be processed and how well they can be informed in preparation of the scope of the research and its objectives. To be mindful and transparent, I supplied the interviewees with written information before I interviewed them, since it was important for them to be aware of the documentation strategies that are used inside their institution and for the selected case, as

well as verbally at the start of each conversation. Discussing the objectives and research interest before meeting via e-mail fostered transparency in the process of the research. All interviewees were informed that their input might be processed and analyzed for research purposes, the outcomes of the research can be integrated into the further development of the PIMKB and be published online by NISV and the Reinwardt Academy.

3.3 Sampling

Given the three-month period for this placement research, it was not the goal to be exhaustive but to present a relevant sample of strategies. Hence, it is beyond the scope of this research to present a complete overview of available documentation strategies, the most relevant strategies will be presented and their main characteristics will be discerned. Moreover, it has never been the intent to create a new documentation strategy as output, since much research has already been done and inspiration can be drawn from existing documentation strategies and research, to define a fitting strategy for a specific case or institution. This sentiment is shared by Tate's time-based media conservators: "it seems likely that in the short term many existing tools and approaches from the fields of art conservation and digital preservation will be suitable to guide aspects of the documentation process" (McConchie & Ensom 2019, 30). The sample of documentation strategies presents esteemed research-based strategies and their main characteristics. This functions to make recommendations for institutions to adopt a more holistic approach, combining multiple strategies to complement each other.

The research compares five documentation strategies in total, to explore how these strategies can be adapted and interpreted in order for institutions to define a fitting strategy to implement in their practice. This comparative analysis will be carried out using the hierarchic method, which entails that the research unfolds in two stages, first the cases will be analyzed separately (Verschuren 2010, 181). After which, in the second stage, the cases will be compared in order for the researcher to discover similarities and differences between the selected cases and explain how these can be explained (Verschuren 2010, 182).

The cases are selected through the process of purposive sampling, this sampling technique allows a researcher to select the most fitting cases, chosen deliberately based on the qualities of the case (Etikan, et al. 2016, 2). The purposive sampling method is used to collect the most relevant information, as it "is typically used in qualitative research to identify and select the information-rich cases for the most proper utilization of available resources" (Etikan, et al. 2016, 2). In doing so, the most acclaimed and referenced documentation strategies will function to represent best practices. This selection process involved consulting many websites, reports and research outputs in order to identify the leading documentation

strategies. Research centers such as the Daniel Langois Foundation's and V2_, and museums including Tate Modern and the Guggenheim supplied leads into this research, during this process numerous strategies were identified relating to different fields of contemporary arts. I am aware that the purposive sampling method implies a research bias, as a result from the selection process and my positionality linked to it. Purposive sampling is justified by acknowledging the 'subjective I' and being transparent about the selection procedure. The eventual selection of documentation strategies was dependent upon two criteria: 1.) recognition of the strategy outside of the respective institution and 2.) flexible affordances to cater to a wide variety of media and cases.

The projects that will be analyzed more in-depth are; Rhizome's ArtBase, V2_'s Capturing Unstable Media, The Daniel Langois Foundation's DOCAM, Forging the Future's Variable Media Questionnaire and LIMA's Artwork Documentation Tool.

3.4 Case study selection

To understand how immersive media artworks are currently being documented and to test the procedural documentation system, two case studies were selected. These two projects are: *Shan Shui (2013)*, *Geert Mul and Through Artificial Eyes (2022)*, *Richard Vijgen*. The two projects were selected for their relevance to the posed research questions, as both Mul and Vijgen are known to be adept in the documentation of their works, and their practices reflect upon the act of collecting and the reproducibility of media. In addition to this, Geert Mul has engaged in extensive documentation of 10 of his artworks in collaboration with LIMA during the solo exhibition "Match Maker" at Stedelijk Museum Schiedam. The results from their collaboration were published by LIMA as the *Future Proof Media Art* report in 2017. The former as well as Mul and Vijgen's affiliations with NISV, provided a clear rationale for selecting them as case studies, taking the response time and the scope of the research placement into consideration.

Interviews with the artists are an important aspect of the research since "a shared commonality amongst this generation [of digital artists] is that their work is hardly collected or integrated into public collections. In this context the artist therefore becomes the main source to approach for the preservation and presentation of this part of our (digital) cultural heritage." Since not yet many institutions in The Netherlands are dealing with immersive media art in their collections, Vijgen's case is not acquired but selected because it is currently, June 2022, on display in a museum. Mul's artwork had been acquired into a collection and is on permanent display in Dortmund. The research aims to be the initiation of a broader inventory of

documentation strategies for cultural institutions and comparative analysis of a broad variety of case studies.

The cases that are selected for this research had the requirement to consist of a physical installation using interactive technologies, this combination presents the immersive experience. “Interaction means that the spectator is regarded as an integral to the completion of the work” (Wijers 2007, 4). The selected cases request different ways of interacting – passive and active – which could request different strategies for documentation. The subdomain interactivity in relation to immersive media is conceptualized as an artwork being “expected to facilitate responsive, real-time, reciprocal communication. When applied to immersive technologies, reciprocal communication is characterized by ease of response between users and devices” (Tham 2018, 55). The cases for this research are selected by their category of interactivity according to David Herbert (2013), both cases correspond to the categorization *dynamic-interactive*. This means that “the human ‘viewer’ has a role in influencing the changes in the art object,” spectators thus influence how the work performs (Herbert 2013, 213).

Analyzing these case studies will provide the opportunity to explore the documentation practice linked to an immersive media artwork, Dekker’s procedural framework is used to test the documentation system. The case studies have been explored by interviewing the artists, Geert Mul and Richard Vijgen, and by perusing the online documentation they supplied me with as well as other online sources that could provide insights into documentation. With case studies, a researcher does not have to be restricted to one method of data collection, since the aim is to study the processes and backgrounds in relation to the problem in great detail (Verhoeven 2015, 158). The combination of the methods of data collection regarding the case studies enabled an analysis into their practice, testing the framework provided an insight to what best practice could look like. The results of the data collection are presented in the following chapter.

4. Data Collection Results

This chapter presents the results from the data collection, where the triangulation of the various methods will be presented. The identification of the main characteristics of the selected documentation strategies results in a synthesis of the documentation phase, tool, institutional aim and characteristics. This synthesis will thereafter be used to support the procedural framework that is tested to the case studies. This allows for making recommendations on tools that will complement the existing documentation of the selected cases. In doing so, the operability of the several outcomes and framework is tested prior to implementation into the PIMKB. The chapter finalizes with an elaboration on documentation in an organizational context, illuminating the challenges and opportunities for defining a strategy for preserving immersive media in an institution.

4.1 Main characteristics of documentation strategies

“As contemporary art develops, so must the ways it is documented”
(Van Doren & Wagenaar 2016, 33).

The first segment of this chapter presents an overview of widely acknowledged documentation strategies, resulting from research by several institutions working to preserve media art. Compiling and assessing the different strategies functions to create an understanding of how to document immersive media art on an institutional level. More precisely, what aspects make important documentation to capture the significant properties, and understand the artwork and the corresponding experience. The following is an elaboration of esteemed documentation strategies to explicate their approach, aim and main characteristics. Note that the indication of the year refers to the first edition of the strategy, whereas a timeline entails multiple editions in a continuous process of development over the course of several years.

a. ArtBase / Rhizome / 1999 - 2021

The ArtBase is an archive created as Linked Open Data to structure the machine-readable data on the website, currently storing approximately 2200 artworks. Initiated with a focus to safeguard net art, it also includes works that employ media technologies “such as software, code, websites, moving images, games, and browsers” (Rhizome, n.d.). The archive results

from the commitment by Rhizome to preserve works of art by focusing on efforts that could ensure the preservation of larger groups or classes, of artworks.

Main characteristics

The ArtBase provides a clear tool that allows for the linking of different iterations or as they refer to it, ‘variants.’ In addition to this, the tool differentiates the location of those variants clearly, as they are either referred to as ArtBase variants or ‘Outside Links’ that should be maintained by the artist or the domain owner. Presenting the several iterations simultaneously and alongside each other reinforces the understanding of media art as flexible and allows for a visual understanding of its developments. Its intuitive layout and use of icons makes the ArtBase usable while also allowing for extensive documentation, resulting from the knowledge that Rhizome has gained during its many years of research and user feedback.

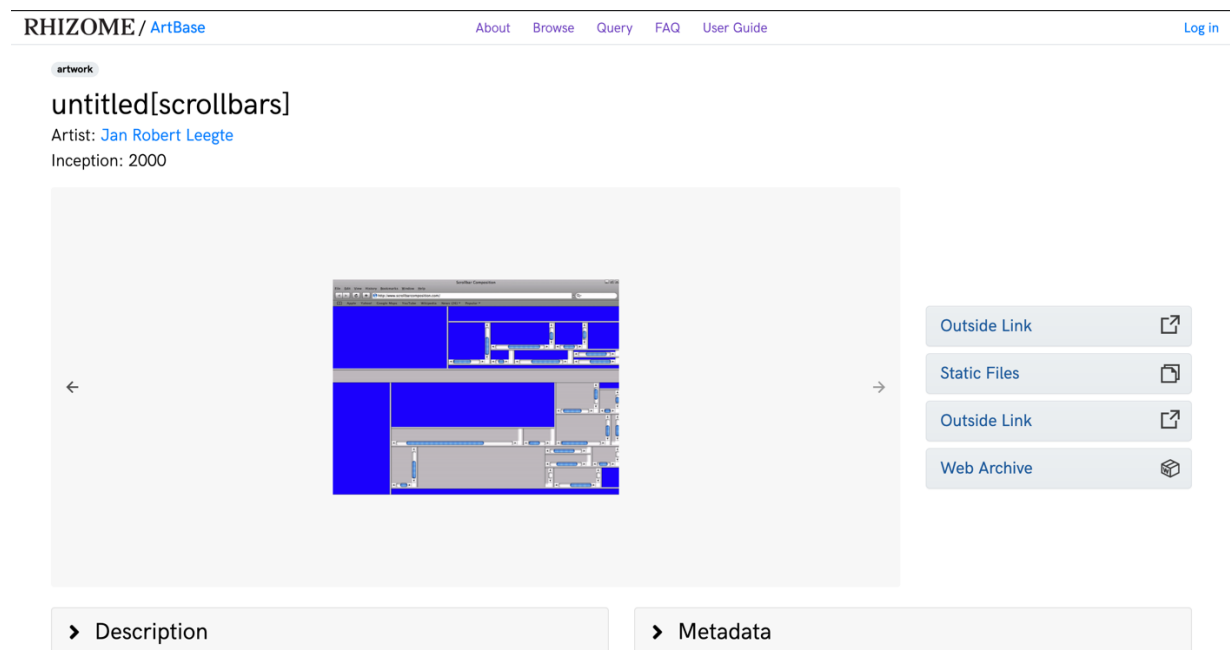


Image 2: Screenshot of Rhizome's ArtBase, [website content], accessed on June 16, 2022.

