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After Kittler: On the Cultural Techniques of Recent German Media Theory

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Abstract

This paper offers a brief introduction and interpretation of recent research on cultural techniques (or *Kulturtechnikforschung*) in German media studies. The analysis considers three sites of conceptual dislocations that have shaped the development and legacy of media research often associated with theorist Friedrich Kittler: first, the displacement of 1980s and 1990s Kittlerian media theory towards a more praxeological style of analysis in the early 2000s; second, the philological background that allowed the antiquated German appellation for agricultural engineering, *Kulturtechniken*, to migrate into media and cultural studies; and third, the role of these conceptual dislocations in enriching media-genealogical inquiries into topics such as life, biopolitics, and practice.

Keywords

agriculture, biopolitics, German media theory, Kittler, media archaeology

Humans or machines? Discourse or hardware? Since the mid-1980s these were the methodological orientations that divided the anthropocentrism of Anglo-American cultural studies from the technophilia of German media theory. In the past decade an emerging field of research known as *Kulturtechniken* has deconstructed these oppositions. Proponents of cultural techniques reread Friedrich Kittler's media theoretical approach of the 1980s and 1990s – known for its presupposition that a technological *a priori* defines the scope and logic of distinct cultural formations and epistemes – with a closer focus on the local practices, series, and techniques that configure medial and technological arrangements.

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The absence of a rigorous consensus about the scope and purview of *Kulturtechnik* speaks, in a sense, to its conceptual fertility. The difficulty starts with the term *Kulturtechniken* itself, which may be rendered in English as *cultural techniques*, *cultural technologies*, *cultural technics*, or even *culturing techniques*. Cultural theorists at the Humboldt University of Berlin (e.g. Christian Kassung, Sybille Krämer and Thomas Macho) identify cultural techniques with rigorous and formalized symbolic systems, such as reading, writing, mathematics, music, and imagery (see Kassung and Macho, 2013; Krämer and Bredekamp, 2008; Macho, 2013). Researchers in Weimar, Siegen, and Lüneberg tend towards a more catholic definition that recognizes a broader range of formalizable cultural practices, including tacit knowledge, the class-laden rituals of Victorian servants, and the law as cultural techniques (see Schüttpeitz, 2006; Engell and Siegert, 2010; Krajewski, 2013; Vismann, 2013). Binding together these varied definitions and understandings of *Kulturtechniken* is a shared interest in describing and analysing how signs, instruments, and human practices consolidate into durable symbolic systems capable of articulating distinctions within and between cultures.

In this paper I offer a brief introduction and interpretation of research on cultural techniques by way of three conceptual dislocations. First, I consider how and why the situation of Germanophone media theory in the 1980s and 1990s was displaced and redirected towards a more praxeological style of analysis in the early 2000s; second, I examine how and why an antiquated Germanophone appellation for agricultural engineering, *Kulturtechniken*, morphed into a philosophically and conceptually charged term in media and cultural studies; and third, I conclude with reflections on how this conceptual redistribution enabled by the term *Kulturtechniken* facilitates genealogical approaches to media research and inquiry.

Towards the *a priori* of the Technological *a priori*

‘We’re finally allowed to talk about people!’ That’s how one Germanophone media theorist explained the significance of research in cultural techniques to me.¹ Of course, ‘German’ media theory² as it was developed by Kittler and his associates was full of people: mothers, madmen, artists, authors, inventors, bureaucrats, and the occasional weapons designer abound. But Kittler’s media analysis maintained that these figures were at best proxies or avatars for *Aufschreibesysteme* or discourse networks composed of machinery, institutions, instruments, mathematical regimes, and inscriptions. Kittler maintained that the task of a true science of media was to drive the human out of the humanities (*Austreibung des Geistes aus den Geisteswissenschaften*) (Kittler, 1980) and reorient analysis towards a description of this discursive and instrumental infrastructure.

