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ARTICLE

Different Materialities – Different Authenticities? Considerations on Watercraft Exhibited in Museums

Tobias Schade

SFB 1070 ResourceCultures, University of Tübingen, DE, Tubingen, Germany
Email: tobias.schade@uni-tuebingen.de

Abstract

Museums are often considered to be spaces of the authentic, where the real, unique and original is exhibited, and where the accurate past is conveyed. By means of two watercraft, Nydam Boat and Kon-Tiki, it is illustrated how their materiality and authenticity are shaped by processes of musealization, reconstruction, restoration and ways of narrating the past and staging exhibits. While their substances remain present and perceptible, they are also subjected to material changes and changing perceptions over time. From a cultural constructivist perspective, it is illustrated how museum exhibits may be perceived as authentic and how this is related to their materials.

Keywords: Exhibition studies; resources; Nydam Boat; Kon-Tiki; museum objects

Introduction

"Time's erosions and accretions are bound to alter both physical substances and modes of perception [...] Our culture is addicted to preserving substance, but erosion, accretion, and chemical change incessantly alter every material object; no work of art ever remains as it was created."[1]

These quotations serve as a starting point for subsequent reflections on the materiality of exhibits and related concepts of authenticity. Today, authenticity is pervasive: we long for it, not only regarding the authentic self or the experience, but also the authentic object or an accurate view of history; for example, in cultural heritage, museums and pop-cultural adaptions of the past. However, authenticity is not static or measurable; it is not an inherent quality. Rather, the "authentic" is constructed and describes the subjective and the relative, whereby it is an attribution by someone and is affected by processes and practices.

This Article uses the example of two historical watercraft exhibited in European museums – the Kon-Tiki (Kon-Tiki Museum, Oslo) and the Nydam Boat (Archaeological Museum Schloss Gottorf, Schleswig) – to illustrate the entanglement of authenticity, materiality and valuation, taking into account changing museum exhibitions and material properties.

Historical watercraft exhibited in museums are demonstrative examples to talk about these aspects because they are complex assemblages. Depending on the object, they can be large specimens, often composed of many individual parts – including additions – that can be financially and logistically costly to salvage, restore, construct, preserve and display. Therefore, it is interesting to juxtapose seemingly incomparable exhibits and their stories:

[1] Lowenthal 1992, 186.

in this Article, a historical wreck, the Nydam Boat, which was archaeologically excavated and reconstructed, and a modern raft, the Kon-Tiki, which lost its function after use but was preserved for its meaning and has become a historical object. Although both exhibits differ in substance, shape, temporal and cultural settings, scientific attributions, symbolism and (re)presentations, both are now significant exhibits and witnesses to the past that are staged and displayed materially and visually in museums, and can be perceived as valuable or even authentic.

This Article assumes that material properties influence the ascription and perception of authenticity and that these attributions – which can be identified as different layers of authenticity – subsequently transform museum objects into valuable things that can become resources; for example, for museums, scientists and even visitors.

The objectives of this Article are: (1) to contrast the stories of two different assemblages – watercraft exhibited in museums – in the context of their changing materials as well as attributions of authenticity by museum staff; (2) to take an interdisciplinary perspective as the Article is rooted in archaeological thinking and understanding, but applies cultural studies methods such as exhibition studies (conducted 2018) and interviews with experts (conducted between 2017 and 2020). Due to this approach, this Article does not claim to be universally valid or complete. However, it aims to provide an impulse to reflect on one's own disciplinary thinking; (3) to apply a perspective through which tangible and intangible things can be understood as resources whereby, in this study, the valuation of the exhibits and their "becoming resources" are based on attributions of authenticity, and authenticity is understood as a mode of attributing value to things (valorization).

Authenticity – Materiality, power and valuation

"The cult of authenticity pervades modern life."[2] This statement by Lowenthal is still valid today in the "modern" Western world. This is reflected in various academic approaches to locate, discuss, describe and explain authenticity in different disciplines over the last decades.[3] While these discussions do not bear universal validity, they illustrate a longing or an ambition for authenticity. Usually, it is about references, evidence, provenances and originality, mostly based on tangible clues and traces, but it is also about expectations, perceptions and emotions, thus intangible means based on practices, power, reliability and knowledge. It is directed towards the real, the unique and the credible – the original – but is also based on experiences evoked by physically present replicas,[4] even fakes,[5] concepts of living history[6] and fictionalized or historicized elements, for example, in theme parks[7] and popular culture.[8] However, it can also be a relative criterion[9] and an analytical concept. Rehling and Paulmann described "Historical Authenticity" as a "Containerbegriff der Moderne" (container term of the modern age) with aesthetic and societal relevance that can change over time.[10] Furthermore, different points of view are possible: an essentialist one, recognizing authenticity as an inherent quality, and a constructivist one,

[2] Lowenthal 1992, 184.

[3] For various scientific discussions and conceptions regarding "authenticity" see, e.g., Crew and Sims 1991; Lowenthal 1992; Bendix 1997; Phillips 1997; Holtorf 2013; Jones and Yarrow 2013; Sabrow and Saupe 2016; Saupe 2016.

[4] Foster and Jones 2020.

[5] Jones 1992.

[6] Samida 2014.

[7] Holtorf 2017.

[8] Pirker et al. 2010.

[9] Großmann 2020, 33.

[10] Rehling and Paulmann 2016, 92.

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understanding authenticity as something that is ascribed – or, as stated by Holtorf, the authenticity of "[a]uthentic archaeological objects [...] is both culturally situated and firmly connected to their materiality."[11] Jones and Yarrow wrote, "[...] authenticity is neither a subjective, discursive construction nor a latent property of historic buildings and monuments waiting to be preserved. Rather, it is a distributed property that emerges through the interaction between people and things."[12] However, it not only "emerges" through interactions; it is constructed and attributed through an interplay of knowledge, expectations, emotions and conceptions, as well as practices of ascribing and perceiving. Following these assumptions, authenticity is not seen in this Article as an inherent quality but as a constructed attribution by which things can be given value,[13] whereby the material presence and material properties of an object are important for this – as already stated by Lowenthal: "[...] material relics are one of a kind – and mortal. In their uniqueness inheres much of their value [...]".[14] Moreover, authenticity is not diagnosable or measurable. Instead, Saupe suggests that we analyze "attributions of authenticity" and "authenticity effects", as well as associated practices,[15] with regard to concepts such as aura[16], pastness[17] or atmosphere.[18] Because of this, this Article does not ask whether objects are authentic; rather, it analyzes developments and investigates, following Saupe, "[...] to whom and when authenticity is attributed, as well as how and why [...]".[19] Thus, analyzing concepts of authenticity may lighten up values, knowledge, beliefs and images of the history of social groups under study.[20]

In this Article, the components "materiality," "power," "valuation" and the practices connected to them seem useful for investigating the authenticity of museum objects.[21]

First, "materiality" is important for discussing authenticity – whether about originals or replicas, tangible objects or digitized ones, or real or faked things. Talking about "materiality" does not just mean talking about the existing objects being present and perceivable, with reference to their shapes, physical qualities and appearances, or about human sociocultural practices related to the physical world. The term also describes various

[11] Holtorf 2013, 440.

[12] Jones and Yarrow 2013, 24.

[13] Processes of "valuation," "value production," and "value extraction" are relevant within the resource-framework of the SFB 1070 ResourceCultures; see Hardenberg 2017.

