

TELEVISUAL CULTURE

L E F U



Anne-Katrin Weber

# Television before TV

New Media and  
Exhibition Culture  
in Europe and the  
USA, 1928-1939

Amsterdam  
University  
Press

## Television before TV

# Televisual Culture

The 'televisual' names a media culture generally in which television's multiple dimensions have shaped and continue to alter the coordinates through which we understand, theorise, intervene, and challenge contemporary media culture. Televisual culture is a culture, which both encompasses and crosses all aspects of television from its experiential dimensions to its aesthetic strategies, from its technological developments to its crossmedial consequences. Concepts like liveness, media event, audiences, broadcasting need recasting as problematics around which the televisual will get interrogated within a dynamic media landscape. Rather than accept the narrative of television's obsolescence, the series aims at seriously analysing both the contemporary specificity of the televisual and the challenges thrown up by new developments in technology and theory in an age where digitalisation and convergence are redrawing the boundaries of media.

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*Anne-Katrin Weber*

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# List of Abbreviations

BArch	Das Bundesarchiv, Germany
BBC	British Broadcasting Corporation
CBS	Columbia Broadcasting System
CoP	Century of Progress Exhibition, Chicago, 1933–1934
CRT	cathode ray tube
EMI	Electrical and Musical Industries
FCC	Federal Communications Commission
FRC	Federal Radio Commission
GPO	General Post Office
NBC	National Broadcasting Company
IHE	Daily Mail Ideal Home Exhibition
RCA	Radio Corporation of America
RMA	Radio Manufacturers Association (USA) / Radio Manufacturers' Association (UK)



Figure 0.1. Dénes von Mihály presents his *Telehor* at the Berlin Funkausstellung 1928. Source: BArch, Image 102-07379 / Photographer: Georg Pahl.

# Introduction: Interwar Television on Display

## Abstract

From the late 1920s onwards, television display in public space became a frequent attraction that introduced the new technology to a mass audience. Constituting a mediating link between the inventors' workshop and (future) media consumers, exhibitions shaped the medium's meaning before its broad distribution. This introductory chapter discusses the methodological and historiographical frameworks necessary to grasp this entangled history of television and exhibition culture from a transnational perspective. It discusses the shift away from the canonized Bazinian formula of 'What is television?' to the question of 'Where is television?', which is necessary to analyse television on display. Drawing attention to new sources documenting the objects shown, and new questions – why and how would someone display TV? – the introduction finally argues that there is as much to be learned from television *before* than television *after* TV.

**Keywords:** interwar television; media history; media archaeology; transnational history; material history of television

'The greatest step in Radio since the first sound over the air... is TELEVISION which will be the main attraction at the EXPOSITION':<sup>1</sup> the poster of the 1929 Port of Albany Building and Industrial Exposition announced in capital letters the sensational exhibit. In no less an enthusiastic tone, the local newspaper exclaimed:

1 I am indebted to the staff of the Pavek Museum of Broadcasting, St. Louis Park, MN, and in particular to Jeanne Andersen, for making the material on the Port of Albany Exposition available to me. The poster is from the Museum's Boyd Phelps collection, without reference.



One of the most unique and the outstanding feature of this year's show will be the exhibit of direct television, the transmission of pictures of actual living actors by the outside flood-light system.<sup>2</sup>

Organized by inventor Boyd Phelps, the television demonstration at the industrial fair in upstate New York comprised a 'television theater' and showed programmes transmitted twice a day from the studio on-site to the receiver a few metres away.<sup>3</sup> That same year in Berlin, the German Reichspost (German Imperial Mail) installed a television antenna on top of the radio broadcasting tower. This so-called Funkturm (Broadcasting Tower) was located on the grounds of the 'exhibition city',<sup>4</sup> a complex dedicated to industrial and consumer fairs. Here, the annual Funkausstellung (Radio Fair) had already showcased television in 1928 (Figures 0.1 and 1.3).<sup>5</sup> The addition of a television antenna on the broadcasting tower reflected the close collaboration between exhibition managers and the telecommunications industry, which further translated into (partially realized) plans to remodel the exhibition city and to include broadcasting studios.

These two examples highlight the entangled histories of interwar television and exhibition culture that constitute the core of this book. Although exceptional for the Albany residents, Phelps' display was contemporary to similar demonstrations held in small towns and big cities, department stores, industrial fairs, and international expositions; although particularly intense in Berlin, the collaboration between exhibition organizers and broadcasting institutions was common practice in other countries too.

From the late 1920s onwards, television displays in public space became a frequent attraction and introduced the new technology to a mass audience. By offering a mediating link between the inventors' workshop and (future) media consumers, exhibitions shaped the medium's meaning and value before its broad distribution. They staged television as a scientific novelty and modern wonder, as the materialization of consumer society or proof of national achievement, and enabled interpretations of its potentialities. Facilitating its presentation to a diverse audience and, in the late 1930s, its introduction in domestic settings, exhibitions offered a framework

2 'Port Exposition to Open Tomorrow at Armory'.

3 'Television to Feature Post Show at Armory'.

4 Schick, 'Die wachsende Funkstadt', 15. All translations are the author's unless otherwise noted.

5 Kaltenbach, 'Architektur zwischen Tradition und Innovation'. At the 1928 Funkausstellung, in addition to Dénes von Mihaly's Telehor (pictured in Figure 0.1), television was presented by Telefunken (see Section 1.3).

where television's symbolic, cultural, and social definitions were debated, negotiated, and eventually stabilized.

