Slow Archaeology, Punk Archaeology, and the 'Archaeology of Care'

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This article considers the impact of both historical and digital transhuman practices in archaeology with an eye towards recent conversations concerning punk archaeology, slow archaeology, and an 'archaeology of care'. Drawing on Ivan Illich, Jacques Ellul, and Gilles Deleuze, the article suggests that current trends in digital practices risk alienating archaeological labour and de-territorializing archaeological

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Introduction

Digital methods and tools for both archaeological analysis and fieldwork are transforming the discipline. Digital practices increasingly shape the spaces, relationships, and forms of engagement that define archaeological work. They facilitate a more dynamic and expansive discipline that extends beyond the physical confines of the site, the project, or the object as well as the individual excavator. The rise of digital archaeology has also complemented the recent interest in assemblages as a network of practices, tools, objects, and individuals which co-produce archaeological knowledge. This understanding of knowledge production repositions the archaeologist from being the central figure in knowledge-making to being just one agent in a larger network of methods, things, and digital technology (e.g. Harrison, 2011). Embracing digital tools has made it possible for the transhuman archaeologist to emerge.

While the philosophical and intellectual edges of transhumanism remain fuzzy, transhumanists historically have argued that humanity can be improved by expanding beyond the physical, intellectual, sensory limits of the individual through the use of digital technology (FM-2030, 1989; More, 2013). This reading of transhumanism marks it as distinct from the more expansive discourse of posthumanism. For example, the arguments offered by early transhumanists like Max More regarded our use of technology as enabling us to realize the full abilities of the individual as envisioned by humanism. Posthumanism, in contrast, often seeks to de-centre the place of humans within the dense assemblage of things, connections, and technologies (e.g. Latour, 1993; Zylinska, 2009; Haraway, 2016). Despite this, some strains of transhumanism continue to anticipate the emergence of 'posthumans' who produce social, technological, and political arrangements that prolong the trajectory of progress so close to the core of the modern and humanistic project. This view of transhumanism overlaps with certain elements common to 'technological solutionism' that have seen criticism both in general (Morozov, 2014)

and in archaeology (Kansa, 2016). This article seeks to continue these critiques by appealing to both older humanist positions and recent posthumanism to consider the role of technology in the relationship between archaeological knowledge-making and disciplinary practice.

This article emerged from a generous invitation to participate in a panel on transhuman and posthuman archaeology organized by Colleen Morgan, Marta Diaz-Guardamino, and Catherine Frieman at the 2018 European Association of This Archaeologists' annual meeting. encouraged me to think about how my previous work in punk archaeology, slow archaeology, and my interest in an 'archaeology of care' intersected with digital practices in archaeology. In this article, my thoughts on punk archaeology draw on a series of conversations on digital tools and archaeological practice that took place at a conference in Fargo, North Dakota, dedicated to punk rock and archaeology in 2013 (Caraher et al., 2014). In many ways, it was a naive predecessor to slow archaeology. It explored the potential for an archaeology grounded in performative inclusivity and do-it-yourself practices in both fieldwork and analysis. While the general absence of an intellectual framework for punk archaeology and its questioning of disciplinary practices and expertise invited useful criticism (Mullins, 2015; Richardson, 2017), its emphasis on the do-it-yourself and low-fi character of punk shaped my view of technology in archaeology with the (proto-) cyberpunk dystopias of Philip K. Dick, J.G. Ballard, William Gibson, and John Shirley providing an anxious backdrop.

Thinking with punk archaeology provided the context for the idea of slow archaeology that I developed from conversations about the use of digital devices in the field during a 2015 conference and published in a related volume (Caraher, 2015, 2016b). Slow archaeology sought to

articulate a critical approach to the use of technology in archaeological practice by aligning it with various anti-modern 'slow' movements that have appeared in twenty-first-century popular culture (e.g. Petrini's (2003) slow food movement; Cunningham and MacEachern (2016) or Stengers (2018) for slow science) and critiques of 'fast capitalism' and the accelerated pace of contemporary society, culture, and life (Agger, 1989; Harvey, 1989; McNeill & Engelke, 2014).

This article represents an effort to reframe a slow archaeology that stands as a privileged indulgence of the white, male, tenured, grant-funded, and secure faculty member (Graham, 2017), and locate it as part of a larger conversation in archaeology that emphasizes a more human, humane, reflexive, and inclusive discipline. My colleagues and I have described our interest in this conversation as 'the archaeology of care'. This idea pushed us to consider how archaeological methods, particularly the use of technology in the field, shape the structure of the discipline, social conditions in field practice, and obscure the place of individuals in producing knowledge of the past. Rachel Kiddey's recent book clarified these ideas in my mind by foregrounding social responsibilities inherent in archaeological knowledge-making, both to the discipline itself and to the communities where we work (Caraher & Rothaus, 2016; Kiddey, 2017).

