1 Introduction

> […] museums would be more attractive to both researchers and audiences if we consider exhibitions as *knowledge-in-the-making* rather than platforms for disseminating already-established insights (Peter Bjerregaard 2020, *Exhibitions as Research*, synopsis).

1.1 Interdisciplinary exhibition-making and the production of knowledge

On considering the museum exhibition, the anthropologist and interdisciplinary museum curator Peter Bjerregaard offers a statement that sits at the heart of this book. Conceiving museums and exhibitions as 'sites for research and knowledge production' (Hansen et al. 2019, p. 3) makes them not only more attractive but also considerably more relevant. As Bjerregaard pinpoints, this does not only apply to knowledge produced for audiences, but – with regard to this study – more importantly for the people who create new knowledge through exhibition-making, the researchers themselves, the curators, designers, educators, and participating communities. This is especially true when disciplines are not simply presented separately or side by side, but are brought into contact, shaping and changing each other and thereby producing new forms of knowledge. Viewed from a cultural perspective, this book supports the notion expressed by the authors of *The Oxford Handbook of Interdisciplinarity*,

> that the solution to our social, political, intellectual, and economic problems does not simply lie in the accumulation of more and more knowledge. What is needed today is a better understanding of the relations between fields of knowledge, a better grasp of the ways knowledge produced in the academy moves into society […] (Frodeman et al. 2010, p. xxx).

Universities, and also museums, are primed for this work; the joining together of diverse pieces of knowledge in ever new contexts instead of only collecting and accumulating them. Still, both academic discourse and museums themselves seem largely unaware that museums and exhibitions can be places that enable and facilitate interdisciplinarity. Interdisciplinarity, as a research method, is about making connections and striving for joint solutions, and about creating new knowledge during the research process. This also applies to the research conducted by museum project teams, and this fact, as I will explain over the course of this study, makes museums and exhibitions exciting and relevant experimental territories for interdisciplinary research.

This book[1] is rooted in practice-based research within the discipline of museum studies, namely the cultural practice of exhibition-making. It draws on two decades of curatorial experience and reflection at the Bundeskunsthalle[2] in Bonn, Germany, to examine the museum sector's growing interest in the development of thematic temporary exhibitions that include a multitude of disciplinary and non-disciplinary perspectives to address societally relevant topics. It highlights and analyses the kinds of partnerships, processes, and institutional systems that are necessary for an exhibition to be considered interdisciplinary and what happens when those key actors are not in place. My research thus focuses on the development process of *temporary interdisciplinary exhibitions*, often combining the perspectives of arts, cultural history, and sciences. Within this practical and theoretical scope, this study raises two main research questions.

Firstly, I investigate the *collaborative processes of interdisciplinary exhibition-making* and present a clearer picture of this specific type of temporary exhibition, which still seems to lack or even escape theoretical characterisation or any attempt at producing a typology of practice. As this exhibition type has, however, been gaining relevance and popularity in recent years,[3] it seems even more important to understand the actual meaning and practical implications

1 This book is based on my PhD thesis which is accessible online at the University of Manchester: https://research.manchester.ac.uk/en/studentTheses/interdisciplinary-exhibitions-and-the-production-of-knowledge (last accessed 19 June 2024).

2 The Kunst- und Ausstellungshalle der Bundesrepublik Deutschland, Bundeskunsthalle for short, is accessible at www.bundeskunsthalle.de.

3 An interesting example was the exhibition *Mind the Gut* at the Medical Museion in Copenhagen in 2017, combining art and biomedical science (see Bencard et al. 2019).

of the term 'interdisciplinarity' as well as related terms such as 'multidisciplinarity' and 'transdisciplinarity'. For this purpose, my research engages with theoretical discussions in interdisciplinarity studies, a field emerging from philosophical science theory and educational theories in the academic context. This study identifies the academic discourse on interdisciplinarity as a field of research (most prominently the works by Julie Thompson Klein) with the potential to provide a meaningful input to the formation of theory on temporary exhibition-making in museum studies. Based on this theoretical framework, the book contributes to the analysis and transparency of the practical processes of interdisciplinary exhibition-making, also involving a 'behind the scenes' critique of internal institutional processes (see Macdonald 2002). By investigating and testing how the established theories on interdisciplinarity manifest themselves in exhibition-making practice, I argue that the complexity of interdisciplinary exhibition-making calls for a more precise and practice-oriented application of what is an often-generalized notion and usage of the term interdisciplinarity.

Secondly, I consider the *potential of interdisciplinary temporary exhibitions to produce new knowledge*, especially during their collaborative production processes, involving complex and potentially creative procedures of negotiation and decision-making, similar to what Peter Bjerregaard (2020) suggests in the opening quote to this introduction. When exploring the question of how interdisciplinary exhibitions are developed and produced, I argue that the role of the interdisciplinary curator (which is my own professional role) as 'bridge-builder' is essential and is in fact very similar to that of an interdisciplinary researcher in academia (see Klein 1990, p. 131; Klein 2010, p. 16). Rooted in my own practice as an exhibition curator and manager at the Bundeskunsthalle in Bonn, where I have been working since 2002, my research deals with the possibilities and problems of interdisciplinary temporary exhibitions. I am interested in the question, whether creating such exhibitions can be a way not only to stage existing knowledge, but also to raise questions that might eventually lead to new research. Although this is of course also relevant for monodisciplinary or monographic exhibitions, I would like to advocate a more experimental, 'curiosity-led' (Arnold 2015, p. 335) approach to curating temporary exhibitions which involves the crossing of disciplinary boundaries for a wider and more differentiated perspective on the topics, stories, and contexts which are presented in exhibitions today. This may not work for all exhibitions, but as I show in this book, thematic exhibitions can effectively profit from taking on a wider perspective, especially when dealing with pressing topics

and public concerns in a world of seemingly growing interwovenness and complexity – problems which cannot be explained and solved by one discipline alone (see Message and Witcomb 2015, p. liii, Bjerregaard 2020, p. 7).