[14] Lowenthal 1992, 185.

[15] Saupe 2016. – Saupe is taking recourse to Lethen's "Effekte des Authentischen" (1996).

[16] Benjamin 2013 [1936] discussed the concept of "aura" when talking about the technical reproduction of artworks and the resulting loss of the object's "aura". – Burmeister 2014, 101 described Benjamin's "aura" as a sort of "aesthetic" and "quasi-religious" experience of an object's uniqueness.

[17] In the sense of Holtorf 2017, 500, an object can possess "pastness", meaning "[...] the quality for a given object to be "of the past."" However, according to Holtorf 2017, 501 "[i]t seems therefore that pastness is never inherent in an object [...] but, instead, the result of a certain perception of an object in a given context."

[18] Böhme 1993 is also taking recourse to Benjamin's "aura" when talking about "atmosphere". "Atmosphere is the common reality of the perceiver and the perceived. It is the reality of the perceived as the sphere of its presence and the reality of the perceiver, insofar as in sensing the atmosphere s/he is bodily present in a certain way." (Böhme 1993, 122).

[19] Saupe 2016.

[20] Rehling and Paulmann 2016, 125.

[21] Following Stránský 1985, 97, the "museum object" is understood as (1) "[...] an O [object; note by author], viz. usually emphasizing that it is a "material", "three-dimensional" O [object; note by author] [...]", (2) "[...] the source of scientific knowledge [...]", (3) "[...] an objective means through which we convey something [...]". Korff 2007, 141–42, analogously described "Museumsdinge" as material relics and objects of the past, collected in and shown in museums to turn them into objects for us and carriers of information (also referring to Pomian).

theoretical concepts discussed in archaeology.[22] So, it is possible to talk about different "materialities". Following Ingold, the focus is not so much on "materiality" as a theoretical concept in this Article but more on materials and substances[23] that are connected together and compose the objects as well as their properties and stagings in spaces in relation to and interactions with different things and actors. This means the "lives" and "biographies" of things,[24] their networks,[25] entanglements,[26] meshworks,[27] the notion of assemblages[28] and their changing contexts and "appropriations" through time.[29] Furthermore, this Article is about the object's presence because according to Korff, materiality ensures the permanence ("Dauerhaftigkeit") and visibility ("Anschaulichkeit") of objects.[30]

Second, authenticity is about power or, more precisely, authority, as Crew and Sims stated.[31] Authenticity is ascribed to objects because of practices conducted by experts with these objects,[32] for example, by archaeologists or curators, who find, identify, authenticate and present "old" things.[33] It is also ascribed because of the practices of skilled workers who perform traditional craftsmanship or craft scientifically and historically accurate objects according to an (imagined) original. This implies that, in both scenarios, experts declare or craft authenticity who have the authority or power, knowledge or craftsmanship, legitimacy or the credibility to do so. However, authenticity is also a matter of reception. Not only do experts possess the ability to declare something as authentic, so do the bodily present visitors in the museum. They authenticate the authoritative acts (identifying the "real" or crafting the "accurate") by trusting the experts or the institutions they represent. Furthermore, visitors perceive these objects, their materials, narratives and past(s) embedded in a space in contexts of individual and collective experiences, expectations and knowledge. They may even perceive something as being authentic, which may not be real or accurate from an expert's point of view.

Third, authenticity is about valuations, as expressed in a statement issued by ICOMOS in 1994 on authenticity (related to heritage), which "[...] appears as the essential qualifying factor concerning values."[34] Foster and Jones have already noted in the context of replicas that "Authenticity qualifies values."[35] Thus, it becomes obvious that authenticity is of importance; for example, in the museum, which "[...] is the site *par excellence* for the display of authentic objects [...]" (italicization in the original).[36] According to Korff, museum objects

[22] From archaeological perspective, "materiality" as well as definitions and backgrounds are intensively discussed and summarized in following publications: e.g., Knappett 2014; Karagianni, Schwindt and Tsouparopoulou 2015; or with further contributions Hicks and Beaudry 2010.

[23] Ingold 2007 focuses on the materials and their changing properties and relations instead of the materiality.

[24] Kopytoff 1986. Even Gebühr 1980, 69, described four different phases in the "life" of an archaeological object (production, usage, disappearance, discovery / research history).

[25] Latour 1996.

[26] Hodder 2013.

[27] Ingold 2011.

[28] Jervis 2019.

[29] Schweizer 2014.

[30] Korff 2007, 143.

[31] Crew and Sims 1991, 163.

[32] Jones and Yarrow 2013, 22.

[33] "[...] essential for the identification of the MO [museum object; note by author] is the moment of a u t h e n t i c i t y [...] it must be proved, viz. through its own scientific process of identification, the result of which can then be the identification of the O [object; note by author] as a possible MO [museum object; note by author]." (Highlighted in the original) (Stránský 1985, 99).

[34] See §10 of the Nara Document on Authenticity (ICOMOS 1994) (https://www.icomos.org/en/179-articles-en-francais/ressources/charters-and-standards/386-the-nara-document-on-authenticity-1994 [09 March 2023]).

[35] Foster and Jones 2020, Chapter 8.

[36] See Saupe 2016. An anthology on museums as places of authenticity was recently published (Kimmel and Brüggerhoff 2020).

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("Museumsdinge") are objects of fascination, and this fascination is based on the authenticity of the objects.[37] Furthermore, authenticity is discussed in the context of exhibitions[38] or from the visitors' point of view.[39] That is, authenticity has a meaning to people, institutions or social groups; therefore, "authentic objects" may become valuable to them. As a result, museum objects perceived or described as authentic can become resources that have value for actors, societies, institutions or groups – depending on time and space – and influence humans and their relations and processes of identity formation. Viewing these exhibits as resources in the sense of the interdisciplinary collaborative research centre SFB 1070 ResourceCultures[40] offers a shift in perspective to understand not only their current values but also the processes and practices of their valuation and to focus on why things become resources, how they affect human relations and how these culturally constructed resources are embedded in networks[41] and assemblages[42] of, for example, different materials, spaces, things, actors, practices and knowledge that may change over time.

The watercraft discussed in this Article are unique, material objects valorized and exhibited as "witnesses"[43] of historical events in today's museums where the mode of the exhibition affects their valuation. Different categories of values may exist in this process; for example, age value, commemorative value, newness value,[44] discord value[45] and heritage value.[46] However, "authentic" museum objects become valuable not just because of aspects connected to their (staged) material properties or genuineness but also because of scientific research, aesthetics, pastness, narratives, economics, functions, symbolism or emotions.

