

Archaeology and photography:

a pragmatology

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Reclaiming archaeology?

We understand this book's topic to be the following: to affirm the importance and reach of archaeological concepts, methods, practices and findings; but also to reclaim archaeology from those who have used the field in a less than sophisticated way.

Ironically perhaps, this is not a matter of the discipline of archaeology; to reclaim archaeology is not, for us, a disciplinary proposition. We wish to leave to themselves the gatekeepers who would have us conform to their methodologies, their agendas, their notions of what a discipline of archaeology should be, or indeed what photography should be. Instead we present something of a thought experiment in escaping the disciplinary prison, the demarcation of disciplinary boundaries that are meant to confine what are called archaeological practices. Instead we wish to reclaim archaeology by affirming the insight that archaeology is a pervasive modern and contemporary attitude, a way of thinking and acting. Archaeology has never been primarily an academic discipline but rather a cultural disposition, an aspect of the political economy of goods relating to temporality, durability, loss and decay.

Our paper is therefore something of an exploration of meta-archaeology. We will consider some of the premises, dispositions, infrastructures of archaeological practices, where the archaeological is no longer a substantive, but adjectival, an aspect of things and doings, where archaeology is part of the transdisciplinary field of *pragmatology*, which aims to understand things in their making.

We come from two separate fields: classical archaeology and media studies. We offer an example of what happens as we pursue, even force open the associations between archaeology and photography. The two are usually seen as quite distinct, though related: treated as a technical practice, photography is a long standing and key component of archaeological documentation. We will offer instead reflection on a hybrid: *archaeography*.

Photography and archaeology: a modern(ist) genealogy

Our topic in this paper is the intersection of photography and archaeology.

Photographic documentation has been at the heart of archaeological practice since the formalization of the discipline in the mid nineteenth century. Chemical photography arrived as a new medium with unique attributes that could illustrate the archaeological past. Photography became a popular medium within 20 years of the successful experiments of Talbot and Daguerre in the 1830s in fixing light sensitive materials. It is not a coincidence that archaeology and photography both began to flourish in the mid nineteenth century: both are constituting moments of modernity.

From the late eighteenth century archaeological finds began filling the new museums of the modern European nation states, filling also the great gaps in human history opened up by the new long secular chronology of human biological and cultural evolution, when it became clear that biblical and classical historiography could in no way suffice as complete accounts of the ancient history of Europe, never mind the other countries in the world subject to the research interests of colonizing European powers. Archaeological finds and sites offered a basis for accounts of the origins of nation states, often rooted in prehistory and quite independent of Greco-Roman antiquity.

Photography offered image making to the masses of industrial modernity, a popular and inexpensive alternative to fine arts portraiture—everyone could now have their portrait taken. The pencil of nature, as Talbot described photography, offered much—the prospect of an objective inventory of the material world, gazetteers of sites and monuments, record and documentation for new state apparatuses of surveillance, management and government.

The connection between archaeology and photography is more than that photography simply offered an effective technique of illustration and documentation. Antiquarians had long explored crucial questions of how to represent their interests in ancient artifacts, ruins, remains, and monuments, through illustrated publication, map and diagram (Schnapp 1996). These are matters of mediation, of how to turn ancient sites and collections into textual and graphical forms that can be shared and discussed, of how to connect textual commentary with imagery, finding textual and graphical form for material culture, the collection and archive, human inhabitation, region and locale.

These questions of media and representation connect with deep epistemological concerns regarding the construction of knowledge of the past on the basis of ruins and remains. There are ontological concerns too, regarding, for example the very nature of the historical past. Can an assemblage of artifacts represent the essential being of an historical epoch? Are tangible artifacts

more of an historical reality than verbal testimony? Similar questions apply to photography, regarding, for example, the reliability of the photograph as a witness to events and places.

So we see the connection between photography and archaeology as much more than between technique/medium and discipline. This is a paradigmatic association: archaeology and photography share a common structure, or indeed an ontology. They are homologous to the extent that it is not inappropriate to speak of *archaeography*. This term also suggests associations beyond archaeology and photography, encompassing both *ta archaia*, old things, and *graphe*, their inscription, record, documentation.

Archaeography and the archaeological imagination

Both archaeology and photography are, we propose, aspects of a sensibility, a set of creative practices, certain dispositions towards things. We call this the archaeological imagination (Shanks 2012).