This assault on anthropocentrism flew in the face of contemporaneous approaches, such as that of Jürgen Habermas in West Germany or the Birmingham Centre for Cultural Studies, which argued for recovering and restoring the human interests waylaid by technical communications. Yet even for theorists harbouring such humanist and culturalist sympathies, Kittler's argument for discarding human interests and intentions in favor of analysing how medial, technical, and institutional arrangements shaped cultural forms proved remarkably fruitful. It established a style of media analysis that could transversally join together the themes and methods of literary criticism, psychoanalysis, philosophy, and electrical engineering (see Kittler, 1990, 1999).

But a certain planned obsolescence countermanded the power of this burgeoning media science. Correlating cultural form and historical change with the material specificities of distinct media platforms implied an impending denouement of both. As Kittler put it in an oft-cited passage from his tome *Gramophone, Film, Typewriter*, first published in German in 1986:

Before the end, something is coming to an end. The general digitization of channels and information erases the differences among individual media. Sound and image, voice and text are reduced to surface effects, known to consumers as interface. Sense and the senses turn into eyewash. Their media-produced glamour will survive for an interim as a by-product of strategic programs. (Kittler, 1999: 1)

The problem with end of history arguments is they don't leave you with much to talk about once history has come and gone. For all their apocalyptic poetry about Alan Turing's universal machine and Claude Shannon's schematic account of communication, Kittler and his most fervent disciples never had much to say about media after the mid-1980s, when personal computers became a common presence in the domestic home. This seems decidedly unfitting for a theorist eulogized as 'the Derrida of the digital age' (Jeffries, 2011).

A troubling ethnocentrism further constrained the agenda of classic German media theory. For the Kittlerian media archaeologist, cultures and societies that did not rely on Western technological media could only be ignored or shoehorned into ill-suited analytical categories, such as information theory's sender-receiver model of communication.³ In this way Kittlerian analysis suggested that the products of the North American and Western European military-industrial complex coincided with an elusive baseline or measuring stick that made sense of human cultures in general. These two shortcomings (the inability to speak to present technological media conditions combined with the inability or refusal to look beyond Western contexts), along with a conspicuous

disregard or even disdain for many political or ethical questions (Peters, 2007), set increasingly narrow horizons on the Kittlerian program.

That Kittler in his late works reoriented himself towards new problematics, such as European cultural history and mathematics in ancient Greece, might suggest his own recognition of these diminishing returns of his earlier methods. More likely, that shift in focus serves as a reminder that Friedrich Kittler was never Kittlerian, per se (indeed, few discursive founders' methods square with their eponymous schools), and that he was most at home when challenging platitudinous orthodoxies – even those assigned to his own name. Even so, this shift seemingly left his most dedicated disciples alone in the end, writing technical histories of dead media and dead theorists.

But as Nietzsche observed, true fidelity demands the courage of apostasy.⁴ In the early 2000s, adepts and admirers of the Kittlerian approach turned their attention towards the more elastic concept of *Kulturtechniken*. Bernhard Siegert concisely summarizes the emerging program this way: 'The concept of cultural techniques highlights the operations or sequences of operations that historically and logically precede the media concepts generated by them' (Siegert, 2011: 15). For example, counting historically and logically precedes numbers, singing precedes formalized scales, and casual farming precedes the invention of rationalized agriculture. This observation suggests a technical and practical *a priori* to the discourse networks of classic German media theory. The task for the theorist of cultural techniques is to determine by what processes numbers, scales, or a ploughshare reciprocally and recursively modify and formalize the practices of counting, singing, and farming that generated them.

The study of such recursive processes constitutes the topological core of research on cultural technique. Put in terms familiar to German media theory of the 1980s and 1990s, cultural techniques concern the rules of selection, storage, and transmission that characterize a given system of mediation, including the formal structures that compose and constrict this process. The fact that this process comprehends both the emergence of a new symbolic system and the recursive formalization of this system accounts in some part for the ambiguity introduced in English translations. Every cultural technique (*Kulturtechnik*) tends towards becoming a cultural technology (*Kulturtechnik*). Where English sharply distinguishes and opposes these meanings, colloquial German designates their intimate and ontologically elusive conjunction.