<https://artbase.rhizome.org/wiki/Q2508>.

b. Capturing Unstable Media / V2_ / 2004

The Capturing Unstable Media project was presented by V2_ in 2004 by Sandra Fauconnier and Rens Frommé. The article presents “an approach between archiving and preservation.” (Fauconnier & Frommé 2004, 2). This results from the aim to *capture* an artwork in a specific moment, rather than providing a preservation strategy or prepare for reinstalment. While

focusing on capturing an object the research takes into account the different phases of a project as well as its contextualization (Fauconnier & Frommé 2004, 22).

In regard to the act of documentation, Fauconnier and Frommé distinguish several key components. For which they recommend making a selection “depending on the relative importance of the object or activity and to the level of detail in which it will be described” (Fauconnier & Frommé 2004, 22). This ensures that all important components are documented, while remaining flexible in documenting different iterations and capturing the process and development of an artwork. One of its major deliverables is the ‘Capturing Unstable Media Conceptual Model’ (CMCM), that presents an object-oriented structure to understand concepts and classes. The addition of the CMCM aims to standardize the process of documentations for institutions and other actors.

Main characteristics

Capturing Unstable Media could be perceived as one of the better-known strategies to document media art, taking into account various iterations and phases of an artwork (Jones 2008, 3). A significant characteristic of the strategy is the additional CMCM, a conceptual model with the intention to standardize the multidimensional array of media art. However, the model is also perceived as too detailed for broad use, and was never fully implemented (Jones 2008, 3).

V2_’s Capturing Unstable Media might not be the most accessible model to put into practice since the research and its information is scattered available in a combination of documents and screengrabs of the Capturing Unstable Media project’s website, which is no longer running. Its strength lies in the way “it emphasizes the interdisciplinary, international, trans-institutional and process-based nature of the activities in the field of electronic media art, as a necessary addition to the object-focused approach that is still prevalent in the art and museum field” (Fauconnier & Frommé 2003, 13). By adding an extra layer to the traditional documentation layer for art in institutions, the model builds upon existing knowledge, making implementation in an institutional setting more likely.

c. DOCAM / Matter’s in Media / 2005 - 2010

DOCAM is the name of a project resulting from a multi-institutional collaboration between the Museum of Modern Art, the San Francisco Museum of Modern Art, and Tate Modern, spearheaded by the Daniel Langois Foundation. The aim of their collaboration was to share best practices regarding acquisition, loan and care for time-based media art and to share and distribute this knowledge. Matters in Media’s DOCAM Documentation model enables an

organized structure for digital work files created as documentation for artworks. In the process of creation, the following parameters were followed to create the model; “completeness of sources, range of document types, and agents (producers and users),” “distinctive nature of media artworks,” “lifecycle of the artwork,” and “hierarchical description of the work” (DOCAM, n.d.).

Main characteristics

The DOCAM model is mainly text based, illustrating the different iterations and the institutions or other stakeholders responsible for them. This adds a layer of human practice to the model, linking the different contributors to the artwork. The text-based documentation model aims to capture all documentation elements in a structured order, which could almost be used as a checklist of all mandatory elements. The flexibility of the model allows for an array of media art to be documented. What sets the model apart is the attribution of contributors, taking into account the subjective position of the person documenting certain aspects. Additionally, DOCAM centralizes the knowledge surrounding the location of all documents in the bibliographic reference for the list of documents.

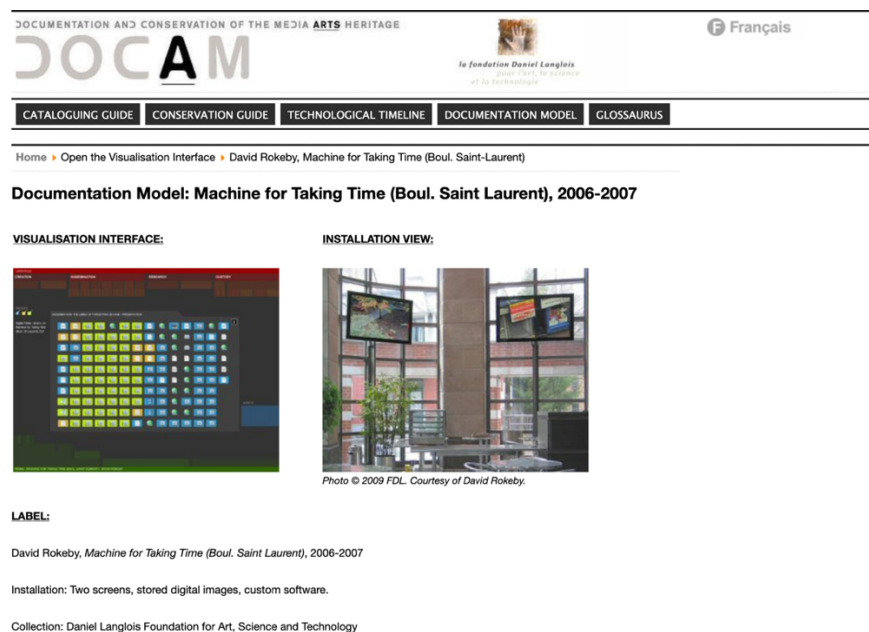


Image 3: Screenshot of Matters in Media's DOCAM, [website content], accessed on June 16, 2022.

<https://www.docam.ca/en/open-interface/machine-for-taking-time.html>.

d. Variable Media Questionnaire / Forging the Future / 2010

The Variable Media Questionnaire (VMQ) focuses on the recreation of an artwork, by requiring creators that fill out the VMQ in terms of behavior of the work instead of the medium or hardware components, the VMQ thus presents “a strategy where artists are encouraged to

define their work independently from medium so that the work can be translated once its current medium becomes obsolete” (Dekker 2013, 159). This characteristic of the VMQ is seen as one of their major contributions to the documentation of variable media (Jones 2008, 3). The focus on behaviors of an artwork allows users of the VMQ to make a translation of the significant components when the artwork becomes obsolete, by also demanding from creators that they select a strategy either storing, emulation migration or reinterpretation (Forging the Future, n.d.).

Furthermore, the VMQ let’s contributors add parts of an installation, interviews with creators and media coverage. In this process the VMQ helps to make understandable how different aspects of an artwork relate to each other and to the spectators, as well as what the different contributors added to the artwork.

Main characteristics

The importance that the VMQ puts on the artist interview and the way it can be used to conduct these interviews corresponds with the increased attention placed on that aspect of documentation by researchers and conservators (LIMA 2017c, 11). By handing tools for capturing the artist intent, behavior of the artwork and strategies for obsolescence the VMQ presents an invaluable platform for documentation.



Image 4: Screenshot of the Variable Media Questionnaire, [website content], accessed on June 17, 2022.

<https://variablemediaquestionnaire.net/demo/#a=35>.

e. Artwork Documentation Tool Art / LIMA / 2017

Image 2 illustrates the Artwork Documentation Package as presented in 2017 as part of the Future Proof Media Art project by LIMA. This package formed the base for the Artwork Documentation Tool (ADT) as presented on the website of LIMA, the ADT enables artists to

preserve their own artworks by submitting documents in the online environment. The ADT is designed and allows artist to submit the documentation for new work or the documentation of an artwork after its completion.

The ADT is divided into several segments (see Figure 1); starting with basic information about the artwork, documenting of the process of creation, backup and storing. As well as documenting the software and hardware for playback. In addition to this, the ADT requires an installation manual, documentation of the key information about the work, video registration, and finally gathering and storing additional materials. The ADT also contains additional questions and suggestions for artists to include in their documentation, in order to store the documentation as complete as possible

Main characteristics

While the ADT is created to empower artists of being in control of documenting their artworks for preservation and reinstalment purposes, the ADT can also be of value to cultural institutions working with artists that do not have extensive documentation of a specific artwork. By drawing inspiration from the selected format and segments that are presented in the ADT, cultural institutions can define a tool that complements their institution's purpose and procedure.

The strength of the ADT lies primarily in its user friendliness, having a strict structure that ensures that all aspects of the artwork are documented. As well as considering the various forms that an artwork can take on in different contexts. This visualizes the different possible forms of an artwork as well as its development over time.

