Master's Degree

in Economics and Management
of Arts and Cultural Activities

Curriculum
Arts Management

Final Thesis

Community Engagement According to the ZKM, Zentrum für Kunst und Medien in Karlsruhe (1989-2021)

Supervisor
Ch. Prof. Walter Cupperi

Co-Supervisor
Ch. Prof. Diego Mantoan

Graduand
Sara Bronzin
Matriculation n°: 864019

Academic Year
2020 / 2021

Table of Contents

Acknowledgements

Many people helped me in accomplishing this research. Firstly, I would like to thank my Supervisor Professor Walter Cupperi, who followed this work with patience and constructive criticism, which enhanced the final result. Secondly, my Co-Supervisor Professor Diego Mantoan deserves many thanks as well for the support he has given me both during my master's and bachelor's degrees.

ZKM's staff deserves a special thanks for the support they have given me during my visit at the ZKM and by providing me with useful information to write this work. In particular, I would like to thank: Regine Frisch (ZKM | Museum Communication Department), Boris Kirchner (Head of the ZKM | Administration Department), Daria Mille (ZKM | Curatorial Department), and Petra Zimmermann (Head of the Library of the ZKM and the HfG Karlsruhe).

Finally, my appreciation goes also to my family and my friends, who have always supported me during my academic career.

Abstract

This research presents the case study of ZKM | Zentrum für Kunst und Medien, founded in Karlsruhe (Germany) in 1989. The case study shows some significant solutions to deal actively with contemporary global issues like climate change and globalization. The activities described here address both an on-site community as well as a global and online one.

Keywords:

Community, ZKM Zentrum für Kunst und Medien, Definition, Liquid Museum, Karlsruhe.

Introduction

«What is a museum?». The question as well as the answer is not as banal as it may seem. The International Council of Museum (from now on I.C.O.M.) has been defining what a museum is since its foundation in 1946. However, this first definition changed just after five years, and if we compare it to the current one, written in 2007, many differences can be identified (chap. 1). This does not mean that the previous definition was totally wrong, but that the concept and most of all the role of museums changed in more than seventy years of I.C.O.M.'s existence. For instance, the first definition does not even name the existence of immaterial heritage, as well as it does not identify which are the functions and the goals of museums as does the current definition of 2007 (par 1.1). It is important to define what a museum is, to distinguish it from other exhibition spaces, which could seem similar from the external aspect, but can have different goals and functions from museums. For instance, an exhibition space can propose an art exhibition of a certain painter just with the goal of making revenues from the tickets and with the function of satisfying its clients. The result, the exhibition, may appear the same of an art museum, however the ways and the objectives for which is made are quite different.

In 2019, during the I.C.O.M. General Conference in Kyoto a new definition of museum has been proposed but rejected[1]. This definition is however interesting to study, since it not only describes what a museum is, but also suggests what a museum should be. Furthermore, the proposal of 2019 adds more tasks to museums, which should be more active in society according to this definition:

> *Acknowledging and addressing the conflicts and challenges of the present, they hold artifacts and specimens in trust for society, safeguard diverse memories for future generations and guarantee equal rights and equal access to heritage for all people[2].*

---

[1] Information on the I.C.O.M. General Conference in Kyoto can be found at: <http://icomjapan.org/en/icom-kyoto-2019/> [accessed on 2nd September 2021].

[2] I.C.O.M., *ICOM Announces the Alternative Museum Definition that Will Be Subject to a Vote*, 2019, <https://icom.museum/en/news/icom-announces-the-alternative-museum-definition-that-will-be-subject-to-a-vote/> [accessed on 28th September 2021].

Museums are so required not to look just at their collections, but also to be socially and politically active. They shall be a reference point for their communities in the present and in the future (parr. 1.2, 1.3).

In this context, the Zentrum für Kunst und Medien (ZKM) founded in 1989 in Karlsruhe, appears as an interesting case study. Indeed, the exhibitions *The Global Contemporary and the Rise of New Art Worlds After 1989* (17 September 2011 - 19 February 2012) (par. 3.4.1) and *Critical Zones: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022) (par. 3.5.1) respectively address «conflicts and challenges of the present» like globalization issues and the climate crisis. At the same time, the ZKM engages different communities in activities like workshops and guided tours both online and on-site. The communities engaged by the ZKM are in particular two, an on-site community, composed by those who can attend ZKM's events in presence, such as young citizens (15-34 years old), and a global online community, which ideally comprises everyone, who can connect with the ZKM through online and digital tools.

ZKM's commitment in addressing the challenges of the present recalls the concept of *liquid museum* (chap. 2). The term refers to Zygmunt Bauman's *Liquid Modernity* (2000)*,* which portraits contemporary society as uncertain, without spatial borders and with a focus on the instant of time[3]. As described in the second chapter, the liquid museum is based on the need to take a view on the climate crisis, as well as on other current issues, in a non-hierarchical approach with the visitors, seen as members of a global community. To achieve this goal, the liquid museum shall become a *complex adaptive system*, which means that the museum shall keep up with the changing occurring in the contemporary society.

As described in this research, the ZKM offers itself as a significant case to describe concretely how a museum can address the conflicts and the challenges of the present, and consequently embody the concept of liquid museum. Nonetheless, ZKM's director Peter Weibel declared that the ZKM is «more than a museum!»[4]. Indeed, the term *museum* is not even present in the name of the institution. ZKM stands for *Zentrum für Kunst und Medien,* and even if the original name used the word *Medientechnologie,* instead of just *Medien*, the word *Zentrum*

---

[3] Z. Bauman, *Liquid Modernity*, Cambridge, Polity Press, 2000.
[4] P. Weibel, *Music, Machines, Media and the Museum*, «Organised Sound», 14, 2009, p. 231.

was already present since 1985, when the project of founding the ZKM began[5]. In the following paragraph, this point is clarified and some key concepts to understand how the ZKM works are given.

ZKM: Museum or Center?

The word *center* is preferred to the word *museum*, because, according to Weibel, it encompasses the activities of «research and production, development and innovation»[6]. For Weibel, this group of activities is one of the three pillars of the ZKM, the other two are «collecting and archiving, storage and restoration», and organizing «exhibitions and presentations, lectures and events». In 1999, after the death of the founding director Heinrich Klotz, Weibel became director of the ZKM and ideally organized these three groups of activities into Borromean rings (fig. 1):
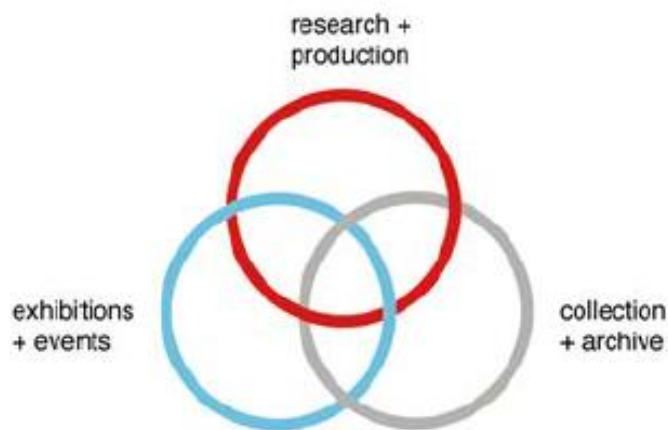
Figure 1, Borromean rings developed by Weibel as the three theorical pillars of the ZKM.

Source: P. Weibel, *A Museum's Mission*, in *Performative Science and Beyond Involving the Process in Research*, ed. by H. H. Diebner, Wien, Springer-Verlag, 2006, p. 15.

According to Weibel, «research and production» is the distinguishing feature between being a center or a museum since museums are focused only on the other two rings[7]. If it can be objected that museums do not research, it is to admit that the production function is quite rare to find. Indeed, even the current I.C.O.M. definition of museum (2007) includes the verb *research* (and not *produce*) in the museum's functions[8].

---

[5] Since 2017 the official name is Zentrum für Kunst und Medien (ZKM). L. Voropai. *Die Entstehungsgeschichte des ZKM*, in *Medienkunst als Nebenprodukt: Studien zur institutionellen Genealogie neuer künstlerischer Medien, Formen und Praktiken*, ed. by L. Voropai, Bielefeld, transcript Verlag, 2017, p. 193.

[6] P. Weibel, *Music, Machines, Media and the Museum*, «Organised Sound», 14, 2009, p. 231.

[7] P. Weibel, Music, Machines, Media and the Museum, «Organised Sound», 14, 2009, pp. 231-235.

[8] ICOM museum's definition 2007: «A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment». Source: J. Botte, A. Doyen, L. Uzlyte, *Ceci n'est pas un musée*, in *Définir le musée du XXIe siècle. Matériaux pour une discussion*, ed. by F. Mairesse, Paris, ICOFOM, 2017, pp. 25-26.

It is necessary to understand what Weibel means with *production*. This word does not just mean that ZKM produces artworks, CDs, software etc. by and for itself. The ZKM rather helps «more or less established artists who could not realise their projects without the aid of institutional support»[9]. In fact, the ZKM has two theatres, the Media Theatre apt for theatrical performances and talks, and the Cube, which works even «as a recording studio and its fixtures and fittings have therefore been optimised for musical presentations»[10]. In this space, a series of sixteen CDs and DVDs has been realized between 2011 and 2016 and published by the German label WERGO under the name *Edition ZKM*[11].

These examples showed the effectiveness of the «research and production» function. As Weibel declared this function is as relevant as those of «collecting and archiving, storage and restoration», and of organizing «exhibitions and presentations, lectures and events» and distinguishes the ZKM from being *only* a museum[12].

However, even Weibel admitted that the ZKM is both «a centre and a museum»[13]. Indeed, «collecting and archiving, storage and restoration», and organizing «exhibitions and presentations, lectures and events» are functions present in 'standard' museums as also described in the current I.C.O.M. definition of museum (2007). At the same time, the «research and production» function is concretely a Borromean ring of the ZKM and can not be cut off (fig. 1).

Why the ZKM is successful in engaging its communities?

This duality opens to a hypothesis: whether the fact of being *even* a centre, allows the ZKM to be more efficient in the engagement of communities than other *only* museums. A solution could be that being a centre for «research and production» enables the ZKM to attract more researchers, artists, and funds rather than a museum (par. 3.3). Another answer could be that the ZKM has just been able to identify the best communities to engage within its context and objectives (parr. 3.2, 3.3). For what is reported in the following chapters, both answers could be valid. However, the solution proposed here is that ZKM's advantage in engaging its

---

[9] L. Brümmer, *The ZKM | Institute for Music and Acoustics*, «Organised Sound», 14, 2009, p. 257.

[10] L. Brümmer, *The ZKM | Institute for Music and Acoustics*, «Organised Sound», 14, 2009, p. 260.

[11] All the CDs and DVDs of the *Edition ZKM* can be bought in WERGO website: <https://en.schott-music.com/wergo/program/edition-zkm/?mwi-page=1&mwi-sort-by=tbl_erscheinungstermin_ist> [accessed on 19th September 2021].

[12] P. Weibel, *Music, Machines, Media and the Museum*, «Organised Sound», 14, 2009, p. 231.
P.Weibel, *A Museum's Mission*, in *Performative Science and Beyond Involving the Process in Research*, ed. by Hans H. Diebner, Wien, Springer-Verlag, 2006, pp. 14-15.

[13] P. Weibel, *Music, Machines, Media and the Museum*, «Organised Sound», 14, 2009, p. 235.

communities is the way, in which it communicates with them. That is a liquid museum approach, which consists in taking a view on «the conflicts and the challenges of the present» and in giving their communities members the chance to take their own view[14].

Methodology

To achieve this purpose, the ZKM has been experienced by the author by both points of view, the one of the on-site community as well as the one of the online community. Indeed, I have physically visited the ZKM at the beginning of August, where I had the chance to see the exhibition *Critical Zones: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022) described in this research, as well as ZKM's collection displayed in the exhibition *Writing the History of the Future. The Collection of ZKM* (23 February 2019 - 9 January 2022). In this occasion, I had the opportunity to access ZKM's library. Here, I have consulted the catalogues of the exhibitions *The Global Contemporary and the Rise of New Art Worlds After 1989* (17 September 2011 - 19 February 2012) and *Critical Zones: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022), from which I have taken the information to write parr. 3.4.1, 3.5.1. Moreover, the ZKM publishes its own books, essays and annual reports which have been equally useful. Instead, as a member of the online community I visited the current online exhibitions of the ZKM, which provided me with further materials and interesting experiences[15]. Furthermore, many documents related to ZKM's foundation history have been digitalized by the ZKM itself and can be found even online. Finally, great support has been given me by ZKM's staff, in particular by the curator Daria Mille, who has been interview on the exhibition *Critical Zones: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022), which she co-curated[16].

Research's Structure

Finally, the thesis is organized according to the following structure. The first chapter is dedicated to the analysis of the evolution of the I.C.O.M. definition of museum as well as the evolution of the museums' role. A particular focus is given to meaning of the term community

---

[14] I.C.O.M., *ICOM Announces the Alternative Museum Definition that Will Be Subject to a Vote*, 2019, <https://icom.museum/en/news/icom-announces-the-alternative-museum-definition-that-will-be-subject-to-a-vote/> [accessed on 28th September 2021].

[15] In particular I visited the Critical Zone platform: <https://critical-zones.zkm.de/#!/detail:critical-zone-observatory-space> [accessed on 2nd October 2021], and the ZKM's online platform for digital exhibitions named ZDF Digital Art Hall: <https://digitalekunsthalle.zdf.de/zkm_en/index.html#tp0 &> [accessed on 2nd October 2021].

[16] The interview was made on 6th August 2021 and can be found in *Appendix 2*. Daria Mille is a curator and an associate researcher of the ZKM since 2013. Before this date, she worked as assistant curator for the 3rd and 4th editions of the Moscow Biennale of Contemporary Art.

and the role of community museums (par. 1.3). The second chapter is instead devoted to the presentation of the concept of liquid museum (par. 2.2.) and other related concepts such as the relevant museum (par. 2.2.2.). Finally, the third chapter describes the ZKM starting with its foundation history (par. 3.1.1.) and how its organization structure has changed over time (par. 3.1.2.). Then, the communities addressed by ZKM are identified as an on-site community (par. 3.2) and a global online community (par. 3.3). How these two communities are engaged is explained through a series of examples (parr. 3.2.2., 3.2.3.,3.3.1) and through the description of two exhibitions, which highlight ZKM's commitment in addressing globalisation issues (par. 3.4.1.) and the climate crisis (par. 3.5.1).

Chapter 1: What Is a Museum (According to I.C.O.M.)?

The chapter begins with a brief history of the evolution of the concept and the role of the museum. It will be pointed out how the definition of museum has become more and more oriented towards communities and their immaterial heritage (parr. 1.1.1, 1.1.2). This attitude is explained in the case of Museo del Vino e delle Scienze agroalimentari (MUVIS) (Wine & Agricultural Sciences Museum) in Castiglione di Teverina (Lazio, Italy) (par. 1.1.3). The same attitude can be found even in the ZKM, but with a different meaning of community (parr. 1.3.1, 3.2, 3.3).

The focus on communities is present even in the definition of museum proposed in 2019 in Kyoto (par. 1.2). A comparison between this definition and the current one is made to highlight their similarities and differences (par. 1.2.1). Differently from the current definition, the Kyoto's one stresses the need for museum to address contemporary challenges like «climate change and the destruction of nature, inequality, lack of economic opportunities, migration, discrimination, large scale conflicts and wars, government transparency and accountability»[17]. Not all museums have proved to be able to acknowledge and address these challenges as well as to build relationships with their communities. In this context the Guggenheim Museum Bilbao (par. 1.2.2) presented as opposite example to the virtuous one of the ZKM.

Finally, the meaning of the concept of community is better explained in paragraph 1.3, where ZKM's communities are identified. A particular focus is given also to community museums as examples of museums, which actively engage with their communities by addressing communities' urgent issues. This point is explained through the example of the District Six Museum in Cape Town (South Africa) (par. 1.3.3).

---

[17] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, p. 6.

1.1 Starting from ICOM Definition of 2007

1.1.1 History of the Definition

The International Council of Museum (ICOM) is a product of the aftermath of World War II. It was born during the first general conference of UNESCO in Paris between the 16th and 20th November 1946. After the war, there was the need of cooperation between States even in the museums field, as museums saw destructions and deprivations of their collections like any other non-military target. This necessity can be understood by looking at the choice of themes debated in the very first meetings: education to spread peace and cooperation as universal values, the exchanging of artworks and specimens from a museum to another one, and even from one country to another for the realization of exhibitions, conservation, and restoration. These were two themes of primary stake after the war in which many artworks and specimens have been damaged or lost. At the foundation of I.C.O.M. only fourteen nations were present: Australia, Belgium, Brazil, Canada, Czechoslovakia, Denmark, France, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom, United States of America. Nowadays, one hundred and thirty-eight countries are part of I.C.O.M. with more than 40.000 members[18]. All the members have to respect the I.C.O.M. Statute, which is the juridical document that express all the rules and norms goals of I.C.O.M. The Statute include as one of its first article the definition of museum. Through the analysis of this document, the changings occurred in the definition from its first version to its last one can be identified. The very first definition (1946) was the following one:

> *The word "museums" includes all collections open to the public, of artistic, technical, scientific, historical or archaeological material, including zoos and botanical gardens, but excluding libraries, except in so far as they maintain permanent exhibition rooms[19].*

Here, I.C.O.M. used the term *collections*, which has been suddenly changed in the 1951 definition with *establishment* and ten years later it is changed again with the word *institution* in the 1961 definition[20]. Thus, revealing a change from the museum view as a container of

---

[18] The members are museum professionals approved by their national committee.

[19] J. Botte, A. Doyen, L. Uzlyte, *Ceci n'est pas un musée*, in *Définir le musée du XXIe siècle. Matériaux pour une discussion*, ed. by F. Mairesse, Paris, ICOFOM, 2017, p. 26.

[20] The ICOM definition of 1951 defines museum in this way: «The word museum here denotes any permanent establishment, administered in the general interest, for the purpose of preserving, studying, enhancing by various means and, in particular, of exhibiting to the public for its delectation and instruction groups of objects and specimens of cultural value: artistic, historical, scientific and technological collections,

collections and to the broader meaning of museum as a public institution and therefore a change in the museum's role.

Another missing point in the very first definition (and in all definitions before the 2004 one) is the concept of immateriality. Indeed, the 1946 definition identifies as museums all the «collections open to the public, of artistic, technical, scientific, historical or archaeological material». Immaterial expressions of culture appeared for the first time only in the 2004 Definition, with the use of the term *intangible evidence*:

> *A museum is a non-profit making permanent institution in the service of society and of its development, open to the public, which acquires, conserves, researches, communicates and exhibits, for purposes of study, education and enjoyment, the tangible and intangible evidence of people and their environment[21].*

This relevant step has been taken after the putting in writing of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage 2003. From this Convention, UNESCO created a Representative List of the Intangible Cultural Heritage (article 16 of the Convention) of Humanity and a List of Intangible Cultural Heritage in Need of Urgent Safeguarding (article 17 of the Convention), which are comparable to the World Heritage List and the World Heritage in Danger List made for tangible heritage[22].

---

botanical and zoological gardens and aquariums. Public libraries and public archival institutions maintaining permanent exhibition rooms shall be considered to be museums.»

Instead, the ICOM museum's definition of 1961 states: «ICOM shall recognise as a museum any permanent institution which conserves and displays, for purposes of a study, education and enjoyment, collections of objects of cultural or scientific significance.

Within this definition fall:

1. exhibition galleries permanently maintained by public libraries and collections of archives,

2. historical monuments and parts of historical monuments or their dependencies, such as cathedral treasuries, historical, archaeological and natural sites, which are officially open to the public,

3. botanical and zoological gardens, aquaria, vivaria, and other institutions which display living specimens,

4. natural reserves.»

Source: J. Botte, A. Doyen, L. Uzlyte, *Ceci n'est pas un musée*, in *Définir le musée du XXIe siècle. Matériaux pour une discussion*, ed. by F. Mairesse, Paris, ICOFOM, 2017, p. 26.

[21] E. Modena, *MoRE Museum. Ceci n'est pas un musée*, «Ricerche di S/Confine», 3, 2014, p. 1.

[22] UNESCO, *Convention for the Safeguarding of the Intangible Cultural Heritage* 2003, 2003, <http://portal.unesco.org/en/ev.php-URL_ID=17716&URL_DO=DO_TOPIC&URL_SECTION=201.html> [accessed on 22nd September 2021].

1.1.2 Structure of the Definition

From the museum's definition of 1974 the structure remained quite similar till the current definition of 2007:

> *A museum is a non-profit making, permanent institution in the service of the society and its development, and open to the public, which acquires, conserves, researches, communicates, and exhibits, for purposes of study, education and enjoyment, material evidence of man and his environment. In addition to museums designated as such, ICOM recognizes that the following comply with the above definition:*
> *1. conservation institutes and exhibition galleries permanently maintained by libraries and archive centres.*
> *2. natural, archaeological, and ethnographic monuments and sites and historical monuments and sites of a museum nature, for their acquisition, conservation and communication activities.*
> *3. institutions displaying live specimens, such as botanical and zoological gardens, aquaria, vivaria, etc.*
> *4. nature reserves.*
> *5. science centres and planetariums[23].*

> *A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment[24].*

The first definition is the definition of 1974, while the second is the current one of 2007. The first difference is the length of the two definitions. The first one is longer since it details which institutions are museums. However, it encompasses less kinds of museum than the 2007 one, because the latter includes even museums dealing with «intangible heritage». Cutting off the list of museums' categories from the definition may suggest a first signal of uncertainty upon the meaning and the role of a museum (as suggested in paragraph 1.2.2 with

---

[23] J. Botte, A. Doyen, L. Uzlyte, *Ceci n'est pas un musée,* in *Définir le musée du XXIe siècle. Matériaux pour une discussion*, ed. by F. Mairesse, Paris, ICOFOM, 2017, p. 27.
[24] J. Botte, A. Doyen, L. Uzlyte, *Ceci n'est pas un musée*, in *Définir le musée du XXIe siècle. Matériaux pour une discussion*, ed. by F. Mairesse, Paris, ICOFOM, 2017, pp. 25-26.

the example of Guggenheim Bilbao). An uncertainty, which the proposed definition of 2019 tries to overcome by specifying not the categories, but the tasks museums shall accomplish. In the third chapter we will see how these tasks are fulfil in the case study, which however considers itself as «more than a museum!»[25].

Instead, the two definitions above (1974, 2007) share the same functions and objectives. Both state that a museum «acquires, conserves, researches, communicates, and exhibits» for «purposes of study, education and enjoyment». The definitions following the 1974 have all this structure, which is more focus on museums' surroundings rather than on the museums itself. If the very first I.C.O.M. definition of museum 1946 tries to describe what a museum is from an internal point of view, the definition of 1974 and the followings describe what a museum is from an external point of view, which is the one of the society they serve, with certain functions and with the «purposes of study, education and enjoyment». The same functions have been kept also for the 2019 definition proposal even though linguistically updating the terms[26]. Instead, the purposes have been re-defined according to 21st century challenges (par. 1.2.1.).

1.1.3. A *New* Kind of Museum

The importance of having a museum definition as precise as possible is demonstrated through the example of the Museo del Vino e delle Scienze agroalimentari (MUVIS) (Wine & Agricultural Sciences Museum) in Castiglione di Teverina (Lazio, Italy). This museum can be considered new not only because it was born just 10 years ago, but also because it would probably not fit into the very first I.C.O.M. definition of museum. Actually, this museum can be considered as such only with regard to the 2004 and 2007 I.C.O.M. definitions. The reason why is that MUVIS «acquires, conserves, researches, communicates and exhibits […] the intangible» evidence of the local community of Castiglione di Teverina[27]. Indeed, Castiglione is situated in a strategic morphological location, characterized by a favourable climate for viticulture. Viticulture has been the core activity of this area from the Romans till now. In particular, from 1942 and 1994 the most important enterprise in the area was the Vaselli wine brand, which employed mainly local workers. This predominant and unique feature of this community made local authorities take the decision to open a museum in the former Vaselli

---

[25] P. Weibel, *Music, Machines, Media and the Museum*, «Organised Sound», 14, 2009, p. 231.

[26] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, pp. 1-9.

[27] Quotation taken from both the ICOM definition of museum of 2004 and the ICOM definition of museum 2007. E. Modena, *MoRE Museum. Ceci n'est pas un musée*, «Ricerche di S/Confine», 3, 2014, p. 1.
J. Botte, A. Doyen, L. Uzlyte, *Ceci n'est pas un musée*, in *Définir le musée du XXIe siècle. Matériaux pour une discussion*, ed. by F. Mairesse, Paris, ICOFOM, 2017, p. 26.

wine cellar. This choice highlights a strong interaction between museums and politics. In this case, local authorities acknowledged their community's cultural background as a potential catalyst for the social, cultural, and economic development of this area. The initiative puts *wine* again at the centre of this community and makes it a starting point for new narratives of the community itself: the museum has been created by collecting memories of former workers at Vaselli. The collection is not the focus of this institution. That is why this museum could not fit in the I.C.O.M. definition of 1946 not only because of the *immateriality* of the evidence presented, but also because it does not have a proper *collection* and for sure not a *permanent* one[28]. Also, the 'type' of material (artistic, technical etc.) is not totally coherent with this definition. Indeed, while writing about this museum, Marco Arduini and Laura Romagnoli used the term «anthropological immaterial evidence»[29]. They used this term to indicate the willingness MUVIS had in engaging the local community in the process of foundation of the museum. People, who worked for Vaselli or had memories of the brand's activity, was invited to share their stories to build the MUVIS' collection. In this way, MUVIS' staff avoided the effect of *framing* pieces of rural life and leave them as static and standardized photos of a recent (but at the same time far) past.