This conceptual shift so easily likened to the formal operations of a Turing machine or cybernetic servomechanism (see Krajewski, 2013) masks a more profound dislocation in the foundations of the Kittlerian program. The rift concerns the seemingly innocuous phrase 'operations or sequences of operations that historically and logically precede'. Rather than starting with an already-organized technology,

research on cultural techniques commences with an inchoate mixture of techniques, practices, instruments, and institutional procedures that give rise to a technological set-up. The methodological specificity of research on *Kulturtechniken* is its emphasis on the configurations of instruments, practices, and signs that comprise the *a priori* of a given technical and cultural system. This is not *media archaeology* but rather an archaeology of media.

This effort to isolate and define symbolic sequences, and situate their specificity, almost inevitably involves recourse to aspects of anthropology with an emphasis on human practice – and, more importantly, explicitly or implicitly, some element of cross-cultural analysis. Every cultural technique always already implies cultural diversity, either within or between cultures. The Kittlerian privilege assigned to European culture and technologies of Western derivation no longer suffices for this style of analysis. Figures of class tension, barbarians, and parasites quickly proliferate (Krajewski, 2013; Vismann, 2013; Siegert, 2008). In this new set-up interlopers and alterity become necessary (but not sufficient) conditions, rather than effects, of media-technological configurations. It is the very undecidability over whether such methodological reorientations constitute violent ruptures or deep-seated revelations for media theoretical analysis that allow for the qualification of *Kulturtechnikforschung* as apostasy.

Body Techniques

An example drawn from the work of Erhard Schüttpelz (2010) illustrates certain hallmarks of cultural-technical research. His special interest in comparative and cross-cultural anthropology distinguishes him among contemporary theorists of cultural techniques but also coincides with a broader anthropological orientation that differentiates research on cultural techniques from that of classic German media theory. In his essay ‘Body Techniques’, Schüttpelz recounts a story told by the French ethnographer Marcel Mauss in the 1935 essay ‘Techniques of the Body’. Mauss argued that distinct cultures have systematic ways of organizing everyday bodily activities, such as walking, swimming, and running. He traced the genesis of this theoretical concept to his extended stay at an American hospital in the 1920s. According to Mauss:

A kind of revelation came to me in hospital. . . . I wondered where previously I had seen girls walking as my nurses walked. I had the time to think about it. At last I realised that it was at the cinema. Returning to France, I noticed how common this gait was, especially in Paris; the girls were French and they too were walking in this way. In fact, American walking fashions had begun to arrive over here, thanks to the cinema. This was an idea I could generalise. (Mauss, 1973: 72)

Two aspects of this story interest Schüttpelz. There is the fact of a specific technique, walking, which is disseminated and conditioned by a new technical medium, the cinema. Equally important is that the cinema itself – by breaking the actions of the human body down into a series of discrete, serial movements – makes Mauss's concept, techniques of the body, thinkable. Thus far we see the hallmark elements of classical German media theory, with its emphasis on the technological *a priori*. By emphasizing the role of a technological determinant in Mauss's concept, Schüttpelz is halfway to redefining techniques of the body as a cultural technology.

Schüttpelz embarks on a cultural-technical analysis by situating Mauss's techniques of the body within a heterogeneous set-up of techniques, technologies, and signs co-articulated by power and politics that, in turn, have implications for cultural difference and distinction. He locates the genesis of Mauss's cultural techniques of the body in Etienne Jules-Marey's famous motion studies, pointing out that these studies were allied with the late-19th-century racist and classist ethnography that sought to inventory types, such as the gait of Africans, Europeans, workers, and soldiers. Through motion photography, movement itself became a symbolic system characterizable by discrete series that could be quoted and recursively modified. These series could articulate difference *between* cultures ('European' and 'African') and *within* a culture (upper and lower classes), and they also refined existing cultural distinctions. In this way motion studies refined techniques of the body into a cultural technology of racist and classist differentiation. Subsequent interventions by cinema, Taylorism, industrialization, and colonialism enabled the French ethnographer Mauss to develop a concept that identified these new cultural formations as techniques of the body.