Artwork Preservation & Presentation Script

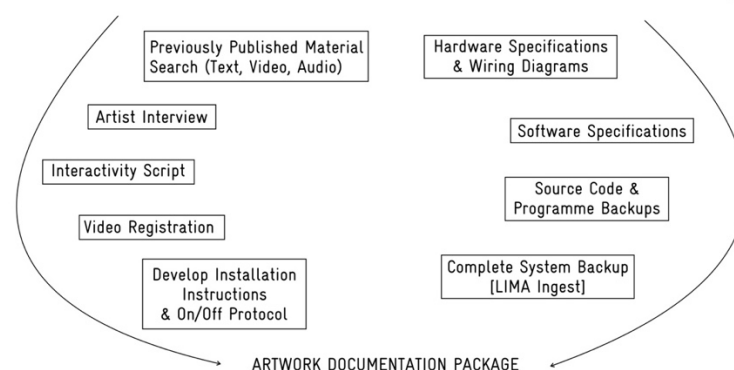


Image 5: LIMA. 2017d. "Artwork Documentation Package." <https://www.li-ma.nl/adt/>.

4.2 Synthesis

Previous descriptions and identification of main characteristics will be synthesized in table 2, forming a compressed overview of the respective Project-tool-properties-documentation phase. In “Surveying the state of the art (of documentation)” Caitlin Jones, researcher in residence at the Daniel Langlois Foundation, writes that she distinguished three phases of documentation, Jones defines these as: “Collection and Creation, Arrangement, and Description and Access” (2008, 8). Each of the documentation strategies presented in this chapter will be placed in one of Jones’ phases.

The synthesis of documentation strategies presents the various strategies in an organized way, making it easier to understand the way they compare and distinguish from each other. By analyzing a specific immersive media artwork’s documentation, the person responsible can identify which characteristics and phase fit best to possibly further develop the documentation using the tools that are presented. In doing so, the presentation of description, main characteristics and synthesis could guide individuals or institutions in defining a documentation strategy that fits their institutional aim or the documentation phase in which the artwork’s documentation is positioned.

Documentation phase	Project	Tool	Institutional aim	Characteristics
Collection & Creation	Forging the Future	VMQ Standard of behavior	Preservation	Preservation guidelines
Arrangement	V2_: Capturing Unstable Media	CMCM conceptual tool	Archiving	Standardization
Arrangement	Matters in Media	DOCAM	Collection & installation	Adequate installation and additional contributors
Description & Access	Rhizome	ArtBase	Archiving	Linking iterations
Description & Access	LIMA: Futureproof	Artwork Documentation Tool	Preservation	Simplify and empower artists to explain components and fix location

Table 2: Synthesis of documentation strategies.

Per artwork, column one and five (documentation phase & characteristics) can be used to select the most suitable documentation tool to complement the current documents, in order to form a holistic understanding of the case. As not one single strategy presented above can be perceived as a holistic approach to documentation, the respective artwork can be analyzed in

order to understand what phases of documentation are documented in-depth, and what phases could use an elaboration. This elaboration can be performed by selecting a complementing strategy, thus formulating a composite strategy defined specifically for the case that is documented. As media artists are increasingly documenting their artworks themselves, institutions can assist them in adding an extra layer to further develop the capturing of the identity of the artwork in documentation.

From an institutional perspective column four and five (institutional aim & characteristics) can function to define a more general documentation strategy to be in accordance with the mission of the respective institution. For example, if an institution's aim is archiving, they should consider whether they want to put more emphasis on illustrating different iterations or standardization. A combination of both columns, that fit their institution best, could also present a relevant strategy to define a documentation practice, by using an existing tool to complement the documentation that artists provide with a layer that fits their institutional aim.

The synthesis of documentation strategies can help professionals make decisions about documentation and thus presents an important addition to the PIMKB. The table in which the synthesis is presented provides an overview of the best practices for the documentation of media art, making clear how the various documentation strategies relate to each other. Implementing the synthesis as part of the PIMKB, supports its users in the process of defining a fitting documentation strategy. Including the table, as output of the research, results in an increased operability of the documentation segment of the PIMKB.

4.3 Case studies

This chapter presents the documentation practice on a smaller scale, zooming in on two artist practices to documenting immersive artworks and testing them to Dekker's three-phase procedural framework. The analysis of the cases studies functions to understand which elements of a phase an institution would need to document and which of the presented tools could facilitate that. The case studies that will be discussed consecutively in this chapter are;

- *Through Artificial Eyes*, Richard Vijgen, 2022. Interactive Artificial Intelligence multimedia installation. Currently on display at Het Nieuwe Instituut, Rotterdam, The Netherlands.

- *Shan Shui*, Geert Mul, 2013. Software-based interactive installation. In the collection of Museum Boijmans Van Beuningen and Dortmund U, where it is on permanent display.

4.3.1 Richard Vijgen, *Through Artificial Eyes*

Richard Vijgen

[Work](#)
[About](#)
[Exhibitions](#)
[Writing](#)
[Publications](#)
[Contact](#)

Through Artificial Eyes



A.I. datavisualization

interactive installation

2022

<https://www.hetnieuweinstituut.nl>

○●○○○○○

Image 6: Screenshot of the public documentation for *Through Artificial Eyes*, [website content], accessed June 13, 2022.

<https://richardvijgen.nl/#through-artificial-eyes>.

Richard Vijgen is renowned for his work that reflects on and visualizes data to imagine the reality that this invisible dimension shapes (Vijgen, n.d.). The Amsterdam-based Studio Richard Vijgen, led by Vijgen himself was founded in 2009. Their main focus of creation being an exploration of new technologies, interactions and aesthetics that aim to demystify the dimension of data and visualize their workings. Vijgen often produces commissioned works for which he explores complex datasets in relation to diverse topics, in this process, he has collaborated with academics, technicians and commercial parties.

The interactive installation ‘Through Artificial Eyes’ employs the computer vision Neural Network to categorize the imagery from 558 episodes of *VPRO Tegenlicht*, a Dutch documentary series that explores developments of future affairs. Vijgen trained the Artificial Intelligence (AI) that is part of the installation using the ImageNet database, using three different categories; people, natural objects and artefacts. This enables the installation to detect images in the episodes that fit the selected categories according to the trained AI, accumulating to more than 1 million objects in total (Vijgen 2022). The installation was commissioned by VPRO and is currently on show in the eponymous exhibition at Het Nieuwe

Instituut (HNI), museum for architecture, design and digital culture in Rotterdam, The Netherlands. The artwork is made as a site-specific installation, adjusted to a spheric glass structure that is permanently installed on the -1 level of HNI. 'Through Artificial Eyes' consists of three beamers projecting the AI detected images on the glass sphere, in the center of the sphere an iPad is placed on a stand. On the iPad visitors can select an 'artificial eye,' the categories that were used to train the AI (people, natural objects, artefacts), this requires visitors to actively interact with the installation. After selection of the categories, the user is asked to select a class and subsequently use the slider to set the confidence threshold. All steps that were mentioned before are accompanied by a sound design made by Eusebi Jucglà.

When it comes to documenting his artworks, Richard Vijgen has a structured approach, that focuses on capturing his artworks with video and photo. These documents are mainly meant as a way to convey the experience that these artworks present to spectators that are not able to attend and experience his artworks. In an interview with Richard Vijgen, he stated that through documentation a derivative to the artwork is created:

You get a derivative, I did that at Het Nieuwe Instituut (...) I made a video, a short film of a few minutes. That film shows how it [the installation] works and it is not only for documentation in order for it to be preserved but also because the installation on one location has a limited range. Documentation allows me to also show it to other people who cannot visit Rotterdam (Vijgen 2022, 4:34).

As such, documentation represents the artwork beyond the geographical location and time of a specific presentation, which allows for documentation to be perceived as a testimony of the artwork in a particular iteration. That intent was also guiding in the documentation of 'Through Artificial Eyes.' Where the documentation is split off into two components; one is public documentation which is presented on the website richardvijgen.nl, the other component consists mainly of documents that Vijgen saves during the process of creation. Examples of the latter include interesting and relevant (as perceived by Vijgen) connections made by the AI during the process of learning. Documentations of these emergences are not accessible to the public but do present an additional layer to the artwork's documentation.

The following paragraphs will allow for an assessment of Dekker's framework to the case 'Through Artificial Eyes' (TAE), the phases – *process, presentation and recreation* – which she perceives as parallel are used to test the case and perform an in-depth analysis (Dekker 2013, 153). The information on which the analysis is based comes from interviews

with the artist in combination with the existing documentation, either supplied by the artist or publicly available.

Process

TAE initiated as an addition to the 20th anniversary of VPRO Tegenlicht, curated by documentary maker Bregtje van der Haak. Vijgen was invited to reflect on the numerous episodes of the series which caused the development process to unfold. As the artwork resulted from a commission, the process of oral communication with its curators and contact through e-mail had a big influence on how the process took shape. After imagining how his creative practice could incorporate the contents from the documentary series, Vijgen designed an initial proposal for the installation, this took shape in the form of a sketch that illustrated the different components and drafted the significant components in order to understand what HNI could supply and how it would take shape in the exhibition space. After submitting the sketches to the curators of the exhibition, Vijgen was notified that there was a permanent structure in the space that he could include in his installation. Vijgen stated in an interview with the author that he was not aware of the structure being positioned in the space prior to that moment, but that he felt inspired by the possibility of including the structure into the artwork as it occurred as a new chapter in the process of creating the it. This is consistent with the approach he takes in his other artworks, a significant part of Vijgen's artistic process is to "always look at the space and try to see how this can connect to the work in an interesting way" (Vijgen 2022, 31:05). This statement was repeated multiple times, in different variations, during the interview with Vijgen, summarized as his perception of this process as a "dialogue between the space and the artwork" (Vijgen 2022, 32:33). The decision-making process that was previously mentioned, forms a significant part of TAE. As it is currently not publicly available or elaborated upon, it would be relevant for a collecting institution to gather information to fix the location of the documents regarding this. The ADT would be a useful tool to collect this information, as it requires the artist to write down information on where to find certain documents.