The museum is structured into six floors, in which visitors are guided in a multisensorial path. Starting from the *Hall*, the history of Vaselli wine enterprise is narrated through photos, videos, reconstructions of the cellar, and there is even an area dedicated to local history. Instead, in the following room, *Sala dei riflessi e delle Trasparenze* (fig. 2), the theme of wine is developed in a more general and holistic way. Indeed, this room is devoted to wine culture, through examples of how wine has been present in our daily life, from the past till now as a symbol for various cultures (for instance, works of art representing wine are present in this room).

---

[28] In fact, the 1946 I.C.O.M. Definition stated that: «The word "museums" includes all collections open to the public, of artistic, technical, scientific, historical or archaeological material». Source: J. Botte, A. Doyen, L. Uzlyte, *Ceci n'est pas un musée*, in *Définir le musée du XXIe siècle. Matériaux pour une discussion*, ed. by F. Mairesse, Paris, ICOFOM, 2017, p. 26.
[29] M. Arduini, L. Romagnoli, *Un luogo per la comunità: il Museo del vino di Castiglione in Teverina*, in *Il museo verso una nuova identità, atti del convegno internazionale di studi*, ed. by M. Cristofano, C. Palazzetti, (Roma, 2008), Roma, Gangemi, 2011, pp. 157-169.

Figure 2-3, Two rooms of MUVIS: *Sala dei riflessi e delle Trasparenze* and *Cattedrale*

Source: <https://muvis.it/> [accessed on 22nd September 2021]

Credits: Museo del Vino e delle Scienze agroalimentari (MUVIS)

After this general overview on wine culture, the visit's path goes back to the local history in the followings four rooms. In fact, in the next floor, visitors really enter in *Cantine Vaselli*: here the laboratories, the tools and the barrels are still visible, however becoming somehow sacred[30]. This perception increases in the last rooms, which bring visitors to the core of the wine cellar, which is filled up with huge original barrels: the *Cattedrale* room (Cathedral) (fig. 3). Therefore, is not only the collection to be musealized, but even the building itself. Thus, the building acquires a new *aura* of sacrality and becomes a sort of ancient temple for its community, in which a *religion* that now is no more practice, is nonetheless portraited as memory of an ancient society. Here the society portrayed is not ancient at all, but their rites (e.g., grape harvest, celebrations with wine etc.) are increasingly fading. Nonetheless, memories of this rituality are still present in the community's life, and made possible the birth of this museum, which is able to recall them[31].

---

[30] K. Pomian, *Collectors and Curiosities, Paris and Venice, 1500 – 1800*, Cambridge, Polity Press, 2007 (ed. or. 1990).

[31] M. Arduini, L. Romagnoli, *Un luogo per la comunità: il Museo del vino di Castiglione in Teverina*, in *Il museo verso una nuova identità, atti del convegno internazionale di studi*, ed. by M. Cristofano, C. Palazzetti, (Roma, 2008), Roma, Gangemi, 2011, pp. 157-169.

1.2.   The Proposed I.C.O.M. Definition of 2019

In this paragraph, the definition proposed in the I.C.O.M. General Conference in Kyoto (2019) is presented through a comparison with the current definition (2007). The comparison reveals that the 2019's definition adds more tasks to museums. In particular, it requires museums to address the challenges of 21st century like «climate change and the destruction of nature, inequality, lack of economic opportunities, migration, discrimination, large scale conflicts and wars, government transparency and accountability»[32]. In the third chapter it will be reported how the case study fulfils these requirements in its own way, which for some aspects diverges from the current and the proposed definitions. Indeed, the ZKM considers itself as not only a museum, but even a centre, thus with more functions and objectives than the ones reported in the I.C.O.M. definitions. Nonetheless, or maybe for this reason, the ZKM is more capable to engage its communities than the Guggenheim Museum in Bilbao, which is described as an opposite example to the ZKM's one.

1.2.1. Similarities, Differences and Purposes in respect to the I.C.O.M. Definition of 2007

1.2.1.1. Similarities

The following definition has been proposed as new museum's definition in 2019 at the I.C.O.M. General Conference in Kyoto:

> *Museums are democratizing, inclusive and polyphonic spaces for critical dialogue about the pasts and the futures. Acknowledging and addressing the conflicts and challenges of the present, they hold artifacts and specimens in trust for society, safeguard diverse memories for future generations and guarantee equal rights and equal access to heritage for all people.*
> *Museums are not for profit. They are participatory and transparent, and work in active partnership with and for diverse communities to collect, preserve, research, interpret, exhibit, and enhance understandings of the world, aiming to*

---

[32] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, p. 6.

contribute to human dignity and social justice, global equality and planetary wellbeing [33].

At a first glance, this definition looks quite different from the 2007 one. However, the committee for Museum Definition, Prospects and Potentials (MDPP) appointed by I.C.O.M. in 2018, began its work of revision of the current definition from the definition itself. Moreover, from the report written by Jette Sandahl, the chief of the committee, to explain the methodology applied to elaborate this proposal, a couple of similarities with the definition of 2007 can be identified [34].

The very first common feature is the willingness to maintain the same museums' functions: «collect, preserve, research, interpret, exhibit, and enhance understandings». The terms used are a bit different and more in quantity than «acquires, conserves, researches, communicates and exhibits» from the current definition. However, the continuity of meaning between the two is declared by Sandahl[35]. As well as in the definition of 2007, attention is given to immaterial culture with the following sentence «safeguard diverse memories» and with the expression «understandings of the world», regarded as the main objective of museum's functions. This goal follows the Committee's declared commitment to open museum actively to society[36].

Indeed, another common point is the openness to society, which the 2007 definition highlighted in the expression «[…] in the service of society and its development, open to the public[…]». Nonetheless, Sandahl considered this expression almost «naive»[37]. This expression is too general according to the committee and does not identify the challenges of 21st century as the MDPP Committee aimed to do in its proposal. Therefore, this point can be considered both a similarity and a difference.

---

[33] I.C.O.M., *ICOM Announces the Alternative Museum Definition that Will Be Subject to a Vote*, 2019, <https://icom.museum/en/news/icom-announces-the-alternative-museum-definition-that-will-be-subject-to-a-vote/> [accessed on 28th September 2021].
[34] J. Sandahl, *The Museum Definition as the Backbone of ICOM,* «Museum International», 71, 2019, pp. 1-9.
[35] J. Sandahl, *The Museum Definition as the Backbone of ICOM,* «Museum International», 71, 2019, p. 2.
[36] J. Sandahl, *The Museum Definition as the Backbone of ICOM,* «Museum International», 71, 2019, p. 8.
[37] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, p. 5.

1.2.1.2 Differences

Probably the most evident difference is the approach through which the definitions have been developed. The Vienna one tries to be synthetic, essential, and comprehensive, while remaining general in focus. Instead, the Kyoto proposal aims to be much more specific and so longer. For instance, the expression «A museum is a […] permanent institution in the service of society and its development, open to the public» could be understood as a comprehensive way to say: «Museums are democratizing, inclusive and polyphonic spaces for critical dialogue about the pasts and the futures». However, the second sentence is too precise to be summed up into the former one. Moreover, the MDPP Committee wanted to clarify the financial aspects of museums' life, which, according to them, are not well explained in the statement «a museum is a non-profit […] institution». However, in this case, this goal can not be considered achieved since the definition proposed in 2019 almost quotes the previous ones by stating that «museums are not for profit».

Another difference is that the general intentions of the current definition do not portray the «vastly different world views»[38]. Not by chance, the word «diverse» is repeated twice in the proposal of 2019: «diverse memories» and «diverse communities». The reason for this used of «diverse» is the necessity of embracing broaden and more inclusive perspectives than just the Western one. In fact, a declared objective of the MDPP Committee is to put the issues linked to the colonial legacies of many museums in the spotlight[39]. To achieve this goal, the committee proposed to develop a definition which was based on a «plurality of world views and systems of knowledge, rather than in a single, Western scientific tradition»[40].

1.2.1.3 Purposes

Many have criticized this definition because, rather than a definition itself, it seems a manifesto of how museum's professionals would like the museum to be[41]. However, this prescriptive feature of this definition is intentional. According to Sandahl, the 2007

---

[38] J. Sandahl*, The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, pp. 6-7.
[39] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, p. 8.
[40] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, p. 7.
[41] Indeed, vary national delegation rejected this definition like the Italian, Spanish, French and German delegations. In the end, 70% of the voters has been favourable to postpone the decision.
[Articolo redazionale], Nuova definizione della parola "museo": disaccordo nell'ICOM e decisione rinviata, «Finestre sull'arte. Rivista online di arte antica e contemporanea», 8/12/2020, <https://www.finestresullarte.info/musei/rinviata-decisione-sulla-nuova-definizione-di-museo> [accessed on 28th September 2021].

Definition «is also understood as an ideal, which is interpret somewhat differently by museums»[42]. This is the reason why the Kyoto proposal tries to be more specific than the former one. Moreover, also the ICOM's Code of Ethics «offer(s) scant support» in this sense, in Sandahl's opinion[43]. Therefore, the definition wants to give some essential features that all museums around the world shall pay attention to. These key features, which should be addressed, are the challenges of 21st century and museums, as part of the society, have to focus on them. These challenges are «climate change and the destruction of nature, inequality, lack of economic opportunities, migration, discrimination, large scale conflicts and wars, government transparency and accountability»[44]. They are expressed in the definition proposal in the following way: «Acknowledging and addressing the conflicts and challenges of the present; guarantee equal rights and equal access to heritage for all people; aiming to contribute to human dignity and social justice, global equality and planetary wellbeing». In order to achieve these results, the definition tell us also how museums have to be: «Museums are democratizing, inclusive and polyphonic spaces for critical dialogue about the pasts and the futures and They are participatory and transparent, and work in active partnership with and for diverse communities to collect, preserve, research, interpret, exhibit, and enhance understandings of the world [...]».

This idea of museum is a very dynamic one. The museum is seen here as an activist in and for society. In the third chapter, it will be reported how the case study, the ZKM, replies to this pressure in its own way. Nonetheless it is not clear in which ways they be should active, and this can cause local interpretations of this definition, avoiding the uniformity, which the committee wanted to reach. Moreover, not all museums are active in their communities, or they are just not able to communicate with them in a proper way. Therefore, this definition risks to leave apart some nowadays considered museums, as reported in the following paragraph.

1.2.2 Is It a Museum?

The question «is it a museum?» could be posed both for the case study of the ZKM and the Guggenheim Museum in Bilbao (fig. 4). Indeed, the ZKM considers itself as both «a centre and a museum»[45] (introduction). However, this duality does not avoid (or maybe helps) the

---

[42] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, p. 3.

[43] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, p. 5.

[44] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, p. 6.

[45] P. Weibel, *Music, Machines, Media and the Museum*, «Organised Sound», 14, 2009, p. 235.

ZKM in addressing the challenges of the present as claimed by the proposed definition of museum (2019). Instead, the Guggenheim Museum in Bilbao, which names itself museum, seems not to fulfil these requirements. Therefore, this so-called museum is taken as an opposite example to the one of the ZKM.

Actually, Nancy D. Faires questioned in 2007 whether this museum can be considered as such even according to the current definition[46]. In particular, she doubted about the identity of this museum by posing two questions: What is in the public interest? Which are the objects of cultural value? Faires' analysis began by understanding why the presence of the Guggenheim foundation in Europe started in Bilbao[47]. She described this union as the perfect marriage of the two economic interests of the parts at stake. On one side, Thomas Krens, Guggenheim's Director from 1988 to 2005, wanted to set up a *globally franchised museum*. On the other side, at the end of the 20th century, Bilbao was a post-industrial city and, the municipality wanted to recover the economy of the city through tourism and, more in detail through, the building of a museum[48]. This intention of implementing an economic growth emerges also in positive reviews on this phenomenon[49]. Indeed, there are even cultural and social reasons, apart from the economic one, for the realization of this project (at least for the Bilbao side), and these are well reported by Faires. For instance, she pointed out the willingness to strengthen a separate identity from the Spanish one in the artistic field. Relevant in this strategy, is the international mediatic influence of Guggenheim, which enabled a city (re)branding[50]. However, this rebranding of the city from a post-industrial one to a global one, was not without cultural and social risks[51].

---

[46] N. D. Faires, *This Is Not a Museum: The Guggenheim Museum Bilbao*, PhD. Thesis, University of Nevada, Reno, 2007.

[47] The Peggy Guggenheim Collection in Venice as to be considered as another museum, with a different histories and founders: indeed, Peggy is the niece of Solomon R. Guggenheim founder of the New Yorker museum.

[48] G. Evans, P. Shaw, *The Contribution of Culture to Regeneration in the UK: a Review of Evidence*, London, Department for Culture Media and Sport, London Metropolitan University, 2004.

[49] Plaza defines this phenomenon as GLaMUR: GLobal Museum as economic Reactivator
Plaza, Beatriz, *On Some Challenges and Conditions for the Guggenheim Museum Bilbao to be an Effective Economic Re-activator*, «International Journal of Urban and Regional Research», 32, 2008, pp. 506-517.

[50] F. Bianchini, M. Parkinson, *Cultural Policy and Urban Regeneration: The West European Experience*, Manchester, Manchester University Press, 1993.

[51] Media influence caused also the interest of the ETA a group of terrorists separatists, who planed a terroristic attack in front of the museum in order to catch international attention.
Source: Faires D., Nancy, *This Is Not a Museum: The Guggenheim Museum Bilbao*, PhD. Thesis, University of Nevada, Reno, 2007, p. 160.

From the economic point of view this strategy has been successful, at least in the short term[52]. The core of this strategy is to attract tourists, who would then not only consume the cultural and artistic offer proposed, but even other city's services. In this essay, we are not going to analyse and neither to give a judgement on this strategy, but it was important to describe it to better understand whether Guggenheim Museum in Bilbao is really replying to its communities' needs. Indeed, with the construction of the Guggenheim Museum, Bilbao has overlapped a new global identity to the Basque one. In fact, the building of this museum has been considered as a signal of the reborn imperialism by Americans in the cultural field[53]. That is why, Faires asked «What is in the public interest?» according to the definition of 2007, whether the public interest is only related to economic interest, and so whether globalization is useful to accomplish this point. It could be worthy to try replying to this question by using the proposal of 2019, which tries to be more specific than the definition of 2007 in explaining what museums should be and done in public interest. The proposal states that «museums are democratizing, inclusive and polyphonic spaces for critical dialogue about the pasts and the futures.». However, it is not sure whether globalization can bring critical dialogue from multiple voices, and not just the American one. In particular, this point shows a different point of view of Guggenheim Museum Bilbao, from the one of the case study, the ZKM, which sees globalization in the art world as a sort of westernization (par. 3.4.1).

---

[52] In the opening year, 1997, the tourist industry of Bilbao saw a growth of 28%. Moreover, this new institution functioned as a catalyst for Cultural Creative Industries (CCIs). Consequently, between 1997 and 2005 long-term unemployment was diminished by more than 10%. This strategy can be categorized in the «consumerist model» of cultural policy proposed by Ron Griffiths in 1995. The core of this strategy is to attract tourists, who would then not only consume the cultural and artistic offer proposed, but even other city's services. In this essay, we are not going to analyse and neither to give a judgement on this strategy, but it was important to describe this scenario to better understand whether Guggenheim Museum in Bilbao is really replying to its communities' needs.

References: T.R. Reid, *The Art of Rejuvenation*, in *The Washington Post*, 1999, <https://www.washingtonpost.com/archive/politics/1999/03/31/the-art-of-rejuvenation/6e1d9cc3-285a-4be9-a416-1ef833dfd984/> [accessed on 28th September 2021].

S.N. Haarich, B. Plaza, *The Guggenheim Museum in Bilbao – at the Centre of a Creative City*, «Urban Planning International», 27, 2012, pp. 11-16.

N.D. Faires, *This Is Not a Museum: The Guggenheim Museum Bilbao*, PhD. Thesis, University of Nevada, Reno, 2007, p. 237.

R. Griffiths, *Cultural strategies and new modes of urban intervention*, «Cities», 12, 1995, pp. 253-265.

The feasibility on the long term is at risk: attendance is slowing down and also because Guggenheim already overran the initial budget. Source: N.D. Faires, *This Is Not a Museum: The Guggenheim Museum Bilbao*, PhD. Thesis, University of Nevada, Reno, 2007, p. 148.

[53] V. Newhouse, *Towards a New Museum*, New York (New York), Monacelli Press, 1998.

N.D. Faires, *This Is Not a Museum: The Guggenheim Museum Bilbao*, PhD. Thesis, University of Nevada, Reno, 2007, pp. 157-159.

J.A. Henning, *Bilbao's Use of Art and Culture as a Remedy for Deindustrialization: the Implications of Redevelopments Homogenous Use of Public Art*, PhD. Thesis, University of Southern California, Los Angeles, 2011.

Doubts emerge on whether a *globally franchising museum* can contribute to reply to the needs of this specific community. The term *globally franchising museum* is used because Guggenheim planned other museums around the world, however these projects have been almost all suspended[54]. In fact, the high price for such an impressive architecture, was thought not be worthy in the end for many Finns interviewed by the Guardian about the project for a Guggenheim Museum in Helsinki: «What is in the public interest? objectors said one of the Finnish capital's best locations, facing the presidential palace in the port, would have been handed over to a "McDonald's of art", and many Finns were most concerned about the museum's price tag»[55]. The reference to McDonald is not just irony but refers to Ritzer's book «The McDonaldization of Society»[56]. Here, it is not the place to criticize Guggenheim strategy as a cultural firm or Bilbao's cultural policy. However, all the critics reported in this paragraph questioned whether this global project could really fulfil diverse communities' needs, wishes and cultural issues.
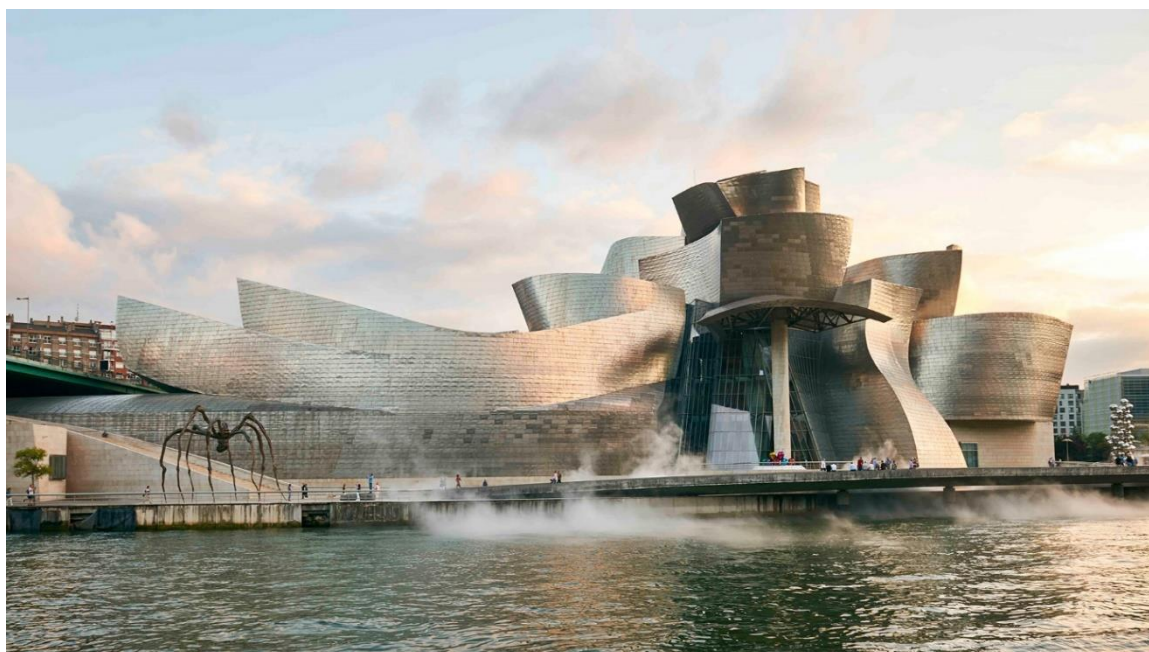
Figure 4, Guggenheim Museum Bilbao from the outside

Source: <https://www.guggenheim-bilbao.eus/> [accessed on 23rd September 2021]

Credits: Guggenheim Museum Bilbao

---

[54] Guggenheim Museums were supposed to be built in: Rio de Janeiro's project in 2003 (suspended in 2003), Taiwan's project in 2003 (suspended in 2006), Guadalajara's project in 2005 (suspended in 2009), Vilnius' project 2008 (suspended 2012), Abu Dhabi's project in 2006 (expected 2022?), Helsinki's project in 2011 (suspended 2016)

[55] The Guardian, *Guggenheim Helsinki museum plans rejected by city councillors*, in *The Guardian*, 2016 <https://www.theguardian.com/world/2016/dec/01/guggenheim-helsinki-nixed-by-city-councillors> [accessed on 28th September 2021].

[56] G. Ritzer, *The McDonaldization of Society. Revised New Century Edition*, 1, Thousand Oaks (Ventura), Pine Forge Press/A Sage Publications Co., 2004.

In her dissertation, Faires posed another question: «Which are the objects of cultural value?»[57]. Even in this case, in the Guggenheim Museum Bilbao the «objects of cultural value» seem to contrast with the Basque identity. In particular, Joseba Zulaika reflected on the role of public art in Bilbao and wrote: «In the redevelopment of Bilbao, we see public art revert to its former behaviours seemingly indifferent to the conditions of the site and its proximate audience. Bilbao residents hated American Artist Jeff Koons' public art sculpture installation Puppy and felt it to be a provocation, cloned from other locations and out of context with the regions history»[58]. In fact, around the museum, three public installations are displayed: *Arana Mamà* by Louise Bourgeois, *Tall Tree & The Eye* by Anish Kapoor and *Puppy* by Jeff Koons. However, none of them as any link to Bilbao or to Basque culture. Instead, they are used as marketing tools «in relation to what Marc Augé refers to as the creation of a non-place developed as a result of supermodernity»[59]. «Non-place[s]» have not a direct contact with individuals living inside them. Instead, their relations with them are always mediated, thus avoiding participation and critical dialogues, which the MDPP committee wished to bring in museums.

[57] N.D. Faires, *This Is Not a Museum: The Guggenheim Museum Bilbao*, PhD. Thesis, University of Nevada, Reno, 2007, pp. 130-131

[58] J. Zulaika, *In love with Puppy: flowers, architecture, art, and the art of irony*, «International Journal of Iberian Studies», 16, 2003, pp. 145-158. Mentioned in J.A. Henning, *Bilbao's Use of Art and Culture as a Remedy for Deindustrialization: the Implications of Redevelopments Homogenous Use of Public Art*, PhD. Thesis, University of Southern California, Los Angeles, 2011, pp. 21-22.

[59] Marc Augé defined a "non-place" as be being a space which: […] designates two complementary but distinct realities: spaces formed in relation to certain ends (transport, transit, commerce, leisure), and the relations that individuals have these spaces. Although the two sets of relations overlap to a large extent, and in any case officially (individuals travel, make purchases, relax), they are still not confused with one another; for non-places mediate a whole mass of relations, with the self and with others, which are only indirectly connected with their purposes. As anthropological places create the organically, so non-places create solitary contractuality […]. The link between individuals and their surroundings in the space of non-place is established through the mediation of words, or even texts. We know, for a start, that there are words that make an image – or rather, images: the imagination of a person who has never been to [a certain place] takes flight the moment these names are read or heard. Source: M. Augé, *Non-Places: An Introduction to Supermodernity*, London, Verso, 1995. Mentioned in J.A. Henning, *Bilbao's Use of Art and Culture as a Remedy for Deindustrialization: the Implications of Redevelopments Homogenous Use of Public Art*, PhD. Thesis, University of Southern California, Los Angeles, 2011, p. 22.

1.3 Community Orientation

1.3.1 What Does Not Community Mean?

The proposed definition of museum in 2019 is strongly linked to the concept of *community*. Therefore, it shall be analysed what does *community* mean for museums' professionals. Usually, this term is misunderstood with other two: *target audience* and *public*. C*ommunity* differs from *target audience* since the latter identifies only certain members of one or more communities[60]. An example of this discrepancy are those museums, which organize events for specific age segments, or sub-groups like children and families of more communities (e.g., local community; immigrant one, tourist one etc.). In these cases, *target audiences* are defined by demographic/socio-economic factors and/or identities[61]. To clarify this concept, it can be anticipated the example of ZKM's scholarship programme *[MASTERCLASS]* (par. 3.2.2.). The scholarship programme is addressed to young students aged between 15 and 19 years old and living in Karlsruhe and its surroundings. The scholarships last one year and aim at providing training on contemporary and media art to art passionate students. Moreover, during the scholarship, students have the possibility to create their own artwork and expose it at the ZKM. For this programme, the target audience is composed by art passionate students aged between 15-19 years old and living in Karlsruhe. At the same time other members of the community of Karlsruhe inhabitants are excluded from being part of the target audience (e.g., children, elderly people etc.). However, a *community* can be a *target audience*. This occurs when the museum addresses its offer to a specific and defined *community*. In this case, another example proposed from the case study can be anticipated. During the exhibition *Critical Zones: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022), the ZKM together with the artist Stéphane Verlet-Bottéro organized a performance named *Notes Towards a Permacircular Museum* (2019-2020) (par. 3.2.3.). The performance implied the restoration of an abandoned orchard near by the ZKM. This activity was followed by workshops open to an on-site community, that can benefit from the restoration. Therefore, in this case community and target audience overlap. However, in this example, also another community was engaged through the online platform of the

---

[60] S. Watson, *Museums and their Communities,* Oxon-New York (New York), Routledge, 2007, pp. 3-4.