The central premise I examine in this book is that these exhibitions were essential events to the history of television and help us to understand what happened during the period between the presentation of first television systems in the mid-1920s and the mass dissemination of the TV set after the Second World War. Television's (pre-)history in the nineteenth century has been discussed by scholars attuned to media archaeological approaches; the medium's distribution in domestic space has been widely analysed; and television scholars have observed the multiple forms of today's 'Television after TV'.<sup>6</sup> By comparison, television in the interwar period has received considerably less attention. Where and what was television in the decades before its conquest of everyday spaces as the 'box in the corner'? Why would interwar television fall into historical oblivion? And what can media historians learn from 'Television *before* TV'? These are some of the questions I address in this book.

Since Raymond Williams's groundbreaking essay published in 1974, television has been associated with the flow of images and sounds, and the medium's audiovisual and domestic character has largely dominated theoretical and historiographical writings.<sup>7</sup> The taken-for-grantedness of televisual flow has marginalized moments in the medium's history in which programmes were less central or accessible, and has obscured the importance of television as a non-domestic and material object. In the 1920s and 1930s, television's content was limited in quantity and quality, and its distribution reached few spectators living in close proximity of one of the transmitter stations. Its screens were often tiny, and its image quality constricted by blurs and flickers. The introduction of all-electronic television systems and the ongoing investments by private and public actors from the mid-1930s onwards improved these and other issues without, however, solving the problem of television's sparse distribution: by August 1939, only about 800 receivers had been sold in New York, while an estimated 20,000 to 25,000 sets were in use in the London area.<sup>8</sup> Because interwar television seems to lack what other mass media qualifies – a programme and a mass audience – it has been largely ignored by media histories focusing on texts and publics.

6 This is the title of Lynn Spigel and Jan Olsson's volume *Television after TV*, which, in the early 2000s, mapped out productive directions for research on television in the digital age. Spigel and Olsson, *Television after TV*.

7 Williams, *Television*, in particular Chapter 4, 'Distribution and Flow', 77–120.

8 Burns, *Television*, 562; Briggs, *Golden Age*, 620.

By shifting the attention from televisual content to the medium's display and its location in public space, my book proposes a new approach that allows us to think about interwar television without regretting its missing flows and multiple flaws.

In order to understand the meaning of exhibition spaces for the history of television, I examine the annual national radio shows in London (Radiolympia), Berlin (Funkausstellung), and New York (Radio World's Fair).<sup>9</sup> Launched in the early 1920s, the annual radio exhibitions constituted an important site for the display of broadcasting technologies in all three countries. The shows demonstrated television for the first time in 1928 and remained (to varying degrees) crucial for the medium's visibility until the outbreak of the Second World War. Held between August and September for at least one week, the shows presented new radio models for the following year and allowed traders and visitors to inform themselves of the latest advances in acoustic quality, set design, and handling. The regular press coverage during the events ensured that the shows were accessible to a national audience, and a vast educational and entertainment programme attracted crowds to the exhibition grounds. Similar to international exhibitions and world's fairs, the radio shows furthermore offered a platform for political propaganda. In Britain and the United States, governmental bodies held exhibition booths and attended opening and closing ceremonies, while the use of the Funkausstellung for National Socialist propaganda from 1933 onwards transformed the German fair into an overtly political event.<sup>10</sup>

The study's temporal horizon is determined by the year in which the first public presentation of television at a radio fair took place in all three countries – 1928 – and the beginning of the Second World War in 1939, which interrupted the annual showcasing of television, as well as the regular broadcasts that had started in the mid-1930s. While trade shows and international exhibitions would remain important sites for the promotion and legitimization of television in the post-war period,<sup>11</sup> it was pre-war events that constituted the historical moment in which the contours of later developments would be laid out. As this book demonstrates, interwar television was

9 In my sources, the expression 'radio show' is used analogously to, for instance, 'automobile show' and should not be confused with radio programming.

10 I further discuss three international expositions (the A Century of Progress International Exposition world's fair held in Chicago from 1933 to 1934; the Exposition Internationale des Arts et Techniques dans la Vie Moderne held in Paris between May and November 1937; the 1939–1940 New York World's Fair), the Olympic Games of 1936, exhibitions in department stores, and other events belonging to the interwar exhibition culture.

11 See Wheatley, *Spectacular Television*.

characterized by technical, institutional, and aesthetic explorations that encompassed numerous televisual assemblages, for which public displays created a mediating platform between private and public actors and the mass audience.

The radio exhibitions I discuss here were located in urban centres and attracted audiences with spectacles of technology and mechanization. They offered a place where producers and buyers, scientists and laymen, corporations and families could meet: one of their main functions was to negotiate between these spheres and communities, and to facilitate the passage of consumer electronics from the laboratory to the domestic realm. Broadly speaking, they were symptoms and symbols of modern consumer culture characterized by the promise of goods allegedly accessible to different social classes, by a 'culture of showing',<sup>12</sup> as well as by an emphasis of leisure over work, and consumption over production. Whereas the interwar years were characterized by important economic inequalities partly due to the Great Depression, the industrial fairs fostered representations of technological and commercial modernity as available to all.<sup>13</sup> They provided ways of seeing and interpreting new rituals of consumption for a mass audience, created multisensory experiences that were out of the ordinary, and constituted efficient communication tools for industries and governmental agencies seeking to relate to their customers and to the electorate in order to promote their products and messages. As political and economic tensions intensified in the 1930s, their role as a platform for political propaganda increased and complemented their function as an advertising medium. Finally, the fairs were themselves 'media events', existing in and through extensive press coverage both before and during the shows.