Although constructed and contingent, these techniques of the body also designated a real, historical, and obdurate phenomenon whose biological underpinnings closely approximate natural life forces. To exploit a certain semantic ambiguity unavailable to German, we may say that Schüttpelz's history demonstrates how a variety of cultural techniques [*Kulturtechniken*] were strategically bound together into a potent cultural technology [*Kulturtechnik*]. On their own, concepts, bodies, filmstrips, and politics are techniques; but as components of an integrated symbolic system, they become a cultural technology. Although such symbolic systems may be integrated into a single technology or *dispositif*, such arrangements are at best temporary consolidations until emergent practices and technologies displace and rearrange the constituent parts.

The Techniques of Kultur

A survey of methodological impasses or case studies (such as we have approximated in the preceding pages) may provide an overview to the

cultural techniques of recent German media theory. To penetrate to the core of the problematic, however, it is necessary to zero in on the term itself, *Kulturtechnik*, and its economic conjunction of pleonasm, paradox, and neologism. This combination of connotations derives from the peculiar associations of the three terms it brings together, namely: *Kultur*, derived from Latin *colere* and introduced into German in the 17th and 18th centuries to designate culture; the term *Technik*, derived from ancient Greek and introduced into German in the 18th century, signifying technique, technology, or technics; and *Kulturtechnik*, a 19th-century term for agricultural engineering that was appropriated in the 1970s and 1980s by theorists of pedagogy to designate basic competencies in reading, writing, and arithmetic. It is in the bridges and joints among these terms – which are themselves moving and dynamic, like a drawbridge mounted on buoyant piles rather than an isthmus or fixed overpass – that we find the features that define *Kulturtechnik* as a media theoretical concept.⁵

Take the term *Kultur*. Even if the term admitted easy translation, this would hardly fix or determine its semantic scope. As Raymond Williams once noted, '[c]ulture is one of the two or three most complicated words in the English language' (Williams, 1983: 87). Everyday contemporary usage in both languages (but especially in English) often implies an opposition among the terms culture, technology, and nature. Yet these oppositions are partial and historical, the result of gradual dislocations in meaning that are, in turn, reanimated and called into question by the agricultural term *Kulturtechnik*.

For example, the Latin term *colere* that furnishes the basis for the word culture grafts these three meanings together. The Latin *Agri cultura* (agriculture) did not break with nature but instead furnished a stable and enduring second nature. In ancient conceptions of *colere*, then, techniques proved constitutive to realizing the interwoven potential of nature and culture alike. Well into the 17th century, *Cultur* designated techniques of farming and husbandry.⁶ Modern English and German usages retain these connotations, but typically in the specialized fields of practice that are divorced from everyday practice. In German supermarkets mushrooms farmed under controlled conditions are marketed as *Kulturchampignon*, or cultured mushrooms. *Kultur* in this context refers to a controlled mechanism for bringing forth and grooming a natural potential, whereby technique and nature work in concert.

But a peculiar transposition complicates this meaning and speaks directly to the concept's later appropriation in cultural studies. In the course of the 18th and 19th centuries a metaphorical understanding of culture as the maintenance and cultivation of human development appeared. This creeping bourgeois conception identified culture with competency in reading, writing, arithmetic, and the arts. Much as a fixed agri-culture cultivated a more refined and productive crop, proper culturing regimes

could make for a more refined and productive human subject. In these budding, blooming matrices of associations rich resources for future 'cultural sciences' (as the German language designates the field of cultural studies) take root.