Here is a definition. To recreate the world behind the ruin in the land, to reanimate the people behind the sherd of antique pottery, to cherish and work upon fragments of the past: this is the work of the archaeological imagination, a creative impulse and faculty at the heart of the discipline of archaeology, but also embedded in many cultural dispositions, discourses and institutions commonly associated with modernity (and including, *a fortiori*, photography). The most fertile contemporary ground for the archaeological imagination is the heritage industry. The archaeological imagination is rooted in a sensibility, a pervasive set of attitudes towards traces and remains, towards memory, time and temporality, the fabric of history. The focus of this sensibility and constitutive imagination is the persistence of the past, the articulation of remains of the past with the present, re-collecting, as a memory practice, bringing what is left of the past before the present, and so involving a dynamics between presence and absence.

We will now unpack some of these attributes of archaeography.

The pencil of nature

From the mid 1830s William Henry Fox Talbot pioneered a positive/negative process that delivered many paper-based photographic prints from a single negative, in contrast to Louis Daguerre's technique of fixing the single image produced on a light sensitive silvered plate. Daguerreotypes are unique and haunting images caught in a mirrored surface; Talbot's calotype process was the basis for the first photo book, *The Pencil of Nature*, published in 1844. This annotated photo album was intended to show the many possibilities of the new medium, and it certainly anticipates most of the future uses of photography: for documenting (objectively and authentically); for reproduction and copying (exactly and mechanically); and to produce pictorial illustration (as in landscapes and portraits). *The Pencil of Nature* is a very direct way of encountering a particular

manifestation of the archaeological imagination as it was emerging in the mid nineteenth century. Archaeological themes—collection, documentation, depiction of site and architecture, capturing things that might no longer be with us—permeate the book.

Talbot opens with an anecdote about a trip to Italy in 1833, and his frustration with attempts to use a camera lucida to draw landscapes. Described by Kepler in 1611 and patented by Wollaston in 1807, the camera lucida is an optical instrument involving a half silvered prism, mounted on an arm above a drawing surface, that offers a double simultaneous image, one of a subject, viewed typically at 45° through the prism, and another of a sheet of paper or other such medium beneath the prism; a weak negative lens creates a focused virtual image of the subject superimposed upon the paper, where it might be traced, apparently directly and so accurately and objectively, by the viewer.

The camera lucida requires the pencil of an artist, who needs to carefully adopt a position in relation to prism, subject and paper, to record an image, and this is what frustrated Talbot—it is difficult to get the instrument in just the right position so as to see and trace. Chemical photography delegated all that awkward work of viewing and record to light, optics and chemistry. This is why Talbot called photography the pencil of nature; it is a matter of agency, of who or what is making the image.

We wish to pursue this matter of delegation and making by considering just what is going on in the work of photography.

Camera work - architecture

The camera lucida is a variation upon a familiar optical phenomenon and drawing aid, the camera obscura (Wollaston coined the term “camera lucida” precisely to indicate this affinity). The camera obscura is, in essence, a darkened room with an aperture or window on the world. The outside is projected as an inverted image onto an interior wall opposite the window. The optical principles of the pinhole camera, where a small aperture delivers a projected image into a darkened space, were well known from antiquity. Portable versions were available from at least the seventeenth century, with the aperture refined by glass lens, the image projected onto a screen for viewing through translucent paper or upon a ground glass (David Hockney understands and conveys well the implications for artistic/graphical practice in his *Secret Knowledge* of 2006).

While Wollaston’s device did away with the enclosure and brought the projection of an image into daylight, the arrangement and organization of subject and viewer via an aperture (prism) remains. This is because photography is spatial engagement. The “camera” is a room or, more accurately, an architecture; photography is about architectural arrangements and relationships between viewer, room, window, viewed subject. The photographic image is a secondary product of such architecture.

The miniature 35mm camera of the twentieth century and improved film emulsions freed up photography to take on more of a scanning character and with looser arrangements, more spontaneous, made on the fly, faster sequences of capture than had been possible with large format tripod and studio based arrangements. The camera went out into the world. Mobile media devices, which started as camera-phones, continue this journey today with the new dimension of locational metadata in geo-tagged images, making it an option to tie image capture to location, to view images sorted by location, instead of in the conventional camera roll mode of temporal organization. We will return to mobile digital media.

These are just some of the variations in arrangements of viewer, aperture, viewed subject, capture, but the spatial and architectural dimensions of photography remain central.

This architecture requires building, of course—setup and operation. There is the construction of the room or instrument (Talbot bought a patented and manufactured camera lucida), the disposition or choreography of subject, camera/instrument (quite difficult with the camera lucida), and then the capture of projected image by the hand of the artist/viewer, using pencil, pen or brush upon paper (which again Talbot would have bought in the growing market for graphical supplies). As we say, this substantial work was delegated by Talbot's invention to "nature", the action of light upon light sensitive chemicals, but the involvement of viewer/artist, now called photographer, was still essential, in acquiring, mixing, manipulating the chemicals. Talbot here substituted his own skill and expertise developed through long experimentation for that of a graphical hand, work that in later years was taken up by photographic companies that emerged to provide materials, cameras, instruments, and services for professional and amateur photographers.