[61] R. Mason, *Museums, Galleries and Heritage: Sites of Meaning-making and Communication*, in *Heritage, Museums and Galleries*, ed. by G. Corsane, Abingdon, Routledge, 2005, pp. 200-214.

exhibition[62]. As better reported in the third chapter, this latter community is a global and online one, which engages with the ZKM through online and digital tools. In this example, this community shall be considered as a different target audience, since the work of Verlet-Bottéro is proposed with a different format in respect to the one used for the in presence community.

Even though sometimes the two terms *community* and *target audience* overlap, it can not be affirmed they have the same meaning. The same stands for the word *public*. This term is «too general a term and within which there may be many different communities»[63]. Indeed, in the case study proposed in the third chapter, two communities can be recognised in the ZKM's public. A community that can take part to the events, exhibitions and workshops in presence, and a global community online which interact through online and digital tools as well as through the networks ZKM has created with other institutions worldwide. The example of the ZKM opens a reflection on the meaning of community and public, which nonetheless shall be as wide as possible even in the case of community museums. Indeed, museums (and also the ZKM) are public institution, mainly run through public funds (even though the role of sponsorships and partnership has slightly increased). For this reason, Stephen Weil suggested in 2003 that museums should not only be measured internally, according to the quality and quantity of the collections, endowments, staff and facilities, but also externally according to the benefits provided to individuals and communities. Also, he proposed to compare museums, which are not effective in the use of public funds from the external point of view, to enterprises failing to provide a profit. In both cases, society's resources are wasted[64].

1.3.2 What Does Community Museum Mean?

If the meaning of *target audience* and *public* have been identified, the *community* one is still missing. In fact, this term is still at centre of debates both in the museum and sociological fields. For this dissertation we can intent *community* as self-determined, meaning that a community is defined by the sense of belonging that comes from its members[65]. Similarly, *community museums* can be part of this self-determination process since most of them are the

---

[62] It is the online platform of the exhibition *Critical Zone: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022), <https://critical-zones.zkm.de/#!/> [accessed on 26th September 2021].

[63] S. Watson, *Museums and their Communities,* Oxon-New York (New York), Routledge, 2007 pp. 3-4.

[64] S. Weil, *Beyond big & awesome: outcome-based evaluation*, «Museum News», 82, 2003, pp. 40-45, 52-53.

[65] G. Kavanagh, *History Curatorship*, Washington DC, Smithsonian Institution Press, 1990.

result of a bottom-up approach which ended up in a history or folkore museum. These kinds of museums are made for the community's needs, mostly remembering (and forgetting) relevant community's past events. This purpose risks in ending up into an exclusion of the *others* (non-members of the community) [66]. This risk is more or less effective according to the type of community museum. In fact, three types of community museums can be identified[67]:

- Community museums run by the communities' members without the aid of professional staff
- Community museums run by the communities' members with little help of professional staff and limited financial support from public bodies
- Community museums set up by the communities' members, but now run by professionals since they have become public institutions.

This list shows different degrees of expertise and financial availability that a community museum can reach. In particular, attention shall be paid on the balancing of power between communities and museums' professionals. In the first case, the museum is run by volunteers (who are members of the community or the communities involved) for their peers. The museum is self-sufficiency both from the economic and 'utilitarian' points of view: this first kind of community museum serves its community thanks to community's resources (work, money, acquisitions etc.). In this case, the producer/manager and the user of the museum are the same entity: the community. In the second and third cases, instead the balance of power, which previously was fully in the end of the community, shifts in favour to the professionals, even though the link with community remains strong[68].

The prevalence of power onto the professionals, and the public institution more in general, has not to be seen as a worsening, rather as a broadening opportunity. Indeed, museums run by communities are made for themselves, with the purpose to shape a certain identity to be proud of. This shaping would provoke the cutting of some memories, that the community (or part of it) want to erase, as well as this process could end up in highlighting other less meaningful traditions, which again (some) members of the community would like to make

---

[66] N. Pantzou, *By the People, for the People. The Case of a Community Museum of Traumatic Greek Heritage*, «Conservation and Management of Archaeological Sites», 17, 2015, pp. 22 – 37.

[67] N. Pantzou, *By the People, for the People. The Case of a Community Museum of Traumatic Greek Heritage*, «Conservation and Management of Archaeological Sites», 17, 2015, p. 23.

[68] S. Watson, *Museums and their Communities*, Oxon-New York (New York), Routledge, 2007, pp. 8-12.

them become more popular. The professional presence can instead promote the critical dialogue asked in the I.C.O.M. museum's definition proposal (2019) and open up museum's doors to non-members of the community[69]. However, these objectives are not always satisfied, because of two reasons. The first one is that every curator is never completely objective. The second one regards the problem of determine, which is the majoritarian view of the community's members[70]. These problems remain unsolved also for another correlated variable: the fact that communities change and so do their needs. However, in 2003 Watson proposed as solution to «develop(ing) good relationships» with community's members and non-members. Even though this process «takes years and requires patience» to be effective[71].

1.3.3. A Successful Example: District Six Museum in Cape Town (South Africa)

Figure 5, District Six Museum in Cape Town during the event *Heritage Day* in 2016

Source: <https://www.districtsix.co.za/heritage-day-album/> [accessed on 23rd September 2021]

Credits: District Six Museum

District Six Museum (fig. 5) is a museum in Cape Town, South Africa. The museum takes the name from District Six a municipal district in Cape Town, which has become the setting for a strong apartheid policy. Indeed, the apartheid government in 1966 labelled this area

---

[69] E. Crooke, *Museums and Community*, in *A Companion to Museum Studies*, ed. by S. Macdonald, Oxford, Blackwell Publishing, 2006, pp. 170-185.

[70] S. Watson, *Museums and their Communities*, Oxon-New York (New York), Routledge, 2007, pp. 8-12.

[71] S. Watson, *Museums and their Communities*, Oxon-New York (New York), Routledge, 2007, p. 18.

«white only», while actually this district was predominantly a «black area». Therefore, all «non-white» people had to leave District Six. This decision was taken because the government wanted to destroy all the buildings present in this area, to create a proper space for «white people», and with the official justification of slum clearance, they manage to demolish and bulldoze the area in 1982. Only churches and mosques have been preserved from destruction. In fact, District Six Museum has found its location in an abandon Methodist church, were it officially opened its doors in 1994. However, the idea of creating such a museum was discussed for the first time in 1988 during a conference of The Hands Off District Six. In this occasion, the mission of this museum has been defined: «the museum has to ensure that the history and the memory of forced removals in South Africa endured»[72].

In this first phase, District Six Museum can be considered as a community museum of first type[73]. Before finding a permanent location, the community organized museum-like activities such as temporary exhibitions, conferences and talks on the topic of forced removals. In 1994 District Six Museum has been inaugurated in its first location, Central Methodist Mission church on Buiten-kant Street, and the exhibition *Streets* was launched. Nonetheless, the museum is still a first type community museum, due to the absence of professional staff. However, from this moment the new-born museum began to behave in a more professional way. Indeed, Sandra Prosalendis, the museum's founding director, had no experience in the museum world, when she organized *Streets* exhibition. The first thing she thought to do for this museum was acquiring a collection[74]. For this purpose, Prosalendis found out that there was a man in Cape Town who had collected the street's signs of District Six and agreed to give them to the museum: now this personal collection has become the museum's permanent one. Prosalendis exhibited the signs through a display arrange by an artist, which can be still seen in the museum. This exhibition was thought as a re-minder and a re-mapping of how District Six in the pre-apartheid period appeared. Anyway, the main nucleus of the collection is composed by oral histories of the people who experience the forced removals. So, the collection is an immaterial one, albeit it seems that a physical presence has to be guaranteed with the streets' sign, the photos or the newspaper pieces reporting the events.

---

[72] V. Layne, *The District Six Museum: An Ordinary People's Place*, «The Public Historian», 30, 2008, p. 57.
[73] In paragraph 1.3.3. The classification of the three models of community museum is described. Source: N. Pantzou, *By the People, for the People. The Case of a Community Museum of Traumatic Greek Heritage*, «Conservation and Management of Archaeological Sites», 17, 2015, pp. 22-37.
[74] V. Layne, *The District Six Museum: An Ordinary People's Place*, «The Public Historian», 30, 2008, pp. 53-62.

By the time this museum gained more and more expertise and a sort of Western aspect, as currently the museum is managed by a staff composed of museum professionals. Nonetheless, this museum remains a successful example of «community empowerment»[75]. Indeed, District Six Museum can be now considered as a third type community museum. The museum is a renowned institution with paid staff, even though they declare their incomes come from the tickets revenues and not from public funds. Anyway, the organizational structure they have built can no more be comparable to the one of a community museum of first type, which is run by volunteers. Moreover, the museum is now able to attract tourists or people who aren't part of the community, showing an open-minded approach as required by the two I.C.O.M. museum definitions (the official one of 2007 and the proposed one of 2019). Finally, this museum contributed to the empowerment of its community and still does contribute to the returning of the former residents in District Six. As Valmont Layne suggested in 2008, the District Six Museum is and want to remain «an ordinary people's place»[76].

---

[75] E. Crooke, *Museums and Community*, in *A Companion to Museum Studies*, ed. by S. Macdonald, Oxford, Blackwell Publishing, 2006, pp. 174-175.

[76] V. Layne, *The District Six Museum: An Ordinary People's Place*, «The Public Historian», 30, 2008, p. 53.

Chapter 2: From Communities to Contemporary Society

2.1 Broadening the View

The previous chapter has highlighted a renewed focus in the relation between museums and communities, and how this relation is highlighted in the I.C.O.M. definition of museum of 2007 and in the proposal for a new museum's definition presented in 2019. A particular case of community museums has been described: the District Six Museum in Cape Town (South Africa). The museum was born from the community's needs. These needs were urgent in 1988, when the first idea of realizing this museum emerged, and they shaped the museum itself (the collection, the place, the first exhibition) to the pursuit of satisfying the community's need of ensuring «that the history and the memory of forced removals in South Africa endured»[77]. The result is a museum responding to specific and current issues of its community. However, a question remains open, whether community museums would be still so responsive in the future, when maybe the community's needs would change.

The needs of a community in a society change in time, and in Western contemporary society they change even faster. Indeed, in 2000 the Polish sociologist Zygmunt Bauman coined the term *liquid modernity*, which he used to describe today's society as characterized by the absence of spatial and temporal borders, as well as by precarity and fragility[78]. Therefore, museums have to recognise the changings occurring in the society and catch up with them. Being reactive in this *liquid* society is not only a matter of increasing visitors' number, and actually it is a way to legitimize the museum existence. Indeed, as partially suggested by the definition of museum proposed in 2019, museums need to become centers, where global contemporary issue are faced[79]. These issues are at the base of the concept of *liquid museum.*

---

[77] V. Layne, *The District Six Museum: An Ordinary People's Place*, «The Public Historian», 30, 2008, p. 57.

[78] Z. Bauman, *Liquid modernity*, Cambridge, Polity, 2000.

[79] The definition of museum proposed in Kyoto for the General I.C.O.M. conference states: «Museums are democratizing, inclusive and polyphonic spaces for critical dialogue about the pasts and the futures. Acknowledging and addressing the conflicts and challenges of the present, they hold artifacts and specimens in trust for society, safeguard diverse memories for future generations and guarantee equal rights and equal access to heritage for all people. Museums are not for profit. They are participatory and transparent, and work in active partnership with and for diverse communities to collect, preserve, research, interpret, exhibit, and enhance understandings of the world, aiming to contribute to human dignity and social justice, global equality and planetary wellbeing». I.C.O.M., *ICOM Announces the Alternative Museum Definition that Will Be*

2.2 The Liquid Museum

The term *liquid museum* recalls the term *liquid modernity* coined by Bauman in 2000. The Polish sociologist used the metaphor of *liquidity* or *fluidity* to describe contemporary society. According to physics, objects in a solid state are characterized by having atoms bound together, while in objects in a liquid state «molecules are preserved in an orderly array over only a few molecular diameters».[80] Moreover, since liquids can not easily hold their shape, differently from solids, they are neither fix in space nor in time. Maybe also for this reason we tend to give to liquids the characteristic of *lightness*, even though is not always like that. According to Bauman, all these features of liquids can be used to describe present time. Today, in fact, mobility is much easier and faster than in the past. This fluidity of movement has brought to a predominance of the nomadism attitude to the settles one. This approach goes together with a perception of time strongly based on the present, forgetting the past and without taking care of the future, which Bauman identified as «instantaneity of time». He highlighted how the *liquidization* of *solid* powers has brought to a new focus on individuality: «moving from the 'system' to 'society', from 'politics' to 'life-policies' – or have descended from the 'macro' to the 'micro' level of social cohabitation»[81]. This fluidity has paradoxically brought societies to a new state of rigidity, that is given by the fact that our individual choices are however intertwined in «collective projects and actions»[82]. However, in this research, the focus is pointed on another consequence of fluid societies: the increasing of complexity.

2.2.1 Increasing Complexity

According to Fiona Cameron, who chiefly researched museums and their reactions to climate change, most museums tend to practice «the removal of complexity as a tactic»[83]. However, she argued that the simplification approach is usually a hierarchical one. Instead, she proposed a horizontal positioning that should make museums able to embrace complexity.

Subject to a Vote, 2019, <https://icom.museum/en/news/icom-announces-the-alternative-museum-definition-that-will-be-subject-to-a-vote/> [accessed on 28th September 2021].

[80] Z. Bauman, *Liquid modernity*, Cambridge, Polity, 2000, p. 1.

[81] Z. Bauman, *Liquid modernity*, Cambridge, Polity, 2000, p. 7.

[82] Z. Bauman, *Liquid modernity*, Cambridge, Polity, 2000, p. 6.

[83] F. Cameron, *The Liquid Museum. New Institutional Ontologies for a Complex, Uncertain World*, in *The International Handbooks of Museum Studies: Museum Theory*, ed. by A. Witcomb, K. Message, Hoboken (New Jersey), John Wiley & Sons, Ltd., 2015, p. 349.

The reason for shifting from a univocal communication to a dialogue with visitors is that the increasing of complexity has brought to an increasing of uncertainty on our knowledge. This change becomes quite relevant if we think that museums were founded «on the positivist notions of certainty»[84]. According to Cameron, museum's visitors do not think that museums could give certainties anymore, but just information upon which visitors can reflect on.

These concepts are also applicable to museums focusing on issues different from climate change. For instance, this is the case of Ulster Museum, which has tried to deal with Northern Ireland's contested past. In fact, in 2018 the Ulster Museum opened a new gallery space dedicated to the *Troubles* of 1968[85]. The gallery is named *The Troubles and Beyond*, suggesting the necessity to confront with a past which still presents some unresolved issues, like which has been the causes of the conflict and how it should be remembered. Moreover, people involved in the *Troubles* had experience them differently according to their ideals, social status or they just found themselves in the middle of conflict. This variety of points of view makes the understanding of the facts quite complex and politically incorrect[86]. To clarify (but not simplify) this complex picture, the museum organized discussions in the gallery about what happened in 1968 according to people involved in different ways and fronts. The approach applied is the *agonistic approach*, «that accepts the existence of contesting perspectives and argues that only by providing a space for them to come together can any real progress can be made in managing such difficult pasts»[87]. Visitors' feedback confirmed the efficacy of this method and of the use of oral histories together with artifacts. Oral histories allowed interviewees' emotions to come out and to involve the viewer, who could then confront the different perspectives and comprehend better the reasons and the importance of the conflict.

---

[84] F. Cameron, *The Liquid Museum. New Institutional Ontologies for a Complex, Uncertain World*, in *The International Handbooks of Museum Studies: Museum Theory*, ed. by A. Witcomb, K. Message, Hoboken (New Jersey), John Wiley & Sons, Ltd., 2015, p. 348.

[85] The Troubles is the named used to call the conflict occurred between Northern Ireland and the Republic of Ireland between the end of the 1960s and 1998, when an agreement between two opponent parts was reached. The two rival sides were the Unionists, who wanted Northern Ireland to remain in the United Kingdom, and the Nationalists, who wanted Northern Ireland to become part of the Republic of Ireland. In this case, the museum chose to focus on the year 1968, which has been a year full of protests and revolts not only in Ireland, but even, for different reasons, in other countries.

[86] W. Blair, C. Reynolds, *Museums and "Difficult Pasts": Northern Ireland's 1968*, «Museum International», 70, 2018, pp 12-25.

[87] W. Blair, C. Reynolds, *Museums and "Difficult Pasts": Northern Ireland's 1968*, «Museum International», 70, 2018, p. 21.

This last example showed how complexity can impact on various kinds of museums and how a less hierarchical and simplistic approach, like the agonistic one, can be used to provide visitors with multiple points of view. Moreover, it has to be noted that Ulster Museum had organized other exhibitions on this topic in 2003 and 2006, and probably *The Troubles and Beyond* exhibition would also be modified in the future. The reasons for these changes may be qualitative ones, but it could be also forecasted that citizens' needs of remembering these historical events would change. For instance, when all the witnesses of the troubles will be dead, or if a geopolitical change occurs. These hypotheses are just meant to understand that in a complex and fluid world, as Bauman suggested, ideas, situations and knowledge change so fast that museums shall find their way to catch up with them. Therefore, according to Cameron museums shall become *complex adaptive systems*[88].

This term is taken from the managerial field and describes those firms able to shape and reshape themselves, their resources and capability dynamics in connection with the external environment, thus creating strategic networks[89]. Complex adaptive systems are consequently fluid, flexible and reactive to external influences, thus being better able to deal with complexity through creative approaches. If external forces contribute to shape museums, the latter shall become liquid and change its institutional attitudes, principles, and protocols to fit society's needs[90].

In this liquidizing process also museum's administration changes[91]. Still the concept of horizontality is relevant, which in this case applies to the relations between rulers and individuals. Indeed, according to Gonçalves, two characteristics in this relationship are strictly required: decentralization and autonomy. The first point refers to a decentralization of the institutional decision making, that shall shorten the distance between institution and individuals. Distributing more power to individuals would enact a democratising process that can engage people more and so enable the museum to be more responsive to society's need.

---

[88] F. Cameron, *The Liquid Museum. New Institutional Ontologies for a Complex, Uncertain World*, in *The International Handbooks of Museum Studies: Museum Theory*, ed. by A. Witcomb, K. Message, Hoboken (New Jersey), John Wiley & Sons, Ltd., 2015, p. 354.

[89] G.B. Dagnino, *Complex Systems as Key Drivers for the Emergence of a Resource- and Capability-based Interorganizational Network*, «Emergence: Complexity & Organization», 6, 2004, pp. 61-69.

[90] F. Cameron, *The Liquid Museum. New Institutional Ontologies for a Complex, Uncertain World*, in *The International Handbooks of Museum Studies: Museum Theory*, ed. by A. Witcomb, K. Message, Hoboken (New Jersey), John Wiley & Sons, Ltd., 2015, p. 354.

[91] J. Gonçalves, *The "Liquid Museum": a Relational Museum that Seeks to Adapt to Today's Society*, in *The Museum Review,* 2019,
<https://themuseumreviewjournal.wordpress.com/2019/10/17/tmr_vol4no1_goncalves/ 2019.> [accessed on 27th September 2021].

The second point can be considered as a consequence of the first one, since by giving individuals more power, also more autonomy is given. Autonomy can enable a better awareness of the self and can lead the institution towards democratic objectives of development[92].

2.2.2 The Relevant Museum

A shift in the internal administration is required also according to Mark O'Neill, who tried to answer the following question: «What's it for, the museum?»[93]. In his paper, the answer to this question depends on the kind of museum considered and on the professional role of people working together in the same museum. As done in this research, O'Neill started to answer this question through the analysis of the I.C.O.M.'s definition of museum. However, even according to him this definition is not updated and does not adhere with the concept of liquid museum for two main reasons. The first one is the centrality of collections rather than people in the museum's work. Indeed, O'Neill refers to physical collections as the tool to maintain a higher museum status. This kind of thinking, however, advantages only visitors who are already educated and so come to a museum to see a specific work or specimen. Instead, a collection should be a connector between the museum and its audiences who tend to remain out of reach. The second reason is that the I.C.O.M. definition of 2007 describes museum as a permanent institution. The concept of permanent suggests that museum is not subject to change or updates. Thus, «they became committed to an ideal of knowledge and beauty for their own sake»[94]. In particular, art museums are still strictly bound to this approach, since the message that they want to convey through their collection is «This is art», meant as art for art's sake [95].

According to O'Neill, this reflection could be valid a century ago, but today's *complexity* shall bring to an epistemological shift, which «aims to enlist people's complex capacity to

---

[92] J. Gonçalves, *The "Liquid Museum": a Relational Museum that Seeks to Adapt to Today's Society*, in *The Museum Review*, 2019,
<https://themuseumreviewjournal.wordpress.com/2019/10/17/tmr_vol4no1_goncalves/ 2019.> [accessed on 27th September 2021].

[93] Quotation from the novel P.D. James, *The Murder Room*, Toronto, Knopf Canada, 2003 mentioned in M. O'Neill, *Essentialism, adaptation and justice: Towards a new epistemology of museums*, «Museum Management and Curatorship», 21, 2006, p. 95.

[94] M. O'Neill, *Essentialism, adaptation and justice: Towards a new epistemology of museums*, «Museum Management and Curatorship», 21, 2006, p. 96.

[95] M. O'Neill*, Essentialism, adaptation and justice: Towards a new epistemology of museums*, «Museum Management and Curatorship», 21, 2006, p. 104.

generate knowledge in order to 'make meaning' of the world»[96] . Furthermore, the better the museum understands people's needs, the better the museum will be[97]. This suggestion is strongly retaken by Emlyn Koster in his «relevant museum»[98]. According to him, the mission of museums is to be relevant for their community, which lives in a complex and liquid society, as it has been pointed out. The concept of complexity is the first one to be described in the paper, which opens by quoting another work by O'Neill with Silverman: «Perhaps the single most difficult task for the field in the 21st century is not to find more money, or more objects, or even more visitors, but to find the courage to embrace complexity in museum»[99].

This sentence can effectively summarize what has been said till now and anticipates Koster's reflection on how should the 21st century museum be. Indeed, following Koster's arguments, a museum can acquire «more money, or more objects, or even more visitors» by pursuing *relevancy*[100]. Relevancy «entails a comfort with controversy that, in turn, involves fostering an atmosphere where difficult questions can be broached and a variety of opinions expressed»[101]. In this sense, museum shall be a tool or a place for society's enhancement, which produces positive external values to its communities. Koster focuses on sustainability as the main directive of social enhancement, with sustainability intended as environmental, social and economic one. Therefore, a museum is relevant when it is able to understand its communities' needs and to address them in an efficient way that doesn't waste resources. Indeed, Koster suggests that future institutions, museums included, will be judged by their capability to produce positive value for the society. This value shall justify museum's existence.

Koster gives also some practical advice to describe how museum can become relevant[102]. For instance, for art museum he suggests to contextualize artworks and artists' life to their time. Moreover, he also proposes a list of ten indicators, or rather questions to be posed, to find out

---

[96] M. O'Neill, *Essentialism, adaptation and justice: Towards a new epistemology of museums*, «Museum Management and Curatorship», 21, 2006, p. 108.

[97] M. O'Neill, *Essentialism, adaptation and justice: Towards a new epistemology of museums*, «Museum Management and Curatorship», 21, 2006, p. 108.

[98] E. Koster, *The Relevant Museum: A Reflection on Sustainability*, «Museum News», 85, 2006, pp 67-90.

[99] L. H. Silverman, M. O'Neill, *Change and complexity in the 21st-century museum: the real relics in our museums may be the ways we think and work,* in *Reinventing the museum: the evolving conversation on the paradigm shift,* ed. by G. Anderson, Lahnam (Maryland), AltaMira Press, 2012, pp. 193-201, mentioned in E. Koster, *The Relevant Museum: A Reflection on Sustainability*, «Museum News», 85, 2006, p. 67.

[100] E. Koster, *The Relevant Museum: A Reflection on Sustainability*, «Museum News», 85, 2006, p. 69.

[101] E. Koster, *The Relevant Museum: A Reflection on Sustainability*, «Museum News», 85, 2006, p. 69.

[102] E. Koster*, The Relevant Museum: A Reflection on Sustainability*, «Museum News», 85, 2006, p.70.

the level of relevancy of a museum[103]. However, another way to become relevant could be becoming liquid, since, in both cases, museums shall be opened to the flows of (complex) information, brought not just only by researchers or top managers, but also by visitors and non-visitors, who still can have a strong external influence on the institution.

2.2.3 In Relation to The I.C.O.M. Definition Of Museum Proposed in 2019

Even though the projects of liquid and relevant museums can not be summed up in a unique definition, some of their key points are mirrored in the museum's definition proposal of 2019. Thus suggesting an openness of I.C.O.M. towards contemporary global issues. Indeed, the first sentence of this definition states that «museums are democratizing, inclusive and polyphonic spaces for critical dialogue about the pasts and the futures» suggesting that museums shall be forums where contrasting ideas can be discussed[104]. This means that in a museum also contrasting opinions could be proposed and discussed as seen in the case of Ulster Museum (par. 2.2.1). Moreover, in respect to the current I.C.O.M. museum's definition, which underlines in an essential way the functions and objectives of museums, the Kyoto one acknowledges complexity and identifies the challenges, which museums shall embrace. Indeed, the MDPP committee for the definition adopted a series of recommendations, which in some cases overlap the reflections made by Cameron while writing about the liquid museum, and those ones by Koster while describing the relevant museum. These recommendations concern the need of addressing climate crisis and work in a sustainable way as well as «the commitment of museums to be meaningful places and open to diverse platforms for learning and exchange»[105]. In the third chapter, it will reported how the ZKM overcomes I.C.O.M.'s pressure, by adopting a *liquid* approach to engage its community.