A position that I take throughout this study is that an interdisciplinary approach to exhibition-making can be understood as an experimental research method. Presenting knowledge from different disciplines in one and the same exhibition ideally comes with an integrative mutual understanding of different disciplinary perspectives on a given topic, developed in an interdisciplinary research process. And it is this collaborative process which potentially sparks new knowledge on a public stage, that is the exhibition. By enhancing not only academic research but also public knowledge and a potential participatory dialogue, I outline the ways that interdisciplinary exhibitions can serve as educational, societal, and democratic events.

While investigating the curatorial work and actual production processes of interdisciplinary temporary exhibitions, I am therefore interested in looking at how this type of exhibition creates new knowledge during the collaborative process of making them. This type of exhibition – often dealing with larger or more abstract themes and ideas that can only be described through consulting more than one discipline – can be very difficult to produce, but if successful, it can be very rewarding and inspiring for all participants on both the producing and the receiving ends. Making such exhibitions can become 'an illuminating research process in itself' prompting 'fruitful collaborations that will extend throughout the duration of the exhibition and beyond' (Herle et al. 2009, p. 9; see also Herle 2013). Even more so, if they take the risk to be experimental – a term I will explore more deeply in section 2.3.2 of chapter 2 and which will prove to be an important keyword of my research – not only across disciplines, but also across established exhibition genres (Macdonald, Basu 2007, p. 19).

Lehmann-Brauns et al. have analysed the possibility of staging new knowledge in an exhibition or even using the medium of the exhibition as an experimental ground to create new knowledge in detail for the realm of science museums, stating that 'research generates exhibitions which in turn generate research' (Lehmann-Brauns et al. 2010, p. 3). Exhibitions as an experimental ground can be of interest for monodisciplinary research projects, but they can also be a meeting point for varied disciplines to engage and collaborate on a given question or topic of public concern. The challenge is not only to find new ways of presenting, visualizing and conveying knowledge to a wider audience, but 'to find strategies to support non-traditional research that transcends dis-

ciplinary boundaries while preserving the value of knowledge and its creation' (Aldrich 2014, p. 250).

Knowledge creation is not merely limited to 'matters-of-fact' but also to 'matters-of-concern', as Bruno Latour puts it in *Making Things Public* (Latour 2005, p. 19), that is, matters and issues of public concern. 'We might be more connected to each other by our worries, our matters of concern, the issues we care for, than by any other set of values, opinions, attitudes or principles' (p. 14). Latour advocates for the medium of the exhibition to be a means of enhancing what he calls an 'object-oriented democracy' (p. 14). Every object (meaning issue, matter, or actual thing) 'gathers around itself a different assembly of relevant parties' and every object potentially triggers dialogue, be it dispute or agreement. Thus, objects do 'bind all of us in ways that map out a public space' (p. 15), transcending borders of disciplines or genres. Objects are surrounded by a 'hidden geography' (p. 15) that the spatial medium of the exhibition is capable of making visible in a productive and also fundamentally democratic way, as museums and exhibitions have 'an important role to play in the development of democracy and its civic cultures' (Dahlgren and Hermes 2015, p. 118). In being spaces for critical reflection (Message and Witcomb 2015, p. lv), they are contributing to our cultural understanding (p. xliv) and to our 'readings of the world' (Pickstone 2000, pp. 33–59).

1.2 Intersections between two fields of inquiry: Museum studies and interdisciplinary studies

In the introduction to the volume on museum practice of the *International Handbooks of Museum Studies* (2015), editor Conal McCarthy draws on Gerard Corsane's model of museum work as being divided in 'priorities' (general aims and strategies), 'resources' (professionals and objects), 'processes' (working procedures), and 'publics' (audiences), stating that whereas much has been written, for example, on theorizing the politics of collecting and display (belonging to the category of priorities) and on questions of education and interpretation (belonging to the category of publics), he finds a gap in the theorizing of the practical processes by professionals themselves, 'the professional practice as such' (McCarthy 2015, p. xxxix). McCarthy advocates a 'synthesis of research-led practice and practical theory' (p. xliv) and states that whereas the role of the curator and the contents of collections and exhibitions (belonging to the category of resources) have been extensively dealt with in the literature

of museum studies, 'the actual practice of curating / exhibiting / managing itself' has as yet only rarely been reflected on theoretically (p. xl).

This is exactly where my research is located, as I specifically want to explore the practical process and methodology of making interdisciplinary exhibitions. Of course, questions regarding resources (for example the specific role of the curator or exhibition-maker in interdisciplinary exhibition projects, and the way in which objects are carrying and speaking of knowledge) as well as regarding priorities and publics (especially the questions of outreach, participation, and public education) will necessarily be part of this investigation as these are overlapping categories, but I want to specifically look at the curatorial processes of exhibition-making and knowledge production. Gabriela Nicolescu reflects on the ideas of art theoretician Brian Holmes (in his article 'The Artistic Device, or, the Articulation of Collective Speech', in: *Ephemera* 2006.6 (4), pp. 411–432) and describes 'exhibition-making as a device, something that transforms itself in the process of making, and not as an end to itself; it is this transformation […] that captures the attention of public discourse' (Nicolescu 2016, p. 467). Nicolescu is advocating what she calls 'ethnographies of exhibition-making', unveiling and analysing the possibilities but also the conflicts and limitations of curatorial practice (p. 466).

My perspective is both that of a project participant as well as an academic observer, and as such I am especially interested in the internal processes that take place before exhibitions are finally opened and presented to the public. This inner perspective is not so much concerned with the evaluation of the quality of both the curatorial work and the resulting exhibition itself, but instead it promises to contribute to the transparency of curatorial processes (Norton-Westbrook 2015, p. 349), in this context not so much for reasons of political legitimacy as for a greater reflexivity on the practices of the curatorial profession itself. Working with three exhibition case studies conducted by me over a period of eight years (2013–2020), this book contributes to this still emerging transparency in terms of understanding a specific curatorial practice. I will elaborate further on my own curatorial role in section 1.4.

