

Beautiful Data / The Democratic Surround

As the future approaches, equally digital and messy, it appears that there is considerable need for a thorough re-thinking of the postwar period which to a large extent determined the course of the current conditions. Such a broadly-conceived Foucauldian 'history of the present' attempts to shed new light on contemporary phenomena by rethinking their genealogy in the past 50-70 years. The postwar United States in particular has become a focus of debate, with specific attention paid to the Macy conferences, the archaeology of the computer and of the interface, the legacy of emigré thinking, cybernetics, built media environments, large-scale exhibitions, the counter-culture, and the space race. To be a bit more concrete, the history of the Cold War, if read around certain tropes (multi-media, self-management, feedback, networks, organisational theory), promises to open up new perspectives on the genealogy of the computer, understood as a digital network operating with the conditions of constant feedback and (self-)surveillance. The two books under review here tackle different aspects of this field and provide two partly antagonistic, but mostly complementary, views of how the current state of things could be traced back into the postwar past.

Fred Turner is an associate professor of communication studies at Stanford. His work is Californian in spirit, as he looks at the roots of Silicon Valley in the counter-culture of the 1960s and even further back in mid-20th century developments. *The Democratic Surround: Multimedia and American Liberalism from World War II to the Psychedelic Sixties* (Chicago: University of Chicago Press, 2013) is a prequel of sorts to his earlier work *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (Chicago-London: The University of Chicago Press, 2006). Together, the two books trace a history of information organisation and visualisation from the 1930s until the 1990s – if not until our very present. Turner presents a clear trajectory which some critics have found to be too teleological in its direct line from Bauhaus to Facebook. Still, his clear language and comprehensive argumentation are a refreshing read, as he often convincingly makes surprising connections and causalities where others hide behind vague correspondences and associative thinking.

Turner focuses most strongly on visual artists' networks such as the European emigrés (a lot of them formerly connected to the Bauhaus), the circles around Black Mountain College, and the artistic and scientific participants of the Macy conferences. Thus, Herbert Bayer and László Moholy-Nagy, John Cage and Merce

Cunningham, Margaret Mead and Gregory Bateson emerge as central characters in the unfolding narrative. The book traces the debates about the control of large populations through mass media from the Second World War into the 1960s. Underlying the concerns are ideas of how individuals' mental dispositions are mirrored in the collective formations and mass media dispositions that governments use to maintain social order. It is the United States Information Agency (USIA), 'the postwar governmental agency charged with overseas propaganda work' (p. 4), that Turner discusses in detail.

The first half is concerned with how avant-garde ideas influenced exhibitions such as *Road to Victory* and *The Family of Man*, which became blueprints for how to organise information visually and spatially. These influential shows helped to usher in a design technique which Turner terms 'democratic surround':

[t]he democratic surround was not only a way of organizing images and sounds; it was a way of thinking about organizing society. [...] It was a flexible prototype, a sort of not-quite-visible image of the way the world could work that came to life at various times in words, in performances and in museum displays. (p. 9)

Interestingly, it is no longer film and television which serve as the models for new forms of social formation and control but instead hybrid forms of exhibition design, projected (moving) images, and spatial layouts. From here it is only a short step to the influential works of Ray and Charles Eames at various world exhibitions, though one could also draw a line to Gene Youngblood's 'expanded cinema' and Buckminster Fuller's geodesic domes as carrying these promises into the avant-garde.

The second part of the book traces these developments into the counter-culture of the 1960s. In this perspective, the events of the late 1960s are less a break with a past than a logical continuation of a trajectory that goes back to the Second World War. Happenings and the new cultural formations that became visible in the mid-1960s are thus genealogically related to ideas of the previous decades: 'media should be used to create environments, [...] spaces could produce individual psychological changes, and [...] altered audiences could ultimately change the world' (p. 276). The emergence of different forms of sociability (happening, teach-in, sit-it, be-in, psychedelics, rock concerts, festivals) simultaneously evoke ideas of a democratic personality expounded in the 1940s and 1950s when the US was faced with totalitarian threats from abroad, but they also point forward to the collaborative culture of networks. *The Democratic Surround* ends here and the story continues in *From Counterculture to Cyberculture*.

Orit Halpern is currently moving from New York's New School of Social Re-

search to Montréal's Concordia University, and her book distinctly displays an East Coast sensibility. *Beautiful Data: A History of Vision and Reason since 1945* (Durham-London: Duke University Press, 2014) is less linear (and historiographic) than *The Democratic Surround*. It is structured around clouds – her book focuses on specific terms and their wide discursive networks which are historically situated and contextualised. The four large chapters in turn circle key terms of the debate: archive, interface, cognition, and data organisation. As it straddles the interstices of critical science/technology studies and media studies, the first two people mentioned in the acknowledgements delineate the frame of reference: Peter Galison and David Rodowick.