As an experimental technology whose mass distribution began after the end of the period I am examining, television seemed to fit only partially into this universe of 'industrial mass culture'.<sup>14</sup> Too 'technological' to be integrated into the market for electronic consumer goods, too 'unreliable' to be promoted for everyday use, too 'new' to offer regular broadcasts and home entertainment – the emerging medium of television lacked most of the attributes that seemed to constitute the success of radio and other

12 The expression is Gudrun M. König's. See König, *Konsumkultur*, 29.

13 The definition of consumer culture is a much-discussed topic among historians. I follow here Hannes Siegrist's overview, 'Konsum, Kultur und Gesellschaft im modernen Europa'. For a discussion of the complex periodization of consumer cultures, see Stearns, 'Stages of Consumerism'. See also the other essays in Siegrist, Kaelble, and Kocka, eds., *Europäische Konsumgeschichte*; Berghoff and Spiekermann, eds., *Decoding Modern Consumer Societies*.

14 Ruppert, 'Plädoyer für den Begriff der industriellen Massenkultur'.

electrical appliances at these events. Indeed, although retrospectively the interwar period may seem to be rhythmized by slow but steady progress including first demonstrations of televisual images in the mid-1920s, the introduction of all-electronic systems in the mid-1930s, or the opening of television services in Germany (1935), Great Britain (1936), and the USA (1939), interwar television's emergence was mainly characterized by multiple constraints of a technical and economic nature. Why was television nevertheless put on display? What constituted its attraction as an exhibit and what do the frequent televisual exhibitions signify for the medium's history and historiography?

The main thesis I develop in this study is that the German, British, and American exhibitions did not simply host the medium, but through elaborated scenographies and multiple visual and textual discourses categorized, classified, and defined televisual devices and their practices, and communicated this meaning to visitors. In other words, the public display gave television its first definitions and its first audiences. Attracting large numbers of visitors, the fairs made television available to a mass audience at a moment when no regular programme was aired. They announced, projected, and drafted uses and modes of address and, towards the late 1930s, sought to prepare visitors for their future role as television consumers. Displaying often similar or identical technologies, they also propelled divergent conceptions about the medium reflecting the broader political, social, and national contexts. They crystallized and fostered debates concerning television's identity as a live and domestic means of mass entertainment and information, but also continually displayed television in its multiple forms and uses. Inversely, television affected the exhibition space, be it because it required particular scenographic settings or because it introduced models of absorbed spectatorship in conflict with the mobile fairgoer addressed at fairs.<sup>15</sup>

Unearthing multiple case studies of television on display in three national contexts, my study ultimately provides a strong argument for a historiographical perspective that frames the medium's history as one of constant transformations.<sup>16</sup> The multiplicity of televisions shown at the

15 My analysis of the entanglement of media and exhibition history is indebted to Olivier Lugon's research at the intersection of exhibition studies and the history of photography. Without his work and our ongoing discussions, I would not have been able to see the richness of the story I aim to tell: Lugon, 'La photographie mise en espace'; Lugon, *Exposition et Médias*; Debluë and Lugon, 'Photographie et Exposition'.

16 I build my reflection on those scholars who stress television's historical adaptability. See in particular Uricchio, 'Television's Next Generation'; Keilbach and Stauff, 'When Old Media Never Stopped Being New'.

fairs would not vanish with the introduction of domestic TV, but would be more or less decidedly pushed out of the exhibition's spotlight. One task of my historical enquiry is to unveil this normalization of a certain televisual form – the domestic mass media – via its display, and to recall the other, marginalized technologies and cultural forms. These alternative televisions provide food for thought regarding the medium's longstanding adaptability to multiple spaces, which is salient in our own digital age, but characterizes TV's history overall.

### *Where Instead of What is Television? From Texts to Sites*

Due to the absence of regular programming and given the impossibility of approaching interwar television through textual analysis, television historians have traditionally adopted a techno-institutional approach that privileges three interdependent strands of historiographical writing. First, stories of inventors and 'geniuses' are based on a linear narrative glorifying 'great' men (women are rarely part of these heroic tales). Among the outstanding personas in television history are figures such as John Logie Baird, one of the 'fathers' of television; Vladimir Zworykin, inventor of electronic transmitters and receivers; and David Sarnoff, president of Radio Corporation of America (RCA) and acclaimed television 'visionary'.<sup>17</sup> Second, historiography focusing on industrial and institutional development considers television's emergence within its economic and regulatory frameworks, without paying attention to cultural and social history. Third, almost all studies contribute to a media history that defines inventions and institutions in terms of national affiliation and that omits international exchanges and cultural flows in favour of a national framework.<sup>18</sup>

17 See Fickers and Kessler, 'Techno-Nationalist Tales'. Delivered at the conference 'Media in Transition 4: The Work of Stories' at MIT Boston in May 2005, the paper was published in German as Fickers and Kessler, 'Narrative topoi in Erfindermýthen und technonationalistische Legendenbildung'. See also Fickers, 'Television'.

18 As a consequence of these historiographical preferences, standard works such as Albert Abramson's *The History of Television*, Joseph Udelson's *The Great Television Race*, Asa Briggs's *The History of Broadcasting in the United Kingdom*, Russell W. Burns's *British Television, The Formative Years*, as well as *Television: An International History of the Formative Years* by the same author, and Gerhard Goebel's *Das Fernsehen in Deutschland*, albeit providing rich factual information about industrial research and technological development during the interwar period, remain dependent upon linear technological histories that lack more diversified theoretical and critical perspectives. More recent national histories include Aldridge, *The Birth of British Television*; Hickethier and Hoff, *Geschichte des deutschen Fernsehens*; Edgerton, *Columbia History of American Television*.

