



SLOW

**NDAQ**

North Dakota Quarterly

Volume 80.2

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WILLIAM CARAHER

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## Slow Archaeology

### The Origins of Slow Archaeology

The idea for slow archaeology came to me on my way to one of these regular archaeology and technology conferences that emerged as Mediterranean archaeologists came to terms with the rapid introduction of high-tech tools to their discipline. The conference was at the University of Massachusetts, Amherst, in late February, and my flights chased an early spring snowstorm across the eastern United States. I suffered the expected travel delays before experiencing a harrowing ride from Hartford airport to the UMass campus. As I whiled away the time in crowded airports and as a sometimes terrified passenger, I worked hard to suppress my expectation that travel should be seamless, instantaneous, and easy, and, instead, focused on the experience of travel itself: the characters present in airports, the processes required to navigate the airports, the sparkling blanket of early spring snow, and the impressive driving skills of my Australian colleague as he navigated the slippery roads of rural Massachusetts. It took a snowstorm for me to slow down and pay attention to my environment. During a normal trip in which everything works smoothly, our motions become mechanical complements to the requirements of travel in the industrial age. This trip informed the talk that I delivered at the conference and got me thinking about how inefficiencies force us to slow down and see archaeology more clearly as a process inseparable from the knowledge that it produces.

The paper that I delivered at this conference was my standard fare. It focused on the uneven impact of technology on archaeology by comparing the digital workflows employed by large, well-funded projects to those used by smaller, less wealthy projects.<sup>1</sup> The topic of my paper was a gesture toward the host of the conference who worked with one of the most sophisticated digital projects in the Mediterranean: the Pompeii Archaeological Research Project: Porta Stabia (PARP:PS).<sup>2</sup> The project became famous when they developed iPads to replace traditional trench notebooks. Each trench supervisor received an iPad loaded with applica-

tions and databases that prompted them to document their trenches in a regular and consistent way. This allowed the PARP:PS team to streamline the flow of information from trench side to computers and maximize their time in the field. Their clever use of technology attracted the attention of Apple, and the company has featured their work on their website, giving it global exposure. The simplicity of the iPad's interface belied the complexity of the software and database ecosystem that supported this innovative use of digital tools. The iPad fed databases stored on servers in Cincinnati, Ohio, and at their base in Italy. The applications were specifically chosen to maximize interoperability, and the team developed clear digital protocols to ensure the consistency of data collected. This innovation received support and development through a dedicated database and digital infrastructure expert who had decades of archaeological experience.

Large, well-funded projects have access to the human and technical infrastructure necessary to develop slick, bespoke applications designed to streamline in-field data collection. These well-resourced projects pioneered the use of personal computers in the field as well as the archaeological use of drones, 3D imaging technologies, and elaborately integrated databases and Geographic Information Systems (GIS). On a practical level, these large-scale projects had the most to gain from the use of technology because they involved the most people and generated the most archaeological data each season. To accomplish their goals, these projects use technology to organize and collect the diverse efforts of specialists and excavators. An increasingly digital workflow freed project or field directors to juggle the responsibilities associated with managing a large archaeological project, from basic logistics to meeting with local officials, maintaining the budget, and managing personality conflicts. These obligations often encroached on their time in the field and prevented them from supervising and guiding actual archaeological work as it took place. Digital opportunities, then, met with practical (and archaeological) necessities by producing standardized, high-resolution data from each step in the excavation process so that the directors could receive a cohesive dataset when the time for analysis begins in earnest, usually after the field season's end. Technology served to bring together otherwise fragmented work of numerous specialists and field teams into a consistently prepared data set presented for the project director's interpretation. This allows for in-field efficiencies as all parties focused on their own work, ultimately contributing to a unified whole. The most obvious parallel for this approach to field work is the assembly line, where each individual has a discrete task unified only in the completed product.