The following critique seeks to situate transhuman archaeology within its historical context and continue to develop ideas that have percolated through punk and slow archaeology. The first section of this article introduces two mid-century scholars who have received little attention among archaeologists: Jacques Ellul and Ivan Illich. Illich argued that technology and modernity worked against convivial practices at the core of a creative and humane society (Illich, 1975). Ellul presented a

critique of efficiency and modern 'technique' as undermining human autonomy and choice (Ellul, 1964). The second and third sections use these ideas to consider the significance of efficiency and transhumanism in both industrial and digital practice. It applies a transhuman view to a history of disciplinary knowledge-making that recognizes the assemblage of practices, tools, and materials which form an antecedent to the recent turn to digital methods. While Ellul and Illich articulated their critiques of modern work in the context of the assembly line, digital practices in archaeology have increasingly looked to the more dynamic and fluid world of contemporary logistics to describe the seamless flow of digital information between projects, scholars, research questions, and devices. Supply chain logistics represent a key way to transform diverse assemblages into valuable commodities, and the work of Manuel Delanda (2003), Deborah Cowen (2014), and Anna Tsing (2015) has traced the important role played by logistics in the second half of the twentieth century. The final section draws on Gilles Deleuze's critique of Foucault's vision of modernity (Deleuze, 1992) to explore logistics as a way of organizing the assemblages that produce archaeological knowledge. In archaeology, the increasingly digital character of our practices and methods have produced massive, complex, and more inclusive assemblages (e.g. 'Big Data') and demonstrated how these can introduce new efficiencies to knowledgemaking. The trajectory of these endeavours, however, probes the limits of current digital practices and transhuman thinking in an archaeological context.

ELLUL AND ILLICH

Ivan Illich and Jacques Ellul offered compelling critiques of the impact of

modernity, industrialization, and capitalism on society that, despite being rooted in a decidedly pre-digital age, offer useful perspectives on the growth of digital practices in archaeology. Their work anticipates punk archaeology in their celebration of the unstructured creativity of pre-industrial practices and slow archaeology in their questioning of modern industrial discipline. Illich is the better known of the two scholars, but still rather marginal in archaeological literature. In his Tools for Conviviality, Illich argued that modernity, technology, and the State disrupted the conviviality that existed in premodern societies (Illich, 1975). For Illich, conviviality represented the opposite of modern productivity (with its interest in speed and efficiency) and emphasized the free, unstructured, and creative interaction between individuals and between individuals and their environment. As Michael Given has recently shown, Illich's notion of conviviality can shed light on the resilience and stability of agrarian practices in seventeenth-century Cyprus (Given, 2018) and extend to include such non-human actors as the soil (Given, 2017). At the same time, Given acknowledged that understanding conviviality in the past required a convivial practice among archaeologists in the present (Given, 2017: 140), which he articulated as the collaboration between a wide range of specialists who would work together to unpack the complex relationships that form the past human environment. An appeal to specialization, however, represents a distinctly modern approach to conviviality. By proposing that archaeology needs to collaborate with specialists in soil science, for example, Given complicates the tension between the fragmented practices of modern archaeological knowledge-making and the integrated practice of premodern conviviality. His modern take on convivial practice offers an approach to understanding the conviviality of the

past, but it remains difficult to disentangle the organizational logic of specialization, as it emerged from an effort to increase efficiency in industrial processes (Illich, 1971; Alexander, 2008: 65–72). While convivial practice is not impossible among specialists involved in contemporary archaeological work, Illich's critique suggests that specialization may well be more of a barrier than an asset in genuine conviviality.

Jacques Ellul's emphasis on efficiency offers a particularly valuable framework for applying the concept of slow archaeology to transhuman archaeological practice. In The Technological Society, he traced the rise of technology and its distinctive form of human engagement with mechanical tools that he calls 'technique' (Ellul, 1964). Ellul's technique had five characteristics (for a summary, see Benello, 1981). First, it was shaped by the need for efficiency. Second, technique was 'self-augmenting' with technical problems leading invariably to technical solutions. Third, technique was 'monistic' with the good and bad uses of technique being outside the control of the individual agent. Technique, fourthly, extends across fields of activity and disciplines, from the economic to the social, political, and even creative. Finally, and most controversially, technique is universal and autonomous. The spread of technique over time effectively severed the attentive individual from autonomous engagement with work and life. In the place of choice, there emerged practices dominated and shaped by the abstract logic of efficiency. This can be seen in the rise of specialists, for example, who played an increasingly important role in production and the organization of practice. Specialized skills, methods, and expertise limited how individuals define and perform their work. For Ellul, the loss of autonomy associated with efficiency-driven technique ultimately shaped human relations and people's relationships with their tools. Like Illich,

Ellul saw not just technology, but the whole assemblage of the technological society, as robbing the modern world of dynamism and creativity. While scholars have recognized the elusiveness of Ellul's definition of efficiency and the difficulty of attributing a universal structural logic to human motivations (Ritzer, 2013; Son, 2013), Ellul's diffuse perspective on 'technique' brought attention to the relationship between technology, economic motives, and political and social goals. As a result, Ellul's view of a technological society reveals how Michael Given can call for a conviviality among specialists that commingles individuals defined by their place within the organizational logic of technical production and premodern practices.

Archaeology as Industrial Practice

From a transhumanist perspective, Ellul's critique of the modern condition is too pessimistic, but his understanding of efficiency in shaping modern practice remains relevant to recent conversations about archaeological practices. As I argued in my work on slow archaeology, the relationship between industrial practices and archaeology remains complex (Caraher, 2016b). Numerous scholars have argued convincingly that modern practices shaped the way that archaeology structured time and space (Thomas, 2004) and that the discipline adopted industrial practices and modes of organization starting in the early twentieth century (Shanks & McGuire, 1996; Lucas, 2001: 8-12; Leighton, 2016: 744). With the rise of contract archaeology and cultural resource management in the postwar period, however, the potential for industrial practices within archaeology became more explicit as practitioners began to operate with the heightened awareness that time is money (e.g. Paynter, 1983).