More recent scholarship has revised such standard narratives by integrating methodological and theoretical approaches anchored in media studies and related fields. In particular the question of ‘shaping the medium’ has become a central focus of inquiry for historians examining how new media were introduced in society, how they evolved from scientific artefacts to widely distributed means of communication, how the relation between manufacturers and the public was formed, or how consumer choices influenced the definition of a given product.<sup>19</sup> As writes Philip Sewell in his *Television in the Age of Radio*, the concern is not to propose theories about media specificities and ontology, but to recognize the ‘ways in which culture shaped the understandings of and aspirations for’ the new medium.<sup>20</sup> Common to this recent scholarship on emerging media is the refusal to understand media history as a predestined evolution and, simultaneously, the emphasis on alternative pasts, on institutional and cultural power, and on ongoing negotiations concerning the medium’s meanings and its practices. Because of its slow emergence and many ‘false dawns’,<sup>21</sup> television offers a particularly interesting case study to understand the social shaping of new media.

For the history of television, one question is crucial if we want to understand the medium’s emergence and social formations, namely its intermedia links with radio, telegraphy, telephony, and cinema. In this regard pioneering work has been done by the media historian William Uricchio, who has published seminal research on interwar television from 1990 onwards.<sup>22</sup> With a background in film history, and especially early cinema, Uricchio has been attentive to questions of intermediality, as well as television’s political and economic contexts, in particular concerning National Socialist television in the 1930s and 1940s.<sup>23</sup> More

19 Marvin, *When Old Technologies Were New*. A non-exhaustive list would further include Boddy, *New Media and Popular Imagination*; Gitelman, *Always Already New*; Sterne, *The Audible Past*; Wurtzler, *Electric Sounds*.

20 Sewell, *Television in the Age of Radio*, 2.

21 The expression is from Stern, ‘Regulatory Influences’, 359. See also Elsner, Müller, and Spangenberg, ‘Early History’.

22 Uricchio, *Die Anfänge des Deutschen Fernsehens*; Uricchio, ‘Introduction to the History of German Television’.

23 See Uricchio, ‘Television, Film and the Struggle for Media Identity’. On the history of National Socialist television, see also Klaus Winker’s exhaustive study, *Fernsehen unterm Hakenkreuz*. Other important contributions to the history of interwar television include the non-published dissertation by Jennifer Bannister, *From Laboratory to Living Room*; the edited volume *Télévision: le moment expérimental* by Delavaud and Maréchal, which contains many interventions into the field of early television history. Thomas Steinmaurer’s study

recently, Doron Galili has examined the medium's long *durée* from the nineteenth century to the outbreak of WWII. Taking into account a variety of sources from magazines and amateur journals, to film and literature, Galili traces television's emergence in relation to cinema and carves out an entangled history, which impacts not only television's but very much also cinema's historiography.<sup>24</sup> His study is attuned to a media archaeological approach, which shifts the focus from media content to technology, and brings to the fore imaginary, forgotten, and 'dead media'.<sup>25</sup> Subverting historiographical narratives of 'evolution' and 'progress', media archaeology investigates the margins of 'traditional' mass media and explores lesser-known territories of media history and historiography. Interested in drawing loose 'family relations' rather than a well-painted 'family tree',<sup>26</sup> and thus in highlighting continuities as much as ruptures and 'grey zones', the media archaeological lens is helpful to conceive of a fluid definition of television that embraces, but is not limited to, television in domestic space.

This book hopes to contribute to television's media archaeology through its focus on fairs and exhibitions and through its transnational approach. Both of these perspectives imply a crucial shift away from the canonized Bazinian formula of '*What is television?*' to the question of '*Where is*

focuses on televisual reception from nineteenth-century imaginaries to the digital age (Steinmaurer, *Tele-Visionen*); Susan Murray dedicates parts of her discussion on the history of colour TV to interwar television in Murray, *Bright Signals*. Jamie Medhurst's history of British interwar television sheds important light on institutional developments (Medhurst, *Early Years*); Sarah Arnold has recently analysed early television from a gender perspective (Arnold, *Gender and Early Television*). Last, but not least, some scholarship explores the intersection of television's history and exhibitions: Helen Wheatley as well as Deborah Chambers both analyse the British Ideal Home Exhibition (see Chapter 6). Wheatley, 'Television in the Ideal Home'; Chambers, 'Designing Early Television for the Ideal Home'. Kilian Steiner and Peter Morris have analysed television exhibitions in science museums in the interwar years. (See Steiner, 'Die Sonderschau "Fernsehen" im Deutschen Museum'; Morris, "An effective Organ".)

24 Galili, *Seeing by Electricity*; also Galili, 'Tom Swift's Three Inventions'. In a similar vein, Ivy Roberts offers a television archaeology attuned to intermediality in Roberts, *Visions of Electric Media*. Siegfried Zielinski has described interwar television together with cinema and presented both histories within a broader genealogy of 'audiovisions' (Zielinski, *Audiovisions*). Weber, 'Television as New Media' studies the archaeology of French television.

25 A stimulating introduction to media archaeology can be found in Parikka, *What is Media Archaeology?* See also Huhtamo and Parikka, eds., *Media Archaeology*. On television history as media archaeology, see Fickers and Weber 'Introduction' in the *VIEW* journal special issue on 'Archaeologies of Tele-Visions and -Realities'.