Smaller projects, in contrast, tend to have fundamentally different workflows as the same small group of archaeologists often both work in the field and bring together the data for analysis. The limited scope of

these field projects often limits their access to the same resources and motivations to deploy and develop digital technologies as larger projects. The smaller staff and typically more modest goals of these project make them better suited to involving directors in the day-to-day archaeological processes. With fewer logistic complications and a flatter organization with less hierarchy, smaller projects provide a more immediate and embodied connection between fieldwork and archaeological knowledge. Those involved in fieldwork itself—in most cases the project directors—are also most responsible for interpreting the results of fieldwork.

On my small project on Cyprus, one of the three project co-directors directed excavations in one of the trenches, the other analyzed nearly all the pottery that came from the field, and the third managed the project's databases and GIS. At the same time, the three directors took turns cooking for the project, argued about research design, washed pottery, helped when trenches fell behind or encountered complex features, and generally filled in wherever necessary to keep the research and the daily life of the project moving forward.

The daily realities of archaeological work and life reveal the limits to small-project efficiency as directors and participants alike wear many hats over the course of the field day and season. This organizational structure creates a type of archaeology that resists the efficient and fragmented practices common both to larger projects and to the twentieth-century industrial routine. In its place, the small project tends to evoke the integrated life of craft. The inefficiency inherent in small projects serves as a kind of brake on the archaeological process in the same way that a late winter storm disrupts the expected process of travel. By having to engage in every aspect of the archaeological process, small project directors end up shepherding the data along every step from the field practice to knowledge production. The way that small projects move from fieldwork to archaeological knowledge gets to the heart of what I call “slow archaeology” by drawing attention to archaeological practice as a meticulous, integrated craft that resists the fragmented and mechanized process of the assembly line.

Slow archaeology evokes the practice of archaeology as a craft. It prioritizes an embodied attentiveness to the entire process of fieldwork as a challenge to the fragmented perspectives offered by workflows influenced by our own efficient, industrialized age. While recognizing that craft and industrial approaches to archaeology are not mutually exclusive in the dirty realities of fieldwork, the last eighty years of archaeological scholarship and practice have tended to celebrate the potential of industrial technology in archaeological practice at the expense of more integrated approaches associated with pre-industrial, craft production. As with the slow movement elsewhere in contemporary society, my application of the

slow ideas to archaeology seeks to critically consider the impact of industrialized practices on how we produce knowledge about our world.<sup>3</sup>

To understand the history of archaeology and technology requires a bit of excavation. This next paragraph will be a bit academic and historical, but in the spirit of Slow, I ask that you push through it.

The discipline of archaeology developed in parallel with the long-term industrial influences that formed the modern American university and was advanced by quantitative practices that encouraged increasingly regularized data set from fieldwork.<sup>4</sup> These trends have benefited both the discipline and the knowledge that archaeologists produce by aligning it with dominant scientific paradigms and granting it the patina of rigorous respectability.<sup>5</sup> This process began as early as the late nineteenth century when Heinrich Schliemann funded his work at Troy and Mycenae through a fortune amassed as an industrialist and brought industrial organization to his excavations using teams of workmen, removing earth via railcars, and digging systematically. Academic archaeology fused industrialized practices and professionalization with the emergence of industrialized academic disciplines in the modern university (Menand). The university developed systematic ways to educate young adults with courses arranged across disciplines to build key skills, provide professional credentials, and produce productive contributors to American society. Disciplines like archaeology and history, while remote from the demands of industrializing economy, nevertheless joined in this process by establishing the PhD as the main professional credential for experts in these fields. This desire for specialization in the rarified confines of the academy shared logic of the assembly line and assigned individuals to perform single exceedingly limited tasks over and over to manufacture knowledge as efficiently as possible. Higher education employed a similar approach to producing educated individuals by dividing up the process of education among various specialized experts in particular disciplines. This intermixing of archaeology, academia, and industry has had side effects that risk becoming only more exaggerated as we leverage technology to increase our efficiency in the field in response to limitations imposed by permitting agencies, funding, and the lure of “big data.”<sup>6</sup> At risk is the human aspect of archaeological fieldwork and recognizing the space of the field as a viable locus for reflective analysis of objects, places, and landscapes. Slow archaeology insists that understanding the past on a human scale requires awareness of being in the landscape as well as intimate involvement with the archaeological practices. These things take time.