Starting in the 1970s, New Archaeology similarly leveraged industrial tools-from aerial photography to large-scale earth movers and computers—which contributed to accelerating the pre-war division of archaeology into increasing specialized subfields (Clarke, 1973). The emphasis on robust, quantitative data collection in the field as the basis for hypothesis testing further encouraged the standardization of practices in archaeological projects (Pavel, 2010). These changes took place at the same time as university systems, first in Europe and then in the US, moved even closer to an industrial model of education with a growing emphasis on specialist knowledge and well-ordered, incremental curricula (Menand, 2010).

It is easy to see how the development of archaeology over the second half of the twentieth century contributed to how we talk today about using digital technology. An emphasis on efficiency, for example, points to the relevance of Ellul's critique for archaeological practice. As Jennifer Alexander noted in her study of the history of efficiency, continuity exists between an early industrial interest in efficiency and its recent status as 'an iconic mantra in the high-tech industries' (Alexander, 2008: 2). The growth of digital practices and their efficiencies across the entire range of archaeological work indicates that the transformation of the discipline continues to accelerate. In the proceedings of a recent conference dedicated to digital tools in fieldwork, Mobilizing the Past for a Digital Future (Averett et al., 2016), Adam Rabinowitz noted that the preoccupation in these essays was 'time' or terms related to saving, consuming, or costing time in field practices (Rabinowitz, **2016**: 495–96). Phrases related to efficiency likewise appear throughout as does the term workflow in digital practices. Among the most widely cited and read articles from the Journal of Field Archaeology is Christopher Roosevelt's

(and team) thorough presentation of the digital workflow from their project in south-western Turkey (Roosevelt et al., 2015). If we accept Colleen Morgan and Stuart Eve's pronouncement that 'we are all digital archaeologists now' (2012: 523), the work of Ellul and Illich urges us to also remain critically aware of what Jeremey Huggett has called the 'ghosts in the machine' (2015: 86-87), which haunt the products of our digital tools and preserve their complexities, assumptions, and expectations as well as how we talk about their affordances. The historic impact of industrial practice on archaeology continues to transform how archaeology organizes, uses, and talks about digital tools.

The influence of industrial practices in archaeology has not escaped critique. For example, Shanks and McGuire's 1996 article on the key role of craft in archaeological practice did not reject the value of industrial practices for the discipline, but sought to encourage a greater awareness of the work of archaeology as a dialogue between 'the archaeologist and material, the archaeologist and the community—an expressive and interpreted experience within which the past is created' (Shanks & McGuire, 1996: 86). More recently, efficiency itself has become increasingly regarded as a problematic term deeply embedded in practice and the coincidence of human and material agency (e.g. Shove, 2017). Bruno Latour and others have demonstrated that any effort to unpack the complexity of the social, mechanical, or environmental energy in a system requires abstract acts of purification that define and separate energy and effects from their complex network of entangled relationships and practices (Latour, 1993; Shove, 2017: 7-8). This work, on the one hand, echoes recent studies of technology that have challenged traditional views of agency and argued that things and humans co-create the world (e.g. Barad, 2007; Hodder, 2012; Witmore, 2014; Hamilakis & Jones, 2017; Hodder & Lucas, 2017). This greater attention to the interaction between humans and things has provided a compelling theoretical framework for understanding the interplay of technology, tools, objects, and agency in the construction of archaeological knowledge. On the other hand, this approach has only just begun to inform the thriving conversation on the impact of digital tools on the organization of archaeological practice (but see Pickering, 1995; Taylor et al., 2018), the nature of archaeological skills and expertise, and issues of archaeological preservation and publication (Huggett, 2017). Perhaps this entangled view of the world gives the work of Illich and Ellul new relevance for archaeologists concerned with the social issue of disciplinary practice across the field.

TRANSHUMANISM AND INDUSTRIAL PRACTICE

An emphasis on efficiency as existing within a larger system of methods, tools, and technology not only complicates how we consider efficiency in archaeological practice, but also offers a useful reminder that the ghost cannot be separated from or even understood outside the machine. The understanding of the modern world as a dense network of tools, institutions, techniques, and expectations complements the views of Illich and Ellul, who saw the logic of the modern world as irreducible from its constituent parts and as ranging from tools and techniques to social institutions and individual practices. Their emphasis on the individual, however, as a formerly autonomous agent compromised by modern technologies, produced anxieties in their works, whereas for transhumanists, some of these same conditions inspired the hope for a posthuman world (More, 2003).

A posthuman reading of transhumanism views the distribution of agency across a diverse assemblage of technologies, institutions, and individuals, and parallels recent work in archaeology. Rodney Harrison, for example, has suggested that in archaeology the linear processes of excavation as the discipline's dominant metaphor could be replaced by the perspective offered by the surface assemblages of survey archaeology (Harrison, 2011, 2013). Rather than systematically revealing an occluded but materially present past, the work of constructing meaning from a surface assemblage may better represent the relationships between people, objects, tools, and techniques necessary to produce archaeological knowledge. Similar approaches have informed the recent work of Shannon Lee Dawdy, who recognized the key role of the relationship between fieldwork, local knowledge, ritual activities, and various pre- and anti-modern ways of locating, narrating, and producing social value for artefacts (Dawdy, 2016). For Olivier (2011), this speaks to the chaotic nature of time and memory from which the discipline of archaeology seeks to produce a useful, or meaningful arrangement of the past. In this context, the rather linear practice of stratigraphic excavation with its institutional, disciplinary, and performative underpinnings (for a useful critique, see Gnecco, 2013) gives way to a raucous, radical, and, perhaps even punk, performance of archaeology which often eschews expertise, barriers to access, and specialist knowledge. The growing interest in ontology among archaeologists has tended to support more dynamic, inclusive, and provisional approaches to archaeological knowledge, making it question the integrity of traditional archaeological categories and methods (see Caraher, 2016a, for an overview). In short, transhuman practice, whether built on the metaphor of surface survey or an entangled universe of early twentieth-century ontology, guides us towards an 'archaeology of care' that extends throughout the relationship between individuals, methods, and technology in archaeological work.