This ethnocentric identification of culture with a matrix of Western European attainments was contradicted by an alternate Germanophone definition of culture as the specific and relative characteristics of a given people. Herder, for example, proposed the term culture to designate the specific ways of life characteristic of different peoples. This usage recalled the earlier, more agricultural sensibility of culture as second nature. To cite one passage from Herder's text:

Men of all the quarters of the globe, who have perished over the ages, you have not lived solely to manure the earth with your ashes, so that at the end of time your posterity should be made happy by European culture. The very thought of a superior European culture is a blatant insult to the majesty of Nature. (cited in Williams, 1983: 89)

This conception combines increasingly fraught reactionary and progressive elements. On the one hand, there is an allusion to traditional and agricultural meanings: European culture springs up from a well-manured earth. On the other hand, Herder labels the self-conceptions of this highly refined and technical culture as an insult to the glory of nature. This conception grants recognition to the would-be nomads and barbarians outside the Greco-Roman sphere but also furnishes resources for the later racist conception that links organic culture with the blood and soil of a people.

Compounding the contradictory associations accruing around concepts of culture, Herder's usage also adduces an emerging understanding of culture as something opposed to technical or mechanical civilization. It is tempting to see a return to primeval meaning free from technical artifice. Yet this return, based on an opposition between the cultural and the technical, is the quintessence of a specifically modern set of oppositions. As noted by Hartmut Böhme, the Latin term *colere* was remarkable for its ability to use artifice to bring us closer to nature. Emerging 19th-century usage, by contrast, introduced the imaginary notion of a primeval culture purged of technique and technology. This conception is quintessentially modern and marks out a profound schism in the meaning of culture and technique that continues to trouble present-day Germanophone and Anglophone thought.

The Culture of *Technik*

This parsing of *Kultur* from technique set the stage for philosophical and vernacular reflections on the term *Technik*. Consider Heidegger's

well-known essay ‘*Die Frage nach der Technik*’. Although it is typically translated as ‘The Question Concerning Technology’, such a designation tends to obscure a major theme of the essay, namely the relation of ancient techniques [*Technik*] to modern technics [*Technik*] and modern technology [*Technik*] (Weber, 1989). Heidegger’s definition of *Technik* as a general mode of bringing forth or revealing closely overlaps with notions of *colere* and *Kultur*, and his central example is drawn from agricultural practice:

[In traditional technics t]he work of the peasant does not challenge the soil of the field. In the sowing of the grain it places the seed in the keeping of the forces of growth and watches over its increase. But meanwhile [in modern technics] even the cultivation of the field has come under the grip of another kind of setting-in-order, which *sets* upon nature. It sets upon it in the sense of challenging it. Agriculture is now the mechanized food industry. (Heidegger, 1977: 14–15, emphasis in original)

Heidegger’s comparison between traditional and modern technics rests upon this ability of the word *Technik* to refer to ancient and modern, as well as human and machinic, styles of production, which stages his inquiry into the chasm that separates technique and technology in the modern era. The standard English translation suggests that Heidegger simply rejects technology. A more faithful translation and reading suggests that the use of the term *Technik* allows Heidegger to reject the late-19th-century de-technicization of culture in order to reclaim a fundamental relation between technique and technology, as well as *techné* and *colere*.

Heidegger’s efforts to reunite technology, technique, and culture within *techné* speak directly to the crises surrounding technology and culture in Germany during the 1920s and 1930s. Historian Jeffrey Herf characterizes ‘the battle over *Technik und Kultur*’ as a centrepiece of philosophy and politics in the Weimar Republic and the Third Reich, arguing that Heidegger ‘believed that the Germans had a special mission to combine *Technik* and *Kultur*’ (Herf, 1984: 109). While Heidegger’s conservative contemporaries often embraced a synthesis of technics and culture, in the end Heidegger remained ambivalent. Enamored of *techné* but unable to reconcile himself with modern technics, he retreated to the Greeks and *Gelassenheit* for philosophical solace.

To what extent Kittler’s own work was constrained by his indebtedness to the reactionary modernist tradition remains an open question. That he rejected crude interwar nationalistic and biological racisms is clear. That he raided the works of interwar conservatives such as Heidegger, Carl Schmitt, and Ernst Jünger for a critique of West German philosophical and anti-technicist humanisms is also evident.