The first chapter zooms in on Norbert Wiener, a central figure in many histories of media (studies), in particular on the 'shift to forms of representation whose reference is reflexive rather than indexical' (p. 40). Halpern details how concerns with storage and communication grew out of war research and developed into 'big science' in the postwar period: '[i]mmersed in larger technical projects to build weapons, decode enemy tactics and messages, and later, produce multipurpose technologies for the inscription, organization, retrieval, and communication of data, cybernetics contended explicitly and implicitly with older questions involving mechanical reproduction and mediated communication in large networks.' (p. 51)

The second chapter turns to Gyorgy Kepes, the Eames, and Kevin Lynch – important figures on the borderline of design, science, and new configurations of media. All of them were pioneers in the 'broader effort to revise concepts of knowledge and the practice of business, science, and design' (p. 99). In particular, the focus is on the

newly bequeathed autonomy given to vision as a material process, and [...] the reconceptualization of space as an interface. This channeling of the divide between the object and subject redefined aesthetic practice and human perception not in terms of surfaces, screens, or mediating bodies obscuring fantasized political or natural realities, but rather as conduits for communicative exchanges. (p. 82)

The second chapter then moves on to the restructuring of IBM on several levels: self-organisation (from hierarchy and centralisation to decentralised and flexible dynamic structures), the systems architecture that the company sells, the self-image (in advertisements, but more importantly at the New York World Fair of 1964 in collaboration with the Eames), as well as in the company headquarters designed by Eero Saarinen.

The third chapter concerns models of the mind, the self, and the subject as

conceptualised in the work of Warren McCulloch, Gregory Bateson, and Leon Festinger – who all applied information theory to the study of the human mind. Feedback, interaction, and circuits took the place of stable character traits and firm structures. The second part of the chapter then turns to rational choice theory in the work of Herbert Simon and Karl Deutsch. Even though Halpern details these positions she keeps a critical distance to them and is able to analyse the transformations of perception and cognition. At its heart, this points to our current pre-occupations:

[i]t appears that many cyberneticians and social scientists embraced proximities and bodily disintegrations while simultaneously hoping to achieve consciousness and truth through temporal displacement and feedback. This frenzy of visualization in the social sciences and design [...] was coming to be embraced as the very key to democracy and ‘freedom’. This contradiction between the desire to produce knowledge and the demand to circulate information, otherwise understood as a space between older histories of knowledge and the emerging paradigm of bounded rationality, was driving a constant demand for calculation and visualization – a logic that perhaps continues to underpin our contemporary cultural attitudes to the screen, the image, and data. (p. 191)

The fourth and final chapter concentrates on the emerging cognitive theory. It starts by expounding on the work of George Miller before turning again to the Eames’ multimedia installations and the cybernetic films of John Whitney Sr. Even though it may sound like another study of the link between the military and communication technology (in the spirit of Virilio, Kittler, Farocki, and the birth of the Internet) in this summary, Halpern’s work is in effect rather an inquiry into the attendant changes of epistemology, methodology, and aesthetics. Particularly interesting here is not how pure ideas were formulated but rather how they were translated into practice, as in the work of city planner Kevin Lynch:

Lynch was interested [...] in studying the small differentials between representational approaches to produce a more complex idea of the city. In many ways, Lynch’s approach allowed greater penetration of ideas of communication, method and process than the failing efforts that were being made in the computer science of the time to clearly define language or thought. (p. 117)

Halpern’s key interest though is dedicated toward the genealogy of the user, which provides the red thread connecting all the different parts:

[t]he two decades after World War II saw a radical reconfiguration of vision, observation, and cognition that continues to inform our contemporary ideas of interactivity and the interface. The reformulation of the observer as simultaneously networked, decentered, and multiplied came adjoined with new notions of environment and interactivity that are the infrastructures for our contemporary models of economy, technical, and aesthetic practice. (p. 249)

For Halpern the interface is less centered on an individual sitting in front of a screen with a designated visual set-up. Instead, it refers to all kinds of interactions with ubiquitous digital networks that pervade our environment.

Even though there is some overlap and shared interests, both books do diverge in important aspects. Halpern sees the present as one characterised by smart cities and ubiquitous computing, high concept environments and augmented reality, while Turner is rather interested in the logics of the interface and social networks. Consequently, their respective focus differs somewhat from the urban planning and cognitive science of Halpern to the exhibition design and avant-garde networks in Turner. However, both converge in the logics of information design, in attempts to render the world we live in as simulation and model.

Both works include a lot of historiographical details and will remain treasure troves for future investigations into many different fields. Still, we learn relatively little of complex decision-making processes within larger networks. We get many important insights into the discourses and debates, the personal overlaps and entanglements, but how Western liberalism went about tackling the most pressing problems in practice still remains open to investigation. The reason might be that the respective approaches – Turner focuses on networks of people, Halpern on discourses – might not be expansive enough when trying to build an argument that includes governments and businesses, spontaneously-formed collectivities and small artistic communities, construction styles and big ideas. In fact, both books are possibly best read as attempts to understand how the disciplinary society became the control society, to use Deleuze's terms. Turner and Halpern provide fascinating and comprehensive overviews – the gaps and fissures might best be filled by micro-studies elucidating specific aspects in greater detail. Thus, we need more of these histories in order to understand the futures that are open to us. With *Beautiful Data* and *The Democratic Surround* we have two powerful road maps to the immediate past that will remain important signposts for many years to come.

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