Another important part of the process and relevant to note here is the learning process for the algorithm, which Vijgen performs himself. "I conduct a lot of experiments into image recognition, for which I research and observe the outcomes to understand what they tell me about the present time" (Vijgen 2022, 49:50). These tests and trials are a big component of the learning process and since Vijgen performs them himself, they present an additional layer to the process of creating TAE. The objects are stored as clips in the database that is part of the artwork but these are not available to the public, Vijgen mentioned that he made a selection of the clips that are implemented in the displayed artwork. Documenting this part of the process,

could give insight into the artistic process of Vijgen, providing documents into his decision process and artistic intent for the iteration at Het Nieuwe Instituut. This could be documented by using the VMQ in combination with an artist interview, by letting Vijgen explain why he made certain decisions while showing the tests and the final clips that were selected for TAE.

Presentation

Where the documentation for the process of TAE is mostly stored in private documentation platforms, its documentation for presentation is presented online for anyone to consult. Hence, accessibility is currently the main focus that Vijgen takes in his documentation practice. “I have recently started making more installations and they are usually more limited in time, they are somewhere for a few months or a year and then you don't really have that point where you have to maintain it so that it continues to work because that period is shorter, but then you have to document it in a different form than the form it takes as an installation” (Vijgen 2022, 4:34). This is where video documentation comes in to capture, to the best of its abilities, the spatial experience of such an artwork. This form of documentation has proven to be extremely valuable for media art in trying to capture the experience of the spectators in relation to the artwork (Dekker 2013, 155). Vijgen's approach is to record this somewhat cinematographically to convey the spatial relations between the different elements of the installation and seize part of the experience in the 2D document (Vijgen 2022, 5:42). However, the video documentation does not supply the ‘real’ experience, rather it is meant as a substitute, a representation for those who cannot experience the installation but do want to understand its components and message, for that purpose the video documentation is sufficient according to Vijgen. The documentation provides a translation and it is up to the spectator to imagine the experience that translation resulted from. This is frequently the case for interactive art, where the cinematic language is used to make the art more appealing (ISEA 2020, 699). In this process, “interactive art documentation gets divorced from interactive art. In other words, documentation for an interactive art project does not refer to the interactive art piece, but documentation itself becomes a new type of creative video work” (ISEA 2020, 699). This documentation practice does not match the standards for archiving, where the recorded information requires to provide neutral information. I suggest that the video documentation for TAE does not present the experience of the artwork, it captures and structures the identity of the artwork. Playing a significant role in the interpretation of TAE's documentation for future iterations.

As TAE is currently on display as the first iteration, there are not yet documents positioning the installation in relation to other iterations. However, Vijgen's website does allow for iterations to be visually presented alongside each other. The way different iterations are

presented on the website clearly resembles how ArtBase composes the iterations. Recognizing that while different, presenting the multiple iterations of the artwork together fosters the understanding of the identity of the artwork and moving away from the traditional prognosis that there is a singular original. As Vijgen's existing documentation for TAE resembles the affordances of the ArtBase, using this tool would not make a significant contribution and could thus be avoided.

Recreation

Vijgen clearly communicated that the purpose of the documentation for TAE, or any of his works for that matter, is not for them to be recreated. In his opinion "it's an illusion that it could be preserved in its original form" (Vijgen 2022, 13:09). The artworks are fleeting and with their apparent connection to the current state of society, he continued that it is not his intention to present the work in the exact same form that it is debuted in. While the unstable character of media is sometimes perceived as a shortcoming, for Vijgen it is an integral part to his artistic practice and he thus verbalized that he was not sure if you "have to be able to do everything again or if it's more about keeping the meaning and intention and some of the form but maybe not the thing all by itself" (Vijgen 2022, 43:22). For TAE that is where part of its quality is created, its temporality and being able to capture that in video, photo and text documentation. Currently the artist intent is solely presented in the documentation that is presented on richardvijgen.nl, everything else is riveted in Vijgen's mind. Which means that for every new iteration or location, the artist should be consulted. In our conversation, we talked about the possibility of being able to recreate the work without the artist. In order to do this, Vijgen mentioned that he would have to redesign the work entirely for it to be able to be archived in such a way that its recreation could be performed by several people. "That is a project in itself because you introduce a new kind of dynamic into the work" (Vijgen 2022, 34:55).

From analyzing the case study, it emerged that the recreation phase of the documentation is underdeveloped. This might seem apparent as it is not recreated yet, however, complementing the existing documentation with a tool that focuses on the future and recreation of an artwork will help to present a more complete, holistic, overview of the artwork. If a collecting institution would acquire TAE, they should place emphasis on using documentation strategies that document this phase. Thus, selecting a tool from table two that focuses on the phase Collection & Creation, the VMQ thus remains as the most relevant documentation strategy.

Recommended strategy

For now, Vijgen perceives the documentation for TAE as sufficient for the goal of presentation and accessibility. However, to foresee alternative ways of presentation or acquisition or to anticipate obsolescence in the future, TAE's documentation could benefit from an elaboration of preservation guidelines. Establishing the artist's intent in regard to the preservation of the artwork. The former can be achieved by formulating documents in regard to the documentation phase of Collection & Creation. This would mean that Vijgen's artistic intent could be discussed in-depth by recording an artist interview, in order for the documentation to take an increasingly holistic approach by recording his intent and ideas for possible recreation. To complement the existing documentation with its similarities to ArtBase, the VMQ offers a fitting strategy to further elaborate the documentation of TAE. The VMQ will foster a focus on the behavior of the artwork as well as the artist intent and finally by imagining iterations and preservation strategies for the future. Pinning down and anticipating if and how the artwork could be presented or preserved in the coming years. By enhancing the current documentation with the use of an existing documentation tool, a tailored documentation strategy could be defined for TAE using the synthesis of documentation strategies.

4.3.2 Geert Mul, *Shan Shui*



Image 7: Screenshot of the public documentation for Shan Shui, [website content], accessed June 18, 2022.
<https://geertmul.nl/projects/shan-shui/>.

Geert Mul has a legacy of over 25 years creating media art, covering a wide array of media such as video, light objects and interactive computer installations. A key component of his work is to make visual the relation between technology and perception. 'Shan Shui,' the case study that was selected for this research, was created in 2013 in response to the call for artworks by

Raw Art Rotterdam. The artwork consists of a wall-covering projection using two projectors, in combination with a sensor equipped with a laser scanner that allows visitors to interact (LIMA 2017a). By moving closer to and away from the artwork, visitors are enabled to intervene with the landscape, peeling back layers of digitized Chinese landscape paintings. In this process several of the 500 Chinese paintings that are incorporated into the work reveal themselves when the spectator moves along its surface (Mul 2017c). Mul's intention was to present a juxtaposition of the traditional paintings that portray mountain, 'Shan', and water, 'Shui' (LIMA 2017c). In the booklet for the retrospective exhibition Match Maker in 2017, Mul verbalized that his artwork was a reinterpretation of the traditional Chinese perspective, "the Chinese artists apply an oblique perspective in their paintings, not the linear perspective that we are used to in the West. This means that they literally see the landscape in a different, oblique way" (Mul 2017).

For the retrospective exhibition of Mul's work in Stedelijk Museum Schiedam, he engaged in an extensive documentation process together with LIMA, platform for media art, implementing the ADT. In total 10 of Mul's artworks were selected for this project. To analyze the case for this research, an interview with Mul as well as the documentation resulting from this collaboration will be used. The documentation outputs are partly presented on geertmul.nl, li-ma.nl as well as on an artwork-specific GitLab webpage, where the majority of documents are located.

Process

Documentation as process for Shan Shui is recorded into the GitLab that is specially made for this artwork. The development of the source is recorded as adaptations of the original artwork. Currently four different iterations are mentioned on the GitLab page, named by the year they were written, 2013, 2016, 2017, 2021. 2013 refers to the initial code written by Carlo Prelz, who also programmed the later iterations of Shan Shui. The 2016 version refers to the presentation at Stedelijk Museum Schiedam. Version 2017 is the result of PhD research conducted by Claudia Roeck, whom applied emulation and migration strategies to the artwork. From 2021 onward, Shan Shui is permanently displayed in the Dortmunder U which once again required a revision of the source code, resulting in version 2021 (Roeck 2021). As Mul does not program the source code himself, there have been several people that rewrote the code over the course of Shan Shui's existence. In order to understand their role in the process and their position when documenting aspects of the artwork, documenting their perception and considerations could complement the existing documentation. For Shan Shui most if not all adaptations are written out in the GitLab, Mul also mentioned that "if there is one work that has

been written down to the very bottom, it is Shan Shui” (Mul 2022, 33:11). This makes it possible for someone to track what changes were made, why they were made and how they were made. DOCAM would be the best suitable tool to achieve this goal, due to the way that DOCAM includes the subjectivity of the documenter into the documentation. Being able to follow this process in the written documentation, could allow for substantiated decision-making in the future.

Presentation

Documentation as presentation focuses on the material that is made to communicate the work (Dekker 2013, 155). “The Documentation material Shan Shui project contains equipment manuals, installation photographs, drawings and other documentation material” (Roeck, 2022) Since Shan Shui had been presented multiple times, the different iterations were documented separately, taking into account that as the context changes it might also have an influence on the experience it evokes. For Mul it is also important to record the iterations when they are happening as he perceives those instances as “ephemeral moments when you have every component together” (Mul 2022, 12:27). The GitLab site provides this tool for his documentation practice, to know what components the work consisted of at a specific time, to have the installation guide, the source code and the video documentation (Roeck 2021).