In order to not only analyse interdisciplinary exhibition cases as such, but to explore the possibilities of developing collaborative standards[4] for them

4 In 2011 the department of Museum Studies of the University of Michigan held a lecture series called 'Cross Currents: Transdisciplinary Dialogues on the Museum'. The introduction to a joint lecture by the astronomer Sally Oey and Harold K. Skramstad, historian and museum professional, entitled 'Presenting Science in Interdisciplinary

during this research, it is essential to understand how museums and other exhibition-making institutions are conveying and producing disciplinary knowledge, how they are conceiving of interdisciplinary approaches, and how they are putting these approaches into practice. Museums are 'points of conjuncture' dealing with both processes of 'fragmentation, dissonance, and crisis' (Message and Witcomb 2015, p. xli), as well as 'encounter, exchange, communication, and transgression' (p. xliii), both in theory and in practice. All these processes are in fact aspects of interdisciplinary collaborations.

In 2020, Bjerregaard published a substantial collection of essays titled *Exhibition as Research: Experimental Methods in Museums* that takes a similar approach to exhibition-making as my research suggests, which I began to work on in 2015. In his introduction Bjerregaard advocates the necessity for 'cross-disciplinary' methods and research in exhibition-making (Bjerregaard 2020, pp. 7, 8). In a footnote he explains that he decided on using the term 'cross-disciplinarity' as a 'general term', because 'the cases presented in this volume did not clearly define the nature of their collaboration across disciplinary divides' (p. 13). This use of terminology in the field of museum studies and indeed within the museum world itself reveals an ongoing absence or lack of a finer vocabulary to enable a more precise understanding of the 'nature' of these collaborations. This book extends Bjerregaard's volume by considering and testing a more precise vocabulary. By using it as a methodological framework the aim is to enable practitioners and academics to identify and even classify an exhibition that crosses disciplinary boundaries, or indeed to understand in what ways that exhibition might have crossed these boundaries in practice. I want to

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Exhibitions', on 4 December 2011 (http://ummsp.rackham.umich.edu/events/event-archive/2011-2012/, last accessed 3 March 2023) read: 'The themes, topics, and stories in museum exhibits often cover content that provide opportunities for teaching across a broad range of disciplines. Prevailing practice, however, tends to view exhibition content as neatly fitting into categories defined as art, history, or science. This represents a lost opportunity both to present a full, multidimensional perspective on various topics, and, in particular, to offer substantive science education within a broader societal context. […] Is it possible to formulate a robust *collaborative paradigm* [emphasis added] that would be helpful for the development of future interdisciplinary exhibitions?' The answers Oey and Skramstad gave on this occasion were not recorded, it seems, but this question is interesting in itself. It initially inspired my research question as it is asking for a detailed analysis and better understanding of how interdisciplinary exhibitions are actually made, in order to improve their production process and outcome.

contribute to a better understanding of what collaborations across disciplinary divides in exhibition-making actually are, and how they function, or not.

Apart from relevant museological literature on exhibition theory and practice, the conceptual framework I offer in this book is influenced by and intersects with a significant body of literature that has been published on interdisciplinarity. It comprises, firstly, a field of study that focuses on the theory of interdisciplinarity and, secondly, literature that considers practical exercises and experiences with interdisciplinarity in the context of academia. This latter body of literature offered me a way into thinking about interdisciplinarity beyond abstract conceptions, and instead examining how experiences in the museum sector could be analysed through theories of interdisciplinarity. Especially Klein's taxonomy and theoretical work on academic interdisciplinarity has been fundamental to the approach adopted in this study. Klein offers a meaningful framework for theorizing (and practically improving) interdisciplinary thematic exhibition-making. By discerning between multi-, *inter*[5]- and transdisciplinarity (Klein 2010, p. 16), and understanding the three terms as offering different qualities of interaction and integration, I suggest that the use of these terms provides a finer vocabulary for a detailed description and analysis of the practical processes of collaborative exhibition-making as well as of the different ways of producing knowledge during these exhibition-making processes.

Throughout this book I will use the term 'interdisciplinarity' in two distinct ways, firstly, as a general (more rhetorical) term, and secondly, in a more specific, stricter connotation. Klein distinguishes three types of interdisciplinarity (here serving as the general term): multidisciplinarity, *interdisciplinarity* (in a narrower sense; marked in italics in this book), and transdisciplinarity (Klein 2010, p. 16). (1) Multidisciplinarity 'is encyclopaedic in character' (p. 16), it is sort of a 'pseudo interdisciplinarity' that can be described as 'encyclopaedic', 'juxtaposing', 'sequencing', 'coordinating', 'complementing' and 'indiscriminate'. 'It is essentially additive, not integrative' (Klein 1990, p. 56). (2) *Interdisciplinarity* is described as an 'integrating, interacting, linking, focusing, blending, generalizing kind of collaboration', which enables at least a 'partial integration' (Klein 2010, p. 16). (3) The definition of transdisciplinarity is twofold, as it is either un-

5 As will be explained in the next paragraph, I will use the term 'interdisciplinarity' as a general term. However, *interdisciplinarity* or *interdisciplinary*, written in italics, will signify a specific meaning as defined by Klein (Klein 2010, p. 16).

derstood as 'full integration' or as 'transsector interaction' (p. 16), bridging the gap between academia and other stakeholders of society.

Apart from its significance to museum studies and the studies of cultural practices, this research provides a deep analysis of three cases of interdisciplinary collaborations in the cultural sector that will also be of interest to universities and particularly studies in interdisciplinarity, with the cultural sector being a site of interdisciplinarity not yet recognised or described enough by academics in the field. Being inspired and informed theoretically and practically by these studies about interdisciplinarity in the context of academia, this book tries to give something back to this discourse, namely a likewise inspiring and theoretically analysed application in cultural practice – a disciplinary exchange which Helen Saunderson poetically described as 'crossdisciplinary pollination' (Saunderson 2012, p. 160).

1.3 The institution where this practice-based research took place: Allowing for interdisciplinarity

To set the scene for this practice-based research, I would like to offer a more in-depth introduction to the institution[6] in which my curatorial practice has been taking place since I started to work there in 2002 as an exhibition manager and curator. I frame it as a place which allows for interdisciplinarity to happen in all its shades and grades of multi-, *inter-* and transdisciplinarity.