---

[103] E. Koster, *The Relevant Museum: A Reflection on Sustainability*, «Museum News», 85, 2006, p.70.

[104] I.C.O.M., *ICOM Announces the Alternative Museum Definition that Will Be Subject to a Vote*, 2019, <https://icom.museum/en/news/icom-announces-the-alternative-museum-definition-that-will-be-subject-to-a-vote/> [accessed on 28th September 2021].

[105] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, p. 4.

2.3 The Role of The Digital in The Liquid Museum

2.3.1 Impact of Digital on Museum Staff

Digitalization has modified museum's powers, bringing the need to develop new digital and managerial skills. Marie-Agnès Gainon-Court and David Vuillaume researched on the new skills required in today's museum. Among the skills identified by the two authors, «knowledge and expertise in the development of online services, social media skills [and] knowledge of digital visitor guides» play a pivotal role[106]. This set of technical skills shall be supported by another set of managerial skills which are gaining more and more importance. The importance of managerial skills is due to changes in the working method brought by «the enormous and increasingly rapid informational flows of contemporary digital culture»[107], in other words by the changings brought by liquid modernity. These changes in the work methodology are due to the success of the «project mode» method: museum staff works in collaboration with colleagues from different departments, or they could also work in partnership with other museums. In these cases, a manager is needed to efficiently coordinate the project. However, leadership should be horizontal according to the liquid museum model, since liquid society has melted hierarchy also in the museum field. Another consequence of this *liquification* is the increasing of professional mobility as well as the self-employed work. Another set of skills is significant according to Gainon-Court and Vuillaume, these are the cognitive and behavioural skills, some of which are linked to the new needs of digital society, like transdisciplinary, design mind-set, and virtual collaboration.

To acquire these sets of competences training is necessary. However, since in liquid modernity changes occur faster, museum staff shall add to their academic background also other skills' acquisition tools like MOOC (Massive Online Open Courses) and certifications like digital badges[108]. This need of further training is highlighted also by Ana Carvalho and Alexandre Matos, who have analysed the projects MuSA (Museum Sector Alliance) and eCultSkills (eSkills for Future Cultural Jobs)[109].

---

[106] M. Gainon-court, D. Vuillaume, *Can Museums Keep Up with a Changing World? Skills Management as a Practical Response*, «Museum International», 68, 2016, pp. 87.

[107] M. Gainon-court, D. Vuillaume, *Can Museums Keep Up with a Changing World? Skills Management as a Practical Response*, «Museum International», 68, 2016, pp. 84.

[108] M. Gainon-court, D. Vuillaume, *Can Museums Keep Up with a Changing World? Skills Management as a Practical Response*, «Museum International», 68, 2016, pp. 90.

[109] A. Carvalho, A. Matos, *Museum Professionals in a Digital World: Insights from a Case Study in Portugal*, «Museum International», 70, 2018, pp. 34 – 47. In the paper they present:

Carvalho and Matos identify two motivations and two positive implications for museum embracing digital technologies. According to them museums that embrace digital technologies are more capable to attract younger audience and can compete better in the industry environment. Other two positive implications of the digitalization in museums are a «more agile and efficient management» and the fact of being «able to provide meaningful experience»[110]. Experience is, in fact, a key term in the *liquid* and *digital* society, since experiences are present, because they occur in the moment they happen. Also, experiences are unique as they are not repeatable in the same way they have been performed the previous times. Summing up, experiences fulfil the need of instant and short-term satisfaction that people feel in *liquid modernity*. Moreover, experience is a key word in the proposed case study about the German museum ZKM | Zentrum für Kunst und Medien in Karlsruhe (chap. 3). It can be, however, anticipated that for the concept of museum experience, the ZKM can be compared to a community museum, which exploits digital technology. Indeed, this kind of museum shifted the experience «focus from the collection itself to the connection a visitor has to the collection» and digital technology can bring new «meaningful connections» in this sense[111]. Indeed, in ZKM's case two communities shall be identified. A community which interacts in presence with the ZKM with or without the use of digital tools like apps, and a community which is potentially global and interacts with the ZKM through online and digital tools like virtual exhibitions, onstream events like concerts and so on[112]. This second community can include members of the in present community as well. Indeed, as Chris

---

- The Mu.SA (Museum Sector Alliance) a European project, that tries to reduce the distance between the academic and the professional world. This distance is caused, among others, by the increasing use of ICT in the museum field. Computer and digital skills are however still lacking in this sector. In this sense, MuSA is proposed as a tool to improve and increase working places in the museum industry. More information can be found on Mu.SA website: <http://www.project-musa.eu/> [accessed on 29th September 2021].

- The CultSkills project, which is strongly linked to the Mu.SA, consists in an online platform where cultural professional can find courses on four requested professional profiles: the Digital Strategy Manager, the Digital Collector Curator, the Digital Interactive Experience Developer and the Online Community Manager.

[110] A. Carvalho, A. Matos, *Museum Professionals in a Digital World: Insights from a Case Study in Portugal*, «Museum International», 70, 2018, p. 44.

[111] C. Cassidy, A. Fabola, A. Miller, K. Weil, S. Urbina, M. Antas, and A. Cummins, *Digital Pathways in Community Museums*, «Museum International», 70, 2018, pp. 126 – 139. The focus of their research was the project «Museums and Community: Concepts, Experiences, and Sustainability in Europe, Latin American and the Caribbean (EU-LAC MUSEUMS)», which aimed to support community museums in those geographical area to apply in an effective way digital technologies.

[112] An example of mobile app used by the ZKM to interact with the on-site community was *experience_zkm,* used in occasion of the exhibition Open Codes. The World as a Field of Data (20 October 2017 - 2 June 2019). Information on this app can be find in ZKM's website: <https://zkm.de/en/research-production/current-projects/smartplaces/app-experiencezkm> [accessed on 29th September 2021]. Instead, an example address to a global community online is the ZKM's online platform for digital exhibitions named ZDF Digital Art Hall and could be found at this link: <https://digitalekunsthalle.zdf.de/zkm_en/index.html#tp0 &> [accessed on 29th September 2021].

Anderson pointed out since the communication is mediated through digital technologies the audience of the institution includes «all those who interact» with it[113]. If ideally this expression includes people from all over the world, actually it does not reach those, who really experience the global issues displayed in ZKM's exhibitions.

2.3.2 New Participation Processes

The implementation of participation and co-creation processes is a key to create meaningful experiences. These processes can be implemented through digital technologies, which can bring an increasing amount of people to interact with the museum. In particular, in museums which aims at being *liquid* and *relevant* (parr. 2.2, 2.2.2) it has been noticed that the role of the museum in terms of knowledge transfers changed. Indeed, the communication of knowledge changed from a vertical to a horizontal approach. Therefore, learning is achieved through processes of collaboration, co-creation and interaction with the museum and the other participants. Therefore, a museum's *user* becomes a prod*user*[114]. This term can be extended to that of *prosumer*: a person that is involved in both production and consumption activities[115]. For instance, an art museum's visitor who uses the museum app to get information about the artworks displayed is *prosumer*, since he/she is *consuming* the museum's visit, or experience, while also *producing* his/her own guided tour. This brief example highlights one characteristic of the *prosumption* phenomenon, that is the co-presence of production and consumption processes. Actually, George Ritzer does not even describe the existence of pure production or pure consumption processes. Instead, he argues that there are occasions in which one of the two is predominant to the other and vice versa. Moreover, there are also balanced moments in which the two processes are almost equally implemented, that moments are those in which *prosumption* is defined[116]. Looking back at the example of the art museum visitor, it can be noted that the guided tour is not provided by a professional guide, but it is delivered through a *free* digital tool. The absence of a staff member reveals a consequence of *prosumption*, which is an increasing of unemployment for

---

[113] C. Anderson, *Free. The Future of a Radical Price*, New York (New York), Hyperion, 2009.

[114] K, Sandvik, *Nina Simon: The Participatory Museum. Santa Cruz, CA: Museum 2.0. 2010*, «MedieKultur: Journal of Media and Communication Research», 27, 2011, pp. 185-192.

[115] G. Ritzer, *Prosumption: Evolution, revolution, or eternal return of the same?*, «Journal of Consumer Culture», 14, 2014, pp. 3-24.

[116] Note that *balance* does not necessarily mean *simultaneous*, the two processes can occur in different periods of time. E.g., a person buys the ingredients for a cake (consumption moment) then the same person uses the ingredients to bake the cake (production moment). Furthermore, if this person had bought the cake in a pastry shop the consumption moment would be predominant. The reference is: G. Ritzer, *Prosumption: Evolution, revolution, or eternal return of the same?*, «Journal of Consumer Culture», 14, 2014, pp. 3-24.

certain activities and consequently the involved firms gain more profit. Furthermore, the use of *free* tool is not actually free. In fact, the visitor is producing a service for him/herself without being paid[117]. Finally, it is to highlight that digital technologies, the app in this case, have made possible the spreading of the phenomenon of *prosumption*[118].

Summing up, the *prosumer* has an active role in the museum's experience. For the art organizations case, the art marketer Miranda Boorsma suggested that they shall use art marketing as a way to make users participate to the organisation's projects, which become then activities of co-creation[119]. The user is, however, not exploited, or better he/she is not obliged to take part to the organisations' proposals. Instead, he/she feels the need to contribute with a significant (at least for the user) hand to the community, in which members stimulate themself to participate[120]. If the community is not well defined as for instance in the case of District Six Museum (par. 1.3.3), the community can be built through art processes. For this case, a group of researchers developed a scheme (fig. 6) that identifies the steps needed to develop a community through collaborative art processes[121].

---

[117] It can be added that the user, in case like this one, produce data that are then use by the firm to plan their (marketing) activities. Moreover, the interesting aspect of unpaid work is still debate and for this research is less relevant than the second aspect that is going to be analyse. For this reason, this topic is not further discussed here. The reference is: C. Anderson, *Free. The Future of a Radical Price*, New York (New York), Hyperion, 2009.

[118] G. Ritzer, *Prosumption: Evolution, revolution, or eternal return of the same?*, «Journal of Consumer Culture», 14, 2014, pp. 3-24.

[119] M. Boorsma, *A Strategic Logic For Arts Marketing, International Journal of Cultural Policy*, 12, 2006, pp. 73-92.

[120] V. Bertozzi, H. Jenkins, *Artistic Expression in the Age of Participatory Culture*, New York (New York), Routledge, 2008.

[121] M.G. Bublitz, T. Rank-Christman, L. Cian, X. Cortada, A. Madzharov, V.M. Patrik, L.A. Peracchio, M.L. Scott, A. Sundar, N. To, C. Townsend, *Collaborative art: A force for transforming communities*, «Journal of the association of consumers research», 4, 2019, pp. 313-331.

Building a community's collective identity through the collaborative arts process

Community Need Identification

- Range of long- term/ slowly emerging needs to sudden/urgent needs
- Starts by listening with intent to understand needs
- Open to diverse, creative solutions
- Set short- and long-term goals grounded in the community's needs

Engaged Ideation

- Assembles stakeholders in community dialogue
- Gives voice to unique needs/challenges
- Develops shared vision for initiative/outcomes
- Fosters empathy and understanding by sharing stories

Collaborative Art Making

- Art as "social sculpture" shaping visual aesthetic and building community relationships
- Intersection of art, social activism, and community development
- Beautifies the communal space and rejuvenates the spirit

Shared Celebration

- Celebrate symbolism of collective community, power of organizing
- Enduring reminder of shared values and history
- Fosters pride in community, sense of belonging and ownership
- Inspires future collaborations

Amplify Impact

- Measure short- and long-term achievements
- Broad mix of physical, economic, social, and psychological outcomes
- Highlight positive outcomes for stakeholders and communities
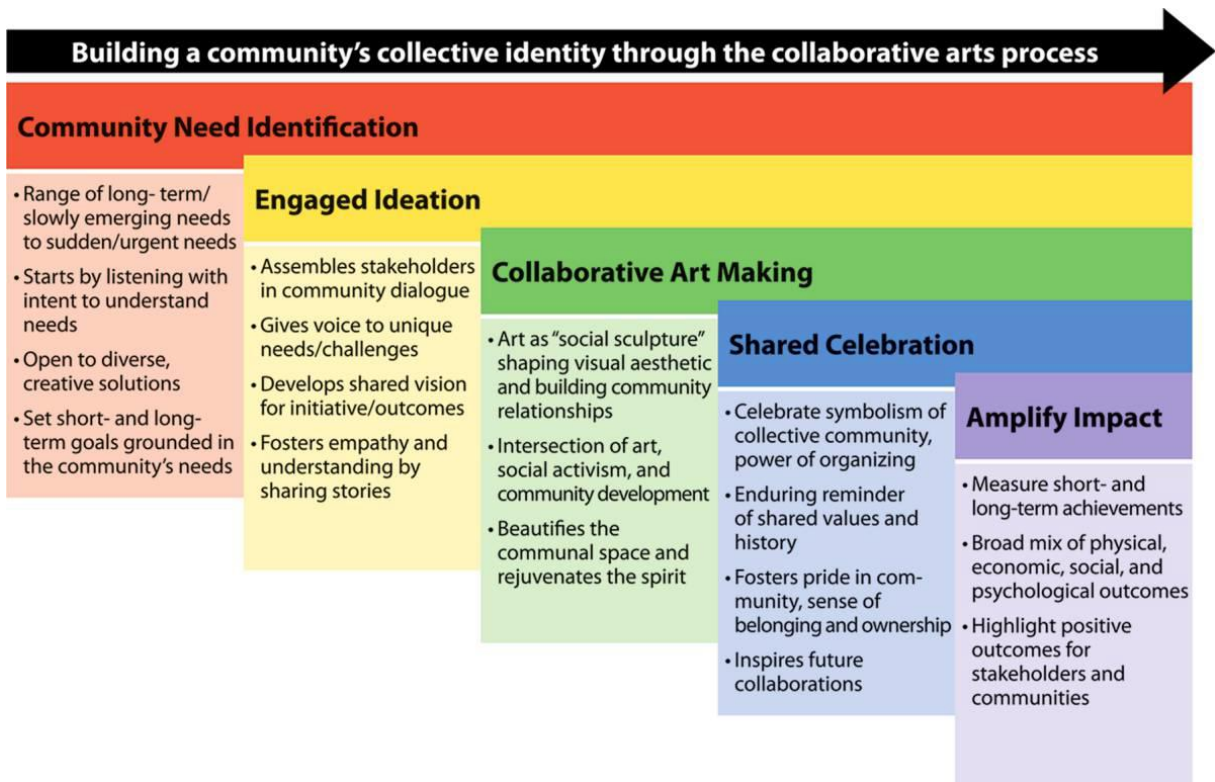
Figure 6, Scheme of the needed steps to build up communities through collaborative arts processes, Source: M.G. Bublitz, T. Rank-Christman, L. Cian, X. Cortada, A. Madzharov, V.M. Patrik, L.A. Peracchio, M.L. Scott, A. Sundar, N. To, C. Townsend, Collaborative art: A force for transforming communities, «Journal of the association of consumers research», 4, 2019, pp. 313-331.

Chapter 3: The Case Study of ZKM | Zentrum für Kunst und Medien (1989-2021)

3.1 An Introduction to the ZKM

The ZKM | Zentrum für Kunst und Medien (from now on ZKM) is a center devoted to contemporary art and media. With contemporary art, it is meant art of the late 20th and 21st centuries made by artists from all over the world. ZKM has also a collection of artworks and documents of this period, which is enriched by artworks produced at the ZKM. Instead, with the word media, ZKM includes both old media such as paintings, sculpture, drawings, and new media like videos, computer-based artworks, installation using VR, videogames, etc. In fact, ZKM owns one of the widest collections of computer-based art worldwide. However, an art collection was not already in the plans in 1984, when the first idea of ZKM arose.

3.1.1 History

3.1.1.1 The Project of Founding the ZKM

In 1984, the Department of Arts and Culture of the city of Karlsruhe proposed the foundation of an institution aimed to bring together art and (media) technology. In May of the following year, 1985, this project was formalized by the city of Karlsruhe and the institution was named *Zentrum für Kunst und Medientechnologie*[122]. To develop the project and thus achieve the goal of uniting art and future-oriented technology, the *Projektgruppe ZKM* was founded in 1986. The *Projektgruppe ZKM* was formed by the founding director Heinrich Klotz, other local authorities, the Universität Karlsruhe, the Staatliche Hochschule für Musik (School for advanced studies in Music, Karlsruhe) and the Kernforschungszentrum Karlsurhe (nuclear research center)[123]. After two years of work, the *Projektgruppe ZKM* presented *Konzept '88*: a document approved by the Municipal Council of Karlsruhe and by the State Government of Baden-Württemberg, which officially presented to Karlsruhe's citizens the objectives of

---

[122] Since 2017 the official name is Zentrum für Kunst und Medien (ZKM). L. Voropai. *Die Entstehungsgeschichte des ZKM*, in *Medienkunst als Nebenprodukt: Studien zur institutionellen Genealogie neuer künstlerischer Medien, Formen und Praktiken*, ed. by L. Voropai, Bielefeld, transcript Verlag, 2017, pp. 193-208.

[123] The Univerität Karlsruhe and the Kernforschungszentrums merged in 2009 into the Karlsruhe Institute of Technology (KIT). The new institution, KIT, is a project partner of ZKM. Indeed, the two institutions work together to various projects like the event *Faszination Informatik* in occasion of the 100° anniversary of the birth of the pioneering computer scientist Konrad Zuse in 2010. More information on KIT can be found at: <https://www.kit.edu/index.php> [accessed on 9th September 2021].

ZKM[124]. In fact, this document became the base for ZKM's statute, and it declared that the ZKM had to focused on the three following themes: *Bild*, *Musik* und *Medien für den Bürger* (Image, Music and Media for the Citizens) [125]. More in detail, with *Bild* were meant subjects like Computer Graphics and Animation; Holography; Video Art. With *Musik* it was meant: Live-electronic, electroacoustic performances and electroacoustic recordings; Digital Sound Synthesis, Analyses, and Modulation; Electronic Instruments in Combined Formats. Instead, *Medien für den Bürger* was dedicated to the organization of events, discussion, lectures etc. with the citizens about media research, information technology and other interdisciplinary research[126]. The same document, *Konzept '88*, presented the steps *Projektgruppe ZKM* needed to follow in the creation of the ZKM. These steps (on which we will return) are the following:

- Continuation and development of projects and events
- Call for architectural competitions
- Creation of a ZKM's foundation and issue foundation's statutes[127].

The two statements taken from *Konzept '88,* the identification of three themes and of the three steps, show that the creation of an art collection with classical media (such as painting, sculpture and drawing) were not in the plans of *Projektgruppe ZKM* at the time.

3.1.1.2 The Fördergesellschaft ZKM / HfG e.V.

In the same year, 1988, the Gesellschaft zur Förderung der Kunst und Medientechnologie e.V. (Incorporated Society for the Development of Art and Media) was founded. The society gathered citizen as well as local authorities with the aim of supporting the ZKM through donations and by organizing joint activities with the ZKM. The association still exists with the same role, though it has changed its name in Fördergesellschaft ZKM / HfG e.V. It works both with the ZKM and with the Hochschule für Gestaltung (HfG) (University of Arts and

---

[124] Wissenschaftsrat, *Stellungnahme zum Zentrum für Kunst und Medientechnologie (ZKM), Karlsruhe*, 2003, pp. 16-17, <https://www.wissenschaftsrat.de/download/archiv/5738-03.pdf?__blob=publicationFile&v=1> [accessed on 26th September 2021].

[125] Stadt Karlsruhe, Kulturreferat [H. Bohner, H. Ringler, T.A. Troge, P. Zec], *ZKM – Zentrum für Kunst und Medientechnologie Karlsruhe – Konzept '88*, 1988, pp. 14-27,
<https://zkm.de/media/file/de/konzept_88.pdf> [accessed on 26th September 2021].

[126] S. Alves, *Interactive Media Art: the Institution Tells a Story. The Center for Art and Media Karlsruhe*, «ICONO 14, Revista de comunicación y tecnologías emergentes», 12, 2014, pp. 181-205.

[127] Stadt Karlsruhe, Kulturreferat [H. Bohner, H. Ringler, T.A. Troge, P. Zec], *ZKM – Zentrum für Kunst und Medientechnologie Karlsruhe – Konzept '88*, 1988, p. 4, <https://zkm.de/media/file/de/konzept_88.pdf> [accessed on 26th September 2021].

Design)[128]. More in detail, the Fördergesellschaft ZKM / HfG e.V. supports the ZKM for the [Masterclass] scholarship programme for young students aged between 15 and 19 years old. Scholarships and awards are given also to HfG's students, whose works are selected by a jury of experts and professionals both from the ZKM, the HfG and other institutions. Furthermore, the association supports the restoration of artworks from the ZKM's collection and the acquisition of others for the same collection.

3.1.1.3 From the Foundation in 1989 to the Official Opening in 1997

In the following year, on 12th August 1989 the ZKM was born as a public foundation financed both by the city of Karlsruhe and the State of Baden-Württemberg. The statutes directly recalled *Konzept '88* from which derived the three main and interdependent functions:

- Research + development
- Presentation + distribution
- Teaching + promoting[129].

In this year, the founding director Heinrich Klotz though that the third function was too much prominent with respect to the others. For this reason, he conceived the creation of another institution, which should fulfil this function more specifically than the ZKM: the Staatliche Hochschule für Gestaltung (HfG) (National University of Arts and Design)[130]. The HfG still exists today and shares the same building as well as the library with the ZKM. Also, HfG's students are involved in ZKM's activities. For instance, for the current exhibition *Critical Zones: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022) a group of HfG's students collaborated for the exhibition's organization and even presented an installation there. The installation was entitled *Bio Design Lab* (2020) and was based on research made by students on new production processes, which should use, without exploiting, recyclable materials from the local area[131].

---

[128] HfG was founded together with ZKM and shares the same building with it. Its foundation is better explained later in this paragraph.

[129] P. Weibel, *A Museum's Mission*, in *Performative Science and Beyond Involving the Process in Research*, ed. by Hans H. Diebner, Wien, Springer-Verlag, 2006, pp. 10-11.

[130] S. Alves, *Interactive Media Art: the Institution Tells a Story. The Center for Art and Media Karlsruhe*, «ICONO 14, Revista de comunicación y tecnologías emergentes», 12, 2014, pp. 181-205.

[131] Some information on this artwork can be found on the online platform of the exhibition: <https://critical-zones.zkm.de/#!/detail:bio-design-lab-1> or <https://biodesignlab.hfg-karlsruhe.de/de> [both accessed on 10th September 2021].

Following the foundation of the HfG, Klotz proposed the creation of a Museum of Contemporary Art together with a Media Museum[132]. The latter had already been conceived in *Konzept 88* with the purpose of fulfilling the role of *Medien für den Bürger* area. The first, instead, was conceived a year later as a bridge between traditional (painting, sculpture, drawing etc.) and new media (video art, electronic music, digital graphics etc.). It is in this context that emerged the first idea of a ZKM's «collection (of video art, holography, electronic music, media art) and documentation departments»[133]. The collection, started in 1999, held works from «Baden-Württemberg's most important private collections»[134] and then was enriched by the acquisition made with the support of the Fördergesellschaft ZKM / HfG e.V. Together with the collection and the Museum Forum (name used for the department, which comprised both the Museum for Modern Art and the Media Museum), Klotz also planned a Media Theatre and Computer Laboratories and Studios, which are effectively in function even today.

Another step for the realization of the ZKM, which was stated in *Konzept '88,* was the organization of an architecture contest for the construction of a new building for the ZKM and the HfG. The contest occurred in 1989 and was won by the archi-star Rem Koolhaas, but the project resulted as too expensive and thus failed. For this reason, in 1993, the current building was chosen as location of the two institutions and was restored by a German architectural firm Schweger+Partners. The building was constructed at the beginning of the 20th century for military purposes and then become an industrial site, which was abandoned in 1970 due to the moving of the owning firm in another part of the city. The restoration works ended in 1997 and the ZKM was officially opened on 18th October 1997[135].

---

[132] Wissenschaftsrat, *Stellungnahme zum Zentrum für Kunst und Medientechnologie (ZKM), Karlsruhe*, 2003, pp. 16-17, <https://www.wissenschaftsrat.de/download/archiv/5738-03.pdf?__blob=publicationFile&v=1> [accessed on 26th September 2021].

[133] S. Alves, *Interactive Media Art: the Institution Tells a Story. The Center for Art and Media Karlsruhe*, «ICONO 14, Revista de comunicación y tecnologías emergentes», 12, 2014, pp. 181-205.

[134] Wissenschaftsrat, *Stellungnahme zum Zentrum für Kunst und Medientechnologie (ZKM), Karlsruhe*, 2003, p. 17, <https://www.wissenschaftsrat.de/download/archiv/5738-03.pdf?__blob=publicationFile&v=1> [accessed on 26th September 2021].

[135] L. Voropai. *Die Entstehungsgeschichte des ZKM*, in *Medienkunst als Nebenprodukt: Studien zur institutionellen Genealogie neuer künstlerischer Medien, Formen und Praktiken*, ed. by L. Voropai, Bielefeld, transcript Verlag, 2017, pp. 193-194.