Case study: Nydam Boat

The Nydam Boat is a rowing boat from the fourth century AD that was sunk in a lake in what is today Denmark, near the Danish-German border. Presumably, this event occurred as part of ritual practices in the context of a sacrifice after a military encounter. Besides the so-called Nydam Boat, other boats and military equipment were deposited in a lake that, over time, became a bog, the Nydam Bog.[47]

The boat was excavated by Engelhardt, a Danish archaeologist, in 1863 and reconstructed in the city of Flensburg (Germany), which was Danish back then. Indeed, it was not the only boat found in the Nydam Bog, but it was the first one found and the only one excavated, reconstructed, preserved and exhibited. Most parts of a second boat found by Engelhardt were lost during the Second Schleswig War (1864), and the third boat, found in more recent times, was not excavated. Engelhardt described the boats as outstanding (and noted that this might remain so for a long time) and considered them some of the region's most important

[37] Korff 2007, 141.
[38] Crew and Sims 1991; Phillips 1997.
[39] Hampp and Schwan 2014.
[40] Hardenberg 2017; Hardenberg, Bartelheim and Staecker 2017; Bartelheim, Hardenberg and Scholten 2021; compare Schade et al. 2021 for different case studies from research related to the SFB 1070 and a "resource perspective."
[41] The concept of ResourceComplex refers also to considerations by Latour and Ingold (compare Teuber and Schweizer 2020; Bartelheim, Hardenberg and Scholten 2021).
[42] The concept of ResourceAssemblage also includes considerations by, e.g., DeLanda and Hodder (compare Bartelheim, Hardenberg and Scholten 2021).
[43] Thiemeyer 2015.
[44] Riegl 1903.
[45] Dolff-Bonekämper 2008.
[46] Hofmann 2017.
[47] For further information and literature regarding the Nydam Boat, the findings from Nydam and the Nydam Bog, see, e.g., Rau 2013a, 2013b.

Iron Age finds.[48] So, it is unsurprising that Engelhardt had the first boat excavated, reconstructed and exhibited in Flensburg. However, due to political dynamics and processes of musealization, only the first found boat (made of oak) was valued and subsequently "individualized" as the famous exhibit, the Nydam Boat, which remains an archaeological highlight to this day and has become a centerpiece of the museum.[49] Here, the special feature of being the "first" example takes effect.[50] The importance of the boat is also reflected in the research conducted on it and in the many publications about it or its archaeological context.[51]

After the Second Schleswig War, it became German property and was removed from Flensburg to be exhibited in Kiel, at first, and in the German town of Schleswig after World War II (in the Archaeological Museum Schloss Gottorf) until today. Since its movement to Kiel, it has been an important object in all museum exhibitions. It continues to be entangled with the history and identity of the Archaeological Museum,[52] which displays many archaeological finds from the human past of Schleswig-Holstein. The decision to exhibit the boat in Schleswig after World War II had to do with the destruction in Kiel, among other things, and the location in and of Schleswig. On the one hand, the new museum moved into a representative castle; on the other hand, important archaeological sites were nearby.[53] For a long time, the boat was contested between Germany and Denmark due to its past, the context of its discovery and the related question of to whom it belonged. Today, however, it represents an interregional, border-crossing understanding of the common past. From 2003 to 2004, it was loaned to Denmark for an exhibition in the National Museum in Copenhagen.

Exhibited at various places – in different cities and different spaces – the exhibition strategies varied over time.[54] At first, only the boat was exhibited (Flensburg), but later, the associated finds from the Nydam Bog, additional finds from the Thorsberg Bog and bog bodies were shown alongside the boat. This had already taken place in Kiel,[55] but even the early exhibitions in Schleswig followed the same concept. However, with time, the staging was altered. In Schleswig, the boat stood first on a brick platform, looking like a monument, but in the 1980s, it was removed from the brick platform and set on a platform with pebbles, placing it in a functional historical scene – like laying ashore on pebbles.[56] Since the 1970s, an attempt has been made to contextualize the boat by adding exhibition modules, referring to the historical living situation, and providing historical background information. In 2013, the exhibition was altered again in the context of the 150th anniversary of the boat's excavation. While some finds and the boat remained in the exhibition hall, the associated finds from Nydam and other finds from Thorsberg were removed and placed in the main building of Gottorf Castle.[57]

[48] Engelhardt 1865, 6.

[49] Regarding the musealization of the boat, see Schade 2020 with additional literature; on the German homepage of the Archaeological Museum (Schleswig), the boat is described as one of the museum's largest exhibits, being of special aesthetics and extraordinarily well preserved, and thus of great importance for science (https://museum-fuer-archaeologie.de/de/eisenzeit; [20 July 2023]).

[50] See Schade 2021 for analogue processes in context of the "first" archaeologically found specimen of a "cog" exhibited in the German Maritime Museum (Bremerhaven).

[51] For example, Engelhardt 1865; Shetelig 1930; Bronner 1958; Åkerlund 1963; Bonde 1990; Gebühr 2002; Rieck 2004; Rau 2013a, 2013b.

[52] Schade 2020.

[53] In addition, the boat was identified – at least in a regional news article from 1949 – as an "anglic" boat, which, according to the article, was best placed in the center of the old "anglic" area, this means near Schleswig. See Schade 2020 for further information.

[54] Schade 2020.

[55] See various figures in Shetelig 1930, illustrating the exhibition's space in Kiel.

[56] Schade 2020.

[57] Schade 2020.

Figure 1. The Nydam Boat embedded in its exhibition around 2018. Shapes and colors of the exhibition modules in front of the boat evoke the association of water. However, the platform behind the boat evokes the association of land, not only because of its elevated position, but even because of the reed belt printed aside as well as the topics presented on the platform (picture: Author 2018; © Museum für Archäologie Schloss Gottorf, Landesmuseen Schleswig-Holstein).

The exhibition running since 2013 (status 2018),[58] focuses on the boat itself, highlighting its history, reception and meaning as a research object.[59] The boat is set on a moveable frame and is pushed to an elevated platform, enabling visitors to look inside the boat from above. The platform is decorated with a photographic representation of a reed belt on its side, giving an idea of the boat left by the crew lying ashore. This is also supported by the design of the exhibition hall. By placing and presenting the objects and topics around the boat, with multimedia elements replaying a visual and an acoustic recording of aquatic scenes, as well as the shapes and colors of the exhibition modules, this evokes associations of water in front of the boat and land adjacent it (Fig. 1; Fig. 2). Generally, the staging induces an impression of the historical object in use - as rowing boat, not as a sacrificial good. However, the boat is no longer functional due to historical damage and its current state (both in substance and shape). A platform has been installed beneath the exhibit, covering the moveable frame, which displays a GIS plan of the excavation site. This means that while the boat is exhibited reconstructed in its entirety, the archaeological situation with the scattered parts of the boat is presented simultaneously (Fig. 2).

[58] Following descriptions of the exhibition in this Article are based on the author's visit on site in 2018 and may not apply to subsequent exhibitions.

[59] See Abegg-Wigg 2014 for further information about the actual exhibition; at this point, a redesign of the museum is planned and in this context the exhibition could also change.

Figure 2. The Nydam Boat besides the platform with reed belt, evoking the association that the boat lies landed ashore. Simultaneously, beneath the reconstructed boat a platform is installed, on it depicted a GIS-layer showing the archaeological finding situation in the bog (picture: Author 2018; © Museum für Archäologie Schloss Gottorf, Landesmuseen Schleswig-Holstein).

Because of the conditions in the bog, the boat's materials have changed over time. The wooden items were found as component parts that had to be linked and reconstructed.[60] The iron components had decayed and were replaced by newly forged ones,[61] and the wooden material presumably shrank after its recovery.[62] Regardless of these circumstances, Engelhardt stated in the first publication about the finds from the bog that the boat was reconstructed according to its "old" shape.[63] This statement reflects an understanding of accurate originality that can be restored. In retrospect, however, the boat's restoration should be considered more as a construction than a reconstruction[64] because the scattered parts were connected with new wooden material,[65] together with iron fittings. The archaeologist Shetelig reported that traces of the latter were still visible in the 1930s.[66] Even some replicas were created in the nineteenth century – for example, the rudder because the

[60] Wiell 1997, 164.