The Kunst- und Ausstellungshalle der Bundesrepublik Deutschland (Art and Exhibition Hall of the Federal Republic of Germany) (Fig. 1.1) – mainly known by its abridged brand name Bundeskunsthalle – was opened in Bonn in 1992 as a federally funded exhibition hall and multifunctional venue without a collection of its own. Since then, it has become one of Germany's leading institutions in the conceptualization and production of large temporary exhibitions in art, art history, archaeology, cultural history, ethnology, and natural sciences, as well as of other artistic and discursive events. This programme diversity has gone hand in hand with the institution's declared international and

6 The institution will be further discussed in specific contexts within the next two chapters: In chapter 2 I will discuss the wide programme scope of the Bundeskunsthalle regarding exhibition types, whereas in the context of explaining my research methods in chapter 3 I will describe some architectural features of the institution, which seem to go against the notion of transparency and accessibility.

multicultural orientation. Two of the Bundeskunsthalle's opening exhibitions in 1992 were already programmatic of this thematic diversity in presenting the art exhibition *Territorium Artis* (a broad and critical reflection on art in the 20th century) as well as the contrapuntal art-and-science exhibition *Earth View – Global Change* (focussing on global ecological challenges). The deliberately chosen cultural-historical perspective was a common feature of both exhibitions and became typical for many later exhibitions of the institution (Jacob 1992, p. 11). But despite the multidisciplinarity of its overall programme, its understanding of exhibition types has predominantly been a disciplinary one, and explicitly interdisciplinary exhibitions (like *Earth View*) have been rather an exception than the rule.

However, it is this thematic diversity of the Bundeskunsthalle as well as the continuous need to change and reinvent itself that, in principle, allow for multi-, *inter-* and transdisciplinarity to thrive. Lisa Lattuca states that interdisciplinarity in general requires a certain institutional 'climate' which she identifies as the more 'malleable and transient' 'institutional phenomena' as opposed to more 'closely held values' defining the work 'culture' of an institution (Lattuca 2001, p. 45). Elements belonging to the category of an institutional climate that advocates interdisciplinary research would, for example, be 'administrative support, institutional resources, and a reward system' (p. 45). Supportive elements like these have not been consistently characterizing the institutional climate of the Bundeskunsthalle, but first and foremost the comparatively large resources in federal funds have helped considerably to provide a territory allowing for experimentation with interdisciplinary types of temporary exhibitions. In the conclusion of this book, I will further consider and summarize possible institutional standards and conditions that enable interdisciplinary exhibition-making.

The Bundeskunsthalle was designed by the Viennese architect Gustav Peichl (1928–2019) in the late 1980s. Plans for a federally funded Kunsthalle[7] had already been discussed as early as 1949, when Bonn became Germany's first post-war capital. In 1991, after the German unification, the parliamentary decision was taken to make Berlin the capital of the reunified country, but fol-

7 'Kunsthalle' is a defined term in the German-speaking cultural landscape describing a public art space without a collection of its own, and originally also without any commercial interests. See, for example, this article by Jori Finkel (2014): https://www.artnews.com/art-news/news/the-future-of-the-american-kunsthalle-2819/ (last accessed 6 August 2023).

lowing Germany's historically federalist identity, the plan to build the Bundeskunsthalle in Bonn, which had gradually formed since a first parliamentary declaration of intent in 1977, was not abandoned, especially because construction works had already started. Thus, on 19 June 1992, the Bundeskunsthalle opened its doors to the public in Germany's most densely populated state of North Rhine-Westphalia instead of the new capital Berlin, attracting an average of 500,000 visitors from all over Germany and the Benelux countries per year (not counting years affected by COVID-19).

Fig. 1.1: The front side of the Bundeskunsthalle and the museum square. Photo: Bernd Lammel, 2020, © Kunst- und Ausstellungshalle der Bundesrepublik Deutschland GmbH, Bonn.

Peichl's architecture created a certain paradox which concerns the building's very dominant outward aesthetics as opposed to its inward aesthetic neutrality, flexibility, and openness. The journalist and architecture critic Dieter Bartetzko described the Bundeskunsthalle's front facade as possessing the 'aura of an ancient Egyptian cult complex' or a temple of the Mayas or Incas breathing a monumental 'nimbus of timelessness, dignity and festivity' (Bartetzko 1992, p. 13). A long, steep, and narrow staircase leads up to the rooftop-garden in the middle of the front facade resembling a 'celestial ladder', further adding to the hermetic pathos of the building (p. 14). But this dramatic outer appearance is not mirrored in the interior. Apart from reduced

playful elements, the Foyer, Forum, and various exhibition galleries within the building have a surprisingly open appearance which allows for a great variety of changing temporary architectures. The plain functionality of the offices and workshops in the backstage areas create the productive atmosphere of an exhibition factory rather than an art temple. However, Bartetzko rightly stated in 1992 that the Bundeskunsthalle, despite not being a museum with a collection, still seems to attempt a 'dangerous tightrope walk' between being an open 'place of learning as well as a temple of the Muses' (p. 15). Whereas the museum square between the Bundeskunsthalle and the Kunstmuseum (art museum) of the city of Bonn suggests an open public space, the Bundeskunsthalle looks like a hermetically sealed treasury resembling Fort Knox. The latter appearance was probably also intended to convey an aura of importance, trust, and security aiming at convincing international lenders to entrust the institution with precious loans.

From the start, the official mission of the institution, with its 5,000 square metres of empty exhibition spaces, was based on two conceptual terms: (1) staging 'exhibition[s]' and (2) enabling 'communication' (Jacob 1992, p. 9) and dialogue, aiming at creating – and continuously re-creating – a 'space for the discussion of cultural issues and developments of international relevance' (p. 10). For the purpose of conceptualizing and staging temporary *exhibitions*, the vast amount of gallery spaces forms an open vessel for a varied programme. Often two or three exhibitions are staged at the same time. Lacking a collection of its own, the Bundeskunsthalle had to build up an international network of potential partners and lenders. As predominantly administrative as this activity might seem, it has involved the continuous curatorial engagement with collections all over Europe and worldwide, researching and re-contextualising museum objects of a large variety.