We will unpack this active processual aspect of photography's architecture, its spatial practice, later in our paper, so too more components of photo work. First let us consider a photographer scanning the world for moments-to-be-photographed.

Photography/staging

Henri Cartier-Bresson acquired a 35mm Leica in the early 1930s. Its small size, quiet shutter and efficient lens allowed photos to be taken quickly and discretely. Over the next 20 years Cartier-Bresson helped define the character of candid imagery, street photography, and photojournalism.

Consider any of his famous images. A man is caught by the camera midair leaping a still puddle in a street; we know that in the next moment his heel will land and the mirror surface will fracture and be no more. This is indeed what Cartier-Bresson called the decisive moment—releasing the camera shutter at just the right time. The decisive moment is by no means simply a temporal instant, grabbed by the photographer. It is an opportune moment when things come together in a certain arrangement or composition—the location, an event, and the act of witnessing. This is another aspect of photography's architectural syntax.

There is more. The recent exhibition at MOMA of Cartier-Bresson's work revealed almost a compulsion to photograph all aspects of his life and experiences (Galessi and Cartier-Bresson 2010). There was little in the subject matter of his photographs that offered unity—they range from personal everyday moments through celebrity portraits to events photography, and included, of course, photojournalism and street photography. Nevertheless, all of the exhibited images were clearly and deliberately framed and composed. This is another key component of the decisive moment—the photographer releases the shutter when the composition, the arrangement, the staging comes together. This compositional aesthetic is not esoteric. Popular photography has distilled it into various rules of thumb: for example, the rule of thirds would have the photographer site principal subject matter not symmetrically, but in a ration of 1:2 on the Fibonacci geometric series or golden section. Many of Cartier-Bresson's photographs exhibit such proportion.

Spaces and arrangements, geometries and connections between people, events and things: the term that captures much of this is *mise-en-scène*. We offer a definition somewhat broader than usual, and, according to our proposition that camera work is architectural, we emphasize structure and arrangement: *mise-en-scène* is the choice of location and viewpoint, the arrangement of items and actors in front of a camera or before a recording author, setting a scene to be documented, photographed or filmed, such that the resulting account, still or movie has a certain designed outcome, makes a point, communicates a message, fits into a story, conveys the intention of photographer or filmmaker. *Mise-en-scène* is about staging: the disposition, arrangement and relationships between people, artifacts, places and happenings.

Mise-en-scène points to the performative character of photowork, in that the staging is managed, and prompts inspection of its temporality. The articulation of components before the photographer happened, for Cartier-Bresson, in a decisive opportune moment. The term to describe such a conjunctive moment is *kairos* (we sometimes also use the term actuality) (Shanks 1992, Witmore 2009). The photograph, negative and print, then supplies a material form to such *mise-en-scène* that persists, may be transported, displaced from site of capture to be viewed at a later time. This temporality is duration: the photograph, in its materiality, can endure and offer articulation with times long gone in another conjunctive moment. The photograph offers connection between the decisive kairotic moment of capture and its new moment of viewing, as, for example, in an exhibited collection of Cartier-Bresson's photographs.

While duration is an aspect of materiality and curation (the photograph needs a certain amount of care for it to survive), *kairos* or actuality is specific and located, the temporal aspect of a site specific, architectural arrangement or assemblage, as we have just described. A persistent moment, the subject of photo work, the material photograph presents a return of the moment of capture, in a kind of haunting. A photograph says—this was all here then, and is with us still now.

In archaeology we recognize the primacy of these two temporal modes. Actuality: the kairotic association of the past in the present, found, excavated, inspected, documented. Duration: the persistence of the material past - remains, ruins and traces.

Place/event

Let us delve further into this architecture of photowork.

Eugène Atget photographed the streets and buildings of Paris in the late 19th and early 20th century. In his essentially documentary project he collected series of views based on themes such as the ornamental features of seventeenth and eighteenth-century buildings, signage of bars and cabarets, apartment interiors, street views. They take a documentary stance: Atget emphasizes content over his own presence to the act of photography. His photographs were intended to constitute an archive for the use of painters, illustrators, decorators, set designers, and members of the building trades. Most of Atget's scenes are curiously empty of people, communicating an ironic stillness at the heart of urban life. You find yourself asking—why was this photo taken?