A transhuman perspective on the entanglement of the body and machines in archaeology creates new ways of understanding the pervasive influence of modernity and especially the assembly line in the organizational logic of archaeological work. The linearity of the assembly line, for example, shared with archaeology the modern conception of progress. Work flows from one station to the next in a structure replicated in archaeological periodisation schemes or in the orderly arrangement of boxes in a Harris matrix. The relationship between the individual and work on the assembly line is likewise organized into managed movements frequently following the tenets Frederick Taylor's scientific management (Alexander, 2008: 11-14; Kansa, 2016). The transhuman archaeologist becomes another moving part in the industrial machine that multiplies and expands the individual's labour while simultaneously disconnecting it from a clear sense of the work's goals and products. In contrast, the project director supervises the work and authors the final publication, which stands as a traditional product of archaeological work. While the physical and embodied process of archaeological work often echoes the embodied knowledge acquired through craft production, a century of archaeological workers has experienced the same anomie and alienation that characterizes the routine of industrial labour (Everill, 2012, especially chapter 2).

This distillation of the archaeological process, however, may be too pat and austere. The experience of archaeological work on site, the informal opportunities for analysis and interpretation, and moments of discovery undermine too

literal a comparison between archaeological practice and industrial work (Edgeworth, 2006). As Edgeworth has shown, the connection between embodied and material knowledge, the traditional ways in which field techniques are passed from one excavator to the next, and the dynamic character of excavation reinforced the prevalence of craft in archaeology. Craft practice also grounds excavation in the distinctive materiality of the site and organizes work and knowledge with a commitment to space and place. A commitment to vertical and horizontal space, provenance, and local, regional, national contexts has long shaped archaeological practice and the goals of the discipline. The coincidence between the linear and spatially localized character of craftinflected practice, the assembly line, and modernity exerted a significant influence over field archaeology and the nature of transhuman engagements that functioned within the tools, methods, and practices present in archaeological work. Mary Leighton's recent studies of the organization of archaeological labour demonstrate that the production of archaeological data often overwrites the contribution of skilled workers and obscures the organization of archaeological labour (Leighton, 2016). These workers become, in Paul Everill's phrase, 'invisible diggers' (Everill, 2012).

DISCIPLINARY TRANSHUMANISM

Viewing the historical practices of archaeology through a transhuman lens, then, offers a reminder that archaeology is both craft and industrial work despite the traditional emphasis on the product of archaeological labour. These approaches shared an emphasis of archaeological work on site and stressed the physical, embodied relationship between workers, the site, and the place. In his critique of Foucault's vision of modernity, Gilles Deleuze recognizes the assembly line as a space of enclosure and understands the localization of human and material capital as being vital to maintaining control in the disciplinary society of the nineteenth and early twentieth century (Deleuze, 1992). During the second half of the twentieth century, changes in technology and the increased emphasis on speed divorced capital from enclosed spaces (Harvey, 1989). Cowen Deborah has observed, growing interest in speed and time shifted attention to an understanding of logistics which has come to supplant the logic of the assembly line in our understanding of production (Cowen, 2014). The ability to move products, processes, and capital around the globe undermined the priority of the enclosure and ushered in an era of organization dominated less by the ability to discipline the body to the time and space of work and more by the capacity to track and control the flow of objects. For Deleuze, this inaugurated an era of fragmented 'dividuals'. Unlike the unitary and singular individual, the dividual is a collection of social relations whose characteristics, abilities, identities, and features can be coded, tracked, sold, and streamlined across global systems. Applied to archaeological work, this shift both delocalizes practice and expands it beyond the limits of our bodies, distributing it reciprocally through technology, techniques, and social organization.

The concept of distributed production in logistics emphasizes the interdependence of tools, techniques, methods, and individuals that are characteristic of twenty-first-century archaeology and acknowledges the need to reduce the friction present within assemblages. The attention to logistics is transforming the social organization of archaeological practice. Digital technology, for example, whatever its integrative potential,

continues the industrialist and Taylorist approach of dividing complex tasks into simpler ones (Alexander, 2008; Caraher, 2015, 2016b). This non-linear fragmentation, however, makes the products of digital tools more interchangeable and allows them to be aggregated and combined in different ways. As such, digital practices replace the linearity of the assembly line for the 'web' of the digitally networked world in which dynamism and adaptability serve to overcome barriers between sites, levels of expertise, and the distinctive character of archaeological knowledge. This approach to producing archaeological data facilitates new combinations of archaeological information, but also allows for the disaggregation of archaeological information previously embedded in archival contexts, catalogues, or other forms of more rigidly structured relationships.