As for fulfilling the conceptual purpose of *communication*, the Bundeskunsthalle provides a multifunctional hall called 'Forum' admitting up to 500 people for cultural events such as exhibition openings, theatre and dance performances, films, music concerts, conferences etc. From the beginning, a declared objective of the Forum's programme of events was to situate Germany within its European context suggesting a wide concept of international cultural practices (Jacob 1992, p. 12). In 2022, at the institution's 30th anniversary and after staging around 280 larger and smaller temporary exhibitions, the Bundeskunsthalle still pointed out its global perspective in its online mission statement, but also stressed 'the institution's commitment to wider audience participation in culture and to comprehensive social and cross-cultural inclusion

and integration' advocating an 'open and inclusive concept of culture'.[8] A press release of the German Federal Government from 3 June 2022 on the occasion of the 30th anniversary of the Bundeskunsthalle reiterates the 'thematic range of the exhibitions' as being 'correspondingly broad, often *spanning disciplines* [emphasis added]' as well as many forms of cultural practice.[9] These quotes show that the Bundeskunsthalle indeed has the potential to serve as a blank canvas or experimental territory for exhibition-making and other artistic or, more broadly speaking, cultural practices. This makes it quite a unique space, especially given its large scale, at least in the German context.

1.4 The curator: Becoming an interdisciplinarian

In order to further set the scene for this study, I would like to identify critical moments in my career, how they enabled me to become an interdisciplinarian – a 'bridge-builder' (Klein 1990, p. 131; Klein 2010, p. 16) interested in multi-, *inter-* and transdisciplinary curatorial approaches – and how they eventually led to this practice-based research on interdisciplinary exhibition-making. This autoethnographical account of my own curatorial practice in the past two decades reflects on and critiques my own work culture and its development at the Bundeskunsthalle. My reflections will focus on tracing my own experiences with academic interdisciplinarity and interdisciplinary exhibition-making and on examining how these experiences have affected my professional identity. This is important, because interdisciplinarity research can change the (often originally monodisciplinary) professional identity of the researcher, both in academia and cultural practice, as it, for example, widens their horizons and sometimes estranges them from their original discipline. In 1990, Klein identified a gap in 'interdisciplinary autobiographies' and 'narratives of actual interdisciplinary work' (Klein 1990, pp. 183, 184). This gap has been closed to a certain extent during the last three decades within the field of interdisciplinary studies, but such narratives of interdisciplinarians or

8 https://www.bundeskunsthalle.de/en/about/bundeskunsthalle.html (last accessed 19 June 2022). This is also stated in a similar way on the relaunched website: https://www.bundeskunsthalle.de/en/education/inclusion (last accessed 2 April 2024).

9 https://www.bundesregierung.de/breg-de/suche/vielfalt-als-anspruch-und-programm-2047310 (last accessed 19 June 2022).

'integration experts'[10] who 'risk time out of the disciplinary mainstream' (Klein 1990, p. 182) are still a desideratum. Mapping out my professional journey in hindsight requires reflection and transparency, both on a personal level and, as I will elaborate on in chapter 3, regarding the disclosure and analysis of my professional practice including institutional processes that are usually considered internal. This involves spelling out the possible aims and objectives of my curatorial work as well as of my practice-based research. Additionally, I suggest it is an ethical research requirement to clarify my own position before analysing those of others who took part in the three exhibition cases analysed in this book.

With the following reflections I aim to explore how my interest in interdisciplinarity is rooted in my own educational and professional biography in order to answer the question why this research topic has become so important for me. Thinking across disciplinary boundaries has been an integral part both of my academic education as well as my professional career, and I argue that my educational journey plays a role in my goals and values as an exhibition curator.

In my early years of studying Chinese studies, the curriculum resembled a kind of *studium generale*[11] on Chinese language, literature, art, philosophy, religion, history, politics, and geography, which is different from current curricula in Chinese studies. Nowadays, most university courses in Chinese studies tend to specialize in only one or two of these sub-subjects, but this wider disciplinary horizon within my former major field perhaps encouraged and stimulated my path towards a more generalist understanding of my role as an exhibition curator. After finishing my MA degree in Chinese studies, a museum internship at the Asian collection of the Museum für Angewandte Kunst (Museum of Applied Arts) in Frankfurt am Main eventually opened a new professional perspective. This internship ultimately helped me secure a contract as an exhibition manager and later curator at the Bundeskunsthalle in Bonn in 2002.

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10 See Hoffmann, S., Deutsch, L., Klein, J. T. et al. (2022). 'Integrate the integrators! A call for establishing academic careers for integration experts', in: *Humanities and Social Sciences Communications* 9, 147 (2022), https://doi.org/10.1057/s41599-022-01138-z (last accessed 7 August 2023).

11 The term *studium generale* is used here in the sense of an introductory general education on a given subject. Compare the contemporary use of the term in: https://en.wikipedia.org/wiki/Studium_generale (last accessed 6 August 2023).

The start of my professional career made me decide to stop my initial PhD research in Chinese studies for the time being, but the wish to continue my academic education at some later point stayed in the back of my mind. But this was not yet the moment in which I left my original academic subject to develop a new professional identity. In *Behind the Scenes at the Science Museum*, Sharon Macdonald describes how exhibition-making shapes and redefines the professional identities of curators and other museum staff: 'In creating their plans, then, Museum staff were also inevitably engaged in a writing of their own professional identities' (Macdonald 2002, p. 78). This is exactly mirroring my own experience. Originally, I had been hired at the Bundeskunsthalle mainly for my ability to speak Chinese, and therefore set out managing and co-curating (at that time the title of curator was not officially part of the job description) exhibitions closely connected to my MA studies, namely art and cultural history exhibitions on Taiwan (*Treasures of the Sons of Heaven. The Imperial Collection from the National Palace Museum Taipei*, 2003–2004, two venues), China (*Xi'an. Imperial Power in the Afterlife. Burial Goods and Temple Treasures from China's Ancient Capital. Results of the German-Chinese Cooperation in the Protection of Cultural Property*, 2006) and Mongolia (*Genghis Khan and his Heirs. The Empire of the Mongols*, 2005–2006, five venues). The latter already involved an interdisciplinary team of archaeologists, historians, and scholars in Mongolian, Chinese, Japanese, Arabic, Islamic, Turkic and Slavonic studies, and I vividly remember their fruitful discussions and territorial conflicts, sometimes almost as if re-enacting the Mongolian Empire. This echoes Klein's observation that interdisciplinary teamwork is sometimes described in a language borrowed from geopolitics (Klein 1990, pp. 77–78; see also chapter 2 of this book). But at the time I had no knowledge of this context.