3.1.2 Organization Structure

3.1.2.1 The Organization According to Konzept '88

From that date to 2017, the ZKM changed quite significantly its organization structure. If we look at *Konzept '88*, the ZKM was there conceived with three areas recalling the three fundamental themes: *Bild*, *Musik* and *Medien für den Bürger* (Image, Music and Media for the Citizens). Each theme was interconnected with the other two, composed by three specific areas of interest and another common one between all the three subjects: the Associated Research area. *Bild* was composed by three areas respectively dedicated to: *Computergrafik und Animation* (Computer graphics and animation), *Holografie* (Holography) and *Videokunst* (Video art). *Musik* was organized in the following three fields: *Live-Elektronik+Elektroakustiche Aufführungs- und Aufnahmepraxis* (Live Electronics+Electroacoustic Performance and Recording Practice), Electronic instruments (MIDI technology), *Digitale Klangsynthese, -analyse und – umformung* (Digital Sound Synthesis, Analysis and Transformation), *Elektronische u.a. Instrumente im Verbund (MIDI-Technik)* (Electronic instruments (MIDI technology). *Medien für den Bürger* was though as divided in: *Forum* section, dedicated to the organization of events, concerts and exhibitions; *Dienstleistungen* section, in English services, which had tasks related to the education field and was supposed to include a media library open to the public; and *Offene Werkstätte, Experimentierräume, Seminarräume, Medienateliers* section (Open workshop, experiment rooms, seminar rooms, media studios), which had to organized all the education activities with the public[136]. The Media Museum mentioned above was conceived in the *Forum* of *Medien für den Bürger* area, and in 1989 Klotz added the Museum of Contemporary Art.

3.1.2.2 The Organization Structure from 2002 to 2007

The structure designed in 1988-1989 was more an ideal plan rather than a practical one. Indeed, looking at the organization structure of 2002, we can see that the three parties' division has evolved in the creation of various institutes dealing with specific, though interdisciplinary, subjects. In that year, the ZKM presented the following departments[137]:

---

[136] Stadt Karlsruhe, Kulturreferat [H. Bohner, H. Ringler, T.A. Troge, P. Zec], *ZKM – Zentrum für Kunst und Medientechnologie Karlsruhe – Konzept '88*, 1988, pp. 14-27,
<https://zkm.de/media/file/de/konzept_88.pdf> [accessed on 26th September 2021].
[137] Wissenschaftsrat, *Stellungnahme zum Zentrum für Kunst und Medientechnologie (ZKM), Karlsruhe*, 2003, pp. 19-29, <https://www.wissenschaftsrat.de/download/archiv/5738-03.pdf?__blob=publicationFile&v=1> [accessed on 26th September 2021].

1. Institute for Visual Media
2. Institute for Music and Acoustics
3. Institute for Basic Research
4. Institute for Net Development
5. Institute for Media and Economics
6. Media Museum
7. *Museum für Neue Kunst* (MNK), (Museum for Modern Art)
8. Media Library
9. Museum Communications
10. Exhibitions

From the original idea of Klotz, the ZKM in 2002 maintained: the Media Library (8), which was part of the *Dienstleistungen* section of *Medien für den Bürger*; the Exhibitions area (10), which developed similar functions of *Forum* section of the same area. In *Forum* there was already the idea of a Media Museum (6) and in 1989 it was added the Museum of Contemporary Art, here named as MNK (7). Even Museum Communications (9) performed activities similar to those assigned to *Werkstätte* section of *Medien für den Bürger*. Moreover, the Institute for Visual Media (1) and the Institute for Music and Acoustics (2) respectively represented the idea of *Bild* and *Musik* areas. Between 2016 and 2017 these two institutes merged in the *Hertz Labor*, a ZKM's research laboratory.

In this version of the ZKM even some new departments can be identified: the Institute for Basic Research (3), the Institute for Net Development (4), the Institute for Media and Economics (5). The first two were established by Peter Weibel in 1999 as he became the director of the ZKM after Heinrich Klotz[138]. The latter, instead, was founded in 2001 in direct correlation with *Medien für den Bürger* area of *Konzept '88*. Indeed, the Institute «explore[d] and demonstrate[d] the social effects of society's media-induced transformation» through research, with the scope of supporting both private and public decision-makers[139]. On the contrary, the Institute for Net Development was more a Weibel's creation. In 1995, Weibel was director of Ars Electronica Festival in Linz, Austria, and in that year the theme was Internet Art (shorten in Net Art)[140]. Probably, Weibel was more sensitive to this issue than

---

[138] Peter Weibel still is the chairman of the ZKM.

[139] Wissenschaftsrat, *Stellungnahme zum Zentrum für Kunst und Medientechnologie (ZKM), Karlsruhe*, 2003, p. 25, <https://www.wissenschaftsrat.de/download/archiv/5738-03.pdf?__blob=publicationFile&v=1> [accessed on 26th September 2021].

[140] Internet Art or Net Art is an artistic research, which involves the creation and the exhibition of artworks on the Internet.

his predecessor was. In any case, this institute not only dealt with the production of Net artworks, but even with the development of ZKM's presence online by creating an online and open database with information on the artists, artworks, exhibitions, events, research etc. made there. Finally, the Institute for Basic Research was directed by the physicist Hans H. Diebner and its objective was to carry on research on complex system with an interdisciplinary approach and working group composed by physicists like Diebner, computer scientists, media artists and other various profiles[141].

3.1.2.3 The Changes Occurred in 2017

These last three institutes are now closed and actually since 2017 the ZKM is showing a different aspect from that described till this point. In that year, the *Zentrum für Kunst und Medientechnologie* was renamed as *Zentrum für Kunst und Medien* (ZKM)[142]. The first changes occurred in 2015, when another wing of the building was opened to host exhibitions and events[143]. In this year the Media Museum and the Museum for Modern Art merged, and the activities of organizing exhibitions and the correlated events are still now carried out by the Curatorial Department. In 2016, even the Institute for Visual Media and Institute for Music and Acoustics merged into the *Hertz-Labor*[144]. The *Hertz-Labor* (in English Hertz Lab) was and still is a transdisciplinary research centre, focused on looking at all the possible connections between media arts, science, and society. The new center is dedicated to Heinrich Hertz, who proved the existence of electromagnetic waves at the *Karlsruher Institut für Technologie* (Karlsruhe Institute of Technology) (KIT) in 1886. A year later, in 2017, another department was created: *Wissen* - Collection, Archives & Research. Currently, it includes a major part of the collection; the archives with papers of artists and theorists; the joint library of the ZKM and the *Staatliche Hochschule für Gestaltung* (Karlsruhe University of Arts and Design); the laboratory for antiquated video systems, which restores and digitalizes video art to be then researched and exposed to the public; and the media lounge a place to view, listen

---

[141] P.Weibel, *A Museum's Mission*, in *Performative Science and Beyond Involving the Process in Research*, ed. by Hans H. Diebner, Wien, Springer-Verlag, 2006, pp. 14-15.

[142] Since 2017 the official name is Zentrum für Kunst und Medien (ZKM). L. Voropai. *Die Entstehungsgeschichte des ZKM*, in *Medienkunst als Nebenprodukt: Studien zur institutionellen Genealogie neuer künstlerischer Medien, Formen und Praktiken*, ed. by L. Voropai, Bielefeld, transcript Verlag, 2017, pp. 193-208.

[143] ZKM, Zentrum für Kunst und Medientechnologie, *Jahresbericht 2015,* 2015, pp. 9-10, <https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2015.pdf> [accessed on 26th September 2021].

[144] ZKM, Zentrum für Kunst und Medientechnologie, *Jahresbericht 2016,* 2016, pp. 11-13, <https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2016.pdf> [accessed on 26th September 2021].

and discuss on the ZKM's video and audio collection[145]. Figure 7 shows a view of the exhibition *Writing the History of the Future. The Collection of ZKM*. The exhibition displays artworks from ZKM's collection, which is managed by *Wissen* department[146].
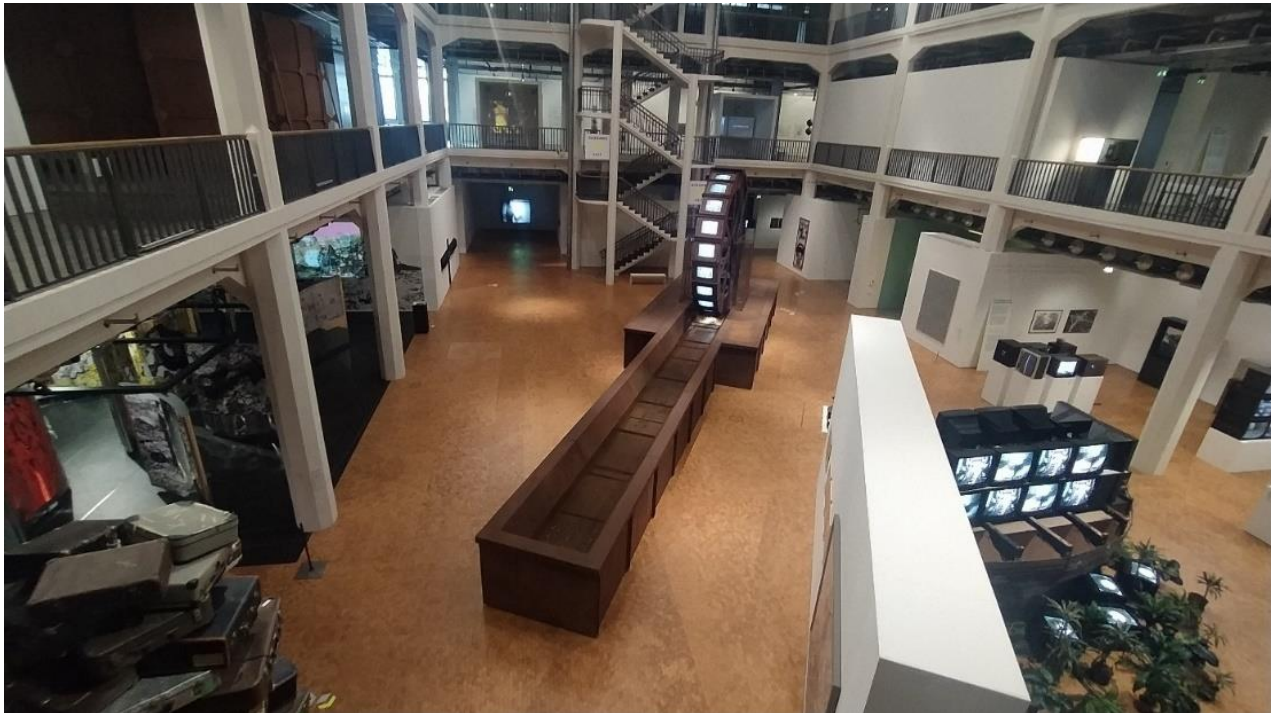

Figure 7, View of the exhibition: *Writing the History of the Future. The Collection of ZKM*
5th August 2021 Foto: Sara Bronzin

3.1.2.4 The Current Structure of the ZKM (2021)

At the moment, the ZKM is organized in the following ten departments:

- Curatorial Department: devoted to the organization of various exhibitions during the year. These exhibitions show the current developments in art and society through the presentation of artworks of «all forms of media and processes from oil paintings to apps»[147].

- *Hertz-Labor*: a research laboratory and artistic production centre. In Hertz-Lab computer scientists, artists and musicians work together to develop software for art production as well as they produce their own works. For instance, between 2011 and

[145] ZKM, Zentrum für Kunst und Medien, *Jahresbericht 2017,* 2017, pp. 52-68,
<https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2017.pdf> [accessed on 26th September 2021].
[146] The exhibition was organized for the 25th anniversary of ZKM official opening to the public. The exhibition shows in a renovated version the collection assembled in these 25 years.
[147] More information on this department at: <https://zkm.de/en/about-the-zkm/organization/curatorial-department> [accessed on 13th September 2021].

2016, a series of sixteen CDs and DVDs of electroacoustic and acousmatic music has been realized at the ZKM and published by the German label WERGO under the name *Edition ZKM*[148].

- *Wissen* - Collection, Archives & Research: it was set up in 2017 to manage the collection and archives in just one department rather than dividing the task between the different departments as was done before this date. *Wissen* is responsible also for the library, the laboratory for antiquated video systems, and the media lounge[149].

- Communication and Marketing: it is focused on the promotion of the ZKM around the world[150].

- Museum Communication: it focuses on museum's education which is defined as «art education in process»[151]. Furthermore, museum's communication points the attention on what digital-, but also analogue-, media are and how, when and why they shall be used.

- Publications Department: it has been founded in 2000 to supervise the increasing quantity of publications, that the ZKM is being carrying on and which include books, CDs and DVDs[152].

- Videostudio: it is a department that supports others, like those of communication and marketing, publications, and events. Indeed, every event is recorded by this department as well as many trailers and teasers are made for communication and marketing.

- Events Department: it is devoted to the organizations of events like screenings, readings, concerts, performances, talks and annual major events. On average they organize between 100 and 150 events per year[153].

- Museum and Exhibition Technical Services: the tasks taken by this department are «information technology, restoration, object documentation, audio-visual media technology, art handling, electrical engineering, lighting technology, depot

---

[148] All the CDs and DVDs of the *Edition ZKM* can be bought in WERGO website: <https://en.schott-music.com/wergo/program/edition-zkm/?mwi-page=1&mwi-sort-by=tbl_erscheinungstermin_ist> [accessed on 19th September 2021].

[149] More information on this department at: <https://zkm.de/en/about-the-zkm/organization/wissen> [accessed on 13th September 2021].

[150] More information on this department at: <https://zkm.de/en/about-the-zkm/organization/communication-and-marketing> [accessed on 13th September 2021].

[151] More information on this department at: <https://zkm.de/en/about-the-zkm/organization/museum-communication> [accessed on 13th September 2021].

[152] More information about this department at: <https://zkm.de/en/about-the-zkm/organization/publications-department> [accessed on 13th September 2021].

[153] ZKM, Zentrum für Kunst und Medien, *Jahresbericht 2017,* 2017, p. 16, <https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2017.pdf> [accessed on 26th September 2021].

management, transport logistics, loans and technical project management for exhibition productions are the topics of museum technology»[154].

- Museum Shop: it can be found both on site and online[155].

---

[154] More information about this department at: <https://zkm.de/en/about-the-zkm/organization/museum-and-exhibition-technical-services> [accessed on 13th September 2021].
[155] Here is the link for the online shop: <https://shop.zkm.de/> [accessed on 13th September 2021].

3.2 How the On-site Community is Engaged

3.2.1. Who Visits the ZKM?

Before analysing how the in-presence community is involved, it is useful to understand which is the identity of this community. A survey conducted by the ZKM itself every year shows that the 58% of the interviewed visitors in 2017 were aged under 35 years old, following this division[156]:

- 10 % under 18 years old

- 20 % between 18-24 years old

- 28 % between 25-34 years old

Instead, people older than 35 years are less likely to visit the ZKM as the survey shows:

- 15 % of visitors are aged between 35-44 years old

- 20 % of visitors are aged between 45-54 years old

- 7 % of visitors are older than 55 years old

The higher number of people between the ages 45-54 probably depends on the fact that this segment is composed by families, which are a target segment for some activities like workshops. Indeed, in 2017, 36 workshops were organized just for families, while none was specifically organized for elderly people (Table 2).

3.2.1.1 Kirchberg's Study on Museum Visitors by Age Segments (1996)

Unfortunately, there are few studies on museums' visitors age segments in Germany to use as comparison for ZKM's results. In fact, one of the most prominent research in this field dates back to 1996. In this year, Volker Kirchberg published his study on museum visitors and non-visitors in Germany, dividing the visitors' sample into age segments and grouping museums according to four different categories: Science and Technology Museums, Natural

---

[156] The following data are taken from ZKM's *Jahresbericht* (Report of the Year) of 2017. ZKM produces every year a report of the activities that have been organized during the year (exhbitions, workshops, guided tours, and events). In the report, information can be found about visitor participation to these activities and the balance sheets of the different departments. For this research it has been chosen to use the 2017 *Jahresbericht* since the information on Karlsruhe's population were available till that year. However, it is noticed that also 2019 report shows similar trends. Instead, the last report of 2020 has not been chosen, because the visitors participation and the number of activities offered were too much influenced by the Corona-virus pandemic. ZKM, Zentrum für Kunst und Medien, *Jahresbericht 2017,* 2017, p. 122, <https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2017.pdf> [accessed on 13th September 2021].

History and Natural Science, History Museums and Art museums[157]. According to Kirchberg's studies the age segment 15-34, which he divides into two segments, 15-24 and 25-34, is more interested in Science and Technology Museums, and Natural History and Natural Science ones[158]. In both cases the highest participation rate in these kinds of museums is recorded by people aged between 35 and 44 years old: respectively 21% of this population's segment visits science and technology museums, while 25 % of the same population's segment visits natural history and natural science museums. Nonetheless, the percentage of people under 35 in Germany, who visits those types of museums is higher than the percentage of visitors aged over 55 years old. Indeed, the 20% of people aged between 15-34 years visits science and technology museums against an average of 15% for people older than 55 years old. Similarly, the 22% of under 35 years old people visits natural history and natural science museums against less than the 15% of over 55 years old visitors. A likely reflection can be made also for History Museums in which the highest participation rate is reported in visitors aged between 45-54 years old, who are the 23% of the German population of this age segment. Visitors between 15-34 years old are on average the 21% of this population's segment, which is still more than the almost 19% of visitors older than 55 years old[159]. The trend changes if we analyse the participation rates in Art museums[160]. In this case, the older the person is, the more he/she takes part to the cultural offer of this museum's type. Though the participation rate is overall higher than the other museums' types, the participation of young people is quite reduced in respect to elderly people: more than 26% of people aged between 15-35 visits art museums (27% for the segment 15-25; 26% for the segment 25-34); while the lower participation rate is that of 35-44 segment with 22%, but

---

[157] In his study, Kirchberg declares to use the museums classification proposed by the Istitut für Museumsforschung (Institute for Museum Research) in 1995. However, the category of History Museums is quite enlarged since it comprises even *Heimatkunden museen* (local life museums) and archaeological museums. References: V. Kirchberg, *Museum visitors and non-visitors in Germany: A representative survey*, «Poetics», 24, 1996, p. 243.

Staatliche Museen zu Berlin – Preußischer Kulturbesitz, Istitut für Museumskunde*, Statistische Gesamterhebung an den Museen der Bundesrepublik Deutschland für das Jahr 1995*, 1995, pp. 10-14, <https://www.smb.museum/fileadmin/website/Institute/Institut_fuer_Museumsforschung/Publikationen/ Materialien/mat45.pdf> [accessed on 26th September 2021].

[158] V. Kirchberg, *Museum visitors and non-visitors in Germany: A representative survey,* «Poetics», 24, 1996, pp. 246-247.

[159] V. Kirchberg, *Museum visitors and non-visitors in Germany: A representative survey*, «Poetics», 24, 1996, p. 248.

[160] It shall be remarked that these data regard the German context, which differs from other contexts like the North American one. Indeed, Kirchberg made also studies on visitors in U.S.A. and in that case, he reported the older the person is the less he/she visits museums. In U.S.A., museums cultural offer is more appealing to families rather than pensioners. V. Kirchberg, *Museum visitors and non-visitors in Germany: A representative survey,* «Poetics», 24, 1996, p. 241.

after 45 years old the participation rates increase till to the 30% of people aged over 75 years old[161].

The hybrid nature of the ZKM makes it complex to identify, whether the ZKM can be considered as an Art Museum and so being an exception according to the Kirchberg's analysis, or if it can be labelled as a Science and Technology Museum and confirm the above report. Both definitions could be valid. It could be an Art Museum because it regularly organizes several art exhibitions and programmes dedicated to artists and musicians such as the artists-residencies. It could even be a Science and Technology Museum for its primary focus on media technology: the art collection and museum were not present in *Konzept '88,* the first document describing the project of ZKM.

3.2.1.2 How the ZKM mirrors Karlsruhe's Society

Probably, it is more correct to compare the profile of ZKM's visitors to the composition of Karlsruhe's inhabitants, rather than compare it to the visitors' profile of the German museum sector. Indeed, the percentage of young people aged between 15-34 years old is the highest of Karlsruhe's population segments (Table 1)[162]:

- 14% of inhabitants are under 18 years old
- 30% of inhabitants are between 15-34 years old
- 26% of inhabitants are between 35-54 years old
- 20% of inhabitants are between 55-74 years old
- 10% of inhabitants are over 75 years old

These data show that ZKM's visitors mirror Karlsruhe's local community. Moreover, even though the ZKM is visited by many tourists, it is to notice that several visitors come to visit ZKM more than once per year, thus suggesting a local or at least regional origin of the visitors. Indeed, the survey conducted in 2017 shows that: 37% of the interviewed was visiting ZKM for the first time; the 24% for the second time; the 12% for third time; and the

---

161 V. Kirchberg, *Museum visitors and non-visitors in Germany: A representative survey*, «Poetics», 24, 1996, p. 250.
162 Information taken from Table 1 in *Appendix 1*. The information contained in Table 1 refer to: Stadt Karlsruhe, Amt für Stadtentwicklung, Statistikstelle*, Karlsruhe Bevölkerungspyramide,* 2017, <https://web5.karlsruhe.de/Stadtentwicklung/statistik/gizeh/index.html?indicator=i202&select=Karlsruhe> [accessed on 26th September 2021].

15 % had already visited it more than four times. Finally, the gender percentage is the same of Karlsruhe's inhabitants one: 49% of visitors is female; 51% of visitors is male[163].

The following two paragraphs show how the ZKM engages with Karlsruhe's young inhabitants, but also with a wider segment of population. A couple of examples are presented to describe ZKM's activities. The first example is the one of [MASTERCLASS], a scholarship programme for students aged between 15 and 19 years old, living in Karlsruhe and its surroundings. The programme is organized every year since 2014 with the aim of providing training on contemporary and media art for a minimum of five to a maximum if seven talented students. The second example is the performance *Notes Towards a Permacircular Museum* (2019-2020) by Stéphane Verlet-Bottéro for the exhibition *Critical Zone: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022). The artwork involved a regeneration practice in Karlsruhe to compensate for the carbon footprint of the exhibition. The performance has been accompanied by workshops open to everybody indifferently from the age segment.

3.2.2 Example 1: [MASTERCLASS], a Scholarship Programme for Students Aged between 15-19 years old (2014 – present)

In 2017, people aged between 15-34 years old were the 30% of Karlsruhe's citizens. An example of how young Karlsruhe's citizens were and are still now involved in ZKM activities is the [MASTERCLASS] scholarship. From the first edition (2014-2015), the programme addresses students from 15 to 19 years old living in Karlsruhe and its surroundings[164]. It is organized by the Museum Communication department with the support of Fördergesellschaft ZKM / HfG e.V. and aims at providing the selected participants with an in-depth training on current art trends and the chance to create their own artwork and present it at the ZKM. The participants are selected by a jury composed by both members of ZKM | Museum Communication staff and by members of Fördergesellschaft ZKM / HfG e.V., who select from a minimum of five to a maximum of seven participants each year. The candidates must present their artistic portfolio and a motivation letter. The selected participants have then the

---

[163] ZKM, Zentrum für Kunst und Medientechnologie, *Jahresbericht 2017,* 2017, pp. 134-135, <https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2017.pdf> [accessed on 26th September 2021].
[164] This segment involves more than 16% of Karlsruhe citizens, and the 54% of 15-34 segment total. These data are taken from Table 1 that can be found in *Appendix 1*. The information contained in Table 1 refer to Stadt Karlsruhe, Amt für Stadtentwicklung, Statistikstelle*, Karlsruhe Bevölkerungspyramide,* 2017, <https://web5.karlsruhe.de/Stadtentwicklung/statistik/gizeh/index.html?indicator=i202&select=Karlsruhe> [accessed on 26th September 2021].

chance to take part to workshops on traditional mediums like painting and sculpture as well as new ones like videos or digital music composition. During the scholarship period, which usually coincides with a school year, the participants are helped in the creation of their own artwork which is presented for a month in a group-exhibition in summer at the ZKM.

The first edition of [MASTERCLASS] began in September 2014 and ended with the first Masterclass' exhibition (2 July - 2 August 2015). For this first edition six students were chosen:

- Fedele M. Friede (born in 1997)
- Felix Glombitza (born in 1999)
- Leonie Palik (born in 1996)
- Louis Caspar Schmitt (born in 1997)
- Maike Wolff (born in 1997)
- Mara Wohnhaas (born in 1997)

Four of these first six participants have continued their studies in the art and media fields: Friede studies painting and graphics at the Hochschule für Grafik und Buchkunst Leipzig (Academy of Fine Arts in Leipzig), Schmitt studies scenery at the Universität der Künste in Berlin (University of the Arts in Berlin), Maike studies landscape architecture at the Universität Kassel (University in Kassel), Wohnhaas studies sculpture at the Kunstakademie Düsseldorf (Academy of Fine Arts in Düsseldorf).

Last year, for the fifth anniversary of the programme, an online catalogue of the first five exhibitions made from 2015 to 2020 has been realized by ZKM[165]. Moreover, due to Corona Virus the sixth exhibition (2020-2021), which is not present in the catalogue, has been planned online and the artworks can be seen in an online platform[166]. Finally, since 2017 the ZKM has also developed an Alumni programme to create a network between the participants of the different editions.

[165] ZKM, Zentrum für Kunst und Medien Karlsruhe [J. Burger, S. Faller], *5 Jahre Masterclass am ZKM* 2020,<https://zkm.de/media/file/de/masterclass_5_jahre_publikation_online.pdf> [accessed on 14th September 2021].
[166] The link for the online platform is the following: <https://masterclass.zkm.de/> [accessed on 14th September 2021].