Nowhere logistics-oriented this is approach to archaeological knowledgemaking more apparent than in the linked open data (LOD) movement in archaeology (Seifried, 2014; Geser, 2016). The Open Context initiative of the Alexandria Archive Institute in California provides a model application of linked data standards through a platform that enables the highly granular publication of archaeological data (see https://opencontext.org/). Open Context differs from conventional data archives like the Archaeological Data Service (ADS) in the UK or the European ZENODO in that each archaeological object in this online database has a unique identifier. This allows for artefacts, archaeological contexts, strata, types, or survey units to be shared, linked, combined, and remixed in different ways. The potential of linked open data standards is clear. While Open Context strives to preserve each project's way of organizing data, the structure of their platform and the granular character of the data encourages archaeologists to

create new assemblages of archaeological knowledge that extend far beyond the borders of the site, region, method, or context.

The ability to integrate granular digital data is also manifest in various crowdsourced research projects that have likewise shown how digital tools make it possible for fragmented bits of knowledge to be marshalled to address complex archaeological problems (e.g. Bonacchi et al., 2014; McCoy, 2017; Parcak et al., 2017). Digital mediation in these contexts provide the means to collect archaeological information from a relatively unstructured cluster of participants. Obviously, the use of crowd-sourcing, where a large community acts as a distributed workforce, is not ideal for all forms of archaeological knowledge-making, but it has clear applicability for managing our growing access to 'Big Data' (e.g. Bevan et al., 2014). At the same time, it presents a distinct form of digital deskilling or re-skilling of the work of archaeological analysis (Roosevelt et al., 2015). The complex anonymity provided by 'the crowd' similarly risks obscuring the range of users willing to contribute to crowd-funding projects and the real limits to the promise of digital democratization (Richardson, 2014). The social impact on the disciple that the increasing mobility of archaeological information, the ease of integrating collaborators, and the granularity of specialization may have, remains unclear.

The concept of slow archaeology offered a preliminary critique of the use of remote, structured, or simplified digital recording interfaces, the ease of point-and-click data manipulation, or the use of software to synthesize unstructured data as generated by digital photography into 3D Structure from Motion images (Caraher, 2016b; Morgan & Wright, 2018). The adoption of digital tools and the understanding of digital technologies at both a conceptual and applied level is not merely exchanging

one set of skills for another (pace Roosevelt et al., 2015) or another way of communicating and publishing the same archaeological knowledge. The fragmentation of information through the use of digital tools and techniques parallels the transformation of certain ontological assumptions of archaeological work. The recombinant character of the digital assemblage and the attention to moving data from one context and relationship to another reflect the intellectual and practical consequences of the logistics revolution. Many of the barriers that the mobility and modularity of digital data seek to overcome have long defined the complex nature of archaeological contexts, experience, and practices. In Deleuzian terms, the spaces of enclosure that have defined archaeological practice are giving way to 'dividuated' archaeological data. The use of digital tools to produce more efficient data collection has anticipated the recent fascination with 'Big Data' well in advance of the consistent demonstration of its results (Bevan, 2015; Kansa, 2016). While it remains to be seen whether 'Big Data' will lead to important breakthroughs in our field, there is plenty to suggest that the efficiency possible in digital data collection, analysis, and dissemination has outpaced our ability to formulate questions. As Roosevelt and team cleverly quipped in the title of their article (Roosevelt et al., 2015), digitization is an alternative to destruction in the context of field practice, but it is not the same as the creation of meaningful pasts.

Conclusions

Ellul and Illich saw the technological revolution of the twentieth century as fundamentally disruptive to the creative instincts and autonomy of individuals because it falsely privileged speed and efficiency as the foundations for a better world. The development of archaeology largely followed the trajectory of technological developments in industry which continues to shape archaeological practice in the digital era. Transhuman practices in archaeology reflect both long-standing modes of organizing archaeological work according to progressive technological and industrial principles. The posthuman critique of transhumanism unpacks how we understand the transition from the enclosed space of craft and industrial practices to the more fluid and viscous space of logistics. In short, it expands the mid-twentieth-century humanism of Ellul and Illich and offers a cautionary perspective for twenty-first century archaeology as it comes to terms with the growing influence of logistics as the dominant paradigm for organizing behaviour, capital, and knowledge.

An 'archaeology of care' takes cues from Illich and Ellul by considering how interaction between tools, individuals, practices, and methods shaped our discipline in both intentional and unintentional ways. If the industrial logic of the assembly line represented the ghost in the machine of twentieth-century archaeological practices, then logistics may well haunt archaeology in the digital age. 'Dividuated' specialists fragment data so that it can be rearranged and redeployed globally for an increasingly seamless system designed to allow for the construction of new diachronic, transregional, and multifunctional assemblages. Each generation of digital tools makes it possible to shatter the integrity of the site, the link between the individual, work, and knowledge, and to redefine the organization of archaeological knowledge-making. critiques, of course, are These restricted to archaeological work. Gary Hall (2016) has recognized a similar trend in higher education, which he called 'Uberfication'. In Hall's dystopian view of the near future of the university, data would map the most efficient connections between the skills of individual instructors and the needs of individual students at scale (Hall, 2016). As in archaeology, the analysis of this data, on the one hand, allows us to find efficient relationships across complex systems. On the other hand, 'Uberfication' produces a granular network of needs and services that splinters the holistic experience of the university, the integrity of departments and disciplines, and college campuses as distinctive places. This organization of practice influences the behaviour of agents to satisfy the various needs across the entire network. The data, in this arrangement, are not passive, but actively participate in producing a viable assemblage.