After the first four years (2002–2006) in this position, it was uncertain whether I would get another project contract, because the Bundeskunsthalle's diverse programming was not likely to include yet another exhibition on an Asian topic in the nearer future, as exhibitions on Tibet, Japan and Cambodia had been staged before as well as parallel to my projects in 1996, 2003 and 2006. But meanwhile I had become an experienced exhibition manager and was apparently considered fit for being entrusted with organizing other ethnographic and cultural history exhibitions. I was assigned to manage the large exhibition *James Cook and the Exploration of the Pacific* (2009–2011, three venues), curated by a team of anthropologists bringing together more than 500 original ethnographic 'curiosities' from the Cook voyages. Paradoxically, this was the first exhibition I was officially allowed to co-curate although at

the start I was quite ignorant of the topic. Within this curatorial team I took on an (in a sense interdisciplinary) outsider-role in contributing the biographical and natural history aspects (astronomy, navigation, botany, zoology) to the overall storyline of the exhibition. The comparatively few objects I chose were welcomed both by my co-curators and the visitors as contextualizing interventions amidst an ocean of stunningly beautiful ethnographic artefacts.

This was my first *interdisciplinary intervention* in an exhibition concept. It was epitomised by one object, an 18th century tablet of 'portable soup' from the Royal Navy, similar to those used as provisions on Cook's voyages. This became a little highlight of the exhibition in its own right as visitors (and the press) appreciated it for providing a moment of surprise (apart from its interesting history in the prevention of scurvy). Years later I myself was surprised to find this small object mentioned in Daniel Tyradellis' book *Müde Museen* (Tired Museums). He used the soup tablet as an illustration with the apparently ironic caption 'Soup tablet with an aura: historical object for the exhibition *James Cook and the Pacific* [sic], Bundeskunsthalle in Bonn, 2009/10' (Tyradellis 2014, p. 74, transl. HP) – casually placed in a chapter in which he (in parts rightly) criticized the all too often random and unreflected choice of objects due to the workload and time pressure of curators in acquiring and administering loans. This, he reckons, leads to curators researching objects for an exhibition 'rather in an additive and collecting [way] than in a thoughtful and conceptualizing way' (p. 73, transl. HP). I have myself experienced this problem and can also meaningfully associate it with the additive instead of discursive work processes in multi- instead of *inter*disciplinary exhibition-making processes and I will also discuss this challenge within the case studies in this book. I might have concurred had Tyradellis, for example, questioned the enormous amount of 500 (out of c. 2,000 known) ethnographic objects from the Cook voyages in this exhibition, but this specific object was chosen with care. Tyradellis himself curated the interdisciplinary exhibition *Wonder* at the Deichtorhallen in Hamburg in 2011 and wrote in the catalogue introduction that, although *Wonder* was largely an art exhibition, 'the mere fact that individual objects within the exhibition cannot count as art, potentially changes the view on all objects' (Tyradellis et al. 2011, p. 19, transl. HP). This was exactly how the soup tablet became a 'thing that talked', instantiating 'novel, previously unthinkable combinations' (Daston 2004, p. 24), namely in its surprising relation to the objects and contents around it. The soup tablet somehow created a surprisingly intimate moment in which visitors could briefly imagine a detail of everyday life on board of one of Cook's ships, when all those extraordinary artefacts of encounter surround-

ing them were collected. This whole anecdote might seem like a distraction but this at first glance insignificant object has taught me a methodological lesson in interdisciplinary exhibition-making as it succeeded in inspiring dialogue and 'thickening the plot' (Rugoff 2015, p. 44). Moments like these drew me to the topic of interdisciplinarity.

Further exhibition projects – working with ethnographical and historical contents and objects as well as with contemporary art – increased my interest in thematic exhibitions which take on an interdisciplinary approach, and my wish to explore their possibilities and problems. Working at the Bundeskunsthalle has not only changed my professional identity but has also changed my understanding of the disciplinary structure of today's knowledge production at universities, which at least in Germany still largely dictates the boundaries of most temporary exhibitions both in content and methodology, and it has offered me the opportunity to gain practical experience within a wide and varied content horizon. Not being an art historian like the majority of my colleagues in our institutional team of curators, made me become the curator for what a former director sometimes diffusely described as the 'other exhibitions', meaning other than art exhibitions, and in recent years I have learned to accept and even enjoy this role. All three 'other' exhibitions introduced and discussed in this book, namely the exhibitions *TOUCHDOWN*, *Weather Report* and *We Capitalists*, were explicitly trying to use the method of consulting and inviting various disciplines to contribute to the topic in order to create a multifaceted and meaningfully 'thickened' exhibition concept. As I will discuss in the three analytical chapters 4, 5 and 6, these exhibitions would not have been possible without interdisciplinary intent. Had these exhibitions remained within the boundaries of individual disciplines, not only would this have limited their content, but also and more importantly the types of knowledge involved and created during their conceptualization and production processes.

The experience of a gradually changing professional identity – in my case from a sinologist to a generalist exhibition curator – has brought on both the feeling of loss and gradual exclusion from an academic circle I had previously worked hard to belong to, but at the same time also the exciting feeling of something new emerging on the horizon. It was the PhD research in museum practice, which this book is based on, that enabled me to grasp and spell out this 'other' professional identity, gaining confidence in even two new academic fields – museum studies and interdisciplinarity studies – in which I have already been working as a practitioner for many years. But what constitutes this transformed professional identity? Have I become a generalist – or rather an

interdisciplinarian – after abandoning the field I majored in, and if so, what exactly is an interdisciplinarian? Is it just someone who knows a bit about many things but nothing in detail? Or have I become a specialist in just another profession? Speaking of my profession, I understand myself as a *maker, manager, curator, and researcher of exhibitions*. Although having become a 'curiosity-led' (Arnold 2015, p. 335) thematic generalist, I gradually come (and like) to see myself as a 'bridge-specialist' (Klein 1990, p. 131), focussing on conceptualizing and organizing complex and interdisciplinary thematic exhibitions. In the last few years, I have established myself within the institution I am working at as being especially interested in interdisciplinary exhibitions, which in recent years have finally also been named as such in our official internal programme schedule.