[61] Mücke and Rau 2013, 318–19.

[62] Åkerlund 1963, 155.

[63] Engelhardt 1865, 10.

[64] Similarities can be observed regarding the (re)construction of the "Bremen Cog" (Schade 2021). The responsible person, Lahn 1992, 27; 170, described the "reconstruction" even as a process of reproduction and construction.

[65] Rieck 2004, 92.

[66] Shetelig 1930, 6.

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original could not be recovered, but it was documented.[67] Some of these "old" (re)constructions were not immediately visible but could be identified later through X-ray images.[68] Even shrinkages caused by the conservation process and a tar-like coating became apparent through new analyses.[69] Whether the archaeological material was actually conserved in the nineteenth century remains unclear, but according to the archaeologist Rieck, parts of the boat may have been treated with oil.[70] The material properties were also affected by the first exhibition in Flensburg in a small attic where visitors could approach the exhibit closely. This becomes obvious by a drawing in a German news article from the nineteenth century, which depicts the boat in an attic and people interacting with it,[71] as well as in earlier reports about children playing inside the boat at that time[72] and the fact that a Danish visitor took a fragment from the boat.[73] These reports from the literature are anecdotal but may illustrate various conditions affecting the boat's materials. Following the Second Schleswig War (1864), the boat became German property, and after building a new museum in Kiel, the boat was removed from Flensburg in 1877. It was dismantled into its component parts and reassembled in Kiel, where it was exhibited until World War II.[74] Shetelig emphasized that the dismantling in Flensburg and the rebuilding in Kiel was the responsibility of the same person and that the person concerned, Techant, insisted on rehiring the same workers for its reconstruction who dismantled the boat in Flensburg.[75]

This statement might seem to imply that the intention was to authenticate the reconstruction process in Kiel or to ensure that the boat was rebuilt correctly according to the "original" construction. In Kiel, however, missing parts were replaced with pine, which looked similar to the original oak wood after a suitable paint application.[76] Mücke and Rau wrote that, at this time, modern screw connections were probably added.[77]

In 1925, the boat was relocated within Kiel but remained assembled this time. Nonetheless, the used pine pieces were replaced by dyed oak wood, which resembled the old oak wood.[78] Missing parts were added, and parts of the boat, such as the rudder (a replica produced in the nineteenth century), were replaced so that it was now presented from Shetelig's point of view as "complete" and "correct" according to its "old" shape.[79] Gebühr, responsible for past exhibitions in Schleswig, assumed that the boat received its present appearance and form during its time in Kiel.[80]

During World War II, the boat was removed from the museum and stored on a barge on a lake near Mölln. After the war, the British military government allowed the state's representatives to take the boat to Schleswig, where it has since been exhibited in the "Exerzierhalle" – called Nydam Hall – in Gottorf Castle, today the Archaeological Museum.[81]

67 Shetelig 1930, 8.
68 Mücke and Rau 2013, 306.
69 Mücke and Rau 2013, 306.
70 Rieck 2004, 92–93.
71 See fig. in Wiell 1997, 176.
72 Shetelig 1930, 5.
73 Wiell 1997, 219–20.
74 For the boat's history and its "voyages" as an exhibit see, e.g., Bronner 1958; Gebühr 2002; Rieck 2004.
75 Shetelig 1930, 5.
76 Shetelig 1930, 6.
77 Mücke and Rau 2013, 319.
78 Shetelig 1930, 5–7.
79 Shetelig 1930, 7.
80 Gebühr 2002, 26.
81 Gebühr 2002; Rieck 2004.

Since the ship was interpreted "turned around",[82] according to Gebühr, the rudder was carried to the other stem, and the oarlocks turned.[83] Amending the entire reconstruction would have been too extensive, wrote Gebühr,[84] and, according to Abegg-Wigg, who had worked on the exhibition which opened in 2013, the material had also changed too much for that to happen.[85] For dendro-chronological dating, some pieces were removed from the boat.[86]

However, these additions and changes are not visually detectable by most visitors. Instead, the exhibit as a whole, with its aged-looking, dark-colored wood, possesses a "pastness" in the sense of Holtorf due to its "unusual" visual appearance from today's point of view.

Most recently, "new" parts were added to the exhibit – copies of finds from recent excavations. Due to the colors of the "new" wood, these modern additions (ornamental heads, rolling floor) stand out from the "old" reconstructions – for example, the rudder – and can be recognized by visitors (see Fig. 1). The wood will probably darken with time. However, if and how the appearance and perception of the copies change remains open.

The material properties and appearance changed, not only through the use as a rowing boat but also through the processes connected with destruction and laying down in the lake during historical times. The preservation in the lake, later the bog, and modern processes of excavation, conservation, construction, dismantling and rebuilding at various locations also changed its material appearance through time.

The archaeologist Åkerlund noticed and described in the 1960s differences between the interpretations and reconstructions of the boat's shapes from 1863, 1929 and 1961.[87] This becomes apparent, for example, in discussions about the rudder and questions about its possible, but as of now unresolved, attachment. The rudder was (and is today) attached to the boat, but it was argued whether it should be presented as detached from the boat.[88]

It becomes obvious that the materials and shapes of the exhibit today do not correspond to the archaeological finds in 1863 or the historical object from the fourth century AD. The exhibit "Nydam Boat" is something new, an assemblage of new and old materials, copies and replicas shaped by restoration and conservation practices. As stated by Gebühr, the boat possesses nearly 70% of its original material.[89] But, as said, this can hardly be detected visually because the wooden components added to this reconstruction in the past were colored to blend in with the original excavated material. There seemed to be no need to mark the newly added components in past exhibitions. So, from the visitors' perspective, the boat appears as a single, cohesive object – where only the newest additions stand out.

In summary, the visual and material object was valued over time due to different aspects that can be considered in connection with concepts of "authenticity": (1) it was identified as an archaeological highlight that was unique for science, which is why it was completely recovered, (re)constructed and exhibited; (2) it was presented assembled, believed to be materially and visually accurate in the context of contemporary expectations and museum strategies; (3) the tangible museum object and the intangible ideas about it were contested in the nineteenth and twentieth centuries, and there was always the question of whose history and past it would bear witness to, German or the Danish, and to whom it would belong. This made it a valuable object

[82] Åkerlund 1963, 155–156; 155.
[83] Gebühr 2002, 27.
[84] Gebühr 2002, 27.
[85] Abegg-Wigg 2014, 24.
[86] Bonde 1990, 158.
[87] Åkerlund 1963, 90–91; Fig. 18; Fig. 34. See also footnote 7 at Gebühr 2002, 28.
[88] Schade 2020.
[89] Gebühr 2002, 20.

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for identity formation in the region; finally, it has become a witness to a common Danish-German history and a common heritage in the border region; (4) moreover, the boat became part of the museum's identity, not only because of its history but also because it is a well-preserved archaeological highlight and because of the scientific research conducted on it.