Punk archaeology looked to improvised, performative, do-it-yourself, and ad hoc practices in archaeological fieldwork as a space of resistance against methodologies shaped by the formal affordance of tools. Slow archaeology, despite its grounding in privilege, challenges the expectations of technological efficiency and the tendency of tools not only to shape the knowledge that we make, but also the organization of work and our discipline. The awareness that tools shape the organization of work, the limits to the local, and the place of the individual in our disciple is fundamental for the establishment of an 'archaeology of care' that recognizes the human consequences of our technology, our methods, and the pasts that they create.

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REFERENCES

- Agger, B. 1989. Fast Capitalism: A Critical Theory of Significance. Urbana (IL): University of Illinois Press.
- Alexander, J.K. 2008. The Mantra of Efficiency from Waterwheel to Social Control. Baltimore (MD): Johns Hopkins University Press.
- Averett, E., Counts, D. & Gordon, J. eds. 2016. *Mobilizing the Past for a Digital Future: The Potential of Digital Archaeology.* Grand Forks (ND): The Digital Press at the University of North Dakota.
- Barad, K. 2007. Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning. Durham (NC): Duke University Press.
- Benello, C.G. 1981. Technology and Power: Technique as a Mode of Understanding Modernity. In: C.G. Christians & J.M. Van Hook, eds. *Jacques Ellul: Interpretative Essays*. Urbana (IL): University of Illinois Press, pp. 91–107.
- Bevan, A. 2015. The Data Deluge. *Antiquity*, 89: 1473–84. https://doi.org/10.15184/aqy.2015.102
- Bevan, A., Pett, D., Bonacchi, C., Keinan-Schoonbaert, A., Lombraña González, D., Sparks, R. et al. 2014. Citizen Archaeologists. Online Collaborative Research about the Human Past. *Human Computation*, 1: 183–97. https://doi.org/10.15346/hc.v1i2.9
- Bonacchi, C., Bevan, A., Pett, D., Keinan-Schoonbaert, A., Sparks, R., Wexler, J. & Wilkin, N. 2014. Crowd-sourced Archaeological Research: The MicroPasts Project. Archaeology International, 17: 61–68. http://doi.org/10.5334/ai.1705
- Caraher, W.R. 2015. Slow Archaeology. *North Dakota Quarterly*, 80: 43–52.
- Caraher, W.R. 2016a. Ontology, World Archaeology, and the Recent Past.

 American Journal of Archaeology, 120: 325—31. https://doi.org/10.3764/aja.120.2.0325

- Caraher, W.R. 2016b. Slow Archaeology: Technology, Efficiency, and Archaeological Work. In: E. Averett, D. Counts & J. Gordon, eds. *Mobilizing the Past for a Digital Future: The Potential of Digital Archaeology*. Grand Forks (ND): The Digital Press at the University of North Dakota, pp. 421–41.
- Caraher, W.R. & Rothaus, R. 2016. An Archaeology of Care. On Second Thought, Magazine of the North Dakota Humanities Council (Spring 2016): 50–51.
- Caraher, W.R., Kourelis, K. & Reinhard, A. eds. 2014. Punk Archaeology. Grand Forks (ND): The Digital Press at the University of North Dakota.
- Clarke, D. 1973. Archaeology: The Loss of Innocence. *Antiquity*, 47: 6–18. https://doi.org/10.1017/S0003598X0003461X
- Cowen, D. 2014. The Deadly Life of Logistics: Mapping the Violence of Global Trade. Minneapolis (MN): University of Minnesota Press.
- Cunningham, J.J. & MacEachern, S. 2016. Ethnoarchaeology as Slow Science. *World Archaeology*, 48: 628–41. https://doi.org/10.1080/00438243.2016.1260046
- Dawdy, S.L. 2016. Patina: A Profane Archaeology. Chicago (IL): University of Chicago Press.
- Delanda, M. 2003. War in the Age of Intelligent Machines. New York: Zone Books.
- Deleuze, G. 1992. Postscript on the Societies of Control. *October*, 59: 3–7.
- Edgeworth, M. 2006. Ethnographies of Archaeological Practice: Cultural Encounters, Material Transformations. Lantham (MD): AltaMira Press.
- Ellul., J. 1964. The Technological Society, trans. by J. Wilkinson. New York: Vintage Books.
- Everill, P. 2012. The Invisible Diggers: A Study of British Commercial Archaeology (2nd ed). Oxford: Oxbow Books.
- FM-2030. 1989. Are You a Transhuman? Monitoring and Stimulating Your Personal Rate of Growth in a Rapidly Changing World. New York: Warner Books.
- Geser, G. 2016. Towards a Web of Archaeological Linked Open Data. ARIADNE Work Package 15 [online] [accessed 30 January 2019]. Available at: http://www.ariadne-infrastructure.eu/News/Study-Towards-a-Web-of-Archaeological-Linked-Open-Data