26 Elsaesser, 'Film History', 87.



(interwar) television?’<sup>27</sup> Indeed, thinking about the *what* question leads quickly to a position from which interwar television can only be grasped in its negation: interwar television was *not* a mass medium; it did *not* offer daily broadcasts for a national audience; its identity was *not* yet fixed; and so on. Asking instead, *where* was television – where was it debated, where was it shown, where was it seen? – opens up space for an alternative history that is less burdened with verdicts about television’s identity but instead attempts to understand the medium in its context of consumer and industrial culture. The *where* question draws attention to new sources – the displays and the objects on display – and new questions – why and how would someone display television? By contrast with the *what* question, it thus allows us to make sense of the televisual artefacts beyond their comparison with post-war TV, which would lead us to describe them as ‘failed’ projects. In short, the exhibition not only informed television’s various meanings as an object; it also offers a most productive entry point for a historical study of television in the 1920s and 1930s.

## Material Histories of Televisual Dispositifs

The usefulness of a displacement from television’s texts to television’s sites has been demonstrated by Anna McCarthy in her work on television in non-domestic spaces, in which she underscores television’s materiality and the medium’s ‘site-specificity’.<sup>28</sup> While television in the home and its relation to and effects on family, gender, and the nation, among other things, has been documented,<sup>29</sup> McCarthy asks what television ‘does’ outside the living room. Arguing that ‘there is as much rich material for analysis in the technological and positional forms TV assumes in a space as there is in the images it displays’;<sup>30</sup> she discusses phenomena such as television in bars and department stores, at airports, in hospitals, or in the shopping mall. Being particularly interested in television’s complex spatial operations between the global flow of content and the locality of the TV set, McCarthy

27 Bazin, *What Is Cinema?*. Analogously, Francesco Casetti has suggested analysing contemporary cinema’s ‘relocations’ in order to understand the medium’s transformations and persistence in the digital age. Casetti, *Lumière Galaxy*.

28 McCarthy, *Ambient Television*, 4. See also McCarthy, ‘From Screen to Site’. For a recent, innovative analysis of television in public, especially corporate, spaces and its role in shaping the workplace, see Kit Hughes’ 2020 publication, *Television at Work*.

29 The most important study in this regard remains Spigel, *Make Room for TV*.

30 McCarthy, *Ambient Television*, 9.

explores how ‘the standardized “elsewhere” of the image takes material form in a particular place’.<sup>31</sup> Bringing to the fore an alternative history of television after the Second World War, she highlights television’s role in shaping commercial and communal environments and, in particular, its function to negotiate between private and public, consumption, work, and leisure. As an ‘elastic’<sup>32</sup> medium adapting to a variety of public spaces and existing on more than one scale, television materializes social relations and power structures in play in non-domestic places.

Together with other (feminist) television scholarship, McCarthy’s work thus emphasizes the importance of television’s material culture and spatial arrangements as co-determinants of social hierarchies and cultural formations. The focus on the material, architectural, and design-related aspects of the televisual medium allows us to better understand its ‘objectness’ and, in particular, to evaluate its role in the construction of social class and gender identities.<sup>33</sup> For interwar television, addressing the question of the medium’s places and materialities is a way to make meaning of artefacts not considered by approaches focused on texts, audiences, or the domestic realm. While McCarthy’s work opens up new perspectives on a familiar medium, my book looks at a moment of television’s unavailability: instead of understanding TV’s omnipresence in the public space, I explore the (virtually) only sites at which television was visible.

In order to think through interwar television’s material and historically situated specificities from a media archaeological perspective, one notion has in particular proved useful, namely the *dispositif* concept. This notion was developed within French film studies in the 1970s but has received renewed attention since the early 2000s.<sup>34</sup> While Jean-Louis Baudry’s initial proposition of the *dispositif* concept is based on the idea of an ahistorical and metapsychological ensemble determining the relationship between spectator and film,<sup>35</sup> the notion used today in historical research fosters fine-tuned studies of assemblages of machines,

31 McCarthy, *Ambient Television*, 11.

32 McCarthy, *Ambient Television*, 5.

33 Recent work on the material history of television includes Chambers, ‘Material Form’; Wheatley, ‘Television in the Ideal Home’; Miggelbrink, *Fernsehen und Wohnkultur*; Kleinecke-Bates, ed. ‘Material Cultures of Television’; Ellis and Mustata, ed. ‘Material Histories of Television’; Benson-Allott, *The Stuff of Spectatorship*’.

34 See Albera and Tortajada, *Cinema beyond Film*; Berton and Weber, ‘Télé-Visions’. Recent discussions of the *dispositif* concept include Aasman, Fickers, and Wachelder, *Materializing Memories*; Rogers, *On the Screen*; Turquety, *Inventing Cinema*; Zimmermann, ‘Advertising and the Apparatus’.

35 Baudry, ‘Ideological Effects’.

users, and institutions. That is, instead of describing a universal principle of the cinematic apparatus, the *dispositif* approach allows us to comment on media objects in their material and discursive existence from a diachronic perspective.<sup>36</sup> The notion stresses the fact that media have a physical and an imaginary existence; it invites us to comprehend a singular machine or a group of machines, whether concrete or fictional, in their various modes of existence. Embedded within a larger ‘network of notions, theories, beliefs and practices’,<sup>37</sup> the dynamic ensemble of the *dispositif* furthermore may be apprehended as producers of knowledge by giving form to ideas and practices. For my study of interwar television, the notion is useful with regard to a close-range analysis of particular scenographies and spatial presentations, as well as of the medium’s discursive co-construction in public debate. Television as a telecommunicational project generated a plurality of (technophile and technophobic) reactions, anticipations, and discussions: the televisual *dispositifs* displayed at fairs echoed these expectations of a new medium, while producing new knowledge about it.