3.2.3 Example 2: *Notes Towards a Permacircular Museum* (2019-2020) by Stéphane Verlet-Bottéro

Another example to show ZKM's commitment in community engagement is the performance: *Notes Towards a Permacircular Museum* (2019-2020) by Stéphane Verlet-Bottéro was presented during the exhibition *Critical Zone: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022), on which we will return in chapter 3.5.1. In this case, the presented artworks and the whole performance do not address a specific target group as the [MASTERCLASS] programme. The exhibition, according to Daria Mille, one of its curators, «Concerns all of us»[167]. Actually, materials about the artistic process of creation were available even online for a wider and global community, but this performance specifically targeted the on-site one.

For this performance, the ZKM calculated its carbon footprint and made an activity of restoration to compensate it under the direction of the artist. The practice of calculating carbon footprint is not limited to the German museum; indeed, many museums are slowly becoming accustomed to it. The diffusion of this practice is suggested in a Sustainability Toolkit provided by the International Committee of Museums and Collections of Modern Art (CIMAM), which identifies the calculation of carbon footprint as «the best way to help you set clear goals and a strategy to become carbon neutral»[168]. In the case of the ZKM, the exhibition's greenhouse effect has been calculated by measuring the hydrofluorocarbon leaks in the cooling system, the fossil fuels burned for artists' and curators' travels as well as the material used for the displayed artworks[169]. After this calculation the work involved practices of regeneration of Karlsruhe's environment. More in detail, the ZKM rented and restored an abandoned fruit orchard, which is located in its surroundings[170]. Unfortunately, the activities planned by ZKM to engage the public were limited due to the Covid19 pandemic.

---

[167] Quotation taken from the interview made to the curator Daria Mille on 6th August 2021 which can be found in *Appendix 2*. Daria Mille is a curator and an associate researcher of the ZKM since 2013. Before this date, she worked as assistant curator for the 3rd and 4th editions of the Moscow Biennale of Contemporary Art.

[168] CIMAM, International Committee of Museums and Collections of Modern Art, *Toolkit on Environmental Sustainability in the Museum Practice*, 2021, p.21 <https://cimam.org/sustainability-and-ecology-museum-practice/cimams-toolkit-on-environmental-sustainability/> [accessed on 14th September 2021].

[169] Information on the footprint calculation can be found at: <https://critical-zones.zkm.de/#!/detail:notes-towards-a-permacirular-museum> [accessed on 14th September 2021].

[170] Information taken from the interview made to the curator Daria Mille on 6th August 2021 which can be found in *Appendix 2*.

Nonetheless, they were able to organize a workshop for the winter pruning of the orchard on 14th February 2020 (fig. 8)[171].

Figure 8, Stéphane Verlet-Bottéro, *Notes Towards a Permacircular Museum* (2019-2020)

Copyright: Peter Müller and Moritz Büchner

Credits: ZKM | Zentrum für Kunst und Medien

---

[171] As witness of this moment a video has been realized: <https://critical-zones.zkm.de/#!/detail:notes-towards-a-permacirular-museum> [accessed on 14th September 2021].

3.3 How the Global Community is Engaged

ZKM develops a series of activities aimed at creating a network between artists, curators, computer scientists and other professionals. These activities specifically «concerns all of us» as Daria Mille declared, that is they address a broader public than the local one.

For example, the exhibition *Critical Zone: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022)[172], within which the performance *Notes Towards a Permacircular Museum* took place, involved collaborations between artists from different countries, such as the French Verlet-Bottéro or the Mexican Edith Morales, and professionals from different fields like the sociologist Bruno Latour and his research team. Collaboration have been established even with other institutions such as the Naturkundemuseum and the Staatliche Kunsthalle both in Karlsruhe. The networks of collaborations created by the ZKM aim to be global through the digital and online tools (e.g., Critical Zone platform[173]). This means that both local people as well as people from all over the world could connected with the ZKM and take part to its activities. However, the accessibility to these tools is not widespread everywhere equally. Even though the ZKM is creating networks even with institutions from the Global South, most of the projects are developed in collaboration with Western and, more in detail, European partners[174]. In the following paragraph five projects developed by the ZKM and other European partners in the last six years are described. These projects have been funded by the EU-Programme Creative Culture.

3.3.1 The Projects Developed with the Fundings of EU-Programme Creative Culture

Collaborating with other institutions worldwide is a significant activity for the ZKM, which is an EU Coordination Office since 2002. The office's task is to facilitate Baden-Württemberg's institutions in obtaining European funds for their projects. The ZKM has particularly benefit from the office's work: if we just focus on the projects made with the fundings of EU-Programme Creative Europe in Germany during the period 2014-2019, ZKM held the first place for the number of projects approved through this programme[175]. For

---

[172] Quotation taken from the interview made to the curator Daria Mille on 6th August 2021 which can be found in the *Appendix 2*.

[173] It is the online platform of the exhibition *Critical Zone: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022), <https://critical-zones.zkm.de/#!/> [accessed on 26th September 2021].

[174] Currently a project with African professionals is being developed. More information at <https://themuseumslab.org/> [accessed on 26th September 2021].

[175] ZKM, Zentrum für Kunst und Medien, *Jahresbericht 2019,* 2019, pp. 198-199, <https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2019.pdf> [accessed on 26th September 2021].

instance, in 2019, ZKM applied for a call of EU-Creative Europe with the following project[176].

On the fly is a project dedicated to the promotion of live coding practice, which is «a performative technique focused on writing algorithms in real-time so that the one who writes is part of the algorithm»[177]. The goals of the project are: supporting cooperation within the EU live coding community; bringing live coding practices closer to the general public, and to computer science and art students; developing and promoting free and open source tools for live coding practices; stimulating interdisciplinary cooperation in live coding research. The project was proposed for the EU-Programme: Creative Europe, sub-programme Culture. The leading institution was the Fundació Privada AAVC – Hangar from Spain. ZKM was one of the partners, together with Creative Coding Utrecht (Netherlands), and LJUDMILA, Ljubljana Digital Media Lab (Slovenia). The application has been created on the 27th of November 2019 and the following year the project has been approved by EU-Creative Europe committee. The project will last two years, till 2022, and has been funded with 197.695€. Some concrete results can already be reported. In January 2021 an open call was organized by the four involved institutions. The call awarded with eight grants eight professionals of all nationalities and over 18 years old working in the field of live coding to develop their research projects. The eight grants were distributed as two for each institution and comprised a residency programme from two-weeks up to one-month residency according to the institution (ZKM organized a one-month residency). One of the two ZKM's residencies was won by the Italian scientific art researcher Gaia Leandra[178]. Leandra started the residency programme in August and ended it on 11th September 2021 with a live-streaming performance of her research work named *Bioxeno*[179]. Currently, another open call has been launched and organized with the same modalities. By the end of the September 2021 other researchers like Leandra will be selected as grants winners[180].

---

[176] ZKM, Zentrum für Kunst und Medien, *Jahresbericht 2020,* 2020, pp. 244-245, <https://zkm.de/media/file/de/zkm_jahresbericht2020_20210301_web.pdf> [accessed on 26th September 2021].

[177] Quotation taken from the project's website: <https://onthefly.space/> [accessed on 15th September 2021].

[178] More information on the work and the profile of Gaia Leandra can be found on the website of the project's leading institution, *Hangar*: <https://hangar.org/en/residents/collective-residents/gaia-leandra/> [accessed on 15th September].

[179] A video presentation made by Leandra of her work is available on ZKM's YouTube channel at the following link: <https://www.youtube.com/watch?v=5D8zGxPI6iI> [accessed on 15th September].

[180] Here is the current open call for *on the fly* project: <https://onthefly.space/calls/open-call-for-live-coding-research-projects> [accessed on 15th September].

In 2019 other two projects, proposed in 2018, have been approved by the EU[181]:

- *Beyond Matter* aims at providing tools for museums and galleries to digitally transfer their current and past physical exhibitions. More than transferring, the goal is to document and to make these exhibitions accessible through the digital. Furthermore, the proposed solution shall include also digital-born artworks. Therefore, the research focus is not only the technological feasibility, but also the museological one. A major part of the project consists in the training of museum's professionals through seminaries and the creation of a Virtual Museum Toolkit. The project application to EU-Creative Culture, sub-programme Culture, has been done on 11th December 2018. It is the only project of this list which is led by the ZKM itself. The other partners are Aalto University (Finland), Centre national d'art et de culture Georges Pompidou (France), Ludwig Múzeum – Kortárs Muvészeti Múzeum LUMU (Hungary), Tallinn Art Hall Foundation (Estonia), Tirana Art Lab (Albania), and Weiss AG WAG (Germany). The project received 1.354.838€ as EU-fundings and is supposed to end in 2023. In the first two years of the projects, six exhibitions organized by the projects partners have already been transposed online, or further materials and computer-based works have been provided on purpose made websites. These exhibitions are: *Sans objet. 9 œuvres abstraites pour le navigateur Internet. Exposition virtuelle d'art numérique* (19 May - 19 November 2021) organized by Centre Pompidou; *Slow Life. Radical Practices of the Everyday* (14 July - 5 September 2021) organized by the Ludwig Museum; *Computable – Incomputable* (30 October 2020 – 30 September 2021), *Critical Zones – Observatories for Earthly Politics* (23 May 2020 – 9 January 2022), *bauhaus.film.digitally.expanded* (8 February 2020 – 23 August 2020). The latter three exhibitions have been created for or transposed into the digital format by

---

the ZKM[182]. Moreover, ZKM and Tallin Art Hall created a specific website for their digital exhibition[183].

- *Artists at Risk (AR)* was proposed on the same date and for the same programme of *Beyond Matter*. The project aimed at creating a European Network of Safe Havens (ENSH) for artists, writers, curators, critics and scholars who are persecuted for political reasons in their countries of origins (even if these countries are not in the EU). An AR - Safe Haven have been built in Berlin in 2019, while at the ZKM a residency programme has been organized in collaboration with AR - Safe Haven Berlin. The leading institution of the project is Perpetuum Mobile from Finland, and its partners are ZKM (Germany), ART VEDA (Tunisia), Associazione Culturale Stalker (Italy), Centre de Cultura Contemporania Barcelona (Spain). The project received a total amount of the EU fundings of 199.999€, and it is supposed to be conclude for 2022.

In the same year, 2019, ZKM was working to other two EU projects[184]:

- *smARTplaces* was presented on the 7th of October 2015 within the same EU-Programme (sub-programme Culture). The project was led by the Kulturbetriebe Dortmund (Germany), and the institutional partners were ZKM (Germany), Birmingham City University (United Kingdom), Musée de Picardie (France), Stedelijk Van Abbemuseum (Netherlands), Centro Azkuna de Ocio y Cultura, S.A. (Spain), WIELS Centre d'Art Contemporain (Belgium), Oulu University of Applied Sciences (Finland), and Ayuntamiento de Zaragoza (Spain). The project was funded with 1.900.000 € by the EU and was concluded in 2020. Its aim was to develop and

[182] The virtual exhibition of the Centre Pompidou can be seen at:
<https://www.centrepompidou.fr/fr/programme/expositions-musee/sans-objet> [accessed on 15th September 2021].
The virtual exhibition of Ludwig Museum can be seen at: <http://slowlife.ludwigmuseum.hu/en/> [accessed on 15th September 2021]. Ludwig Museum proposed other online materials, which are comprised in the project *Beyond Matter*. These materials can be still found here:
<https://www.ludwigmuseum.hu/en/museum-home> [accessed on 15th September 2021].
The online exhibition *Computable-Incomputable* can visited at the following link:
<https://digitalekunsthalle.zdf.de/zkm_en/index.html> [accessed on 15th September 2021].
All the online materials and exhibition developed for the project *Beyond Matter* could be found here:
<https://beyondmatter.eu/> [accessed on 15th September 2021].
[183] ZKM's online platform for digital exhibitions is named ZDF Digital Art Hall and could be found at this link:
<https://digitalekunsthalle.zdf.de/zkm_en/index.html#tp0 &> [accessed on 15th September 2021].
Tallin Art Hall's online platform for digital exhibitions is named could, instead, be found at this link:
<https://virtuaal.kunstihoone.ee/en> [accessed on 15th September 2021].
[184] ZKM, Zentrum für Kunst und Medien, *Jahresbericht 2019,* 2019, pp. 198-199,
<https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2019.pdf> [accessed on 26th September 2021].

disseminate digital strategies to attract new visitors group in museums. To this purpose several talks, workshop and other events have been organized. E.g., the ZKM hosted the conference smARTplaces | INNOVATION in Culture (1-2 March 2018). During the event talks on audience development and digital technologies have been delivered by both ZKM's and external experts. The consistency with digitalization strategies is confirmed by the fact that many of these talks are recorded and available in ZKM's website[185]. Finally, ZKM developed even an App named *experience_zkm*, which worked with augmented reality (AR). The app works like a game based on the artworks of ZKM's collection and offers the possibility to get more information on the exhibition *Open Codes. The World as a Field of Data* (20 October 2017 - 2 June 2019) and on the correlated events. Unfortunately, the app was too much focused on the exhibition and is no more available.

- The project *Interfaces* was proposed together with *smARTplaces*, being actually quite similar. Both had the aim of developing new audiences for cultural institutions. However, if *smARTplaces* focused on museums and visual arts, *Interfaces* focused on performance art and new musical genres (e.g., the electroacoustic one). The project was led by ARIONA Hellas AE (Greece) with the following institutional partners: ZKM (German), CREMAC (Romania), DE MONTFORT UNIVERSITY (United Kingdom), European University Cyprus (Cyprus), Ictus vzw (Belgium), IRCAM (France), Klangforum Wien (Austria), Q-O2 (Belgium). The project was concluded last year, 2020, and was funded with 1.800.000 € by the EU. The project involved four artists-residencies programme and one ended up in the creation of an App: *My Music, My Sound*. However, even in this case the App is no more available.

---

[185] The ZKM's website page of the projects, in which the mentioned contents can be found: <https://zkm.de/en/project/smartplaces> [accessed on 15th September 2021].

3.4 The ZKM «In the Service of Society»

The activities presented in the previous paragraphs highlight ZKM's commitment in engaging with the local and the global communities. In particular with its young members as reported in the example of [MASTERCLASS] scholarship programme[186]. The local community is involved for activities correlated with the exhibitions done at the ZKM, as in the example of the workshop on winter pruning organized after the performance *Notes Towards a Permacircular Museum* (2019-2020) by Verlet-Bottéro[187]. Moreover, we reported how much ZKM dedicates itself in the collaboration with other cultural institutions for European projects like those founded with EU Creative Europe programme. All the activities presented thus far can fall under the label of being «in the service of society», which is an essential feature of the current I.C.O.M. definition of museum (2007):

> *A museum is a non-profit, permanent institution <u>in the service of society</u> and*
> *its development, open to the public, which acquires, conserves, researches,*
> *communicates and exhibits the tangible and intangible heritage of humanity*
> *and its environment for the purposes of education, study and enjoyment[188].*

However, the ICOM Standing Committee for the Museum Definition, Prospects and Potentials (MDPP), guided by Jette Sandahl, considered this expression «in the service of society» too much unclear and proposed the following definition of museum:

> *Museums are democratizing, inclusive and polyphonic spaces for critical*
> *dialogue about the pasts and the futures. Acknowledging and addressing the*
> *conflicts and challenges of the present, they hold artifacts and specimens in trust*
> *for society, safeguard diverse memories for future generations and guarantee*
> *equal rights and equal access to heritage for all people.*
> *Museums are not for profit. They are participatory and transparent, and work in*
> *active partnership with and for diverse communities to collect, preserve, research,*
> *interpret, exhibit, and enhance understandings of the world, aiming to contribute*
> *to human dignity and social justice, global equality and planetary wellbeing[189].*

---

[186] More information on this programme at paragraph 3.2.1.

[187] More information on this performance and the correlated events at paragraph 3.2.2.

[188] J. Botte, A. Doyen, L. Uzlyte, *Ceci n'est pas un musée*, in *Définir le musée du XXIe siècle. Matériaux pour une discussion*, ed. by F. Mairesse, Paris, ICOFOM, 2017, p. 26.

[189] I.C.O.M., *ICOM Announces the Alternative Museum Definition that Will Be Subject to a Vote*, 2019, <https://icom.museum/en/news/icom-announces-the-alternative-museum-definition-that-will-be-subject-to-a-vote/> [accessed on 28th September 2021].

MDPP tried to give a clearer shape to the expression «in the service of society». In fact, their definition stated that museums have to «acknowledge and address the conflicts and challenges of the present». With this expression, MDPP identified as «challenges of the present» «inequality and human rights, globalisation and migration, climate change»[190]. These issues are still quite vast, but nonetheless more specific than «in the service of society» (chap. 1). Furthermore, these challenges are the same identified in the liquid and relevant museum (chap. 2). For instance, the performance *Notes Towards a Permacircular Museum* (2019-2020) by Verlet-Bottéro can be better associated with the challenge of the present of «climate change». In the exhibition *Critical Zone: Observatories for Earthly Politics* (2020 -2022), this issue is developed both by presenting artworks and contents on this topic and, as in Verlet-Bottéro's work by involving actively the public.

Another example which shows how the ZKM addresses «challenges of the present» is the exhibition *The Global Contemporary and the Rise of New Art Worlds After 1989* (17 September 2011 - 19 February 2012) curated by Andrea Buddensieg and Peter Weibel, which focused on globalization issues, and will therefore be discussed in detail.

3.4.1 The Exhibition: The Global Contemporary and the Rise of New Art Worlds After 1989 (17 September 2011 - 19 February 2012)

One goal of the exhibition *The Global Contemporary and the Rise of New Art Worlds After 1989* (2011-2012) is to develop a new map of the art world after 1989, reference date of the end of the Cold War. Furthermore, the year 1989 is taken as year zero of the globalization phenomenon. According to the curators, this phenomenon weakened the art world's borders and provoked the birth of multiple art worlds[191]. The borders between these art worlds are fluid and at the same time the curators reported an acceleration in the temporal dimension due to globalization. The acceleration of time was portrayed in the first section of the exhibition, *World Time: The World as Transit Zone*; in particular, the artwork *Trans_actions: The Accelerated Art World 1989 – 2011* deserves a brief focus as particularly representative of the section. It was commissioned to Stewart Smith, Robert Gerard Pietrusko and Bernd Lintermann by the ZKM and the GAM project team[192]. The installation depicted «the

---

[190] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, p. 6.
[191] *The Global Contemporary and the Rise of New Art Worlds After 1989*, exhibition catalogue (Karlsruhe, ZKM | Zentrum für Kunst und Medientechnologie, 17 September 2011 – 19 February 2012), ed. by H. Belting, A. Buddensieg, P. Weibel, Karlsruhe, ZKM | Zentrum für Kunst und Medientechnologie, 2011, p. 12.
[192] GAM stands for Global Art and the Museum and is a project initiated by Hans Belting and Peter Weibel at ZKM. The aim of the project was to analyse the impact of globalization on contemporary art and institutions.

temporal and spatial development of biennial system and the global art market» and was «made for projection on the PanoramaScreen. These two sectors of the art system were selected because they impressively evidence the accelerated art world of the last twenty years»[193]. Indeed, they showed that in mid 1980s there were only six contemporary art biennials, while in 2011 there were over 150 spread all over the world, thus testifying the increasing globalization processes of the arts around the world. As in the art biennials case, globalization is seen more as a westernization process that cuts out local traditions or less known forms of culture[194]. Therefore, this phenomenon is described critically in the exhibition and to avoid this distortion in the exhibition, artists from different countries were invited in Karlsruhe to collaborate with each other and with the curators to create a real global, borderless, and so fluid exhibition.

3.4.1.1 A Focus on Two Artworks: The Greater G8 Advertising Market Stand (2007-2009) and MonApoly, A Human Trade Game (2004)

The intention of presenting the ZKM as a real global place is evident in the fifth section of the exhibition entitled *Networks and Systems. Globalization as Subject*. This section displayed artworks criticizing new power structure through works such as *The Greater G8 Advertising Market Stand* (2007-2009) by Zambian-born artist Anawana Haloba Hobøl (1978 -), who is living in Norway since 2002, and *MonApoly, A Human Trade Game* (2004) by the Slovenian artist Tadej Pogačar (1960 -)[195].

The first artwork was an interactive installation composed of boxes, which could be opened by visitors. The boxes were displayed as products of a street market stand, where eco-friendly goods are sold. Each box had a label indicating the type of food contained inside (e.g., corn, soybean etc.) and the country of origin of it (Moldova, Iraq, Sudan, Colombia, Bolivia,

---

The starting point of this examination is the MOCA (Museum of Contemporary Art). During this exhibition, the GAM team presented monthly *The MOCA of the Month*, that is the MOCA which, according to GAM team, had changed is mindset from *West Kunst* (Western Art) to *Welt Kunst* (Global Art). More information on GAM project can found at: <https://zkm.de/en/project/gam-global-art-and-the-museum> [accessed on 9th August 2021] or a more deepen look can be given to the exhibition catalogue: *The Global Contemporary and the Rise of New Art Worlds After* 1989, exhibition catalogue (Karlsruhe, ZKM| Zentrum für Kunst und Medientechnologie, 17 September 2011- 19 February 2012), ed. by H. Belting, A. Buddensieg, P. Weibel, Karlsruhe, ZKM | Zentrum für Kunst und Medientechnologie, 2011.

[193] *The Global Contemporary and the Rise of New Art Worlds After* 1989, exhibition catalogue (Karlsruhe, ZKM| Zentrum für Kunst und Medientechnologie, 17 September 2011 - 19 February 2012), ed. by H. Belting, A. Buddensieg, P. Weibel, Karlsruhe, ZKM | Zentrum für Kunst und Medientechnologie, 2011, p. 12.

[194] *The Global Contemporary and the Rise of New Art Worlds After* 1989, exhibition catalogue (Karlsruhe, ZKM| Zentrum für Kunst und Medientechnologie, 17 September 2011 - 19 February 2012), ed. by H. Belting, A. Buddensieg, P. Weibel, Karlsruhe, ZKM | Zentrum für Kunst und Medientechnologie, 2011, pp. 4-6.

[195] *The Global Contemporary and the Rise of New Art Worlds After* 1989, exhibition catalogue (Karlsruhe, ZKM| Zentrum für Kunst und Medientechnologie, 17 September 2011 - 19 February 2012), ed. by H. Belting, A. Buddensieg, P. Weibel, Karlsruhe, ZKM | Zentrum für Kunst und Medientechnologie, 2011.

Malawi, the Philippines, and Somalia). However, as visitors opened the boxes, they could only find Western industrial candies. According to the artist, the installation works as metaphor of the emptiness of political slogans announcing a better world[196].

The second artwork, *MonApoly, A Human Trade Game* (2004), is a new version of the board game Monopoly created by the artist and based on the global human trafficking of sex workers. The artwork has been realized in a series of fifty pieces, which can be played with similar rules of the original version. During the game, players received information about this tremendous phenomenon: who controlled it and who fought it. Similarly, to the original version, players could build houses during the game, but in this case, they could build safe houses for sex slavery victims, at least fictionally[197].

[196] *The Global Contemporary and the Rise of New Art Worlds After* 1989, exhibition catalogue (Karlsruhe, ZKM| Zentrum für Kunst und Medientechnologie, 17 September 2011 - 19 February 2012), ed. by H. Belting, A. Buddensieg, P. Weibel, Karlsruhe, ZKM | Zentrum für Kunst und Medientechnologie, 2011, p. 50.
[197] *The Global Contemporary and the Rise of New Art Worlds After* 1989, exhibition catalogue (Karlsruhe, ZKM| Zentrum für Kunst und Medientechnologie, 17 September 2011 – 19 February 2012), ed. by H. Belting, A. Buddensieg, P. Weibel, Karlsruhe, ZKM | Zentrum für Kunst und Medientechnologie, 2011, p. 52.

3.5 From Being «in the Service of Society» to Being «Relevant» in the Society: the Approach of the ZKM

Another «challenge of the present» which MDPP though when writing the definition of museum proposed in Kyoto is the climate crisis[198]. The importance for museums to take an active position on the climate issue is central in the idea of the liquid museum. Indeed, liquid museums should be able to deal with current issues (not just the climate one) as a response to societal needs. The identified society can be both the local one, as was the case of the Ulster Museum, which focused on the recent and unsolved history of Northern Ireland, or the worldwide society composed by a greater number of communities, who can be affected by common issues like climate crisis or globalization.

Furthermore, Fiona Cameron, one of the main theorists of the liquid museum, contested that many museums even though trying to deal with issues like climate crisis, use a simplified up-down approach to present these questions. Instead, she argued that public's opinion, guided by the museum, can add value to the museum experience[199].

Similarly, adding value to the visitors' experience can mean making the museum become significant for them. As seen in the second chapter, at paragraph 2.2.2, relevancy is at the centre of Emlyn Koster's theorical model of relevant museum, a museum able to understand its communities' needs and to address them in an efficient way that doesn't waste resources[200].

An example showing how ZKM tries to be relevant for its communities, the on-site and online global ones, is the exhibition *Critical Zone: Observatories for Earthly Politics* (2020 -2022). This exhibition deals with six environmental issues, which shall help visitors to reflect on their behaviours towards our environment. As Daria Mille, one of the exhibition curators, stated: «one of the goals of the exhibition is to achieve a shift in perspective. But not directly in a behavioural way. If one starts to realize the difference between nature and critical zone as an idea of our habitat than it would certainly have an indirect impact on behaviour, since

[198] J. Sandahl, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, p. 6.

[199] F. Cameron, *The Liquid Museum. New Institutional Ontologies for a Complex, Uncertain World*, in *The International Handbooks of Museum Studies: Museum Theory,* ed. by A. Witcomb, K. Message, Hoboken (New Jersey), John Wiley & Sons, 2015, p. 349.