- Given, M. 2017. Conviviality and the Life of the Soil. Cambridge Archaeology Journal, 28: 127–43. https://doi.org/10.1017/ S0959774317000609
- Given., M. 2018. The Precarious Conviviality of Water Mills. *Archaeological Dialogues*, 25: 71–94. https://doi.org/10.1017/S1380203818000089
- Gnecco, C. 2013. Digging Alternative Archaeologies. In: A. González-Ruibal, ed. Reclaiming Archaeology: Beyond the Tropes of Modernity. New York: Routledge, pp. 67– 78.
- Graham, S. 2017. Slow Archaeology? *Electric Archaeologist* [online] [accessed 30 January 2019]. Available at: https://electricarch-aeology.ca/2017/03/20/slow-archaeology/ [https://perma.cc/8UT4-ALM2]
- Hall, G. 2016. The Uberfication of the University. Minneapolis (MN): University of Minnesota Press. https://doi.org/10.5749/9781452958439
- Hamilakis, Y. & Jones, A.M. 2017. Archaeology and Assemblage. Cambridge Archaeology Journal, 27: 77–84. https://doi. org/10.1017/S0959774316000688
- Haraway, D. 2016. *Manifestly Haraway*. Minneapolis (MN): University of Minnesota Press
- Harrison, R. 2011. Surface Assemblages: Towards an Archaeology in and of the Present. Archaeological Dialogues, 18: 141–61. https://doi.org/10.1017/S1380203811000195
- Harrison, R. 2013. Scratching the Surface: Reassembling an Archaeology in and of the Present. In: González-Ruibal, A. ed. Reclaiming Archaeology: Beyond the Tropes of Modernity. London & New York: Routledge, pp. 44–55.
- Harvey, D. 1989. The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change. Oxford: Blackwell.
- Hodder, I. 2012. Entangled: An Archaeology of the Relationships between Humans and Things. Oxford & Malden (MA): Wiley-Blackwell.
- Hodder, I. & Lucas, G. 2017. The Symmetries and Asymmetries of Human–Thing Relations. *A Dialogue*. Archaeological Dialogues, 24: 119–37. https://doi.org/10. 1017/S1380203817000137
- Huggett, J. 2015. A Manifesto for an Introspective Digital Archaeology. *Open Archaeology*, 1: 86–95. https://doi.org/10.1515/opar-2015-0002

- Huggett, J. 2017. The Apparatus of Digital Archaeology. *Internet Archaeology*, 44. https://doi.org/10.11141/ia.44.7
- Illich, Ī. 1971. *Deschooling Society*. New York: Harper & Row.
- Illich, I. 1975. *Tools for Conviviality*. Glasgow: Fontana/Collins.
- Kansa, E. 2016. Click Here to Save the Past. In: E. Averett, D. Counts & J. Gordon, eds. Mobilizing the Past for a Digital Future: The Potential of Digital Archaeology. Grand Forks (ND): The Digital Press at the University of North Dakota, pp. 443–72.
- Kiddey, R. 2017. Homeless Heritage: Collaborative Social Archaeology as Therapeutic Practice. Oxford: Oxford University Press.
- Latour, B. 1993. We Have Never Been Modern, trans. by C. Porter. Hemel Hempstead: Harvester Wheatsheaf.
- Leighton, M. 2016. Indigenous Archaeological Field Technicians at Tiwanaku, Bolivia: A Hybrid Form of Scientific Labor. American Anthropologist, 118: 742–54. https://doi.org/10.1111/aman.12682
- Lucas, G. 2001. Critical Approaches to Fieldwork: Contemporary and Historical Archaeological Practice. London: Routledge.
- McCoy, M. 2017. Geospatial Big Data and Archaeology: Prospects and Problems Too Great to Ignore. *Journal of Archaeological Science*, 84: 74–94. https://doi.org/10.1016/j.jas.2017.06.003
- McNeill, J.R. & Engelke, P. 2014. The Great Acceleration: An Environmental History of the Anthropocene since 1945. Cambridge (MA): The Belknap Press of Harvard University Press.
- Menand, L. 2010. *The Marketplace of Ideas*. New York. Norton.
- More, M. 2003. Principles of Extropy, Version 3.11.2003 [online] [accessed 30 January 2019]. Available at: https://www.acrchive.org/web/20110806105153/ http://www.extropy.org/principles.htm>
- More, M. 2013. The Philosophy of Transhumanism. In: M. More & N. Vita-More, eds. *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future.* Chichester & New York: Wiley-Blackwell, pp. 3–15.
- Morgan, C. & Eve, S. 2012. DIY and Digital Archaeology: What Are You Doing to Participate? *World Archaeology*, 44: 521–37.

- Morgan, C. & Wright, H. 2018. Pencils and Pixels: Drawing and Digital Media in Archaeological Field Recording. *Journal of Field Archaeology*, 43: 136–51. https://doi. org/10.1080/00934690.2018.1428488
- Morozov, E. 2014. To Save Everything, Click Here: The Folly of Technological Solutionism. New York: PublicAffairs.
- Mullins, P. 2015. Punk Archaeology and the Mainstream. Archaeology and Material Culture [online] [accessed 30 January 2019]. Available at: https://paulmullins.wordpress.com/2015/01/19/punk-archaeology-and-the-mainstream/>
- Olivier, L. 2011. The Dark Abyss of Time: Archaeology and Memory. Walnut Creek (CA): AltaMira.
- Parcak, S., Mumford, G. & Childs, C. 2017. Using Open Access Satellite Data Alongside Ground Based Remote Sensing: An Assessment, with Case Studies from Egypt's Delta. *Geosciences*, 7(4): 94. https:// doi.org/10.3390/geosciences7040094
- Pavel, C. 2010. Describing and Interpreting the Past: European and American Approaches to the Written Record of the Excavation. Bucureşti: Editura Universitații din Bucureşti.
- Paynter, R. 1983. Field or Factory? Concerning the Degradation of Archaeological Labor. In: J.M. Gero, D. M. Lacy & M.L. Blakey, eds. *The Socio-Politics of Archaeology*. Amherst (MA): Department of Anthropology University of Massachusetts, Amherst, pp. 17–30.
- Petrini, C. 2003. *Slow Food: The Case for Taste*. New York: Columbia University Press.
- Pickering, A. 1995. *The Mangle of Practice: Time, Agency, and Science.* Chicago (IL): University of Chicago Press.
- Rabinowitz, A. 2016. Response: Mobilizing (Ourselves) for a Critical Digital Archaeology. In: E. Averett, D. Counts & J. Gordon, eds. *Mobilizing the Past for a Digital Future: The Potential of Digital Archaeology.* Grand Forks (ND): The Digital Press at the University of North Dakota, pp. 493–520.
- Richardson, L.-J. 2014. Understanding Archaeological Authority in a Digital Context. *Internet Archaeology*, 38. https://doi.org/10.11141/ia.38.1
- Richardson, L.-J. 2017. I'll Give You 'Punk Archaeology', Sunshine. *World Archaeology*, 49: 1–12. https://doi.org/10.1080/00438243.2017.1333036