Furthermore, LIMA’s video documentation using the ADT provides an extra shell, which can function as a means to help viewers understand the reaction of the work and the speed and timing in relation to the visitor’s interaction within a space. The video documentation allowed the encapsulate multiple forms of documentation into one output. Where the video recorded the artwork when no one was interacting with it and when one or two people simultaneously were interacting. This allowed for multiple behaviors of the work to be captured, making it possible to compare the behavior in each instance to achieve a deeper understanding of how it worked, a strategy that closely resembled the VMQ. In addition to the former, an additional video documentation also captured the artist interview with Geert Mul when standing inside the exhibition space. In this video, Mul explains in real-time how the artwork was created and how it behaves. In doing so, the video document captured not only the behavior of the artwork but also serves as a record of the artist intent that Mul had when creating Shan Shui.

Recreation

Recreations of the work in the form of iterations are captured in the segment future adaptations on GitLab. Mul mentioned that decisions about recreating Shan Shui should ideally land on the creator, however he still aimed to capture possible variations in the documentation for Shan

Shui. “What I try as a maker is capture the conditions within the work, within which the work may exist, I try to capture them well” (Mul 2022, 22:15). The collaboration between Mul and LIMA concluded with the statement that long-term preservation for Shan Shui is positive as a result of the preconditions. As a result of the hardware being standard and the source code is accessible and programmed using non-proprietary languages (LIMA 2017, 6). The extensive documentation could benefit from a visualization of the several iterations alongside each other such as ArtBase proposes.

Recommended strategy

Shan Shui is documented extensively as a result of the collaboration with LIMA and the conducted PhD research by Claudia Roeck. Though the documentation is nearly ideal as a result of the use of the ADT, Mul mentioned that it goes beyond available resources when looking at monetary and time management and it is thus undoable to recreate the documentation for similar artworks.

The extensive existing documentation could benefit from an implementation of the variety of contributors (e.g., researchers, conservators, programmers). Taking into consideration, their ideas and practice when developing, presenting and recreating Shan Shui and “to document and account for the information and knowledge held by these stakeholders” (NACCA 2018, 22). The DOCAM tool presents the most relevant tool to document the contributions, complementing what is already there with the addition of the efforts that were made by contributors. In doing so, the phase of arrangement is expanded to fit the subjective views of contributors to understand the interpersonal relations and the contributors’ positions and additions to Shan Shui. This emphasis is fitting as “the notion that creating documents is a subjective process where selection criteria are of great importance” (Dekker 2018, 38). Echoing this sentiment in documentation strategies is thus in order. To define a holistic documentation system that supports the preservation of Shan Shui, the documentation would ideally complement the currently employed tools, ADT and VMQ, with Media Matter’s DOCAM.

4.4 Characteristics in procedural framework

By presenting Dekker’s framework to document immersive media, I propose that the procedural framework fosters a contemporary approach to preservation that focuses less on authenticity and the singular original. Examining cases in different stages of their existence allows for a valuation of the artwork in different iterations and levels of the process, starting before completion. To encompass the multiplicity of formats in which immersive media are created, its preservation requires a flexible approach. “Preserving for the future something that

is above all an experience might require conservators to take a more fluid view of what may or may not be changed about a work, challenging conventional notions of accuracy and authenticity” (Real 2001, 226). Implementing Dekker’s three phases; process, presentation and recreation, functions as a way to capture the identity of an artwork instead of capturing a single iteration. Having a variety of documents representing an artwork makes it possible for stakeholders to interpret the documentation in the future, using it for several purposes and institutional aims. This sentiment was also raised during iPres 2018, the international conference on digital preservation:

The subjectivity and possible shifting of the definition of significant properties can be countered by keeping deprecated artwork instantiations, their documentation and description of significant properties. By keeping the history of the definitions of significant properties transparent, new conservators and curators can make informed decisions about what they consider significant (Roeck et al., 2018, 5).

The framework can in addition to the former function to define a holistic approach to documentation, fulfilling the intent to collect a complete overview of the artwork. This expanded approach to documentation allows for the recognition of the complexity and multiplicity of immersive media (Grau 2003, 4). This can be achieved by combining several strategies that complement the existing documentation made by the artist.

4.4.1 Organizational context

To be able to make recommendations for the PIMKB, this chapter revolves around the challenges that stakeholders inside cultural institutions face when documenting immersive media art. These challenges were identified during the interviews and conversations with professionals, where they were discussed in relation to their preservation practice. The table three was constituted by coding relevant remarks from the transcribed interviews and subdividing them into themes due to their indicators. The figure presents a coding table, distinguishing between the codes and their respective description/indicators relating to the theme *Challenges*.

Codes	Description/indicators
Valuation	Understanding the value and importance, this is reflected in resources
Resources – monetary capital	Budget, funding

Resources – human capital	Lack of expertise and experience
Resources – time management	Fast process, leaving no time to reflect. Commitment
Variations – media formats	No one size fits all. How to target different media
Variations – process	Comparing iterations and description of process
Standardization – guidelines	Lack thereof. Inside institutions, international
Interpersonal communication	Communication between the different departments and artists delays the process

Table 3: Coding themes and description relating to the theme *Challenges*.

The biggest impediment that cultural institutions face in regard to the preservation of immersive media is a lack of resources. “Typically, small not-for-profit arts and cultural organisations (...) do not have access to suitable resources, enabling them to preserve their archives to the similar standards of the memory sector’s government institutions” (Langley 2011, 1). As these challenges are a commonality in the preservation field, this chapter will not elaborate on the ‘Resources’ codes in-depth. The sentiment was shared that the available resources do not allow to compose a complete documentation, as adequate time and money are not defined for that activity. Tate’s time-based media conservators Ana Ribeiro and Francesca Colussi agreed that it sometimes comes down to a conservator’s personal engagement with an artwork or exhibition, documenting it extensively to record the iteration to the best of their abilities (2022). A solution that they identified, occurred during a Steve McQueen retrospective in 2020, where the contract obliged them to create and share their documentation of the exhibition. They noted that for that case, time and budget were sufficient and the prospect of having to share their documentation with external stakeholders, aided them to organize the documentation in detail to meet their institution’s reputation. This sentiment was reinforced during the Workshop Documentation Digital Art by LIMA and HEK:

If you want to make [the documentation] public, it needs to be well structured, quickly findable and the writing on a publishing level. In reality there is often little time for structuring, the web server and artworks are ever evolving, there are several contributors, quickly jotted down notes, confidential data, notes for different audiences that are not always self-explanatory (Hendricks 2021, 3).

Moreover, in the case of monetary resources, no amount of money sufficient to maintain the artwork forever, as it is endless (Vijgen 2022, 22:08). While the variable properties of

immersive media might not allow for a translation into a static budget, the reality of preservation in an institutional context demands budgeting for projects.

Many of the challenges that were identified during the interviews, could be countered by underlining the value of documentation for immersive media, imparting documentation as central to preserving immersive media. In current practices, documentation might seem additional and is oftentimes solely approached as the remaining trace of an artwork. However, in the case of immersive media it should be considered as the core. The importance should be mirrored in the value placed upon documentation in the form of time management, human and monetary capital. In doing so, institutions reinforce documentation as a preservation strategy, “bringing home how essential documentation is as a forward thinking conservation strategy and reiterating the importance of devoting the appropriate time” (NDE 2021, 14).

Another cluster of challenges revolves around the multiplicity of media and the variations in process and moment in the artwork’s life (Somers Miles 2018, 9). The three-phase procedural framework by Annet Dekker, is proposed throughout the research to anticipate these challenges and convert them into possibilities for defining a holistic documentation strategy.

5. Discussion

The results indicate that there are multiple tools available which can be used to define a holistic documentation strategy. Capturing multiple components of the artwork in several documentation phases, while taking into consideration that for immersive media the emphasis should be put on the behavior of the artwork instead of on maintaining it in its original state. Implications that surfaced in the form of institutional challenges, such as a lack of expertise and financial means, could be countered by the affordances of the PIMKB as a linked open data knowledge hub. Furthermore, issues in regard to the artwork's documentation phase or the institutional aim can be refuted through the presentation of the synthesis of documentation strategies as seen in table 2.

5.1 Limitations

To ensure credibility this chapter will discuss the research limitations. Firstly, a limitation lies in the sampling of the interviews. The interviewees, as mentioned in Appendix C, proved to not always be the most fitting individuals to supply the required information. Hence, the input of some interviewees being left out of the analysis, (e.g., Frans Neggers and Arie Altena). In order to make sure they were the right person to interview, I attempted to achieve informed consent with the interviewees. However, it could have helped to conduct an exploratory call to clarify a match.

Secondly, the data is reliant on what the interviewees are willing to share and since some of them are located in an institutional context, this might only provide a partial perspective. That perspective might cause a predominantly positive outlook on the documentation practice, being shaped by the motivation to keep the institutional reputation intact.

5.2 Future research

Time was one of the major constraints, allowing an analysis of two case studies. As each case study requires a different approach and set of considerations it would be insightful to test more immersive artworks to Dekker's framework, in order to create an in-depth understanding of how existing tools can be combined to define a holistic documentation practice for a wider variety of artworks

It is beyond the scope of this study to test the framework and synthesis on an institutional case as a whole, as there was limited time to immerse myself into an institution for

field work. It could be of value to test the combination of framework and synthesis to an institutional aim to understand if this can also foster the definition of a general documentation strategy. Furthermore, to grasp the practical implementation of Dekker's framework and the holistic approach to documentation, further research is required to establish whether the recommended combination of documentation strategies would fit inside institutional archives and esteemed systems, such as The Museum System. It would be relevant to understand how this could be accommodated and to formulate recommendations on ways to incorporate the different phases of the artwork documentation into archives and information systems.