The connection between industrial efficiency and the structure of academic knowledge production does not, of course, preclude a slow and deliberate apprehension of the world. The injection of technology into the equation, however, has generally served as a tool for accelerating the pace

of our increasingly limited time in the field. Efficiency introduced by digital technology has become more apparent over the past thirty years as the media, technology companies, and archaeologists themselves tout the compelling juxtaposition of futuristic devices and ancient artifacts. By the late twentieth century, microprocessors powered a new generation of technologies that ranged from digital surveying tools to personal computers, digital cameras, and, most recently, mobile devices that promised to streamline various aspects of the archaeological workflow. These tools simplified the way that data could be collected in the field but also contributed to the continued fragmentation of data into standardized bits destined for reassembly by archaeologists once the field season ended.

One place where the growth of digital technologies has increased most visibly is in the structure and function of the archaeologist's notebook. Archaeologists traditionally recorded textual descriptions of their trenches or areas in notebooks. Through much of the twentieth century, notebooks were idiosyncratic to individual archaeologists and often became their personal property (or the property of the project or the project director). Even today, archaeologists refer to particular notebooks by the name of the excavators as well as the names of the site: Blegen's Notebooks.<sup>7</sup> Our understanding, then, of past excavations often relies on the ability and willingness of an excavator to describe what they saw in their trench or across a landscape. These descriptions are necessarily interpretative as they mediate between the process of excavating and the product of that process. The vivid descriptions left by master excavators make clear the relationship between their own decision making and the archaeological reality they uncover. The physical act of writing in a notebook slows down the process of excavation and forces the archaeologist to integrate their observations on process and interpretation at trench side. As psychologists have recently begun to argue, the very act of writing may actually slow our mind to think through the information that we observe more carefully and critically (Meuller and Oppenheimer 1159-68).

Over the last decade or so of excavation, the trench notebook has slowly disappeared to be replaced first by forms and then by handheld computers and tablets. The empty space of the gridded excavation notebook page has given way to the orderly forms of the project database. This change has standardized our understanding of each trench and facilitated comparison between excavation areas. More importantly, these changes also increased efficiency throughout the system by streamlining data collection at the edge of the trench and analysis after the season ended. The trench supervisor has, in turn, moved from a position of synthetic analyst to a recorder on a form. The craft of trench supervision—grounded as it had been on careful observation and relatively free forms of writing and illustration—has given way to a more systemized approach

that moves discrete bits of excavation data along to project directors. The excavators and trench supervisors represented cogs in a complex workflow that ends on a laptop computer in the director's office. Forms or digital notebook allow for more efficient presentation of the excavation process for study.

Intensive pedestrian survey, my archaeological specialty, played a key role in the fragmentation of field practices as well. Intensive survey came to increased prominence during the 1970s and 1980s and set about modernizing relatively unstructured approaches to documenting the ancient countryside (Cherry 375-416). In the Mediterranean world, and particularly in Greece and Cyprus, survey archaeologists applied systematic approaches to landscape archaeology and replaced the solitary, perambulating archaeologist with teams of dedicated data collectors. Intensive pedestrian survey produced high-resolution, quantitative archaeological data that encouraged efforts to make the archaeological process more efficient by streamlining in-field data collection. They introduced forms to replace free-form notebooks and to facilitate transferring the increasingly granular data to computer spreadsheets and databases. Survey projects were all a little different, but in general, each unit of space in the landscape produced a single form.

The structured data collected by survey archaeologists shape their practices in the field. A graduate student team leader describes the location, ground cover, vegetation, and soil type, as well as the number of artifacts counted by the members of the team. The team leader inclines his or her head toward a clipboard in the field as a team of field walkers, arranged at fixed intervals, walks across the landscape, staring at the surface of the ground, counting and collecting objects from their narrow swaths across the field. At the end of their swaths, these field walkers look up and report their counts and finds to a team leader who dutifully records them on the form before arranging for the walkers to set out again on the next unit. This data eventually finds its way into a computer under the supervision of a data manager or a digital archaeology expert. Project directors analyze and project the data as statistical tables or across a map with detailed methodological treatments providing a new layer of context for the knowledge they produce. The archaeology of landscapes has become the domain of carefully arranged data collectors who move across the countryside with an eye toward efficiency and who send their reports along the archaeological production line to data managers and GIS specialists.