## Transnational History

If histories of televisual *dispositifs* link users, machines, and discourses, the transnational approach seeks to understand media history beyond national narratives by paying attention to the trajectories of media technologies and contents across national boundaries. At first glance, a transnational approach to the history of television in Germany, Britain, and the United States during the interwar period seems a near impossible undertaking. In his authoritative study of the British Broadcasting Corporation (BBC), Asa Briggs indeed asserts that ‘these three broadcasting systems were diverging – not converging – during the 1930s’,<sup>38</sup> implying essential differences that transform any analysis into an inventory of non-correspondences. Indeed, the institutional models prevalent in the three countries – the centralized state model (in Germany), public service (in Great Britain), and a commercial system (in the USA) – not only reflect the different choices made by the

36 See Frank Kessler’s *Notes on Dispositifs* for an overview of the history of the concept: <http://frankkessler.nl/wp-content/uploads/2010/05/Dispositif-Notes.pdf> (accessed 25 July 2021). Also Berton and Weber, ‘Télé-Visions’.

37 Albera and Tortajada, ‘Viewing and Listening Dispositifs’, 11.

38 Briggs, *Golden Age*, 9.

broadcasting elites but suggest fundamentally different conceptions of modern society, the state, and the national economy. Similarly, one could argue that the integration of the Berlin Funkausstellung into National Socialist bureaucracy and its ensuing transformation into a Nazi spectacle prevents a transnational approach. Having shifted from commercial advertisement to political propaganda, the fair's goals would no longer be comparable to British and American events.

Drawing upon scholarship on transnational media history, my work argues, on the contrary, that such a perspective is not only possible but necessary insofar as the explanatory framework of the nation-state is not sufficient to understand the history of interwar television. Developed by international corporations, imagined across frontiers, and travelling – mostly via photographs and in press reports – around the world, television existed already between regional, national, and global communication spaces decades before programme and format exchanges would define the medium. Its absorption into National Socialist society, although aligning television's definition to the regime's ideology, did not cut off German television from the world's map. During the 1930s, British, German, and American actors continued their mutual observation as well as their industrial collaboration and, in at least one case, directly adopted a successful German exhibit into their own exhibition space.

Indeed, more than being a recently 'discovered' approach to television history, the transnational perspective is actually called for by the sources themselves. Michele Hilmes has shown how British and American broadcasting authorities relied on each other to design their respective radio policies (the BBC's public monopoly and the privatized commercial system in the USA), relegating the other nation as a negative example, or, less frequently, as a model to be followed.<sup>39</sup> Radio's role within the processes of nation-building, Hilmes shows, was thus negotiated and shaped *transnationally*. Similarly, in his study on *Technology and the Culture of Modernity in Britain and Germany* historian Bernhard Rieger notes that these two countries conceived of each other as competitors who were constantly observing each other.<sup>40</sup> Their national histories are thus not separable from a transnational one.<sup>41</sup> Furthermore, for Germany and Britain, the United States, at the 'vanguard

39 Hilmes, *Network Nations*.

40 Rieger, *Technology*, 12.

41 A similar argument is made by Ulrich Marsch who states that the comparison between Germany and Great Britain is productive because 'they constantly compared themselves to each other'. The two countries' rivalry had several historical and political origins, linked respectively, among other things, to their trajectories as a colonial emporium in decline (Britain) and a defeated

of a consumer-modernity',<sup>42</sup> formed an additional point of reference, whose commercial mass culture represented a simultaneously conflicting and inspiring model.<sup>43</sup> A transnational approach to interwar television allows us to understand the importance of these issues to the shaping of television as a cultural and social object. Television, a new 'modern wonder', offered an additional platform for technological vying between competing nation-states; it also enabled the exchange of knowledge, technologies, and patents in an otherwise fraught political atmosphere.

Recognizing the historiographical value of a transnational approach does not make it any less a challenging task. Historian Andreas Fickers advocates that one way to stage the transnational analysis is to 'downscale' the enquiry to 'specific places of media production or consumption' such as the broadcasting studio or the living room.<sup>44</sup> My study of 'television fairs' follows this suggestion by taking particular, limited, and spatially confined events as entry points. Locating television at German, British, and American exhibitions allows me to unearth the medium's internationally shared definitions and modes of presentation in the light of the economic, social, and political differences between the three countries. The exhibitions testified to the 'patterns of continuity and connection' that, as radio historian Kate Lacey argues, existed besides and along fundamental divergences between the three different broadcasting and political systems.<sup>45</sup>

Consequently, studied separately, the German, British, and American television fairs would arguably produce narratives other than the one I am presenting here, if only because the respective displays and devices would appear as *particular* manifestations of a given industrial, political, or institutional context. The transnational perspective connects threads and objects, which a national historiography would interpret as national specificity. As a result, the transnational approach enables in particular an understanding of the 'scandalous normality'<sup>46</sup> and fundamental dissimilarity of Nazi television. Developed in an authoritarian regime, it was

nation 'punished' by the Treaty of Versailles (Germany). Marsch, *Zwischen Wissenschaft und Wirtschaft*, 19.

42 De Grazia, 'Amerikanisierung und wechselnde Leitbilder', 113.

43 This ambiguity in US–European relations is often subsumed by the notion of Americanization. For a discussion of this notion as a historiographical tool, see Gassert, 'Amerikanismus, Antiamerikanismus, Amerikanisierung'; de Grazia, 'Amerikanisierung und wechselnde Leitbilder'.

44 Fickers, 'Seeing the Familiar Strange', 21. See also Fickers and Johnson, *Transnational Television History*; Bourdon, 'Comment écrire une histoire transnationale'.