6. *Recommendations*

This chapter answers the main research question ‘How can the PIMKB support cultural institutions in the process of documenting immersive media?’ The PIMKB aims to be a resource that facilitates those in charge of preserving immersive media. This research presents an addition to the current state of the PIMKB, specifically into documentation, by providing insights and tools with the intention of making suggestions for the PIMKB.

6.1 *Content & Operability*

By identifying the different significant characteristics of several of the most esteemed documentation strategies, the research for the PIMKB summarized the strategies and their main characteristics. This was done to be able to identify the strategy that could complement an artwork and its existing documentation to the best of the abilities. The synthesis in the form of a table allows for a swift overview of the properties, documentation phase and institutional aim enabling a variety of users to make combinations of the existing strategies. In doing so individuals in charge of documentation can define a specific strategy for an artwork or for their institution.

I suggest that the PIMKB should consider presenting the synthesis and description of main characteristics as clear as possible, summarizing the strategies to ensure that preservationists do not have to duplicate the literature review. The PIMKB should also clarify that, while a holistic documentation strategy – consisting of multiple tools – is ideal, the presentation of the strategies alongside each other, also allows for a selection of the best suitable strategy if the circumstances do not allow for an in-depth holistic documentation. As the presented documentation strategies in this study maintain their own websites to further elaborate the purpose and practice, it is not necessary for the PIMKB to include the complete overview of the strategies’ content. As the affordances of the GitBook page allow for operable hyperlinking to resources outside of their own environment.

6.2 *Arrangement*

The research recommends that the PIMKB is arranged according to Dekker’s three phases, to take the nature of immersive media in consideration during the documentation process. As the framework proved to be effective for a variety of cases, justifying implication as a procedural framework. “The mixed approach of technology independent description (description of function, interaction, behavior and processes) and technology dependent properties (color

space, video and sound resolution, source code, hardware dependencies) comprises a wide range of properties and therefore supports long-term preservation” (Roeck et al., 2018, 5). The PIMKB can encourage such a mixed approach, by guiding institutions in defining a holistic approach to documentation to capture the identity of an artwork, thus anticipating obsolescence and functioning as a strategy to preserve.

6.3 *Valuation*

An inventory of professional experience in the field of digital preservation, revealed the main challenges that those working in institutions experience in their practice. By identifying the challenges, solutions and possibilities could be envisioned for documentation of immersive media to reduce their effects. It also provides the opportunity to respond to and acknowledge the challenges in the PIMKB. Leading to the suggestion that the PIMKB should emphasize the importance and value of good documentation, leading to a translation of this value into budgets and time planning. Giving those responsible more time and reward for adequate documentation of an artwork.

Finally, documentation for immersive media should anticipate and attempt to predict future changes. This takes part of the time pressure of conservators that currently have to document during the moment that a work of art is installed. During conversations with media artists the sentiment surfaced that it is an illusion that an artwork will be preserved in its original form (Vijgen 2022, 13:09). As each following iteration is likely to slightly change from the original state, documenting the current state of affairs is already a form of looking back. This is why the PIMKB should illuminate and facilitate this reality: “new and variable media artworks are often infinitely mutable and flexible. The way we document them should reflect this reality” (Jones 2008, 10). This also contributes to sustainable collection policies; where elaborate documentation can replace the necessity of collecting multiple hardware components. Since it is not possible to collect an infinite amount of hardware, and each component will at one point become obsolete. Documentation can function to capture the artist intent and behavior of the artwork in formats that can already be preserved for the long-term in storage and archives.

7. Conclusion

This research has looked at the current state of the art of documentation, to be able to make recommendations for the PIMKB. An array of the most esteemed recommendation strategies was analyzed and immersive media artworks were tested to the three-phase framework proposed by Annet Dekker, to understand its relevance for documenting immersive media. The research sought to better comprehend the preservation of immersive media, specifically by using documentation as a strategy in an institutional context. This was performed through the lens of the following questions:

1. How can the PIMKB support cultural institutions in the process of documenting immersive media?
 - 1.1 What strategies are currently available for the documentation of immersive media art?
 - 1.2 How can cultural institutions define the best suitable documentation strategy for a specific immersive media artwork?
 - 1.3 What are the challenges faced by cultural institutions when documenting to preserve immersive media?

The study initiated as an addition to the 'Preserving Immersive Media Knowledge Base' a collaboration by Tate Modern and NISV. Where the need for an elaboration of documentation was recognized. In the media arts field, the importance of documentation to maintain artworks is increasingly being acknowledged, researching documentation for immersive media in-depth thus serves as a relevant addition to the PIMKB and the field as a whole.

To collect the best practices for the documentation of immersive media, the method entailed a literature review of the most esteemed documentation strategies. Five of the most relevant strategies are discussed to identify their main characteristics and corresponding tools, the strategies are: Rhizome's ArtBase, V2_'s Capturing Unstable Media, The Daniel Langois Foundation's DOCAM, Forging the Future's Variable Media Questionnaire, and LIMA's Artwork Documentation Tool. To advance institutional documentation processes, the research collected and summarized the most esteemed documentation strategies dissecting their main characteristics and institutional aim for them to be applied in other instances. To capture the several stages of the artworks process, allowing for a holistic approach to documentation, the strategies are presented in a synthesis. Moreover, not one

strategy can be perceived as ideal or perfect, as they all serve their specific purpose and fit different institutional aims, hence complementary combination of the documentation strategies aims to guide those responsible in defining a holistic practice.

To be able to recommend a framework for defining the best suitable strategy for a specific artwork or institution, Annet Dekker's process-presentation-recreation framework was presented to test the completeness of the documented cases. This framework was deemed felicitous to implement as a procedural framework for the PIMKB.

Finally, to understand the challenges that are faced in implementing documentation for preservation, interviews with stakeholders and professionals provided insights into the topic. These insights identified that an increased valuation of documentation as a strategy for preservation, in the form of allocating more time human and monetary capital, can improve the institutional practice.

Based on the qualitative analysis of documentation for immersive media, it can be concluded that the PIMKB can support cultural institutions in embedding documentation to preserve immersive media by reinforcing its importance for future presentation and recreation. The PIMKB should encourage an increased attempt to anticipate obsolescence by capturing the behavior and processes of an artwork by moving away from the traditional modes of preservation with its focus on the material presence of an object. This allows for future conservators to make weighed decisions about the acceptable change, taking into consideration the artist intent, as well as spatial arrangements and visitor experience. To enable recreation of a new iteration after an artwork becomes obsolete, the PIMKB can support a practice in which institutions assemble holistic documentation of an artwork.

Finally, emphasizing documentation as a strategy for preservation allows for the anticipation of obsolescence for immersive media, where "ultimately, it is the documentation that will survive the work, becoming its historical witness and sometimes supplementing any remaining fragments or relics" (DOCAM, n.d.). By looking at documentation through this paradigm, I imply that its seemingly static character can transform into a dynamic interpretation of an artwork. In doing so, holistic documentation can capture the vividness of the immersive media, allowing conservators to revive it after it has become obsolete. With this research I aimed to advocate for a broader understanding of documentation, not only as the memento of an artwork, but as a multiplicity of tools and strategies that should be implemented sooner rather than later to respond to the rapid increase of immerse media content.

8. Bibliography

- Bryman, Alain. 2016. *Social Research Methods*, fifth edition. Oxford: Oxford University Press.
- Cambridge Dictionary. N.d. "Immersive." English. Accessed May 19, 2022. <https://dictionary.cambridge.org/dictionary/english/immersive>.
- De Jorge, María Goicoechea. 2021. "The Art Object in a Post-Digital World: Some Artistic Tendencies in the Use of Instagram." Complutense University of Madrid.
- Dekker, Annet. 2010. *Sustainable Archiving of Born-Digital Cultural Content*. Rotterdam: Virtueel Platform.
- Dekker, Annet. 2013. "Enjoying the Gap: Comparing Contemporary Documentation Strategies." In *Preserving and Exhibiting Media Art Challenges and Perspectives*, edited by Julia Noordegraaf, Cosetta Saba, Barbara Le Maitre and Vinzenz Hediger, 151-177. Amsterdam: Amsterdam University Press.
- Dekker, Annet. 2018. *Collecting and Conserving Net Art: Moving beyond Conventional Methods*. New York: Routledge.
- Dekker, Annet, ed. 2021. *Curating Digital Art: From Presenting and Collecting to Networked Co-curation*. Amsterdam: Valiz.
- Depocas, Alain. 2002. "Digital Preservation: Recording the Recoding - The Documentary Strategy." Publications. Accessed April 11, 2022. <https://www.fondation-langlois.org/html/e/page.php?NumPage=152>.
- DPC. N.d. "Why digital preservation matters." Digital Preservation Coalition. Accessed on June 14, 2022. <https://www.dpconline.org/handbook/digital-preservation/why-digital-preservation-matters>.
- DOCAM. N.d. "DOCAM Documentation Model." Home. Accessed May 17, 2022. <https://www.docam.ca/en/documentation-model.html>.
- Ensom, Tom, and Jack McConchie. 2021. "Preserving Virtual Reality Artworks." Time-based Media Conservation, Conservation Department. London: Tate.
- Etikan, Ilker, Sulaiman Abubakar Musa, and Rukayya Sunusi Alkassim. 2016. "Comparison of Convenience Sampling and Purposive Sampling." *American Journal of Theoretical and Applied Statistics* 5 (1): 1-4.
- Fauconnier, Sandra and Rens Frommé. 2003. "Capturing Unstable Media: Summary of research." V2_. Accessed on June 16, 2022. https://v2.nl/files/2003/publishing/articles/capturing_summary.pdf.
- Fauconnier, Sandra and Rens Frommé. 2004. "Capturing Unstable Media: Documentation and capturing methods for unstable media arts." V2_. Accessed on June 16, 2022. https://v2.nl/files/2003/publishing/articles/1_2_capturing.pdf/at_download/file.