- Ritzer, G. 2003. The Technological Society: Social Theory, McDonaldization and the Prosumer. In: H.M. Jerónimo, J.L. Garcia & C. Mitcham, eds. *Jacques Ellul and the Technological Society in the 21st Century*. Dordrecht: Springer, pp. 35–47.
- Roosevelt, C.H., Cobb, P., Moss, E., Olson, B.R. & Ünlüsoy, S. 2015. Excavation is Destruction Digitization: Advances in Archaeological Practice. *Journal of Field Archaeology*, 40: 325–46. https://doi.org/10.1179/2042458215Y. 00000000004
- Seifried, R.M. 2014. Linked Open Data for the Uninitiated. *ISAW Papers* 7.26 [online] [accessed 30 January 2019]. Available at: http://dlib.nyu.edu/awdl/isaw/isaw-papers/7/seifried/>
- Shanks, M. & McGuire, R.H. 1996. The Craft of Archaeology. *American Antiquity*, 61(1): 75–88. https://doi.org/10.1017/ S0002731600050046
- Shove, E. 2017. What is Wrong with Energy Efficiency? Building Research & Information, 46: 779–89. https://doi.org/10.1080/09613218.2017.1361746
- Son, W.-C. 2013. Are We Still Pursuing Efficiency? Interpreting Jacques Ellul's Efficiency Principle. In: H.M. Jerónimo, J. L. Garcia & C. Mitcham, eds. Jacques Ellul and the Technological Society in the 21st Century. Dordrecht: Springer, pp. 49– 62.
- Stengers, I. 2018. Another Science is Possible: A Manifesto for Slow Science. Cambridge, UK: Polity.
- Taylor, J., Issavi, J., Berggren, A., Lukas, D., Mazzucato, C., Tung, B. & Dell'Unto, N. 2018. 'The Rise of the Machine': The Impact of Digital Tablet Recording in the Field at Çatalhöyük. Internet Archaeology, 47. https://doi.org/ 10.11141/ia.47.1
- Thomas, J. 2004. *Archaeology and Modernity*. London: Routledge.
- Tsing, A. 2015. The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins. Princeton (NJ): Princeton University Press.
- Witmore, C. 2014. Archaeology and the New Materialisms. *Journal of Contemporary Archaeology*, 1: 203–24. https://doi.org/10.1558/jca.v1i2.16661
- Zylinska, J. 2009. Bioethics in the Age of New Media. Cambridge (MA): MIT Press.

BIOGRAPHICAL NOTES

William Caraher is an associate professor in the department of history at the University of North Dakota and a field archaeologist who has worked in Greece, Cyprus, and North Dakota. He is also the publisher of The Digital Press at the University of North Dakota and the editor of the century-old literary magazine, *North Dakota Quarterly*.

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L'archéologie lente, l'archéologie punk et « l'archéologie concernée »

Dans cet article l'auteur examine l'impact des pratiques transhumaines historiques et numériques en archéologie en prenant compte des conversations récentes relatives à l'archéologie lente, l'archéologie punk et l'archéologie « concernée ». En s'appuyant sur les travaux d'Ivan Illich, Jacques Ellul et Gilles Deleuze, l'auteur soutient que les tendances actuelles en pratiques numériques risquent d'aliéner et de déterritorialiser le travail des archéologues. Translation by Madeleine Hummler

Mots-clés: transhumanisme, méthodes archéologiques, archéologie numérique, Jacques Ellul, Ivan Illich

Langsame Archäologie, Punk Archäologie und "beteiligte Archäologie"

Die Auswirkungen von historischen und digitalen transhumanen Verfahren in der Archäologie vor dem Hintergrund der jüngsten Diskussionen über die sogenannte langsame Archäologie, Punk Archäologie und "beteiligte Archäologie" werden hier untersucht. In diesem Beitrag, der von den Arbeiten von Ivan Illich, Jacques Ellul und Gilles Deleuze inspiriert ist, wird darauf hingedeutet, dass die aktuellen Entwicklungen in der digitalen Praxis das Risiko eingehen, die Archäologen zu entfremden und die archäologische Arbeit zu deterritorialisieren. Translation by Madeleine Hummler

Stichworte: Transhumanismus, archäologische Methoden, Digitalarchäologie, Jacques Ellul, Ivan Illich



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