Asked about its "authenticity", Bleile, the museum manager, stated that from a museum's perspective the question about the amount of original material is irrelevant. Even if not every wooden part is real, originally from the fourth century, it is still part of the exhibit Nydam Boat as it appears today. According to Bleile, the reconstructions done and the replicas used have no effect on the boat's authenticity, but they would affect the visitors' perception of the object. Thus, everything of the exhibit Nydam Boat would be authentic, also the story of the object, even if it could be possible to make a different statement when talking about the reconstructions' authenticity from a scientific point of view.[90]

This means the object as an exhibit is important and meaningful, regardless of whether its materials are "real". Even if it is an assemblage of old (original) and new (replicated) materials, the whole object is considered an original, disregarding the material properties and emphasizing its biography and history.[91]

Bleile stated that the boat's appearance in the exhibition hall is impressive – and assumed this would not be possible to the same extent by exhibiting only the wood excavated in 1863.[92]

This perception seems to be related to the "original" material, even if it is not referring to the historical ship or the archaeological find, but to the appearance and presence of the exhibit in the museum with its restorations, reconstructions, conservations and staging in the space.[93] "Presence" means both the physically present object in the museum space and its impression on the visitors by its materials and appearance, as well as theoretically "[…] a state of being lost in focused intensity, an attitude towards history as an ongoing process, and as a newfound interest in the materiality of collections and the museum space."[94] Following Bjerregaard, atmosphere creates presence, where "[…] the creation of presence relies on a manipulation of the space in-between objects and in-between objects and subjects."[95]

The display of the whole "constructed" boat, in contrast to the display of individual parts as they were salvaged, may evoke different feelings and address different sensual perceptions of visitors in the context of pastness,[96] aura[97] or atmosphere.[98] These feelings may probably even be evoked by a material replica: for example, replicas of the Nydam Boat such as "Stedingsehre" and "Nydam Tveir". "Stedingsehre" was built in 1934 in Germany for propaganda purposes, among other things, and was used as a rowing boat.[99]"Nydam Tveir" was completed in 2013 in Denmark and is used as a rowing boat today.[100] However, even if a

[90] Interview Bleile 2020.

[91] Similar observations can be made for the "Bremen Cog" (Bremerhaven): Due to excavation, restoration and conservation it is not the original, historical vessel or the archaeological find anymore, instead it is a new object, perceived as authentic based on its musealization process and its function as a research object (see Schade 2021).

[92] Interview Bleile 2020.

[93] Presence and appearance are also important in context of the "Bremen Cog" (Schade 2021).

[94] Madsen and Madsen 2016, 479; see there for a summing up.

[95] Bjerregaard 2015, 80, also referring to Gumbrecht.

[96] Holtorf 2013.

[97] Benjamin 2013.

[98] See Böhme 1993; Kerz 2016. However, "atmosphere" can even be discussed in the context of museums (Bjerregaard 2015; Madsen and Madsen 2016) or in digital games ("atmospheres of the past") (Zimmermann 2021).

[99] See Gebühr 2002. – Additionally, H.P. Rasmussen collected information about "Stedingsehre" in a small brochure, printed by the "Selskabet for Nydamforskning" (1999).

[100] For further information regarding "Nydam Tveir" see Nissen 2017.

replica could be used as a functional boat or could be entered by visitors and thus be perceived as authentic or the staging as atmospheric, presenting a boat replica does not seem to be valued as much as presenting the original boat. The National Museum in Copenhagen did not exhibit a replica or a digitized substitute of the Nydam Boat, but the original boat (maybe based on own and presumed visitors' expectations), despite the financial and logistical complications that came with this plan.[101]

Case study: Kon-Tiki

The Kon-Tiki, a raft made of balsa logs, was built in Peru in 1947. It is not an archaeological object per se, but it is a replica based on various historical Spanish sources without a concrete, physical model.[102] It is more of an assemblage of material models from different contexts, ideas and conceptions. With the raft, Thor Heyerdahl and his team crossed the Pacific Ocean from Peru to French Polynesia to prove that the Polynesian Islands could have been reached by people from South America with similar rafts during pre-Columbian times.[103] Therefore, the raft was an experiment and was only in use for a short time. Presumably, they intended to leave it behind on an atoll in the Pacific Ocean after fulfilling its purpose – an exhibition seemed unplanned at first. According to Haugland, a crew member and the first director of the Kon-Tiki Museum, Heyerdahl thought the raft lying on the atoll was a worthy monument.[104] Despite this, the raft was towed to Tahiti, and at the end of 1947, it was shipped to Norway, where it subsequently became an exhibit.[105] This was done at the instigation of Knut Haugland, later the museum director, and Gerd Vold Hurum, the project leader of the expedition.[106] In addition, a committee was founded with the aim of exhibiting the raft in a building.[107] After only one voyage, the Kon-Tiki raft lost its primary function and was recontextualized, becoming an exhibit. Although it was built as a replica, the raft is considered today to be an original due to its (individual) past, story and events entangled with it. After its movement to Norway, it was first located in the Oslofjord, and later, the so-called Kon-Tiki House, where the raft was to be placed, was erected. The raft and its newly built house should be left to the Norwegian Maritime Museum, but according to Haugland, the museum did not want it – at least at this point – because of the expected follow-up costs. Instead, the raft remained on display in the Kon-Tiki House, later replaced by a new building of the Kon-Tiki Museum (Oslo),[108] where the raft is still exhibited today. However, the Kon-Tiki Museum lies close to the Maritime Museum, the Viking Ship Museum and the Fram Museum, all of which refer to Norway's maritime identity and history.[109]

[101] This also becomes obvious in the "Bremen Cog" case. Before it was decided to display the original archaeological find in the German Maritime Museum, presenting a replica in the museum's harbor was considered, which could have been used for transportation and sailing (Schade 2021).

[102] See, e.g., Magelssen 2016, 30 for information about Heyerdahl's sources.

[103] Heyerdahl narrated the expedition in a book published in 1948 (in this Article, the German translation [1956] was used). The basis for this "experiment" was Heyerdahl's diffusionist theory that Polynesia was settled from South America – these considerations had been refused in research. However, Heyerdahl's theories and motivations are not the topics of this Article, but they are important to understanding the phenomenon of "Kon-Tiki." For further information concerning the expedition and its related theory, with even critical comments on problematic aspects, see, e.g., Andersson 2010; Solsvik 2014; Magelssen 2016; Melander 2019.

[104] Haugland 1989, 65–66.

[105] Haugland 1989.

[106] Solsvik 2014, 160; for more information about Gerd Vold Hurum, "[t]he woman behind the Kon-Tiki Expedition", see a blog post on the museum's old homepage from 08 March 2023. However, a similar post can also be found on the new homepage, which was launched in April 2024.

[107] Haugland 1989, 66–67.

[108] Haugland 1989.

[109] Andersson and Wahlberg 2017, 179–80.

Figure 3. The Kon-Tiki in an old exhibition, presumably between 1956–1959. The old exhibition mainly focused on the raft itself, which, staged this way, could have been perceived as a prehistoric raft (picture: Courtesy of the Kon-Tiki Museum).

Over time, exhibitions about Heyerdahl's other expeditions were added, turning the museum virtually into a museum about Thor Heyerdahl. Nevertheless, the Kon-Tiki is still an important exhibit today, as it was the museum's founding object and name giver, and it is well-known among visitors.

An earlier Kon-Tiki exhibition focused on the raft itself.[110] In the newer exhibition described here (status 2018[111]), the raft seems to be more embedded in an "atmospheric" scenery reflecting the Kon-Tiki expedition in the sense of the "adventure" known from the book (and less thematizing the scientific theory behind it[112]), with the raft being only one (but essential) part of Heyerdahl's story presented in the museum. In their entirety, the Kon-Tiki Museum exhibitions as structured today follow the chronological narrative of Heyerdahl's expeditions, which the visitor may rewalk and somehow relive.[113] Following Madsen and Madsen, a museum can be considered "[...] as a site for reason as well as embodied knowledge [...]", where bodily actions, for example, walking and sensing, are important "[...] because embodied experiences of atmosphere and presence are situated in a body moving through space."[114]

[110] Haugland 1989.