Yet scholars have asked whether Kittler ultimately appropriated the modernist reactionary binary of *Kultur* and *Technik* only to give a postmodern and ludic privilege to the term *Technik* (Winthrop-Young and Wutz, 1999: xxxvii–xxxviii; Berger, 2006). Dissatisfaction with such a possibly simplistic inversion points towards the peculiar appeal of *Kulturtechnik* as a concept. Binding the terms *Kultur* and *Technik* together, it elaborates an old and established debate that casts a long shadow over contemporary Germanophone scholarship. Moreover, the very joining of these terms – without explicitly surrendering, banishing, or privileging either – also suggests a heterogeneous composite of culture and technology absent from reactionary modernisms and postmodernisms. And lastly, the agricultural connotations of *Kultur* and *Kulturtechnik* allow for an introduction of those questions of life and *bios* that the likes of Heidegger and Kittler scrupulously avoided (probably due to their racist connotations in twentieth century German and European thought) but which have recently re-asserted themselves as problematics for critical reflection in 21st century philosophy and media theory.

Of Provinces and People (The Rise of Culturing Techniques)

The introduction of the word *Kulturtechnik* into German in the 19th century to designate agricultural engineering marks the fracturing of *colere*, culture, *Cultur*, *Kultur*, *techné*, *technique*, *Technik*, and technology in the modern era. Once overlapping terms associated with *colere* and *techné* had, in the modern era, grown so rarified and reified that it was easier to join them together as juxtaposed terms than resolve them into a full and originary meaning. But rather like the terms *Kultur* and *Technik*, which seem to consistently waiver between relations of opposition and composition, the term *Kulturtechnik* also designates the partial consolidation and reconciliation of these terms during the 19th century. As historian John Tresch notes, 19th-century German thought gave rise to a neglected tradition of mechanical romanticism that sought to reconcile and re-imagine the relationships among mechanism and organicism (Tresch, 2012). Scientists such as Alexander von Humboldt saw in instruments and technology resources for getting closer to nature and mediating the achievement of a more harmonious – even organic – state. The name Tresch gives to this movement is mechanical romanticism. *Kulturtechnik* could be another.

In 1871 the Royal Prussian Agricultural Academy established a professorship for *Kulturtechnik* at the University of Bonn (Strecker, 1908: 3). Although agricultural engineering is perhaps the most apposite English equivalent, a more literal translation such as culturing techniques better captures this new field's position within an emerging 19th-century ethos that saw in rationalism techniques for realizing the power and potentials of nature. Charles August Vogler's *Introduction to Agricultural*

Engineering (Grundlehren der Kulturtechnik – first volume published in 1898) counted chemistry, mineralogy, botany, mechanics, hydraulics, economics, water management, manufacturing, and law among this new field's constituents. This rational series of interlocking distinctions for cultivating the land were supplemented by a new set of distinctions between and among lands. The volume's introduction detailed the culturing techniques peculiar to Bavaria, Saxony, Baden, Hessen, Austria, and Switzerland and exhorted the reader to recognize and celebrate the power of culturing techniques to 'serve the Fatherland and elevate national prosperity' (Strecker, 1908: 7).

This conception underscores how the term *Kulturtechnik* is no neutral engineering term. Like *Kultur* and *Technik*, from its inception it is inscribed within cultural and technological conflicts of Germanophone politics and power. To cultivate any of the three entails the delineation and reproduction of a way of life, be it reactionary or revolutionary. This continues today, as the Bonn professorship for *Kulturtechnik* advertises its commitment to incorporating environmentally sensitive (*umweltrelevanten*) concerns into its field of study. This focus on the *Umwelt* coincides with the wider reorientation across contemporary German scientific and political life toward the interpenetration of nature, technique, and human culture.