In the three case studies (chapters 4 to 6), I am also trying to understand the diverse professional identities of other exhibition curators that I had the pleasure to work with, identities that have been inscribed and very likely also been transformed by their exhibition-making practice. Reflecting on our curatorial practices, I have become increasingly interested in exploring the question of *what it takes* and *what institutions get* if they invest in experimental and interdisciplinary exhibition-making. A closer investigation necessarily requires the transparency of institutional processes, ideally leading to the development of more precise standards for this kind of exhibition-making.[12]

1.5 The case studies: Three exhibitions with various shades and grades of interdisciplinarity

In this section of the introduction, I want to provide brief abstracts to the three case studies, to discuss their chronology and to validate their purpose regarding my research question. As stated above, the exhibition cases presented in chapters 4 to 6 contribute to the analysis and transparency of the practical processes of interdisciplinary exhibition-making and identify the academic discourse on interdisciplinarity as having the potential to provide a meaningful

12 I have already published parts of this section on 18 May 2021 in the Blog of the EU project SHAPE-ID under the title 'Interdisciplinary exhibition-making as research practice': https://www.shapeid.eu/interdisciplinary-exhibition-making/ (last accessed 24 April 2023).

input to the theory formation on temporary exhibition-making. I will compare and analyse three cases of interdisciplinary temporary exhibitions from my own curatorial practice at the Bundeskunsthalle through the lens of my theoretical framework, using a precisely defined theoretical vocabulary on interdisciplinarity that will be established in chapters 2 and 3 of this book. The analysis of the cases aims to show how exhibitions labelled with the general term 'interdisciplinary' have turned out in practice, and what can be learned from this. Although the finer degrees of interdisciplinarity – multi-, *inter-* and transdisciplinarity – manifest themselves in practice in rather fluid 'shades and grades', they will prove to be useful for a more precise understanding, analysis, and critique of the actual processes of exhibition-making.

The analysis will follow five steps during the development and production process of the three exhibition cases. These five steps are: (1) Forming an interdisciplinary team of curators, (2) negotiating and developing a joint exhibition concept, (3) collaborative object choices within an interdisciplinary curatorial team, (4) finding a joint curatorial language for interpretation and exhibition design, and (5) identifying knowledge produced during the process of developing an interdisciplinary exhibition.

All three temporary exhibitions had a significant political dimension, thematically focusing on (1) Down's syndrome, (2) weather and climate, and (3) capitalism. These three themes were dealt with from a multitude of disciplinary perspectives. Furthermore, in all three exhibition cases a comparatively wide understanding of interdisciplinarity[13] was chosen by combining concepts and objects from the realms of art, cultural history, science, and everyday life.

The three case studies are presented in a chronological order that mirrors the curatorial learning process during my practice and research. The work on this study started in 2015, before the first exhibition case was opened in 2016, so that curatorial practice and research inspired each other during the process of my growing understanding of what interdisciplinary exhibition-making means in theory and practice. Perhaps surprisingly, my learning process and growing experience with regard to the integrative quality of interdisciplinary exhibition-making was – for mainly (but not only) institutional reasons – describing a curve that at first steeply arrived at transdisciplinarity (the most

13 An example of a narrower understanding of interdisciplinary exhibition-making would, for example, be the combination of concepts and objects from the arts and applied arts.

intense degree of integration) and then slowly moved back towards multidisciplinarity (the loosest form of disciplinary integration). The first case, *TOUCHDOWN. An exhibition with and about people with Down's syndrome*, took an almost radical participatory and integrative approach. In its high-flying ambitions, it sadly proved to be an institutional exception, if not an anomaly. As the two cases that followed will show, they were gradually weaker representations of this complex form of exhibition-making. The integrative approach was seemingly dialled down for pragmatic reasons. This observation will be subject to further discussion in the conclusion of this book.

The time frame in which the three cases were developed spans eight years, starting in 2013, when we began to work on the exhibition *TOUCHDOWN*, and ending in 2020, when the exhibition *We Capitalists* was on display from 13 March to 30 August. Employed at the Bundeskunsthalle for more than two decades, I had worked in interdisciplinary curatorial settings before 2013 but was admittedly not explicitly aware of it at the time. It was the *TOUCHDOWN* project which first triggered in me a strong reflective and theoretical interest in interdisciplinary and integrative forms of collaboration, as I had never found myself in a comparably complex situation regarding the production process of an exhibition until then. It was therefore a practical necessity – a sort of emergency procedure – to acquaint myself with this field of research to cope with and improve my own practice as an interdisciplinary exhibition curator. Instead of continuing to fly blind when facing collaborative and integrative exhibition-making processes, I felt the need for a deeper understanding of these processes, both practically and theoretically, to then translate this knowledge into action to improve this specific practice of exhibition-making.

1.5.1 The transdisciplinary and participatory exhibition: Setting the bar for good practice – *TOUCHDOWN. An exhibition with and about people with Down's syndrome* (3 venues 2016 to 2018)

The first case study introduces the predominantly transdisciplinary and participatory exhibition *TOUCHDOWN. An exhibition with and about people with Down's syndrome* (Bonn, Bremen, and Bern, 2016–2018). Within the theoretical framework of this book, this exhibition serves as an example of a successful transdisciplinary project from the cultural realm, integrating different ways of knowing and of producing knowledge. The exhibition and the accompanying book aimed to comprehensively research and tell the history of people with Down's syndrome for the first time, as they had not been part of our written history so

far. Including a wide range of disciplines such as history, archaeology, social science, genetics, medicine, and art, the research process for this exhibition was conducted together with a group of people with Down's syndrome. They took part in the decision-making processes during the development of the exhibition, especially during the curatorial process of choosing and interpreting objects. At least fifty percent of the produced texts for the exhibition and the book were written by people with Down's syndrome. All other texts were written in a clear language. This joint language, accessible to all project participants, can be understood as a methodological tool to unite different forms of knowledge and to enable transdisciplinarity. People with Down's syndrome also acted as paid docents in their own exhibition and were thus not only part of the knowledge production but also of the interpretation and dissemination of the knowledge generated in this exhibition.