[200] Koster, Emlyn, *The Relevant Museum: A Reflection on Sustainability*, «Museum News», 85, 2006, pp. 67-90.

it is not possible to become aware of your own interdependencies and continue "business as usual"»[201].

Figure 9, View of the exhibition *Critical Zone: Observatories for Earthly Politics* (2020 -2022). 5th August 2021. At the centre, the work by Julian Charrière, *Future Fossil Space* (2017) Foto: Sara Bronzin

---

[201] Quotation taken from the interview made to the curator Daria Mille on 6th August 2021, which can be found in the *Appendix 2*.

3.5.1 The Exhibition: *Critical Zones: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022).

Critical Zones: Observatories for Earthly Politics is currently the main exhibition at the ZKM. It was opened during the pandemic, on the 23rd of May 2020. Therefore, the exhibition opened and remained only online till the 24th of July 2020. However, a digital platform for this exhibition was already planned and indeed was already active[202]. Giving a look at the Critical Zone platform could be useful to have a better idea of the exhibition. On the website, a major part of the artworks physically displayed can be seen together with further explanatory material. Actually, the platform could be seen as an additional content of the exhibition itself: if some parts, such as the explanatory texts, can also be found in the exhibition, other materials, such as interviews to the artists and their collaborators, can be found only on the platform. Moreover, the platform has a calendar where to find all the events linked with this exhibition like the workshop on winter pruning saw at paragraph 3.2.3. This use of online and digital technologies suggests a sort of continuity with the project *Beyond Matter* seen in the previous paragraph.

3.5.1.1 The Meaning of Critical Zone

To better understand the objectives of this exhibition it is fundamental to understand the meaning of the term *critical zone*, which names the exhibition. The term is taken from the geological field. It was invented by Dr. Gail Ashley in 1998 and Justin Richardson defines the *critical zone* in this way:

> *The critical zone, the near-surface terrestrial environment from the bottom of circulating groundwater to the top of vegetation, hosts the complex interactions involving rock, soil, water, air, and living organisms that regulate life-sustaining resources[203].*

The *critical zone* is meant by scientists as «the fragile skin of the planet» in which «physical, chemical, and biological» processes occur and modify the present life-forms[204]. For this

---

[202] The platform can be retraced at this link: <https://critical-zones.zkm.de/#!/> [accessed on 17th September 2021].
[203] J. Richardson, *Critical Zone*, in *Encyclopedia of Geochemistry. Encyclopedia of Earth Sciences Series*, 1, ed. by. W. White, Cham, Springer, 2017, pp. 326-330.
[204] J. Richardson, *Critical Zone*, in *Encyclopedia of Geochemistry. Encyclopedia of Earth Sciences Series*, 1, ed. by. W. White, Cham, Springer, 2017, pp. 326-330.

reason, *critical zones* and more specifically the upper part of them are crucial for the availability of life resources. Scientists have created *ad hoc* observatories to study critical zones and the ZKM proposes to be itself a Critical Zone Observatory (CZO) for its visitors for the duration of this exhibition[205]. These observatories are fundamental to analyse how critical zones changed in the past and how they will react in the future to human activity. Research on the critical zone is important, because we depend on this thin part of the Earth for our survival[206]. However, human activities (e.g., land use intensification) are damaging the critical zone. Research can help us in identifying which behaviours we shall adopt to sustain the critical zone, as well as this exhibition wants to make its visitors familiar with them[207]. The importance of this issue is and has to be understood not only by geologists, but also by artists, as in this case, citizens, and politicians. Indeed, this exhibition wants to be an observatory for *earthly politics*. The word *politics* is used to stress the need of having scientists and politicians collaborating to confront the climate crisis. At the same time, even arts, philosophy and religious belief are concerned with these issues: an interdisciplinary approach is needed and proposed. This approach shall aim to «become *earthly* again». This sentence can be translated in: we shall shift from a point view in which humanity is at centre, to another in which Earth is the centre and humans are just one of the species living in it[208].

3.5.1.2 The Six Sections of the Exhibition

The exhibition is organized on two floors, in atrium 1 and 2 of the ZKM. The works presented are sixty-two and arranged into six interconnected sections:

1. Critical Zone Obsevatory Space
2. We don't live where we are – ghost acreages
3. We live inside Gaia
4. Earth Tidings
5. Redrawing Territories

---

[205] For instance, at this link the European Critical Zone Observatories can be found:
<https://esdac.jrc.ec.europa.eu/projects/critical-zone-observatories> [accessed on 17th September 2021].
[206] L. Guo, H. Lin, *Critical Zone Research and Observatories: Current Status and Future Perspectives*, «Vadose Zone Journal. Advancing Critical Zone Science», 15, 2016, pp. 1-14.
[207] *Critical Zones. The Science and Politics of Landing on Earth*, exhibition catalogue (Karlsruhe, ZKM | Zentrum für Kunst und Medien, 23rd May 2020-9th January 2022), ed. by B. Latour, P. Weibel, Cambridge (Massachusetts), MIT Press, 2020.
[208] Latour, Bruno, *Seven Objections Against Landing On Earth*, in *Critical Zones The Science and Politics of Landing on Earth*, exhibition catalogue (Karlsruhe, ZKM | Zentrum für Kunst und Medien, 23 May 2020 – 9 January, 2022), ed. by B. Latour, P. Weibel, Cambridge (Massachusetts), MIT Press, 2020, pp. 10-17.

6. Becoming Terrestrial

3.5.1.2.1 The First Section: Critical Zone Obsevatory Space

The first section recalls the importance of Critical Zone Observatories described at paragraph 3.5.1.1. In this section, the activities done in these observatories are portrayed through an installation produce by two architects, Alexandra Arènes of Société d'Objets Cartographiques (SOC) and Soheil Hajmirbaba of atelier shaā, in collaboration with the ZKM. This installation is both on site and online: in the ZKM visitors can find a mixed media installation that describes through videos, models and objects, the eight monitoring stations of Strengbach CZO (fig. 10)[209]. Instead, the online part shows the soil map of the Strengbach Critical Zone Observatory in the Vosges Forest[210]. As said before, different materials could be found on site and online, thus showing that the two exhibitions are complementary.

---

[209] The eight monitoring stations portrayed at the ZKM are: the geophysics-, the borehole-, the beech trees-, the spring-, the riverlab, the weather-, the spruce trees ones and the gravimeter. Moreover, the Strengbach Critical Zone Observatory is part of the CZEN (Critical Zone Exploration Network) and of the OHGE (Observatoire Hydro-Géochimique de l'Environnement). It is located in France, just less than 170 km far from ZKM. More information on Strengbach CZO can be found at:
<https://www.czen.org/content/strengbach-catchment-ohge> [accessed on 17th September 2021].
[210] Here is the link to see the work on Critical Zone platform: <https://critical-zones.zkm.de/#!/detail:critical-zone-observatory-space> [accessed on 17th September 2021].
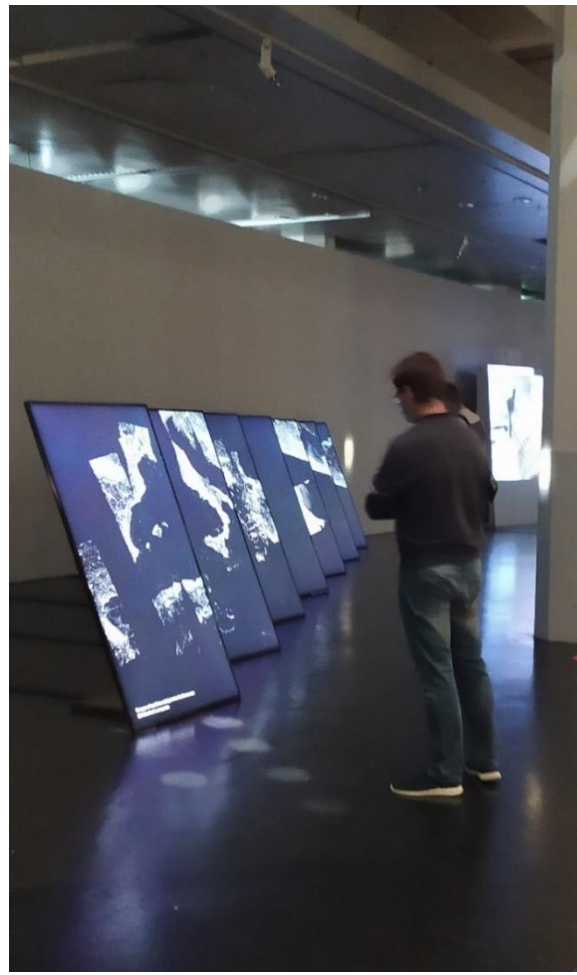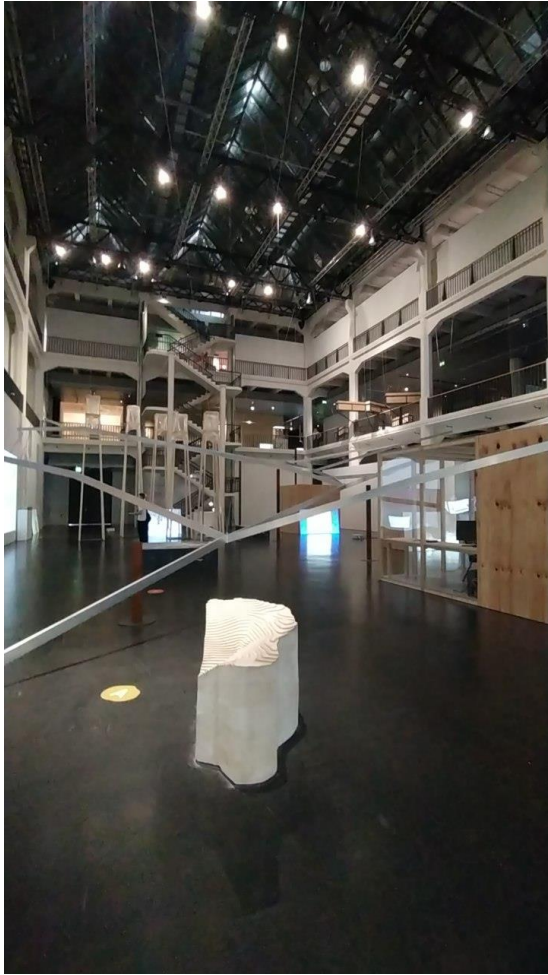
Figures 10 and 11, View of the first and second sections of the exhibition:
Critical Zone: Observatories for Earthly Politics (2020 -2022), 5th August 2021.
Figure 10 shows the installation: *Critical Zone Observatory Space* (2018–20)
by Alexandra Arènes and Soheil Hajmirbaba
Figure 11 shows the work: Oceans in Transformation. The Architecture of
the Continental Shelf (2019-20) by Territorial Agency
Foto: Sara Bronzin

3.5.1.2.2 The Second Section: We don't live where we are – ghost acreages

The second section entitles *We don't live where we are – ghost acreages* (fig. 11). It reflects the disconnection between borders and land. Indeed, if we ask someone where he/she lives, the person will probably answer by naming a country or a city. Instead, if we ask the same person where he/she takes his/her wealth, the person will answer the soil, together with the water, the air etc. to sum up the critical zone. As it can be understood from the exhibition, the first answer can be translated with the expression *living in* a country (e.g., Italy) or in a city (e.g., Karlsruhe). Whereas the second answer can be translated into *living from* all the

resources produced thanks to the critical zone. The goal of this exhibition section is to overlap these two layers to try knowing where we live[211].

Two installations from this section are worthy mentioning, since they were produced in collaboration with the ZKM. They present two reflections on current issues that involve both the layer of *living in* and *living from*. The first one presented here is entitled *Raíz Aérea (Aerial Root)* (2020) made by the Mexican artist Edith Morales. This installation is about a particular kind of maize, *olotón*, which fertilizes itself thanks to its aerial roots. This plant grows in Oaxaca (Mexico), where the indigenous communities have cultivated it for centuries. Recently, *olotón* has become famous in the biochemical sector and multinational corporations are exploiting it in despite to the indigenous communities that have *lived from* this maize since long time. With this work, the artist wanted to make people aware of this issue occurring in her country. The second work presented regards a completely different part of the planet: Greenland. The work is entitled *Kuannersuit | Kvanefjeld, Phase II* (2018 -) and made by the Danish artist Lise Autogena and the English artist and game designer Joshua Portway. The title refers to the Kvanefjeld Mountain in Greenland, which is at the centre of a national debate: whether to mine or not this mountain, which is rich of uranium. This proposal interconnects with political issues, one above the others is the request of Greenland's independence from Denmark's colonial ties. In this case the two layers, *living in* and *living from,* contrast with each other[212]. The ZKM becomes thus a centre, where these topics are discussed through diverse media and as in this case by invited artists from different countries.

3.5.1.2.3 The Third Section: *We live inside Gaia*

The third section is called *We live inside Gaia*. Even in this case a concept born in science, *Gaia*, is presented through the artworks that can be seen in this section. The concept of *Gaia* was developed by James Lovelock in collaboration with Lynn Margulis in 1987 in his book *Gaia: A New Look at Life on Earth*. Lovelock distinguishes *nature* from *Gaia*, because differently from *nature*, *Gaia* also includes the understanding of how life-forms behave and

---

[211] *Critical Zones. The Science and Politics of Landing on Earth*, exhibition catalogue (Karlsruhe, ZKM | Zentrum für Kunst und Medien, 23 May 2020 - 9 January 2022), ed. by B. Latour, P. Weibel, Cambridge (Massachusetts), MIT Press, 2020.

[212] Information on the artworks *Raíz Aérea* and *Kuannersuit | Kvanefjeld*, *Phase II* have been obtained by visiting the exhibition and by consulting the *fieldbook*, a guided book created to help visitors' understanding of the exhibition. A part of the artwork *Kuannersuit | Kvanefjeld*, *Phase II* could be also seen on the Critical Zone platform: <https://www.kvanefjeld.net/#recFq1dvEBcBWjU9O> [accessed on 17th September 2021].

how they create the condition for living on Earth for other life-forms[213]. The section *We live inside Gaia* displays less artworks than the others, but it shows many books and specimens of scientific interest (fig. 12). Indeed, in this section are displayed: an illustration of the Earth system developed by Lovelock, the book *Kingdoms & Domains: An Illustrated Guide to the Phyla of Life on Earth* (1982) by Lynn Margulis and Michael J. Chapman, and some stromatolites loaned by Senckenberg Forschungsinstitut und Naturmuseum in Frankfurt on Main.

Figure 12 The third section of the exhibition *Critical Zone: Observatories for Earthly Politics* (2020 -2022). 5th August 2021. The photo shows J. Lovelock's book *Gaia*, that gives the name to this section and two other essays discussing Lovelock's theory. Foto: Sara Bronzin

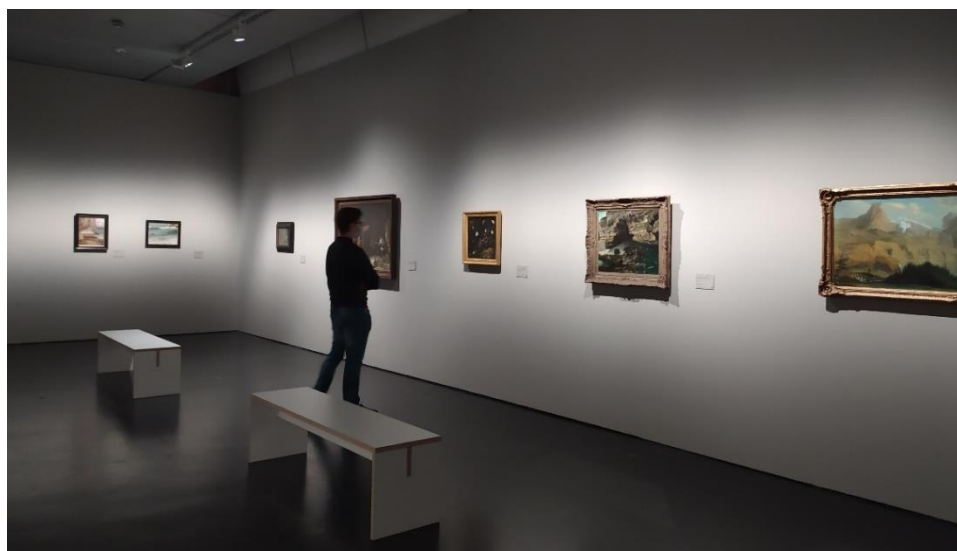Figure 13 View of the fourth section of the exhibition: *Critical Zone: Observatories for Earthly Politics* (2020 -2022). 5th August 2021. Foto: Sara Bronzin

---

[213] *Critical Zones. The Science and Politics of Landing on Earth*, exhibition catalogue (Karlsruhe, ZKM | Zentrum für Kunst und Medien, 23 May 2020 - 9 January 2022), ed. by B. Latour, P. Weibel, Cambridge (Massachusetts), MIT Press, 2020.

3.5.1.2.4 The Fourth Section: *Earth Tidings*

The fourth section refers to the Romantic dream of *Earth Tidings* (fig. 13). According to some nineteenth-century artists and, authors, the Earth could give tidings for those who listen at them. The tidings gave by Earth could be helpful, to understand who we are, where we come from and where we go. Such ideas are retrieved by contemporary artists, who present their work here in dialogue with works by artists like Friedrich, Courbet, and others. The 19th century artworks have been loaned by the Staatliche Kunsthalle[214].

3.5.1.2.5 The Fifth Section: *Redrawing Territories*

The fifth section, *Redrawing Territories*, highlights the inadequate geopolitical division in Gaia. For instance, hurricanes do not respect national borders, they just occur and there is not a clear juridical framework that deals with this and similar phenomenon. A reflection on this issue is given by three works made in collaboration with the ZKM: *Sky River: Politics of the Atmosphere* by ADS7 studio; *Cloud Studies* by Forensic Architecture (fig. 14); *Wetness is everywhere, why do we see water somewhere?* by Dilip da Cunha and Anuradha Mathur[215].

Figure 14, *Cloud Studies* (2020) by Forensic Architecture
Copryright: Forensic Architecture Credits: ZKM | Zentrum für Kunst und Medien

---

[214] *Critical Zones. The Science and Politics of Landing on Earth*, exhibition catalogue (Karlsruhe, ZKM | Zentrum für Kunst und Medien, 23 May 2020 - 9 January 2022), ed. by B. Latour, P. Weibel, Cambridge (Massachusetts), MIT Press, 2020.
[215] Other information on the work presented can be found in the online part of the exhibition: <https://critical-zones.zkm.de/#!/detail:wetness-is-everywhere-why-do-we-see-water-somewhere> [accessed on 17th September 2021].

3.5.1.2.6 The Sixth Section: *Becoming Terrestrial*

The sixth and last section of the exhibition entitles *Becoming Terrestrial*. Maybe this part is the most pragmatic one, in the sense that it aims at showing best practices to change our mindset from living on the globe to living within the Critical Zone[216]. The artwork *Notes Towards a Permacircular Museum* (2019-2020) Verlet-Bottéro belongs to this section[217]. Even though the performance has been already realized, it is documented in the online exhibition and of course in the orchard restored as a necessary phase of the artwork[218]. Another work, which can be observed both on site and online is the *Bio Design Lab* created by the Critical Zone group Hochschule für Gestaltung (HfG). This installation visualizes the results of the HfG's lab through videos, recycled objects, and drawings. The lab is focused on proposing alternatives to the current processes of product design. Particular attention is given to the use of algae as substitute to plastic: e.g., dishes made with algae are recyclable[219].

3.5.1.3 Where to land after the pandemic?

For this exhibition various events, talks, guided tours, and workshops were organised. Engaging with the public in a (as much as possible) peer-to-peer way adds value and knowledge to the visitors' experience. An activity which is concretely engaging the (global online) audience is *Where to land after the pandemic?,* which has been organized through the Critical Zone platform with the collaboration of Bruno Latour and his research team of médialab at Sciences Po in Paris[220]. The project developed by Latour and his team is composed by three phases.

---

[216] *Critical Zones. The Science and Politics of Landing on Earth*, exhibition catalogue (Karlsruhe, ZKM | Zentrum für Kunst und Medien, 23 May 2020 - 9 January 2022), ed. by B. Latour, P. Weibel, Cambridge (Massachusetts), MIT Press, 2020.
[217] The work is described in paragraph 3.2.2. In brief, it was composed of two phases: the first one involved the measurement of the exhibition's greenhouse effect due to ZKM's cooling system, to artists' travel etc. The second phase involved the realization of regeneration's practices of Karlsruhe environment: the ZKM restored an abandoned orchard in its surroundings.
[218] Materials on the performance and the video of the first winter pruning workshop can be found on Critical Zone platform at this link: <https://critical-zones.zkm.de/#!/detail:notes-towards-a-permacirular-museum> [accessed on 17th September 2021].
[219] This information has been found by visiting physically the exhibition. However other information on the work carried on by the Bio Design Lab can be found on Critical Zone platform at this link: <https://biodesignlab.de/en> [accessed on 17th September 2021].
[220] More information on: <https://medialab.sciencespo.fr/> [accessed on 17th September 2021].

The first phase occurs online through the exhibition platform[221]. It requires participants to choose one of these two questions: «what should be stopped?», «what should be developed?». For each of the two questions, other four open questions are proposed.

For «what should be stopped?» the following questions are asked:

1. What are the suspended activities and behaviours that you would like to see not coming back?
2. Starting with an activity or behaviour that affects you personally, describe why you find it harmful/superfluous/dangerous/inconsistent for you or others.
3. What kind of measures do you advocate so that workers/employees/agents/entrepreneurs, who can no longer continue in the activities that you have eliminated, are facilitated to transition to other activities?
4. What could you concretely do (alone or with others) to ensure that the activity you wish to remove (or slow down) does not resume?

For «what should be developed?» these other four questions were asked:

1. What are the activities and behaviours, now suspended, that you hope might develop/begin again, or even be created from scratch?
2. How would this make other activities and behaviours that you want to promote easier/ more harmonious/ more consistent?
3. What kinds of measures do you advocate to help workers/ employees/agents/entrepreneurs to acquire capacities/means/finances/instruments allowing for restarting/development/creation of this activity?
4. What could you concretely do (alone or with others) to ensure that the activity you wish to develop could resume?

Even if the system asks to choose a set of questions, there's also the possibility to answer the unchosen set at the end. After that, participants are invited to share their answers with Latour's research team. The answer are then analysed by the médialab team.

Participants can leave their email address, so that the research team can organize contact group between people who have given similar answers. The contact groups constitute the second phase of the project. In these groups, participants are asked to deepen their answer with other with the help of moderator from Latour's research team.

---

[221] The platform link for the activity is the following one: <https://critical-zones.zkm.de/#!/detail:questionnaire> [accessed on 17th September 2021].

The third phase implies another deepening in the groups' discussions. The aim of this phase is to organize in person meetings with the contact groups to develop new *cahiers de doléance* with all the final propositions developed during the three phases. Unfortunately, this phase is suspended due to the pandemic[222].

---

[222] Information collected by taking part to the activity and from the Critical Zone platform: <https://critical-zones.zkm.de/#!/detail:questionnaire> [accessed on 17th Septemb er 2021].

Conclusions

In this research the ZKM, Zentrum für Kunst und Medien in Karlsruhe, has been described as «in the service of society» for its commitment in addressing «the challenges of the present» like climate change and globalization issues (par. 3.4)[223]. However, in the case of ZKM the meaning of the term society is not necessary the same identified by these two definitions. The ZKM serves a society that is fast and borderless, in a word *fluid*. Therefore, the meaning of society cannot be reduced to a specific local community, as in the case of a community museum such as the District Six Museum (seen at paragraph 1.3.3). The latter has been described as successful since the museum has been able to respond efficiently to a specific community's need. In the case of the former, the community is not as circumscribed as in District Six Museum case.

Indeed, ZKM's community can be divided into a community which interacts with the ZKM in presence and a global community which interacts with the ZKM online. The former is chiefly composed by young people living in Karlsruhe and its surroundings as well as all those who can take part to the on-site activities proposed at the ZKM (par. 3.2). The latter is ideally composed by members from all over the world, Baden-Württemberg's inhabitants as well as people from other European countries or even from other continents (par. 3.3). It is supranational and English-speaking. Noteworthy is the possibility of the on-site community's members to be part of the online one, while the opposite is of course possible but less feasible. For instance, the current exhibition has been organized both physically and virtually, but the on-site community has more possibility to access both versions. Nonetheless, the global composition of members of ZKM's communities is reflected even in the choice of artists invited to take part to the exhibitions.

Indeed, in both the exhibitions described in this research, artists from all over the world were invited to present their works. The exhibition *The Global Contemporary and the Rise of New Art Worlds After 1989* (17 September 2011 - 19 February 2012) (par. 3.4.1) displayed the works by Zambian-born artist Anawana Haloba Hobøl (1978-), *Greater G8 Advertising Market Stand* (2007-2009), and by the Slovenian artist Tadej Pogačar (1960-), *MonApoly, A*

---

[223] J. Botte, A. Doyen, L. Uzlyte, *Ceci n'est pas un musée*, in *Définir le musée du XXIe siècle. Matériaux pour une discussion*, ed. by F. Mairesse, Paris, ICOFOM, 2017, pp. 25-26. . The two quotations respectively refer to the I.C.O.M. definition of museum of 2007 and the one proposed in 2019.
I.C.O.M., *ICOM Announces the Alternative Museum Definition that Will Be Subject to a Vote*, 2019, <https://icom.museum/en/news/icom-announces-the-alternative-museum-definition-that-will-be-subject-to-a-vote/> [accessed on 28th September 2021].