[111] Following descriptions of the exhibition in this Article are based on the author's visit on site in 2018 and may not apply to subsequent exhibitions; e.g., a redesign and expansion of the museum is planned until 2025 (status 2018).

[112] See critical comment in Magelssen 2016 concerning the exhibition and its narration from 2014.

[113] The first exhibition is about Heyerdahl's stays on Fatu-Hiva in 1937. The final exhibition is about Túcume (1988–1992). However, not all of Heyerdahl's expeditions are exhibited.

[114] Both Madsen and Madsen 2016, 481.

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Figure 4. The Kon-Tiki in the actual exhibition (2018). Today it is more staged in an atmospheric scenery surrounded by, for example, water and waves depicted on the walls as well as with more objects put on deck and with modern flags hoisted (picture: Author 2018, with permission of the Kon-Tiki Museum).

In the Kon-Tiki exhibition, the raft is placed in the middle of the exhibition hall and can be surrounded by visitors. It is staged in maritime scenery, where it seems to arrive at its destination in French Polynesia. The raft is embedded in a blue, ocean-like environment, like floating on a sea-like surface surrounded by waves, clouds, fish, tropical isles and flying seagulls – mainly depicted on the walls but also represented by specimens. On the raft, flags are hoisted: the flag of Norway and the flags of France, the United States, Peru, the United Kingdom, Sweden and the Explorers Club. According to Heyerdahl's report, the flags were hoisted when land was in sight, shortly before arriving at its destination.[115] The raft provides a further clue about the staged arrival. At the beginning of the voyage, the roof was covered with banana leaves[116] but was later covered with bamboo and tarpaulins.[117] While the raft is exhibited today in this configuration – only the bamboo roof is visible; in the 1956 exhibition, the hut was covered with banana leaves. Additionally, the hoisted flags and various objects staged on board evoke associations of the raft being in use. This was not the case in former exhibitions, where the focus was more on the raft itself and less on staging a context (Fig. 3; Fig. 4). Additionally, beneath the raft, in the museum's basement, an underwater life scenery is staged by presenting models of different animals including a

[115] Heyerdahl 1956, 123.
[116] Heyerdahl 1956, 47.
[117] Heyerdahl 1956, fig. on 80–81; 112–13.

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whale shark (known from the book). Thereby, a second situation is staged where the raft floats on the Pacific Ocean because the crew of Kon-Tiki did not encounter the whale shark at the end of the voyage but before. This means that two sceneries are presented with the same object: in the basement, beneath the exhibit, the raft floating on the ocean, and on the upper floor, around the exhibit, the raft arriving at its destination.

Today, the Kon-Tiki exhibition uses various forms of media: background graphics surround the raft, there are informative texts with pictures of the voyage and various items were put on display (replicas and originals), together with multimedia installations. On two screens, film scenes from Heyerdahl's documentary, "Kon-Tiki" (1950), where the raft is floating on the ocean, are shown. As stated by the curator, the staging is part of new aesthetics implemented around 2012, inspired by the motion picture "Kon-Tiki" from 2012. "In the 2012 motion picture the Kon-Tiki raft was surrounded by a visually impressive ocean; our principle design idea was to convey this image to our visitors."[118] For this, the museum cooperated with a design firm that created artwork for the movie's marketing and that also created the new background graphics for the exhibition.[119]

However, not all parts of the Kon-Tiki as it is exhibited today are still original in the sense of the material – even if they are part of today's ("authentic") object. Due to various processes, the object's material and properties changed,[120] not just because of environmental conditions at sea but also due to the beaching on an atoll at the end of the voyage, where the raft was damaged.[121] It suffered further damage after the raft was retrieved and shipped to Norway in 1947. First, it remained on the water in Oslo until 1948 and was exposed to environmental conditions that probably hastened the deterioration of the ropes. Haugland described the ropes as rotten and said the raft stank at this time.[122] Second, it was frequented by young people who "[...] walked on board and had parties on the raft and [...] started carving their names."[123] Third, pieces of it were taken as souvenirs. This is confirmed by an article from Hagelberg containing an undated photo of a wooden part taken from the raft and gifted to someone. It is labelled with: "PART OF THE KON-TIKI RAFT FROM KNUT HAUGLAND MEMBER OF THE CREW" (capitalization in the original).[124] Not only "[...] the people who went on the expedition [...] got a piece [...]", but later "[...] some people [...] were taking some pieces [...]" from the raft, too, as it was lying in the Oslofjord.[125] Lastly, the raft was exhibited in other places in Europe.[126] According to Solsvik, the museum curator, the raft was further damaged during these tours.[127]

This illustrates that the object's story – for example, its transportation and becoming an exhibit – led to material changes. Finally, in the 1950s, the raft was exhibited in Oslo and remains there to this day, but further changes occurred when it was put on display.

In the 1950s, it is said, insecticide was put on the raft, and some parts of the wood therefore became grey; according to Solsvik, these parts shall be still visible today. Solsvik said this was a promotional offer from a company that offered their services for free.[128] Over

[118] Solsvik et al. 2013, 13.
[119] Solsvik et al. 2013, 12–13.
[120] See also Magelssen 2016, 44.
[121] Heyerdahl 1956, 138; fig. on 144–45.
[122] Haugland 1989, 65.
[123] Interview Solsvik 2018.
[124] Hagelberg 2014, 141, Fig. 31.
[125] Interview Solsvik 2018. Regarding these damages (carved names in the logs, and parts taken away) see also Magelssen 2016, 44, quoting R. Solsvik.
[126] Haugland 1989, 68.
[127] Interview Solsvik 2018.
[128] Interview Solsvik 2018. However, it remains unclear if it was treated this way or not (addendum from R. Solsvik).

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time, repairs were conducted to preserve the object. Solsvik mentioned the sail, for example, which split a couple of times and had to be resewn. According to Solsvik, these repairs should not be visible to the visitors, but Solsvik added "[...] that was not the intention [...]" though the damages (and repairs) were not that big to attract attention.[129] The old ropes, at least of the main construction, were replaced by new ones, and other parts of the raft were repaired. For example, some bamboo rods from the cabin were taken away from it to use them to support the planks of the bow. That means most of the cabin is made of new material today.[130] Part of the steering oar is also a replica, "[...] made by the same people who made the original [...]" as Solsvik emphasized.[131]

It is imaginable that this could be a qualifying aspect that would legitimize the replica's accuracy. Having the same people working on it, it could be assumed that these additions were conducted in line with the original model or similar craftsmanship techniques. This may redirect to an understanding of "origin", authenticated by a group of "makers" or by their use of certain practices.