Cultural Techniques as Media Theory

Cultural techniques did not come to German media theory as a direct import from agricultural engineering. Their entry was much more mundane, as part of education and the state's concern with pedagogy and instruction. According to Schüttpelz, Kittler encountered the term as a student and instructor at the University of Freiburg in the late 1970s and early 1980s, when the term *Kulturtechniken* was resurfacing in German as a designation for competencies in reading, writing, and arithmetic (see Fritz, 1986; Schüttpelz, pers. comm.). This definition recalled the 18th- and 19th-century definition of culture as liberal arts. Characteristic of many cultural techniques, it owed its legibility to new media technologies. Theorists of pedagogy argued that these skills demanded a reassessment and redefinition in the age of media and communication technologies (Heynmann, 2008). Culture was no longer something to be taken for granted but rather a set Heynmann, 2008 NIR of techniques and a process, whereby the human subject itself was material for cultivation. Culturing techniques, then, demanded a strategic and coherent articulation of humans, techniques, and signs, which itself was adapted to the technical (and pedagogical) regimes of the epoch. Although Kittler does not seem to have developed the term in any focused way, he appears to have brought this definition with him to Berlin in the 1990s, which in turn laid the foundation for the Berlin

School's continuing preoccupation with symbolic systems of reading, writing, image-making, and music as the ur-cultural techniques.

However, at this point we go beyond historicism and anecdote and begin to identify the associations among agricultural engineering, elementary pedagogy, and media theoretical analysis that endow the term *Kulturtechnik* with such provocative interest and intrigue in recent German media theory. The first two meanings (agricultural engineering and pedagogy) are alternate iterations of a shared tradition. The former sense finds its roots in the traditions of culture as agriculture while the latter can be traced to Enlightenment notions of culture as the acquisition of literacy and numeracy. Both recall the fundamental relationship between culture and *techné*, or the process of bringing forth that must be learned and routinized. To term literacy a culturing technique is to underscore that reading and culture are cultivated and bring forth a certain kind of subject and a certain kind of society through the learning of rote procedures of selection, processing, and reproduction. This problem may be distinct from agricultural engineering but it is not wholly independent.

In a sense, the pedagogical meanings extend the symbolic and Lacanian preoccupations of classic Kittlerian media theory (i.e. 'the world of the symbolic is the world of the machine') (Kittler, 1997), while the agricultural associations provide the agitation necessary to graft alternate problematics into this line of analysis. Already in the 19th century the problem of *Kulturtechnik* broaches questions of national and cultural identity, the establishment and maintenance of experimental systems, the interweaving of nature and technics, the imbrication of practices and technology, and the routinizing of culturing procedures. The practice of rational and systematic farming entails a holistic matrix of techniques and practices that establish a logic within the soil and an order among the humans and machines tilling the soil. Farming procedures indexed to the seasons introduce a semiotic system that helps found a new order among things, practices, and signs. The results are cultural distinctions, both as an infinity of distinctions in the land and distinctions between lands. Introduced into media theoretical analysis, this overturns the anti-biologism that prevailed in nearly all Kittlerian analysis and points towards a genealogical complement or alternative to media archeology.

In contemporary usage the connotations of *Kulturtechnik* vastly exceed its designations, but this does not make the etymology any less significant. As Hans-Georg Gadamer observed:

When you take a word in your mouth you must realize that you have not taken a tool that can be thrown aside if it will not do the job, but you are fixed in a direction of thought that comes from afar and stretches beyond you. (cited in Peters, 1988: 9)

It is this long linguistic, semantic, and conceptual itinerary that gives the term its peculiar power – what I earlier designated as a combination of pleonasm, paradox, and neologism. Pleonasm, for the redundancy between *Kultur* and *Technik* in etymological origins; paradox, for the uncomfortable conjunction they articulate between two phenomena painfully wrenched apart in the rise of European modernity; and neologism, for the way that a contemporary theorist of *Kulturtechnik* seems to coin a new word while reanimating a host of older associations that comes from afar and stretches beyond.