Human Trade Game (2004). Instead, the exhibition *Critical Zones: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022) (par. 3.5.1) showed artworks like *Raíz Aérea (Aerial Root)* (2020) by the Mexican artist Edith Morales, and *Kuannersuit | Kvanefjeld, Phase II* (2018 -) by Danish artist Lise Autogena and the English artist Joshua Portway. Summing up, both exhibitions saw the participation of artists who portrayed events that are geographically distant from Karlsruhe. Nonetheless, the messages these artworks conveyed are meaningful for ZKM's communities, which are young and global. Indeed, the ZKM does not work with a national perspective, but understand today's society as global and intertwined. Furthermore, these works are displayed in the ZKM and in its online platform with a recognizable political activism, which is not present in the too neutral I.C.O.M. definition of museum (2007).

The need to take a view on global issues such as climate change is a main feature of the liquid museum (par. 2.2). The ZKM can be considered as such since in both the exhibitions considered it has taken its view on globalization and climate crisis regardless of political and socio-economical borders. In the first case, the stance on globalization issues has been quite critic, as the exhibition contested an art system that is too much Western-oriented. In the second case, the ZKM took a declared ecological view on the climate crisis, which «concerns all of us», according to the ZKM's curator Daria Mille[224]. These statements have been made through the artworks and the activities on-site and online presented by the ZKM. In particular, the artworks addressed more specific global issues, for instance, the trafficking on human being in the case of Pogačar's *MonApoly, A Human Trade Game* (2004), or the debate on mining the Kvanefjeld mountain in Greeland with the installation *Kuannersuit | Kvanefjeld, Phase II* (2018 -) made by Autogena and Portway. Even though the artworks were displayed on site in the ZKM, a global community was addressed both on-site and online through digital and online media. As in the case of the exhibition *Critical Zones: Observatories for Earthly Politics* (23 May 2020 - 9 January 2022) a digital platform was created to provide further materials on the exhibition[225]. In this platform both communities were engaged, the online and global one could *visit* the exhibition without been necessary in Karlsruhe and together with the on-site community could take part to some activities like the one proposed in paragraph 3.5.1.3.

---

[224] Quotation taken from the interview made to the curator Daria Mille on 6th August 2021 which can be found in *Appendix 2*. Daria Mille is a curator and an associate researcher of the ZKM since 2013. Before this date, she worked as assistant curator for the 3rd and 4th editions of the Moscow Biennale of Contemporary Art.
[225] The online platform is *Critical Zone Platform*: <https://critical-zones.zkm.de/#!/detail:questionnaire> [accessed on 30th September 2021].

However, it shall be noted that online and digital tools are not as widely spread as global issues are. For instance, globalization has impacted on indigenous people in Oaxaca (Mexico) as described in the work *Raíz Aérea (Aerial Root)* (2020) by the Mexican artist Edith Morales (par. 3.5.1.2.2), but the 50% of people living in this area do not have the possibility to access internet and thus see Morales' work in the ZKM's online exhibition platform[226]. Therefore, even though the aim of the ZKM is to act globally through these media, still this goal is not completely achieved.

Nonetheless, the ZKM remains an interesting example to see how a public institution, which considers itself «more than a museum»[227], provides meaningful experience to its communities. Indeed, by taking a view on different global issues, the ZKM invites the on-site and the online visitors to reflect on them and take their own view. Therefore, the ZKM becomes a global forum, where who can connect with it, can then interact within it. Finally, the fluidity of the ZKM not only consists in the addressing of global issues such as the climate crisis, but even in the overlapping of a national layer with a global one, which means overlapping ZKM's identity of being a German institution founded in Karlsruhe with that of being a liquid and always more *earthly* institution.

---

[226] Consejo Ejecutivo de Empresas Globales (CEEG) [M. Cave, R. Guerrero, E. V. Mariscal], *Bridging Mexico's Digital Divide: an Inside-out/Outside-in View of Competition and Regulation*, 2018, p.21 <https://ceeg.mx/publicaciones/ESTUDIO_2_2018-Bridging_Mexicos_digital_divide_Final_2018_12_20.pdf> [accessed on 30th September 2021].
[227] P. Weibel, *Music, Machines, Media and the Museum*, «Organised Sound», 14, 2009, p. 231.

Appendix 1

Population in Karlsruhe in 2017								
Age	Male	Female	Age	Male	Female	Age	Male	Female
0	1406	1346	34	2345	2001	68	1332	1549
1	1423	1441	35	2326	2079	69	1324	1432
2	1304	1271	36	2259	2091	70	1153	1375
3	1395	1161	37	2263	2040	71	983	1157
4	1311	1218	38	2060	1841	72	860	1045
5	1198	1111	39	1913	1807	73	1137	1332
6	1239	1137	40	1900	1792	74	1086	1345
7	1269	1170	41	1851	1721	75	1070	1326
8	1168	1140	42	1828	1704	76	1247	1592
9	1229	1178	43	1915	1774	77	1281	1588
10	1206	1119	44	1822	1746	78	1180	1567
11	1127	116	45	1927	1810	79	1040	1423
12	1204	1179	46	1984	1826	80	997	1392
13	1182	1131	47	2068	2011	81	827	1205
14	1220	1079	48	2201	2081	82	784	1154
15	1231	1082	49	2412	2222	83	642	965
16	1273	1102	50	2307	2186	84	553	795
17	1339	1185	51	2350	2168	85	436	753
18	1802	1326	52	2332	2187	86	428	717
19	2382	1660	53	2409	2177	87	369	674
20	2865	2052	54	2384	2160	88	315	615
21	3032	2219	55	2225	2083	89	235	571
22	3083	2331	56	1922	2145	90	197	436
23	3286	2418	57	2078	2005	91	151	421
24	3484	2569	58	1841	1930	92	108	323
25	3524	2645	59	1842	1759	93	94	265
26	3231	2505	60	1740	1800	94	82	207
27	3258	2556	61	1612	1740	95	43	178
28	3099	2549	62	1583	1639	96	33	145
29	2890	2455	63	1556	1688	97	21	94
30	2806	2292	64	1443	1616	98	8	59
31	2617	2264	65	1347	1544	99	4	19
32	2479	2143	66	1345	1556	100	4	40
33	2437	2119	67	1315	1585	Total	155728	150733

Table 1: Number of Inhabitants in Karlsruhe Divided According to the Age

Source: Stadt Karlsruhe, Amt für Stadtentwicklung, Statistikstelle, *Karlsruhe Bevölkerungspyramide*, 2017, <https://web5.karlsruhe.de/Stadtentwicklung/statistik/gizeh/index.html?indicator=i202&select=Karlsruhe> [accessed on 26th September 2021].

	All kind of workshops organized by Museum Communication dept.								
	2017	2016	2015	2014	2013	2012	2011	2010	2009
Birthdays	**157**	**71**	**106**	**103**	**86**	**74**	**76**	**108**	**78**
3 hours	99	50	89	92	75	60	50	53	32
2 hours	58	21	17	11	11	12	26	44	32
1 hour guided tour						2		11	14
Kindergarten	**17**	**21**	**27**	**35**	**47**	**26**	**31**	**26**	**45**
5 weeks course	14	16	20	28	22	24	18	16	23
unique course	3	5	7	7	25	2	13	10	22
Schools	**274**	**152**	**66**	**59**	**66**	**45**	**52**	**81**	**64**
> 15 hours		22	7	12	3	6	4	9	2
Project	146								
5 hours					4	8	3	3	1
4 hours	13	23							
3 hours	115	93	59	46	49	22	31	33	27
2 hours		14		1	10	9	14	36	34
Offers	**207**	**146**	**69**	**82**	**77**	**62**	**33**	**71**	**57**
Children + Teens	56	38	22	29	51	42	14	32	41
Families	36	20	28	25	13	10	11	15	10
Teens and adults	46	51	13	19	13	7	6	22	6
Elderly			6	9		3	2	2	
BÄMlab	42	37							
GV	27								
Further Education	**108**	**71**	**28**	**29**	**31**	**32**	**24**	**32**	**24**
Teachers	51	39	16	20	22	20	22	27	23
Trainees teachers					1	4	2	1	1
Educators			2	2		2		4	
other	57	32	10	7	8	6			
Total	**763**	**461**	**296**	**308**	**307**	**239**	**216**	**318**	**268**

Table 2: Number and type of workshops made at ZKM in 2017

Source: ZKM, Zentrum für Kunst und Medien, *Jahresbericht 2017*, 2017, p. 131,

<https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2017.pdf>

[accessed on 26th September 2021]. Translation: Sara Bronzin

Appendix 2

INTERVIEW TO THE CURATOR DARIA MILLE (6th August 2021)

1.   How would you define this exhibition in 3 words?

Mille: Concerns all of us

2.   This exhibition is full of scientific research and concepts, like the one itself of "Critical Zone". Do you think that the complexity of these concepts could be too high for certain visitors (e.g., children)? If yes, how have you tried to lower it?

Mille: The contents of the exhibition might surely be too complex for some groups of visitors. It's is not an exhibition where visitors or tourists can „consume" artworks like trophies. A certain amount of intensive reflection is needed in this exhibition. Though I find that the texts in the exhibition space and the Fieldbook are written in a simple language that is not full with scientific notions and if these are used then they are explained or contextualized. To create accesses to the exhibition for different visitor groups we developed an activation program, including guided tours, workshops, walks and other formats in the digital and physical space.

3.   While organizing this exhibition, how much have you thought to the local community?

Mille: As in most of our programs we think about our local community and about international visitors. This exhibition has been developed with local partners - Kunsthalle Karlsruhe, Staatliches Naturkundemuseum, Hochschule für Gestaltung Karlsruhe, KIT. Bruno Latour gave a seminar at the Hochschule für Gestaltung to prepare the exhibition with students. And also in the activation program the initial idea was to work very closely together with the local initiatives and communities to have workshops and programs directly in the workshop space in the exhibition. This could only partly be realized due to corona.

4. I read on your website a couple of examples in which ZKM engaged with Karlsruhe's citizens for this exhibition. Can you mention the most relevant for you and why?

Mille: As for me personally, it's a project of Stéphane Verlet-Bottéro „Notes Towards a Permacircular Museum". The starting point of this project was analysis of the ecological footprint of the exhibition. An abandoned orchard was rented by the ZKM for several years, where the employees of the ZKM now are taking care of it. It was also supposed to be a place where different activation moments with local public take place and also local public can participate in pruning workshops etc. Unfortunately we were not able to engage the public due to Corona. This project initiated a lot of changes in the internal processes of the ZKM as an institution.

5. Did you have a specific target audience (e.g., people under/over 30, Karlsruhe's citizens/tourists) for this exhibition?

Mille: No, please, see my answer to the first question.

6. How do you think this exhibition would impact on visitors' behaviour about climate change and all its consequences that can be seen in the critical zones? Will it improve visitors' behaviour?

Mille: One of the goals of the exhibition is to achieve a shift in a perspective. But not directly in a behavioral way. If one starts to realize the difference between nature and critical zone as an idea of our habitat than it would certainly have an indirect impact on behaviour since it is not possible to become aware of your own interdependencies and continue „business as usual".

7. This exhibition is about a current and relevant issue that regards everyone. Do you think that also other museums in the world shall follow your example, or do you think that each museum shall respect its "specificity" (e.g., should an art gallery just propose art exhibition on certain artists? Or, should it also deal with current issue like climate change?)

Mille: I wouldn't like to impose anything on other institutions. Art and art institutions still have a utopian potential and also potential to be trusted. I think their impact on the public might be very high. Therefore I think that a critically thinking institution would come itself to including ecological questions in their agenda.

Bibliography

Alves, Sónia, *Interactive Media Art: the Institution Tells a Story. The Center for Art and Media Karlsruhe*, «ICONO 14, Revista de comunicación y tecnologías emergentes», 12, 2014, pp. 181-205.

Anderson, Chris, *Free. The Future of a Radical Price*, New York (New York), Hyperion, 2019.

Arduini, Marco; Romagnoli Laura, *Un luogo per la comunità: il Museo del vino di Castiglione in Teverina*, in *Il museo verso una nuova identità*, atti del convegno internazionale di studi, ed. by M. Cristofano, C. Palazzetti, (Roma, 2008), Roma, Gangemi, 2011, pp. 157-169.

Bauman, Zygmunt, *Liquid modernity*, Cambridge, Polity Press, 2000.

Bertozzi, Vanessa; Jenkins, Henry, *Artistic Expression in the Age of Participatory Culture*, Oxon-New York (New York), Routledge, 2008.

Bianchini, Franco, Parkinson, Micheal, *Cultural Policy and Urban Regeneration: The West European Experience*, Manchester, Manchester University Press, 1993.

Blair, William; Reynolds Chris, *Museums and "Difficult Pasts": Northern Ireland's 1968*, «Museum International », 70, 2018, pp. 12-25.

Boorsma, Miranda, *A Strategic Logic For Arts Marketing*, «International Journal of Cultural Policy», 12, 2006, pp. 73-92.

Botte, Julie; Doyen, Audrey; Uzlyte, Lina, *Ceci n'est pas un musée*, in *Définir le musée du XXIe siècle. Matériaux pour une discussion*, ed. by F. Mairesse, Paris, ICOFOM, 2017, pp. 17-49.

Brümmer, Ludger, *The ZKM | Institute for Music and Acoustics*, «Organised Sound», 14, 2009, p. 257.

Bublitz, Melissa G.; Rank-Christman, Tracy; Cian, Luca; Cortada, Xavier; Madzharov Adriana; Patrik, Vanessa M.; Peracchio, Laura A.; Scott, Maura L.; Sundar, Aparna; To, Ngoc (Rita); Townsend, Claudia, *Collaborative Art: A Force for Transforming Communities.,* «Journal of the Association of Consumers Research», 4, 2019, pp. 313-331.

Cameron, Fiona, *The Liquid Museum. New Institutional Ontologies for a Complex, Uncertain World*, in *The International Handbooks of Museum Studies: Museum Theory*, ed. by A. Witcomb, K. Message, Hoboken (New Jersey), John Wiley & Sons., 2015, pp. 345-361.

Carvalho, Ana; Matos, Alexandre, *Museum Professionals in a Digital World: Insights from a Case Study in Portugal*, «Museum International», 70, 2018, pp. 34-47.

Cassidy, Catherine A.; Fabola, Adeola; Miller, Alan; Weil, Karin; Urbina, Simón; Antas, Mario; Cummins, Alissandra, *Digital Pathways in Community Museums*, «Museum International», 70, 2018, pp. 126-139.

Consejo Ejecutivo de Empresas Globales (CEEG) [M. Cave, R. Guerrero, E. V. Mariscal], *Bridging Mexico's Digital Divide: An Inside-out/Outside-in View of Competition and Regulation*, 2018, <https://ceeg.mx/publicaciones/ESTUDIO_2_2018-Bridging_Mexicos_digital_divide_Final_2018_12_20.pdf> [accessed on 30th September 2021].

Critical Zones. The Science and Politics of Landing on Earth, exhibition catalogue (Karlsruhe, ZKM | Zentrum für Kunst und Medien, 23 May 2020 - 9 January 2022), ed. by B. Latour, P. Weibel, Cambridge (Massachusetts), MIT Press, 2020.

Crooke, Elizabeth, *Museums and Community*, in *A Companion to Museum Studies*, ed. by S. Macdonald, Oxford, Blackwell Publishing, 2006, pp. 170-185.

Dagnino, Giovanni Battista, *Complex Systems as Key Drivers for the Emergence of a Resource- and Capability-based Interorganizational Network*, «Emergence: Complexity & Organization», 6, 2004, pp. 61-69.

Drotner, Kirsten; Dziekan, Vince; Parry, Ross; Schrøder, Kim C.; *Media, Mediatisation and Museums. A New Ensemble*, in *The Routledge Handbook of Museums, Media and Communication,* ed. by K. Drotner, V. Dziekan, R. Parry, K. C. Schrøder, Oxon-New York (New York), Routledge, 2019, pp. 1-12.

Evans, Graeme; Shaw, Phyllida, *The Contribution of Culture to Regeneration in the UK: a Review of Evidence*, London, Department for Culture Media and Sport, London Metropolitan University, 2004.

Faires, Nancy D., *This Is Not a Museum: The Guggenheim Museum Bilbao*, Ph.D. Thesis, University of Nevada, Reno, 2007.

[Articolo redazionale], *Nuova definizione della parola "museo": disaccordo nell'ICOM e decisione rinviata*, «Finestre sull'arte. Rivista online di arte antica e contemporanea», 8/12/2020, <https://www.finestresullarte.info/musei/rinviata-decisione-sulla-nuova-definizione-di-museo> [accessed on 28th September 2021].

Gainon-Court, Marie-Agnès; Vuillaume, David, *Can Museums Keep Up With a Changing World? Skills Management as a Practical Response*, «Museum International», 68, 2016, pp. 81-96.

Gonçalves, Juan, *The "Liquid Museum": a Relational Museum that Seeks to Adapt to Today's Society,* «The Museum Review», 4, 2019, s.p., <https://themuseumreviewjournal.wordpress.com/2019/10/17/tmr_vol4no1_goncalves/2019> [accessed on 30th September 2021].

Griffiths, Ron, *Cultural Strategies and New Modes of Urban Intervention*, «Cities», 12, 1995, pp. 253-265.

Guo, Li; Lin, Henry, *Critical Zone Research and Observatories: Current Status and Future Perspectives,* «Vadose Zone Journal. Advancing Critical Zone Science», 15, 2016, pp. 1-14.

Haarich, Silke N.; Plaza Beatriz, *The Guggenheim Museum in Bilbao – at the Centre of a Creative City,* «Urban Planning International», 27, 2012, pp. 11-16.

Henning, Jennifer A., *Bilbao's Use of Art and Culture as a Remedy for Deindustrialization: the Implications of Redevelopments Homogenous Use of Public Art*, Ph.D. Thesis, University of Southern California, Los Angeles, 2011.

I.C.O.M.*, ICOM Announces the Alternative Museum Definition that Will Be Subject to a Vote*, 2019, <https://icom.museum/en/news/icom-announces-the-alternative-museum-definition-that-will-be-subject-to-a-vote/> [accessed on 28th September 2021].

Kavanagh, Gaynor, *History Curatorship*, Washington D.C, Smithsonian Institution Press, 1990.

Kirchberg, Volker, *Museum Visitors and Non-visitors in Germany: A Representative Survey*, «Poetics», 24, 1996, pp. 239-258.

Koster, Emlyn, *The Relevant Museum: A Reflection on Sustainability*, «Museum News», 85, 2006, pp. 67-90.

Layne, Valmont, *The District Six Museum: An Ordinary People's Place*, «The Public Historian», 30, 2008, pp. 53-62.

Latour, Bruno, *Seven Objections Against Landing on Earth*, in *Critical Zones The Science and Politics of Landing on Earth*, exhibition catalogue (Karlsruhe, ZKM | Zentrum für Kunst und Medien, 23 May 2020 - 9 January, 2022), ed. by B. Latour, P. Weibel, Cambridge (Massachusetts), MIT Press, 2020, pp. 10-17.

Mason, Rhiannon, *Museums, Galleries and Heritage: Sites of Meaning-making and Communication*, in *Heritage, Museums and Galleries,* ed. by G. Corsane, Abingdon, Routledge, 2005, pp. 200-214.

Modena, Elisabetta, *MoRE Museum. Ceci n'est pas un musée*, «Ricerche di S/Confine», 3, 2014, pp. 1-18.

Newhouse, Victoria, *Towards a New Museum*, New York (New York), Monacelli Press, 1998.

O'Neill, Mark, *Essentialism, Adaptation and Justice: Towards a New Epistemology of Museums*, «Museum Management and Curatorship», 21, 2006, pp. 95-116.

Pantzou, Nota, *By the People, for the People. The Case of a Community Museum of Traumatic Greek Heritage*, «Conservation and Management of Archaeological Sites», 17, 2015, pp. 22-37.

Plaza, Beatriz, *On Some Challenges and Conditions for the Guggenheim Museum Bilbao to be an Effective Economic Re-activator*, «International Journal of Urban and Regional Research», 32, 2008, pp. 506-517.

Pomian, Krzysztof, *Collectors and Curiosities, Paris and Venice, 1500-1800*, Cambridge, Polity Press, 2007 (ed. or. 1990).

Reid, Thomas R., *The Art of Rejuvenation*, «The Washington Post», 31/03/1999, s.p., <https://www.washingtonpost.com/archive/politics/1999/03/31/the-art-of-rejuvenation/6e1d9cc3-285a-4be9-a416-1ef833dfd984/> [accessed on 28th September 2021].

Richardson, Justin, *Critical Zone*, in *Encyclopedia of Geochemistry. Encyclopedia of Earth Sciences Series,* 1, ed. by. W. White, Cham, Springer, 2017, pp. 326-330.

Ritzer, George, *The McDonaldization of Society. Revised New Century Edition*, 1, Thousand Oaks (Ventura), Pine Forge Press/A Sage Publications Co., 2004.

Ritzer, George, *Prosumption: Evolution, revolution, or eternal return of the same?*, «Journal of Consumer Culture», 14, 2014, pp. 3-24.

Sandahl, Jette, *The Museum Definition as the Backbone of ICOM*, «Museum International», 71, 2019, pp. 1-9.

Sandvik, Kjetil, *Nina Simon: The Participatory Museum. Santa Cruz, CA: Museum 2.0. 2010*, «MedieKultur: Journal of Media and Communication Research», 27, 2011, pp. 185-192.

Simon, Nina, *The Participatory Museum*, Santa Cruz (California), Museum 2.0, 2010.

Staatliche Museen zu Berlin – Preußischer Kulturbesitz, Institut für Museumskunde, *Statistische Gesamterhebung an den Museen der Bundesrepublik Deutschland für das Jahr 1995,* 1995, <https://www.smb.museum/fileadmin/website/Institute/Institut_fuer_Museumsforschung/Publikationen/Materialien/mat45.pdf> [accessed on 26th September 2021].

Stadt Karlsruhe, Amt für Stadtentwicklung, Statistikstelle, *Karlsruhe Bevölkerungspyramide,* 2017, <https://web5.karlsruhe.de/Stadtentwicklung/statistik/gizeh/index.html?indicator=i202&select=Karlsruhe> [accessed on 26th September 2021].

Stadt Karlsruhe, Kulturreferat [H. Bohner, H. Ringler, T.A. Troge, P. Zec], *ZKM – Zentrum für Kunst und Medientechnologie Karlsruhe – Konzept '88*, 1988, <https://zkm.de/media/file/de/konzept_88.pdf> [accessed on 26th September 2021].

The Global Contemporary and the Rise of New Art Worlds After 1989, exhibition catalogue (Karlsruhe, ZKM | Zentrum für Kunst und Medientechnologie, 17 September 2011 - 19 February 2012), ed. by H. Belting, A. Buddensieg, P. Weibel, Karlsruhe, ZKM | Zentrum für Kunst und Medientechnologie, 2011.

UNESCO, *Convention for the Safeguarding of the Intangible Cultural Heritage 2003*, 2003, <http://portal.unesco.org/en/ev.php-URL_ID=17716&URL_DO=DO_TOPIC&URL_SECTION=201.html> [accessed on 22nd September 2021].

Voropai, Lioudmila, *Die Entstehungsgeschichte des ZKM*, in *Medienkunst als Nebenprodukt: Studien zur institutionellen Genealogie neuer künstlerischer Medien, Formen und Praktiken*, ed. by L. Voropai, Bielefeld, transcript Verlag, 2017, pp. 193-208.

Watson, Sheila, *Museums and their Communities*, Oxon-New York (New York), Routledge, 2007.

Weibel, Peter, *A Museum's Mission*, in *Performative Science and Beyond Involving the Process in Research*, ed. by H. H. Diebner, Wien, Springer-Verlag, 2006, pp. 10-11.

Weibel, Peter, *Music, Machines, Media and the Museum*, «Organised Sound», 14, 2009, pp. 231-235.

Weil, Stephen, *Beyond Big & Awesome: Outcome-based Evaluation*, «Museum News», 82, 2003, pp. 40-45, 52-53.

Wissenschaftsrat des Zentrums für Kunst und Medientechnologie, *Stellungnahme zum Zentrum für Kunst und Medientechnologie (ZKM), Karlsruhe*, 2003, <https://www.wissenschaftsrat.de/download/archiv/5738-03.pdf?__blob=publicationFile&v=1> [accessed on 26th September 2021].

ZKM, Zentrum für Kunst und Medien Karlsruhe [J. Burger, S. Faller], *5 Jahre Masterclass am ZKM*, 2020, <https://zkm.de/media/file/de/masterclass_5_jahre_publikation_online.pdf> [accessed on 14th September 2021].

ZKM, Zentrum für Kunst und Medientechnologie, *Jahresbericht 2015,* 2015, <https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2015.pdf> [accessed on 26th September 2021].

ZKM, Zentrum für Kunst und Medientechnologie, *Jahresbericht 2016*, 2016, <https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2016.pdf> [accessed on 26th September 2021].

ZKM, Zentrum für Kunst und Medien, *Jahresbericht 2017*, 2017, <https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2017.pdf> [accessed on 26th September 2021].

ZKM, Zentrum für Kunst und Medien, *Jahresbericht 2019*, 2019, <https://zkm.de/media/file/de/zkm-karlsruhe-jahresbericht-2019.pdf> [accessed on 26th September 2021].

ZKM, Zentrum für Kunst und Medien, *Jahresbericht 2020*, 2020, <https://zkm.de/media/file/de/zkm_jahresbericht2020_20210301_web.pdf> [accessed on 26th September 2021].

Zulaika, Joseba, *In Love with Puppy: Flowers, Architecture, Art, and The Art of Irony,* «International Journal of Iberian Studies», 16, 2003, pp. 14-158.