According to Solsvik, some parts of the deck are still original, while others had been repaired; for example, one of the mast-legs was fixed with a steel spike. Some parts of the deck in front of the hut are new – new bamboo wood was added, imported for the repairs. However, some logs were not repaired because "[...] we do not see the point. It is not visible, and it does not do anything [...] for the construction's integrity of the raft [...]", Solsvik said.[132]

Again, the visual appearance seems important, but structural integrity is too. According to Solsvik, the wood dried out, the ropes stretched and the weight of the logs shifted, some of them pushing each other apart.[133] Finally, the raft was taken apart in 2013 because of restoration works.[134] The ropes had to be replaced, and all the logs were retied by Olav Heyerdahl, the grandson of Thor Heyerdahl.[135]

Maybe these repairs, conducted by a descendant of Heyerdahl, were as important for forming the actors' and the institution's identities involved[136] as they were, perhaps, an authentication of the repairs onboard. Then, even in the context of the Tangaroa expedition (2006), virtually a reenactment of the Kon-Tiki expedition, Olav Heyerdahl was part of the crew. Higraff, leader of the Tangaroa expedition, indicated that being the grandson of Thor Heyerdahl was one aspect qualifying Olav Heyerdahl for the expedition.[137]

Thus, four aspects related to "authenticity" seem to be meaningful for the valuation: (1) the visuality of the (unique) exhibit, which is meant to be visually accurate or true to the historical original; (2) the substances or materials used – old bamboo rods from the original and even new wooden materials and constructive items – intended to present a materially accurate raft; (3) the involvement of people somehow entangled with the construction or use of Kon-Tiki, or who are related to Heyerdahl, this maybe in accordance to the idea of an "origin" and (4) last but not least, the commemoration and narration of the event and the personage of Thor Heyerdahl using the material object.

[129] Interview Solsvik 2018.

[130] Interview Solsvik 2018.

[131] Interview Solsvik 2018. See also Magelssen 2016, 44 for this statement.

[132] Interview Solsvik 2018.

[133] Interview Solsvik 2018.

[134] A video of the restoration works was uploaded by the Kon-Tiki Museum on YouTube on 12 April 2020.

[135] Solsvik et al. 2013, 12.

[136] Representatives of Heyerdahl's family are also among the museum's staff. This can be seen on both the museum's old homepage and the new one, which was launched in April 2024.

[137] Higraff and Blair 2006.

While the "materiality" seems meaningful in the sense of an accurate visual appearance, it is subjected to two more relevant factors: (1) whether changes or repairs are visible to the visitors and (2) the structural integrity of the raft. Hence, the idea of authenticity in the sense of accuracy to an original may be affected by practical constraints.

Asked about the meanings of "authenticity", Solsvik assumed that "[…] for being in the setting of a museum, authenticity is really important. But it is not that all the people that come to the museum demand that everything should be authentic, but the feeling of authenticity needs to be there."[138]

This originality is even connected to uniqueness – according to Biehl, the museum's director in 2018, the raft became a "very popular object" because of its journey as well as Heyerdahl's book and documentary. "That is what fascinates people […]", Biehl assumed, there is "[o]nly one raft […] So that is the magic of the museum, isn't it?"[139]

These statements illustrate that authenticity is a meaningful ascription and that the original therefore may be favored over a replica. This is not only about factuality – the object being the real one, witnessing a historical event – but also about an exhibit being unique and popular and about the feelings evoked by staging the object or narrating a story accurately. This may also be possible using replicas, but the interviewees seem to suppose that visitors expect the original in the museum context.

Biehl assumed that it is important for a museum that "[…] you can come here and see the real object." If everything would be digitized and everything could be seen at home, "[…] then you lose the authenticity of course […] because that is the main focus of museums: to teach people how things smell, how tactile it is, how it feels when you touch it, how it feels when you hear it […] and to teach the audience the authenticity of the material, of objects in general."[140]

These statements focus on the tangible substance that cannot be copied or simulated, which can only be conveyed by the real present object or the original. So, this is about the senses and sensual perceptions of visitors, even if this usually means seeing the object and perhaps smelling it. In most museums, visitors are generally not allowed to touch or walk on original exhibits, and they cannot hear or taste them. So, traditional museums' tangible (material/physical) objects remain not really tangible (untouchable) for visitors. However, in an exhibition context, it is possible to use various approaches; for example, hands-on stations or multimedia installations surrounding the original object on display to address different senses with different media or to produce a specific atmosphere.

Based on the interviews, it becomes clear that the conception of authenticity mainly describes feelings and sensory perceptions evoked by the physically present and the visually observable "real" thing. It is even assumed that digitized materials may be helpful supplements that add a new layer of experience. At the same time, it is also claimed that they cannot substitute the "analogue" original or the multimodal experience of genuineness. On the one hand, the promise of the original seems more persuasive than the possibilities a replica may offer.[141] On the other hand, a virtual or digital simulation may add a more immersive feeling, enabling the visitor to "relive" a historicized situation. Even VR was considered:[142] for example, the visitor could be on the raft floating on the wide ocean, hearing the raft's materials react with wind and water, and seeing the vast ocean. However, this would be more of a glimpse of a past believed or felt to be real, evoked by imagining possible feelings. It would

[138] Interview Solsvik 2018.
[139] Interview Biehl 2018.
[140] Interview Biehl 2018.
[141] Similar to the "Bremen Cog" (see Schade 2021).
[142] Comment from U. Berg (Kon-Tiki Museum) from 2018.

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remain vague in contrast to the original object, which is exhibited only in one particular place and is a witness of the historical event through its material presence.

Besides originals, the Kon-Tiki Museum exhibits replicas, mainly staged in a scenery, for example, as items of daily use on board the raft, as substitutes on display or for staging the raft in an "accurate" setting. Even in other exhibitions, such as the cave from the Easter Islands, the underwater scenery or Heyerdahl sitting in a library, replicas are used. In these cases, the "original" is unnecessary to take effect on the visitors – and presenting the real things, the originals, would be impossible.[143]

Biehl said that these replicas in the context of Kon-Tiki are important for the exhibition, "[...] for the whole experience that we are making [...] this is how the situation was. This is the equipment that they used. But some equipment was lost, but we have replaced it with replicas, so you can experience how it was."[144]

This means the objective is to show the "real" narration, as it was, with staging in the exhibition. The raft is floating on the ocean. There are many items on board, such as the radio and the rubber boat, known from Heyerdahl's book, and items of daily life, such as crates, tins, cooking equipment and a petrol can. In general, it depicts an event, a historical situation – the raft arriving at its destination – but perceiving it with various senses is also an experience for the visitor. The created scenery may provide an impression of the life of the crew.

According to Solsvik, the items on board are partly replicas, only built for the exhibition, partly "original" objects from the historical event and partly items from the 1940s, thus "original" specimens of their time, that were bought for exhibiting and were not part of the expedition.[145]

Again, it can be seen that the idea of authenticity is about feelings evoked by appearance and presence, not just based on the original but also on simulated or copied materials and the staging of objects – with an impression of an atmosphere.[146]

However, it does not depend on factuality at all. It seems, for example, as if the flags on the raft (they are not the original ones) are flying in the wrong direction, for if the wind is coming from behind and filling the sail, as could be assumed, the flags should be pointing in the opposite direction to that staged. According to Solsvik, they want to change this presentation. They did it this way because they once had an exhibition with the "original" flags and so it was better for comparing the originals and the replicas. And after that, it was impossible to climb the mast pole to change their position because of safety mechanisms.[147]

Maybe the position of the flags is not physically correct, but presumably, only a few visitors will notice, and it will not affect their perception – so there seemed to be no need to rearrange these objects so far. However, the current arrangement is realized to be "wrong" and is intended to be altered, if possible. This has not occurred until now because it did not irritate the visitors' expectations and because of security measures. Accuracy is seen as important, but practical constraints affect it.