- Gao, Jing. 2022. "The Transition of Art Exhibition in the Age of Immersive Media." *International Conference on Education, Language and Art (ICELA 2021)*, 5-10. Dordrecht: Atlantis Press.
- Grau, Oliver. 2003. "The Database of Virtual Art. For an Expanded Concept of Documentation." *Archives and Museum Informatics* 2: 2-16.
- Guggenheim. N.d. "Time-Based Media." Conservation. Accessed May 16, 2022. <https://www.guggenheim.org/conservation/time-based-media>.
- Hendricks, Manique. 2021. "Summary Workshop Documentation Digital Art with HEK." LIMA. Accessed June 28, 2022. https://www.li-ma.nl/lima/sites/default/files/Final%20Summary%20Workshop%20Documentation%20Digital%20Art%20with%20HEK%2024.03.2021_MH-V1.pdf.
- Herbert, David. 2013. "Internet Art and Interaction: A study into the Creation of a Taxonomy of Interaction in Online Art Works." Doctoral Thesis. Loughborough: Loughborough University.
- Hoffman, Sheila. 2020. "Online exhibitions during the COVID-19 pandemic." *Museum Worlds* 8 (1): 210-215.
- ICOM. 2004. *Running a Museum: A Practical Handbook*, edited by Patrick Boylan. Paris: ICOM.
- ICOM-CC. n.d. "The Conservator-Restorer: a Definition of the Profession." About. Accessed June 14, 2022. https://web.archive.org/web/20190524173300/http://www.icom-cc.org/47/about-icom-cc/definition-of-profession/#.XOgq0ZJ_pQl.
- ISEA International. 2022. "2nd Summit on New Media Art Archiving." Conference. Accessed on May 30, 2022. <https://isea2022.isea-international.org/event/2nd-summit-on-new-media-art-archiving/>.
- Jones, Caitlin. 2008. "Surveying the state of the art (of documentation)." The Daniel Langlois Foundation. Accessed on June 8, 2022. <https://www.fondationlanglois.org/html/e/page.php?NumPage=2125>.
- Jones, Caitlin and Lizzie Muller. 2008. "Between Real and Ideal: Documenting Media Art." *Leonardo* 41 (4): 418-419.
- Langley, Somaya. 2011. "Almost There: Simple Strategies for Partial Preservation of Complex Digital Works." AICCM Conference Paper. Accessed June 28, 2022. <https://www.criticalsenses.com/resources/papers/langley-almostthere-aiccm2011.pdf>.
- Laurenson, Pip. "Authenticity, Change and Loss in the Conservation of Time-Based Media Installations." Tate Papers no. 6. Accessed May 19, 2022. <https://www.tate.org.uk/research/tate-papers/06/authenticity-change-and-loss-conservation-of-time-based-media-installations>.
- LIMA. 2017a. "Case Study - Geert Mul, "Horizons" (2008) & "Shan Shui" (2013)." Article. Accessed May 18, 2022. <https://www.li-ma.nl/lima/article/case-study-geert-mul-horizons-2008-shan-shui-2013>.

- LIMA. 2017b. "Future Proof Media Art." Research & Results. Amsterdam: LIMA.
- LIMA. 2017c. "Geert Mul - 'Shan Shui' (2013) - LIMA Documentation." Registration by LIMA January 23, 2017 at Stedelijk Museum Schiedam, Schiedam, The Netherlands. Video, 10:43. Accessed June 21, 2022. <https://vimeo.com/234667835>.
- LIMA. 2017d. "Introducing the Artwork Documentation Tool." Artwork Documentation Tool. Accessed April 13, 2022. <https://www.li-ma.nl/adt/>.
- Mul, Geert. 2017. "Match Maker: 25 jaar mediakunst." Screen flyer. Accessed June 21, 2022. https://geertmul.nl/wpcontent/uploads/2021/02/SCREENFLYER_GM_compressed.pdf.
- Mul, Geert. 2022. Interview by author. Online. May 23, 2022.
- NACCA. 2018. "Beyond the Artist Interview: Notes from the Field." Presented November 15, 2018 at Cultural Heritage Agency, Amersfoort, The Netherlands. <https://ap.lc/xKYut>.
- NDE. 2021. "A Practical Research into Preservation Strategies for VR artworks on the basis of Justin Zijlstra's 100 Jaar Vrouwenkiesrecht." Dutch Digital Heritage Network.
- Noordegraaf, Julia. 2013. *Preserving and Exhibiting Media Art: Challenges and Perspectives*. Amsterdam: Amsterdam University Press.
- Orwell, George. 1949. *Nineteen Eighty-Four*. London: Penguin Books Ltd.
- Preserving Immersive Media Knowledge Base. n.d. "Preserving Immersive Media Knowledge Base." Accessed February 27, 2022. <https://pimkb.gitbook.io/preserving-immersive-media-knowledge-base/>.
- Real, William. 2001. "Toward Guidelines for Practice in the Preservation and Documentation of Technology-Based Installation Art." *Journal of the American Institute for Conservation* 40 (3): 211-231.
- Rhizome. N.d. "ArtBase." About. Accessed June 16, 2022. <https://artbase.rhizome.org/wiki/About>.
- Ribeiro Ana and Francesca Colussi. 2022. Interview by author. May 6, 2022.
- Roeck, Claudia. 2017. "A Short Q&A with Claudia Roeck." *Essentiele kenmerken van mediakunst*. Leren Preserveren, Netwerk Digitaal Erfgoed. February 17, 2017. <https://lerenpreserveren.nl/topic/essentiele-kenmerken-mediakunst/>.
- Roeck, Claudia. 2022. "Structure of the documentation and the source code repository." Shan Shui boij Wiki. Last modified October 15, 2021. <https://gitlab.com/shanshui/boij/-/wikis/home#shan-shui-2013-2016-2017-2021->.
- Roeck, Claudia, Klaus Rechert, and Julia Noordegraaf. 2018. "Evaluation of preservation strategies for an interactive, software-based artwork with complex behavior using the case study Horizons (2008) by Geert Mul." In *iPRES 2018 - Proceedings of the 15th*

- Conference on Preservation of Digital Objects*. Phaidra, Universität Wien.
<https://doi.org/10.17605/OSF.IO/2VPFT>.
- Saba, Cosetta. 2013. "Media Art and the Digital Archive." In *Preserving and Exhibiting Media Art Challenges and Perspectives*, edited by Julia Noordegraaf, Cosetta Saba, Barbara Le Maitre and Vinzenz Hediger, 151-177. Amsterdam: Amsterdam University Press.
- Scholte, Tatja, and Paulien Hoen. 2007. "Inside Installations: preservation and presentation of installation art." Amsterdam: ICN.
- Smith, Caylin, Patricia Falcao and Sara Day Thompson. 2019. "Preserving Complex Digital Objects." Workshop. Accessed February 12, 2022.
https://ipres2019.org/static/pdf/iPres2019_paper_68.pdf.
- Somers Miles, Rachel. 2018. "Empowering Artists to Be in Control: The Artwork Documentation Tool." AVA_NET. Accessed June 23, 2022. https://www.avanet.nl/wp-content/uploads/2018/07/2a_Archiefvormers_ArtistDocumentationTool_RachelSomersMiles.pdf.
- Sound & Vision. 2021. "No Time to Wait 5." What's on. Accessed April 11, 2022. <https://www.beeldengeluid.nl/en/visit/events/no-time-wait-5>.
- Strauss, Anselm and Juliet Corbin. 1998. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks: Sage Publications.
- Tham, Jason. 2018. "Interactivity in an Age of Immersive Media: Seven Dimensions for Wearable Technology, Internet of Things, and Technical Communication." *Journal of the Society for Technical Communication* 65 (1): 46-65.
- Van Saaze, Vivian. 2015. "In the Absence of Documentation: Remembering Tino Sehgal's Constructed Situations." In *Performing Documentation: In the Conservation of Contemporary Art*, edited by Lúcia Almeida Matos, Rita Macedo and Gunnar Heydenreic, 55-63. Lisbon: Revista História da Arte.
- Van de Vall, Renée. 2015. "Documenting Dilemmas: on the Relevance of Ethically Ambiguous Cases." In *Performing Documentation: In the Conservation of Contemporary Art*, edited by Lúcia Almeida Matos, Rita Macedo and Gunnar Heydenreic, 7-18. Lisbon: Revista História da Arte.
- Van Doren, Nina, and Marleen Wagenaar. 2016. "The Preservation of Digital Art Is a Major Challenge for Collection Managers." In *Project Transformation Digital Art: preservation of born-digital art*. Edited by LIMA and SBMK, 31-46.
https://www.sbm.nl/source/documents/tda_eng_interactief.pdf.
- Verbruggen, Erwin. 2017. "Future-Proofing Interactive Works." *Sound & Vision* blog post.
<https://www.beeldengeluid.nl/en/knowledge/blog/future-proofing-interactive-works>.
- Verhoeven, Nel. 2015. *Doing Research: The Hows and Whys of Applied Research*. Amsterdam: Boom Lemma.

Verschuren, Piet, and Hans Doorewaard. 2010. *Designing a Research Project*. The Hague: Eleven International Publishing.

Vijgen, Richard. 2022. Interview by author. Online. May 24, 2022.