45 Lacey, 'Radio in the Great Depression', 22.

46 Schütz, 'Zur Modernität des "Dritten Reiches"', 121.

comparable to American and British television and yet essentially different. Its dispositifs and programmes were largely identical and embedded within a same framework of popular mass culture, consumerism, and domesticity. The meaning of these keywords – and by extension of television – however, was determined by the political and ideological context and institutional formations specific to National Socialism that appropriated seemingly apolitical spaces of private and collective media consumption so as to reinforce social and racial divisions and political support. Transnational history is therefore more than the compilation of national stories, as it reveals analogous media uses across frontiers, highlights global circulations of artefacts and ideas, and discloses unexpected political and industrial connections.

### Notes on Sources and Chapter Breakdown

This book is ultimately a study of television as ‘new media’. It looks at the moment when television was not yet ‘always there’<sup>47</sup> but already widely received at exhibitions and discussed in the general and specialized press. It describes how exhibitions and other public spaces shaped the medium in multiple ways, eventually presenting it in a domestic form. Doing so, it does not pretend to offer an exhaustive history of interwar television as its focus brings to the fore certain actors and events, while moving others to the fringes, which might receive more attention in an institutional history. *Television before TV* seeks to write an ‘expanded history’,<sup>48</sup> and to analyse the entanglement of two media – television and exhibitions – that are seldomly analysed in their interdependence: it is also an invitation to pursue further media archaeological research into television’s interwar years.

Working on exhibition scenographies and design requires the use of visual sources or, alternatively, detailed descriptions of the exhibition space. Such sources are abundant for world’s fairs and the bigger industrial exhibitions but scarcer for exhibitions organized in smaller venues and department stores. My research was thus contingent on access to archives and availability of photographs, and required a juggling between exhibitions that are less documented and those that could be easily reconstructed. Overall, however, the impressive volume of archival material, and in particular the exceptional number of photographs, suggest that interwar television was, after all, a

47 Buonanno, *The Age of Television*, 36.

48 Vallotton and Weber, *Expanded History*.

*visual* medium. Or, in other words, interwar television was a medium with plentiful pictures. To be clear, these images were not images *on* TV, but *of* TV. Published in newspapers and journals or found in archival collections, the photographs show machines with or without their inventors; drawings depict the televisual infrastructure or explain the devices' technical design. Most relevant for my study are pictures that disclose the display of television in public space; they yield insights about particular scenographies rarely supplied by textual discourses and illustrate the arrangements of devices, their size, the place accorded to visitors, and the presence or absence of labels and other written information, among other things.

Across all three countries, the photographs I will discuss fall into three categories that reveal recurrent themes. First, pictures of television exhibitions often exclude the visitor-spectator. With the visitors expelled from the frame, the pictures offer an unobstructed view of exhibits and their arrangement. Probably taken before the exhibition's opening, these photographs show the ideal layout as prearranged by the exhibition organizers, but they do not disclose the transformations of the space resulting from the passing crowd. Second, exhibitions were photographed at the peak of their audience attendance and immortalized as a mass event. Such images, in which the various booths are almost invisible, served as testimonies of their public success. Taken from above, the photographs show densely crowded exhibition halls and reveal only little information about the individual exhibits themselves. A third category of images depicts technological artefacts accompanied by female visitors or models. Circulating in the general and specialized press, these images reinforce the link between domestic technologies, femininity, and consumption, and thus contribute to television's gendering.

The quantity of television images resulting from their presence at the fairs disseminated interwar television far beyond the exhibition halls: while the televisual signal's range was still limited, the apparatus' appearance reached a national and often international public. Adopting Beatriz Colomina's argument about the transformation of modern architecture by its photographic multiplication 'into an article of consumption, making it circulate around the world as if it had suddenly lost mass and volume',<sup>49</sup> it can be argued that thanks to the diffusion of images of television, the experimental technology was turned into a mechanically reproduced article of consumption. The visual multiplication of television annulled its material scarcity and transformed it into a sign of progress and technology, entertainment and

49 Colomina, *Privacy and Publicity*, 43.

spectacle, accessible to a mass audience. This circulation of photographs indicates that interwar television was *not* a medium without an audience but shows that interwar television *was* seen – in the press, at exhibitions, in department stores – and that it had a visibility of its own.

The first chapter of this book, ‘Television Display in Context’, sets the stage for the following analysis through a threefold movement. It outlines the principal frameworks and scales of this study by looking at the fairs, their main exhibits including radio sets as well as giant loudspeakers and robots, and the showcasing of interwar television, shifting thus from the institutions to the artefact on display. It emphasizes in particular the importance of such events for the transformation of mass-produced industrial goods into a ‘commodity-experience’<sup>50</sup>: visitors paying the entrance fee acquired the right to be entertained, distracted, and thrilled. Although still in the rough and producing small, flickery images, interwar television was made part of this celebration of technological modernity and consumer culture, even before it broadcast regular programmes. On display, the medium also testified to increasing intermedial links and industrial convergence, responsible for its heterogeneous identity. Television’s versatility, adapting to multiple communication projects and industrial models, fuelled its attraction as an exhibit.

The five chapters that follow form the core of my analysis of television before TV. Chapters 2 and 3 analyse television’s reception on the exhibition floor by building upon the *dispositif* concept. They uncover recurrent scenographic arrangements of televisual devices throughout the period and across all three countries, and examine television’s encounter with its first audience. Chapters 4, 5, and 6 focus on the second half of the 1930s and the inauguration of television services in Berlin, London, and New York. Putting to use the transnational approach, these chapters elaborate on the similarities and differences with regard to television’s institutionalization in the three countries and show that, despite fundamental political and ideological divergences, a national television history is always also a transnational one.