### **Toward a Slow Archaeology**

As a discipline, archaeology is historically linked to industrial practices and continues to move toward an even more mechanized and technologi-

cal future. The rapidly vanishing elements of its earlier craft roots, however, represent more than just nostalgia. The preservation of craft practices in archaeology, like the academy at large, reflects an enduring commitment to localized, embodied, humanized knowledge. When we reduce field archaeologists to data collectors and the knowledge gleaned from the field to atomized bits, we both temporally and physically displace our encounter with archaeological landscapes. We move our space of encountering and producing archaeological knowledge from the field to the lab or office where the disparate parts are (re-)assembled into a new, systematic whole.

To some extent, this displacement is unavoidable in our modern age. The limits imposed by foreign government and archaeological permits, reduced funding, and a half-century of deeply ingrained disciplinary expectations will continue to privilege efficiency in the field. At the same time, our growing dependence on data collection over engaging the landscape while in the field may represent an illusory efficiency. A close colleague of mine recalled having to return to the field for several additional seasons of work after completing a three-year campaign of intensive pedestrian survey because he needed to look up from his clipboard to understand the landscape. His experiences are not unique. Recent work using least-cost-path computer models produced by GIS software nevertheless require old-fashioned, boots-on-the-path, ground-truthing expeditions to see if the constellation of variables pushed through computer algorithms resulted in routes consistent with human experience in the countryside. Nowhere is this more eloquently expressed than in a recent volume by Michael Given and colleagues based on their large-scale fieldwork in Cyprus. He reminds his readers that their systematic work to produce landscapes is only one way to read archaeological space. For generations, Cypriot farmers have walked the very same fields as his team studied and recognized the same potsherds as meaningful objects from the past. The worlds created from the crunch under foot and plow have an immediate relationship with our own conception of the archaeological space inasmuch as we hope that archaeology can reconstruct a past filled with actual individuals who make decisions based on their own experience with the material world.

One summer, my colleague and I spent two weeks painstakingly illustrating a field-stone fortification in the Greek countryside.<sup>8</sup> The site was on a small hill that provided views of the coastline, narrow valleys, and neglected paths that marked out routes and arable land in a fractured and arid landscape. Our work illustrating the site was painful. The site was hot, filled with bugs, and we had both been sick with a dreaded summer cold. It did, however, force us to look carefully at the walls for hours on end to notice the subtle techniques that the builders used to promote both

structural stability and an aesthetic elegance. Differences in the construction style of the various walls helped us to distinguish them chronologically from one another, and the presence of a more carefully built and monumental wall along the south side allowed us to argue that it faced the route of approach to the building. These conclusions were not impossible without hand illustration, but producing a measured illustration of an unremarkable example of rural architecture from the Hellenistic period slowed us down enough to see more of the human element in this building. In fact, the care we took in illustrating the building paralleled the care the builders took in arranging the stones.

I spent this past summer watching field teams march systematically across an inland valley in southern Greece. Our efficiency in the field was noteworthy, our field teams collected data at a level of unprecedented intensity, and we produced an archaeological map of the area with remarkable detail. At the same time, a project director and I wandered around the landscape. Perching ourselves at prominent places before setting out across fields, streams, and roads, we walked across the countryside with our trusted notebooks and observed the kaleidoscopic relationship between various features along our route. Ridges that appeared prominent on our maps blended into surrounding landscapes, and low hills marked with whitewashed churches emerged from the tangled topolines of cartographic convention. Our walks were deliberate and slow and constantly endangered by other responsibilities, but they produced results that were independent from the dominant methods employed by the project. These walks did as much to help us understand our landscape as the intensive survey did to quantify it. The goal of slow archaeology is to find ways to consider critically the impulse toward efficiency, standardization, and fragmentation in fieldwork by employing integrated and personal approaches to documenting the archaeological landscape.