A cursory overview of the recent research on cultural techniques reveals how this rich history of associations returns in the present, media theoretical usage. When Schüttpelz describes techniques of the body rendered legible and rational in the age of motion photography, he also presents us with an inventory of techniques for taking a body with life and potential and endowing it with a more stable, rational form that articulates a family of distinctions within and between cultures (Schüttpelz, 2010). When Bernhard Siegert argues that ‘the map is the territory’, and describes the rise of modern cartographic methods as a method of rationalizing instruments, signs, and bodies around the definition and demarcation of a new territory, we cannot help but feel some sense of Latin *colere* – with its emphasis on inhabiting and cultivating the land while displacing the nomads – stirring again in our age (Siegert, 2011). When Thomas Macho and Christian Kassung argue that calendars and clocks are cultural techniques, they are also calling attention to the ways we interweave technologies, signs, and practices with the rhythms of earth, in order to consolidate a common way of life (Kassung and Macho, 2013). When Markus Krajewski details the cultural techniques by which Victorian servants selected, stored, and transmitted messages in their master’s house, he reminds us that even culture itself – as second nature – must submit to cultural-technical processes that curate and cultivate (and occasionally de-realize) its potential (Krajewski, 2013).

Implicit in each of these usages is also a slinking assimilation of concepts of life, practice, and *bios* that is fundamentally lacking from the classic, Kittlerian approach to media. This also throws open analysis to a wider field of contemporary inquiry into themes such as biopolitics, ecology, and animal studies as media theoretical problems that can and should be approached by a focus on the cultural-technical systems that produce specific forms of life, environment, and species relations. This is not achieved by jettisoning the modern quarrel over *Kultur* and *Technik* but rather by reframing it with a historically grounded concept that redistributes the associations among these terms. Putting these terms together as a composite – *Kulturtechnik* or cultural technique – reminds us that they are mutually constitutive terms while also reminding us that they cannot resolve back into the holism implied by *colere* or *techné*.

This constitutive hybridity of cultural techniques, as well as their emphasis on situated and local configurations of instruments, practices, and signs, traces out the emerging status of media and cultural studies in the 21st century. Once, gramophones, film, and typewriters seemed to exhaust the dominant media forms of the epoch. Departments of 'Film Studies', 'Radio/Television/Film' and 'Cultural Studies' suggest a delineated field of study that pivoted around platforms and practices. Yet the tendency towards digitization that organized and undermined the framework of Kittlerian analysis also gutted the carefully cultivated distinction among media as well as cultural, technical, and life sciences (Jenkins, 2006; Thacker, 2005). No media archaeology offers a resolution to this dilemma. Instead, media genealogists must ask how, and under what conditions, cultural techniques strategically and temporarily consolidate these forces into coherent technologies.

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Notes

1. The best short introduction and overview in English of Kittler's research can be found in Winthrop-Young and Gane (2006). Although authored too early to address Kittler's late turn towards mathematics and cultural techniques, see also Winthrop-Young and Wutz (1999). My own, very compact survey of his work can be found online at Geoghegan (2011).
2. The question of what's so German about German media theory is addressed in Horn (2008). The term 'media archaeology' is often used to loosely designate Kittlerian media theory. For a discriminating discussion of this term, see Huhtamo and Parikka (2011, esp. 8–12) and Parikka (2011).
3. Friedrich Kittler's former research assistant Paul Feigelfeld, currently of the Humboldt University of Berlin, is now redressing this problem with a dissertation dedicated to the role of Chinese and Arabic analytical techniques in shaping 'Western' cryptographic procedures. The successful completion of this project may yet open new chapters and new avenues in Kittlerian media archaeology.
4. See Friedrich Nietzsche (Book I, aphorism 32; in Nietzsche, 2001: 53). See also Nietzsche (Vol. I, Part 6, aphorism 298 and Vol. II, Part 1, aphorism 372; in Nietzsche, 1989).
5. On the bridges and joints of concepts, see Deleuze and Guattari (1994: 20).
6. Here and throughout, I have consulted *The Oxford English Dictionary*, as well as the aforementioned works by Williams and Böhme.

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