Another example illustrates that visitors' expectations may not correspond with the museum's intentions. "A lot of the guides who have been showing tourists around this museum for a long time, they really complained, because they wanted an original-looking raft – like with banana leaves – like "primitive". But that is why we put in the radio sets [...] in order to show this was in 1947."[148]

[143] Analogue to this, the interviewees from the German Maritime Museum stated that replicas or substitutes would be a good option if the original would not be available, but it seems that they would prefer the original over replicas (see Schade 2021).

[144] Interview Biehl 2018.

[145] Interview Solsvik 2018.

[146] Böhme 1993.

[147] Interview Solsvik 2018.

[148] Interview Solsvik 2018.

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These guides preferred to face a more original seeming raft – in terms of "primitive" or "prehistoric" – such as appeared at the beginning of the voyage. This uncommon "exotic" look with banana leaves on the cabin roof could be perceived as more authentic regarding the guides' (and presumed visitors') expectations, not only in terms of an idea of premodern times but also in terms of previous exhibitions when the raft was displayed with banana leaves. However, these expectations do not fit the museum's intention to stage the raft in a historically "accurate" situation, arriving at its destination in 1947. To contradict these expectations and support their intention, the museum staff placed items from the twentieth century on the raft.

In the opinion of Crew and Sims, an "image of an event", an "authentic event", is created in an exhibition: a meshwork of originals, replicas, aesthetics and media – which "[…] lives in the audience's imagination […]".[149] It is not the historical event that is recreated but a snapshot-like situation picked out of the historicized event. Furthermore, an atmosphere is produced, mainly recalling fragments of remembrance or recognition in the visitors' imagination, especially of those recipients who have read the book or watched the movies. Be it the whale shark beneath the raft, sharks on board the raft, the rubber boat or the radio on deck – these mnemonic objects recall emotions and images of a past event as the visitors experience the event "exhibition".

Synthesis

Looking at the Nydam Boat and Kon-Tiki from a different perspective reveals not only their meanings as unique archaeological and historical objects or research objects, but even illustrates the dynamics of sociocultural valuations through which they can become resources, for example, for museums. Applying such a "resource perspective" can help bring processes and practices of valuation into focus and move from an essentialist understanding of values to questions of how and why tangible or intangible things become meaningful to certain social groups while other things do not.

Both examples in this Article "became" exhibits and have been valorized over time. Being the only, the first, the special and real, was the basis for musealization; however, meanings, contexts and material substances changed over time due to restoration, conservation and (re)construction processes. Yet both remained valuable museum objects considered outstanding and unique today, still being witnesses of the past, legitimations for museums and creators of identity.

Once they became exhibits, they were valued not only for their "original" material but also for their "authenticity" related to a pastness, a presence, a history, stories narrated about them and research conducted on them. However, the tangible objects, with their material properties being present and visible, seem significant because they are entangled with other components that take effect in an exhibition – for example, personal practices, institutional requirements, stagings in space etc. – which cumulate in an "authentic event" (visiting the exhibition) and can be experienced as atmosphere interacting with (bodily present) visitors. Even if conceptions of "authenticity" are not necessarily about originality or factuality but about senses, emotions, experiences, perceptions, stories and expectations in the context of knowledge, power and memories, the object's material genuineness still has meaning in the museum. This not only to witness the past but to define and identify the unique exhibit or to conduct research on the "original" materials, even if the materials and effects of "authenticity" may change.

149 Crew and Sims 1991, 162.

In the case of the Nydam Boat, the objective in earlier times was to present it in its "old" and "correct" shape according to an accurate historical (imagined) state, even though it was reassembled after excavation and replica parts were added. Today, however, the Nydam Boat – and Kon-Tiki – are attributed as authentic in the interviews, although both are assemblages of originals and replicas of "old" and "new" materials that changed over time and were staged in different ways and spaces. Therefore, what appears authentic depends on different criteria and is relative. Some objects may appear more authentic than others, and this perception may also change with another point of reference or over time – or when comparing different things or effects. From the museum's point of view, in both cases, it seems to be perceived as authentic to present the "original" object (even if supplemented with replicas) instead of full-scale replicas or substitutes. Otherwise, partial replicas or situations in which replicas are used to evoke an effect of the authentic can be perceived as authentic; for example, as functional tools (touchable replica; useable hands-on station; functional replica) or in the sense of requisites that evoke an atmosphere and thus enable visitors to relive or refeel a situation or event believed to be historic. On the one hand, this is reflected in the replica parts added to the Nydam Boat and Kon-Tiki over time, which allowed the museums to display a visual more or less "complete-seemingly" coherent watercraft. On the other hand, this is also reflected in the latest replicas added to the Nydam Boat, based on new archaeological findings, to display the current state of research on the appearance of the boat in historical times; and also in the replicas placed on board the Kon-Tiki, which are requisites in the staging to convey an idea of daily life in the past and to put the scenery in the twentieth century.

Apart from the material or a visuality, objects can also appear authentic because of their biographies, stories, research history and the research conducted on them, even if they are (re)constructed objects – either because the supplemented parts look like the "original" material or they were crafted according to an "original" technique. The Nydam Boat does not seem authentic in the sense of a historically used rowing boat, a historical sacrifice sunken in a ritual context or an archaeological finding in the bog, but as an unique exhibit with a "story" that can still be displayed, studied and looked at today. The Kon-Tiki does not seem authentic compared to similar rafts used in historical times or to an imagined historical situation, but because it is the "one" raft used by Thor Heyerdahl that is displayed in the museum today, conveying both Heyerdahl's ideas and witnessing the expedition.

In conclusion, the materials and shapes of the watercraft described here have changed over time due to aging, material decomposition and corrosion, but also due to museal practices (constructing, preserving, curating, staging and displaying the objects), as well as structural necessities, scientific sampling or security measures. Even if these material changes are not surprising in detail, it is instructive to reflect on how both "well-known" assemblages were constructed, materially and immaterially, over time into what they are today. This may also apply to watercraft exhibited in other museums, which have been assembled from many materials – on the one hand, during construction and use in historical time and, on the other hand, after their (archaeological) recovery and during their musealization. Furthermore, it can be assumed that these latter material changes are not always obvious or visible to visitors – and if they were, the question arises whether this would impact visitors' perceptions and valuations. From the museums' perspectives observed here, these dynamics do not mean a change in the attributions of the authentic or the claim to the authentic, especially if the changes are small, not visible to visitors or aimed at achieving a (believed) "state of origin".

Moreover, the museums' valuation and valorization processes revealed different layers of "authenticity" regarding functions (as research objects or requisites), material properties, uniqueness, presence, visuality and narratives. At the same time, however, these objects are not only surfaces of projection and points of reflection in discourses on "authenticity", they have also become "authoritative things" that can, in turn, become sources of "authenticity".

Thus, authentic museum objects can become resources of identity, authority and knowledge, whether as unique selling points, visual magnets, legitimations, research objects, identity creators, name givers or even brands for museums.

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Interview transcripts

Biehl 2018: Martin Biehl, (former) director of the museum, Kon-Tiki Museum, 12 April 2018, Oslo.
Solsvik 2018: Reidar Solsvik, curator, Kon-Tiki Museum, 9 April 2018, Oslo.
Bleile 2020: Ralf Bleile, museum management, Archaeological Museum Schloss Gottorf, 5 March 2020, Schleswig.

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