This shift in emphasis yields three main advantages. It has practical advantages of allowing ideas and questions to develop in physical proximity to the places and objects under study. Walking through the Greek countryside following the contours of the ground led us to discover new sites and recognize significant places in the landscape that maps and computer models overlooked. Documenting features in a trench or in the field in handwritten notebooks provides a moment to slow down and to observe subtleties that we might have otherwise missed in our quest for efficient data collection. On a more theoretical level, slowing down and starting the process of interpretation in the field encourages us to be mindful of the link between our own bodies and our understanding of the past as well as the bodies of the past individuals whom we study. Furthermore, it pushes back against disciplinary deskilling in which fieldwork becomes data collection dominated by the need for efficiency. By allowing time

and space for individuals to understand the significance of their contributions to an archaeological project, we draw more voices to the work of archaeological interpretation and make our discipline both more inclusive and humane.

This does not require that we return to a romantic view of the ruins or indulge in idiosyncratic or individualized readings of the material world. After all, disciplinary training in the field of archaeology already informs our practice. No amount of deliberate slowness is likely to overwrite the intellectual or academic questions we bring to our fieldwork, the influence of our university training, the pace of development, and the availability of technology. At the same time, we can continue to push back against industrial pressures that still have not succeeded in producing an archaeological universe bereft of individuality. Despite decades of standardized, digitized, and normalized data, Mediterranean archaeologists still struggle to compare data produced by different projects in the region. As a result, it is important to realize that slow practice and a quest for greater efficiency are not fundamentally incompatible. Building time into fieldwork to prioritize the production of the kind of embodied knowledge that churns at the fringes of even the most disciplinary archaeological work provides an opportunity to understand more clearly how we inhabit the worlds we seek to build.

### **Beyond a Slow Archaeology**

This reflection on slow archaeology has relevance beyond practitioners of one particular discipline. Like other facets of the slow movement, my goal has been to speak broadly to how we engage our world by aiming to make space for coherent, deliberate thinking amidst the bustle of a life dictated by efficiency, deadlines, and technological wonders. Like most academics, I reserve a certain skepticism for most big-picture thinkers who imagine they can understand the world as an integrated whole. I also recognize that many of our cherished values of individuality, democracy, personal freedom, and economic prosperity rely on the seamless functioning of many living things, objects, and ideas. A simple trip from my North Dakota home to a conference in Massachusetts represents the uninterrupted synchronization of myriad fast-moving parts from the physical function of the airplane to the automated ticket counters. Only a late winter snowstorm interrupted the seamlessness of everyday life and produced an enforced patience necessary to recognize and comprehend the various flickering fragments that shape our fast-paced existence.

Academic knowledge is by definition specialized and limited. The institutional restraints designed to limit what we can know at one given point is the product of a tradition of intellectual Taylorism grounded

today in the industrial university and reproduced in a curriculum organized to disseminate specialized knowledge. Our view of the real world, however, is not bound by such artificial limits and fragmented perspectives, and as archaeologists we hope to produce a past that exists outside disciplinary knowledge. While the flickering fragments of our technologically mediated world will continue to strobe impatiently before our eyes, we should also take time to maintain a quiet counterpoint by slowing ourselves down and crafting our place into a cohesive landscape.

## Notes

- <sup>1</sup> See Caraher.
- <sup>2</sup> For more on this project see: <http://classics.uc.edu/pompeii/index.php/news/1-latest/142-ipads2010.html>
- <sup>3</sup> For a useful survey of slow see Carl Honoré.
- <sup>4</sup> For a survey of the development of archaeology see Bruce Trigger.
- <sup>5</sup> See Peter Novick for a discussion of similar trends in the discipline of history.
- <sup>6</sup> Guldi and Armitage's recent work calls for big data approaches to history.
- <sup>7</sup> For example, Corinth Notebook 90a documents Blegen's 1926 excavations at Acrocorinth.
- <sup>8</sup> See Caraher, Pettegrew, and James.

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