Vijgen, Richard. N.d. "Studio for data art and design." Richard Vijgen. Accessed June 9, 2022. <https://richardvijgen.nl/#world>.

Wijers, Gaby. 2007. "Video Documentation of Installations." In *Inside Installations: Preservation and Presentation*. Amsterdam: Netherlands Media Art Institute.

8.1 Images

Cover page:

Vijgen, Richard. Through Artificial Eyes, [website content], accessed July 6, 2022.

<https://richardvijgen.nl/#through-artificial-eyes>.

9. Appendices

A: Interview guide

Interview approach	Dimensions
a. Institutional perspective	<ul style="list-style-type: none"> - Preservation intent - Function of documentation
b. Artist perspective	<ul style="list-style-type: none"> - Understand the components of the case study - Identify what documentation strategies they have used and why this strategy was selected - Standardization of documentation

a. Institutional perspective

1. Basic overview of institution, mission and vision.
2. Motivation for documenting. What is the preservation intent?
3. Function of documentation. How do you use documentation?
4. What is the process of documentation like in your institution?
5. What information about the artwork is crucial for the institution when defining a documentation strategy?
6. How do you decide on the minimum documents necessary?
7. What documents do you expect from artists/what do you receive?
8. How do you use documentation for possible recreation?
9. Do you document adaptations, how?
10. How is the documentation stored? What formats are possible?
11. What are the challenges you face when documenting?
12. Do you use existing strategies for documentation in your institution?

b. Artist perspective

1. How did the project come about?
2. What is the work, what are the aspects? Can you explain in brief?
3. How does the work behave, how can people interact?
4. Can you tell me about the process of creation? (How) is this documented?
5. Did it differ from your documentation practice with other artworks?
6. Did it change your documentation process moving forward?
7. What are your considerations in regard to acceptable change?
8. What are the challenges you faced with the documentation of this artwork?
9. Is the documentation complete in your perception?

10. Could the artwork be documented with the documents that are currently there?
11. What should we remember about the work (through documentation)?
12. Did you miss parts of the documentation upon reconstructing the work?
13. How do different iterations relate to each other?
14. How do you take the role of contributors into account in the documentation?
15. Do you feel responsible for properly documenting your artworks?
16. Would you like institutions to take a more active position in guiding artists in their documentation practice?
17. Where do you store your documentation? Is it all public/private?

B: Continuous overview of documentation strategies

The below table presents an incomplete overview of documentation strategies that did not fit the criteria to be included into the final document. However, they can be of value as an additional exploration of existing documentation strategies. To preclude those individuals that are using this study to gain an in-depth understanding of documentation strategies, need to discover the included strategies once again. Thus, supplying more strategies and preventing a repetition of the exploration of documentation strategies.

Author	Documentation purpose	Source
Dekker, Annet	Publicity and presentation	Dekker, Annet. 2018. <i>Collecting and Conserving Net Art: Moving beyond Conventional Methods</i> . New York: Routledge, 51.
	Reconstruction and conservation	Ibid.
	Changes in appearance	Ibid.
	Historical/aesthetical framework	Ibid.
	Educational purposes	Ibid.
	Audience Experience	Ibid.
	Creative process	Ibid.
Real, William	Doc. as installation	Real, William. 2001. "Toward Guidelines for Practice in the Preservation and Documentation of Technology-Based Installation Art." <i>Journal of the American Institute for Conservation</i> 40 (3): 211-231.
	Doc. as performance	Ibid.
	Doc. as event	Ibid.
Depocas, William	Research: locating the relevant data	Depocas, Alain. 2002. "Digital Preservation: Recording the Recoding - The Documentary Strategy." Daniel Langlois Foundation. Accessed April 11, 2022. https://www.fondation-langlois.org/html/e/page.php?NumPage=152 .
	Preservation: perpetuating the data	Ibid.
	Dissemination: making the data available	Ibid.
Smith, Falcao & Thompson	(Visitor) experience	Smith, Caylin, Patricia Falcao and Sara Day Thompson. "Preserving Complex Digital Objects." Workshop. Accessed February 12, 2022. https://ipres2019.org/static/pdf/iPres2019_paper_68.pdf .
	Storage	Ibid.
	Migration	Ibid.
	Emulation	Ibid.
LIMA	Artist intent	LIMA. "Introducing the Artwork Documentation Tool." Artwork Documentation Tool. Accessed April 13, 2022. https://www.li-ma.nl/adt/ .
	Future presentation	Ibid.

Stedelijk Museum Amsterdam	Surrogate	Stedelijk Museum Amsterdam. 2015. "Capturing a Moment. Where Net Art and Performance Meet." Online Collection. Accessed April 14, 2022. https://www.stedelijk.nl/nl/evenementen/capturing-a-moment-where-net-art-and-performance-meet .
Dekker, Giannachi, Van Saaze	Inter-document	Dekker, Annet, Gabriella Giannachi and Vivian van Saaze. 2017. <i>Expanding Documentation, or making the most of the cracks in the wall</i> . In: Sant, T. (ed.) <i>Documenting Performance: The Context and Processes of Digital Curation and Archiving</i> Bloomsbury. 61-78
Van Saaze, Vivian	Authenticity	Saaze, Vivian. <i>Installation Art and the Museum: Presentation and Conservation of Changing Artworks</i> . Amsterdam: Amsterdam University Press.
	Artist intent	Ibid.
	Reconstruction	Ibid.
Dullaart, Constant	Production	Netartdatabase.org. n.d. "About." Accessed June 17, 2022. https://net.artdatabase.org/about/ .
	Distribution	Ibid.
V2_	Occurrences (documents related to the establishment of the time and place of the performance or installation)	V2_. 2004. "CMCM." Capturing Unstable Media Project. Accessed on June 14, 2022. https://v2.nl/archive/works/capturing-unstable-media-conceptual-model-cmcm .
	Components (documents related to installation parameters, hardware, software, network, content, system design, moving image and sound)	Ibid.
	User interaction (documents related to input and output)	Ibid.
	Artists/makers (documentation related to the artist or artists)	Ibid.
Smithsonian	Artwork pre-arrival master list	Smithsonian Time-based Media & Digital Art. "Conservation." Forms and Documentation. Accessed June 14, 2022. https://www.si.edu/tbma/conservation?field_unit_target_id=43 .
	Identity report	Ibid.
	Iteration report	Ibid.
	Object review preparation form	Ibid.
	Testing and acceptance form	Ibid.
V&A	For preserving and sharing	Victoria & Albert Museum. 2022. "Born Digital, Born Slippery." Research Projects. Accessed June 17, 2022. https://www.vam.ac.uk/research/projects/preserving-and-sharing-born-digital-and-hybrid-objects#outputs .

C: Consulted expert log

	Institution	Job title	Date	Duration (mins)	Location
Jasper Snoeren	NISV	Archivist	12-04-2022*	45	NISV
Richard Vijgen Bregtje van der Haak	HNI	Artist Curator	26-04-2022*	80	HNI
Jack McConchie Tom Ensom	Tate	Time-based media conservators	05-05-2022*	± 200	Tate Stores
Ana Ribeiro Francesca Colussi	Tate	Time-based media conservators	06-05-2022*	95	Tate Stores
Rachel Somers Miles	LIMA / NISV	Researcher	09-05-2022*	55	Online
Yorinde Segal	IDFA	New Media Industry Manager	10-05-2022*	61	Online
Arie Altena	V2_	Archivist	12-05-2022	122	V2_
Frans Neggers	HNI	Digital archivist	17-05-22	57	HNI
Geert Mul	n/a	Artist	23-05-22	50	online
Amy Welten	NISV	Media Manager	23-05-22	35	NISV
Richard Vijgen	n/a	Artist	24-05-22	52	online

* no audio recording available

D: Attended seminars

Seminar	Date	Duration		
Preserving Immersive Media Workshop	December 8, 2020	2:34:47	Recording	Online
Documenting the Interactive Documentary panel	November 30, 2020	1:18:13	Recording	Online
No Time to Wait 4	December 5-6, 2019	n/a	Recording	Online
Arts Preservation: Preserving Immersive Media	April 13, 2021	2:32:20	Recording	Online
No Time to Wait 5	December 8-10, 2021	n/a	Attended	Online
ISEA International 2 nd Summit	June 10-11, 2022	n/a	Attended	Online

E: Images

Screenshots from the ISEA 2022 – 2nd Summit on New Media Archiving:

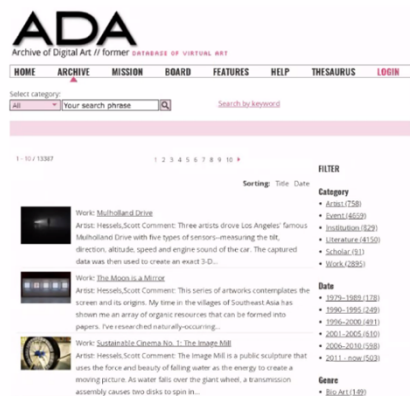


INTRODUCTION

Description of Research



ARS ELECTRONICA: <https://archive.aec.at/>



ADA: <https://www.digitalartarchive.at/>

Problems:

- difficult to represent the spatial and interactive nature of such artworks in the form of digital archives.
- non-expert audience, the more complicated navigation of entries and often low-quality videos and images may introduce additional challenges

You are viewing 2nd Summit on New Media Art Archiving's screen View Options ▾

VIDEO ART & ARCHIVE

A problematic relationship

- 1. Geographical dispersion**
Difficulty of access to the region's archives
- 2. Documentary Gaps in Archives**
Unstable standards criteria, lack of documentation
- 3. Status of work and copyright**
Ambiguous condition of video pieces
- 4. Inaccessibility and lost**
Economic difficulties and institutional neglect

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