1.5.2 The 'inter-disciplined' exhibition: Art meets science – *Weather Report. About Weather Culture and Climate Science* (7 October 2017 to 4 March 2018)

The second case study investigates the practical processes of making the predominantly *interdisciplinary* exhibition *Weather Report. About Weather Culture and Climate Science* (Bonn, 2017), which combined curatorial perspectives from the fields of art, cultural history and science. This approach to our topic mirrored the real-life need of joining disciplinary and non-disciplinary forces to tackle the global threat of climate change – a monumental task to which this exhibition tried to contribute a new narrative. Like the first case study, this second one traces the production process from forming an interdisciplinary team, negotiating conceptual ideas and methods on to object choices, interpretation, and exhibition design. It, too, aims at testing my hypothesis that the complexity of interdisciplinary exhibition-making asks for a more precise and practice-oriented usage of the general term 'interdisciplinarity'.

By discerning between multi-, *inter-* and transdisciplinarity and understanding these three terms as describing different qualities of interaction and integration, I use these terms as a finer vocabulary for a detailed description and analysis of the practical processes of collaborative exhibition-making. This specific case analysis shows that the established procedural categories or qualities of interdisciplinarity can all occur in one and the same exhibition project, when examining the various phases and constellations of its production pro-

cess in greater detail. It also leads to the question of institutional consequences and collaborative standards.

1.5.3 The multidisciplinary exhibition and the political dimension of *interdisciplinarity – We Capitalists. From Zero to Turbo* (13 March to 30 August 2020)

The third case study about the exhibition *We Capitalists. From Zero to Turbo* (Bonn, 2020) introduces and analyses a predominantly multidisciplinary exhibition of a more encyclopaedic and less integrative nature regarding its practical production processes. The exhibition aimed at deconstructing the basic characteristics of capitalism to find out how deeply the system is actually manifesting itself in our daily lives. As a case study within this book, it stresses the political dimension of interdisciplinary collaborations and elaborates on the fact that interdisciplinarity needs to be actively created and supported within an exhibition team. It also introduces the idea of *interdisciplinary* interventions during the development process. Although the practical exhibition-making processes were of a rather low level of integration amongst the participants, the exhibition unfolded a significant *interdisciplinary* quality in the cooperation with additional external partners. But this case study also shows that a multidisciplinary exhibition can still be a good exhibition, for example due to its wide content horizon and its diversity of objects.

1.6 The structure of this book: Chapter overview

Chapter 2 will explore the two relevant bodies of references from museum studies and interdisciplinary studies as described above. Drawing on theories and cases from museum studies, this chapter discusses the history, nature and characteristics of temporary exhibitions and their innovative and experimental potential, especially with regard to research and knowledge production. It draws on literature from across the discipline but pays particular attention to exhibition theory and curatorial practice. Furthermore, chapter 2 will explore the role of curators in the context of collaborative and interdisciplinary exhibitions and research projects comparing the situations of cultural institutions and universities after briefly providing basic understandings of interdisciplinarity, drawing on references from interdisciplinary studies.

Chapter 3 sets out the theories of interdisciplinarity in much greater detail and provides a precise vocabulary for the analysis of the three interdisciplinary exhibition cases in the practical part of this study (chapters 4, 5 and 6). It makes the case for a classification of interdisciplinarity and its usefulness to the museum sector by delineating between three modes of interdisciplinarity that this book is attentive to throughout: multi-, *inter-* and transdisciplinarity. Chapter 3 also looks at understandings of bad and good practices of interdisciplinarity, and how this might help with learning from failure. Furthermore, chapter 3 introduces the methods used in this research to investigate and analyse my curatorial practice as an interdisciplinary exhibition curator.

Within the practice-based part (chapters 4 to 6), the book analyses the different forms of the general term interdisciplinarity using three recent exhibitions at the Bundeskunsthalle as case studies. Each of the exhibitions was managed and co-curated by the author of this book together with teams of external curators. The case studies approach has resulted in both a deep and nuanced perspective on exhibition-making and a longitudinal analysis of exhibition-thinking as, collectively, the exhibitions highlight changing practices and institutional conditions of production over several years, while on an individual basis they shed light on the challenges met by the exhibition teams that aspired to enable interdisciplinarity during each respective exhibition-making cycle. The case studies carefully investigate and analyse the relationships and decision-making processes that underpinned the production processes of the three interdisciplinary exhibitions introduced above: *TOUCHDOWN. An exhibition with and about people with Down's syndrome* (2016–2018), *Weather Report. About Weather Culture and Climate Science* (2017/18), and *We Capitalists. From Zero to Turbo* (2020). Each exhibition combined curatorial perspectives from the fields of art, cultural history, science, and everyday life.

In order to establish possible standards for this type of exhibition the case studies include critical reflection, autoethnography and extensive semi-structured interview material with co-curators and partners to investigate the opportunities, dynamics and limitations within the respective projects as well as the institution's role in them. A transparent 'behind the scenes' critique of internal project developments and institutional processes (see Macdonald 2002) reveals the complexity of interdisciplinary exhibition-making.

The conclusion (chapter 7) critically reflects on the lessons learned from these three practical exhibition cases. In the field of thematic exhibitions, it is of growing relevance to include a multitude of disciplinary and non-disciplinary perspectives, especially on subjects of immense societal relevance such

as climate change. This explains why especially the term transdisciplinarity becomes more and more important as it implies and advocates the integration and joint production of different forms of knowledge – academic knowledge as well as knowledge from other stakeholders in society. In order to fulfil the museum's aim to become a more democratic territory, an integrative way of exhibition-making is crucial.