The second chapter, ‘Spectacularizing Television, or Making Sense of Novelty’, opens by asking why television sets and transmitters – experimental devices with tiny screens and limited picture quality – became a major attraction as early as 1928. To answer this question, it draws upon a notion developed for early cinema, namely the ‘spectacular *dispositif*’.<sup>51</sup> At fairs and in the press, television’s materiality and ‘newness’ was sold as its most

50 Friedberg, *Window Shopping*.

51 Kessler, ‘La cinématographie’.



central characteristic. The medium's attractiveness as an exhibit relied not on its visual content but on its presence as a modern technological object. This spectacularity, the chapter illustrates, was a product of discourse *and* of the interaction between spectators and the television sets. The fairs indeed offered an experience of mass media modernity that included embodied stimulations and corporeal involvement for visitors paying the entrance fee to the fair. Such pleasurable encounters with televisual technology for a broad public constituted the core of the televisual spectacular dispositif.

Chapter 3 on 'Locating Television Between Imaginaries and Materialities' expands upon the dispositif concept and describes three additional dispositifs that disclose the tensions emerging between televisual objects' site-specificity and a televisual ideal promising simultaneity, ubiquity, and intimacy. Contrary to the discursive construction of television as a 'window onto the world', the exhibitions revealed a medium turned towards itself, and instead of showing faraway places, the devices reflexively highlighted their own materiality. The *reflexive dispositif*, the chapter argues, can be understood as a result of the exhibition gesture. On display, each exhibit highlighted this very gesture of displaying, which in turn put the spotlight on the object shown. Simultaneously, from the earliest demonstrations on, the displays invited visitors to experience audiovisual immediacy and to explore the idea of televisual togetherness. Rather than stressing the medium's objectness, the *dispositif of liveness* emphasized instant communication. The reflexive and live dispositifs appear here as two recurrent expositional arrangements for television that, mediating between 'seeing at a distance' and the sets' physical presence, both defined the medium's identity. The third part of this chapter studies the transition that took place in the mid-1930s, when television sets were relocated from separated darkened booths into the main exhibition halls. The new *daylight dispositif* presented television alongside other electronic consumer durables and symbolically integrated the medium within the contemporary commercial mediascape. Before television's mass distribution, it was thus associated with the mass media market on the exhibition floor. The chapter closes with an 'intermission'; a short intermediate conclusion, which emphasizes the importance of locating television in public space to understand how exhibition sites co-constructed the medium's identity through scenography and discourse.

Building upon this first part, the next three chapters adopt a transnational approach and consider the political and cultural framings of televisual technology. Organized roughly chronologically, they mainly focus on events presenting television after the introduction of regular broadcast services from the mid-1930s onwards. Chapter 4, 'Nationalizing Television in a

Transnational Context', examines how television's meaning as a national broadcast medium was negotiated within a transnational context, and unearths the important role played by fairs for the construction of television's national identity. The chapter's core is articulated around three case studies: the exhibition of television at the Century of Progress world's fair in Chicago in 1933–1934, the Funkausstellung in 1935 that followed the opening of the Berlin public service in March of the same year, and the Radiolympia 1936 edition which preceded the opening of the BBC's public service in November. Comparing these three events brings to the fore the ways radio fairs functioned as platforms for national politics, and the role television played in it. The chapter closes with the second 'intermission', which emphasizes the benefits of a transnational approach to interwar television.

Chapter 5, 'Domesticating Television Outside the Home', is similarly organized around singular exhibitions and discusses how, towards the end of the 1930s, the medium was fit into domestic space. Taking into account a variety of events in addition to the radio fairs – the 1936 Olympic Games in Berlin, the 1937 Exposition Internationale in Paris, the television displays at Selfridges in London, and the RCA's pavilion at the 1939–1940 New York World's Fair – it illustrates how television was projected as a private medium, whose promotion nevertheless relied on public events. The tension between the medium's ideal spectator, sitting attentively in his chair at home, and the actual visitor at fairs, discovering the new medium thanks to crowded showcasings, gave way to normative discourses on the right spectatorial behaviour and the correct location of television sets at home, which were amplified by ambitious exhibition designs. Even in National Socialist Germany, where collective viewing rooms were meant to compensate for the absence of commercially available television sets, a prominent public-private venture consisted in the launching of a standardized domestic receiver.

The final chapter, 'Gendering Television On and Off Screen' addresses the medium's construction as a 'feminine' object and family entertainment. As the chapter shows, the fairs prepared the medium's transition from the laboratory into an allegedly 'female' space – the home. This transition included renewed cabinet designs fitting into the modern living room, as well as new representations of women on and off screen. While the gendering of television would become particularly evident in the post-war years, the medium's definition as 'female' entertainment began at the end of the 1930s at fairs and in the press. The chapter closes with the third 'intermission', in which I stress the role of fairs for the normalization of television as a domestic medium.

Spectacularizing, locating, nationalizing, domesticating, and gendering television thus represent the five analytical nodes around which the book is organized, and simultaneously designate the ongoing processes that shaped the medium at the fairs. Looking at *where* television was, the chapters ultimately offer a response to *what* television was before TV.

The book's epilogue extends the question of television's identity. It argues that although the domestication at fairs constituted an important impetus to normalize one particular media formation, it should not veil alternative strands of televisual development outside the home, which were often pushed forward by the same corporations promoting domestic TV. If we recognize television's fundamental adaptability and malleability, the interwar experiments as well as the recent transformations in the digital era are less exceptions or disruptions than continuous reconfigurations of a medium always already 'in flow'.

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