The Marxian critic and scholar of the Kabbala, Walter Benjamin, discovered Atget's photographs in the 1930s, along with the French surrealists (1999 (1931); see also Salzani 2007). With others he thought that Atget photographed the streets of Paris as if they were scenes of crime. A scene of a crime, too, is deserted, as in Atget; a scene of crime is photographed for the purpose of establishing evidence. With the likes of Atget, photographs become a paradigm of evidence for occurrences. They are a paradigm, a method, or a standard, because, of course, nothing may have happened in the photographed scene to actually prompt the photograph. The potential of these spaces is enough to justify their photographic capture and documentation. They are a species of space where we ask—what happened here? As much as a focus on a past happening, this attitude towards place is about potentiality. We ask—what could have happened here? We imagine and look forward—what could happen here? Far from being empty spaces, these are place/events, with a history and a future, articulations of site, agents/actors, props, (possible) events.

Benjamin described this potentiality as a hidden political significance. This species of space demands a specific kind of approach; free-floating contemplation, an appreciation of the aesthetics, the balance of composition, as in a classic picturesque landscape, or indeed as in many of Cartier-Bresson's images, is not appropriate to Atget's documents. They stir the viewer; we feel challenged by them, but in a negative sense. Effort is needed to bridge the voids opened in this kind of space. The photographs beg for captions; Atget usually supplies them, and often they document the later demolition of a building.

Consider what happens when you don't add captions to such photographs. *Evidence* (1977) presents a project pursued by Mike Mandel and Larry Sultan. They gathered a collection of photographs from archives that document scientific and industrial research and development. They

refused the obligation to supply subject matter, to complement the images with identifying captions. The photographs in their book are completely mysterious and quite surreal, often threatening and disturbing, as you ask—Just what exactly was going on in these experiments?

The potentiality of any place to become a scene of crime; the indeterminacy of this species of space, that anything there could equally be classed as evidence of some sort; this reduction of the distinctiveness of site to a common ground of potential for happening and of investigation; the simultaneous and paradoxical individuation of site as a unique multiplicity of place/events, real and possible, past and future: these are characteristics of modern urban space.

Benjamin reckoned there to be hidden political significance in this photography (and, we might add, in this spatiality). A key matter is representation, the political challenge to represent and communicate (an event, location, artifact, the past). By representation we do not mean simply illustration or report, but political representation, witnessing, speaking for others, to others. The matter of representation refers us to constituency, and to the forum or assembly of representatives.

Again this can be conceived to have an architectural dimension: representation is about assembly and arrangement - the means and ways of gathering, bringing together interested parties.

Assembly requires a place of gathering. More of this later, when we take up the subject of archive.

Let us return again to place/event, the engagement with a site focused upon the question: this happened here; or did it, could it have? The pursuit of such a question involves a forensic attitude at the heart of the archaeological imagination. The notion that the archaeologist is a kind of detective is a commonplace. The associated forensic attitude is an attitude toward location. It can be summarized as follows: at scene of crime anything could be relevant. And anywhere could be a scene of crime. Faced with a scene of crime, the task for the detective is to identify, gather, and analyze evidence on the basis of which may be established a forensic case. But it is by no means obvious, often, what is evidence. Anything, potentially, could be evidence. Anything could matter. It could be that the key to a case is an overlooked fragment or trace, a hair that could be analyzed for DNA, marks in the ground left by the boot of ... someone. Nothing is totally uninteresting to the detective, or archaeologist, or photographer. Then there is always doubt whether there is enough evidence to warrant the reconstructed sequence of events and attribution of motivation, or enough even to gain any kind of insight. Evidence won't speak for itself; it needs mobilizing in a case, and this requires the detective to document the evidence. This forensic character of site requires constant vigilance and unceasing effort under an anxiety to document as much as possible, because we don't actually know what is, has, or might be going on, and may never know.

Photography is so appropriate to this forensic attitude because it is so indiscriminating. Subject to film resolution and other limits of materials, instruments and the photographer's skill, a photograph simply captures what is before the camera, quite superficially, with no inherent choice

made of significance or importance; the photograph is simply light registering upon a light sensitive medium.

Assemblages and modes of engagement

Photography has gone digital. In January 2012, Eastman Kodak, the 113 year old pioneer and giant of film photography, the company that dominated the photoworld of the twentieth century, inventor of the snapshot camera and popular photography, filed for bankruptcy. The reason cited is that the company failed to respond well enough to the shift to digital photography.

Digital sensors have almost completely replaced light sensitive silver as a means of fixing and gathering an image. Whereas digital cameras still reference the form of film cameras, most cameras today are no longer cameras; they are photo applications attached to mobile media devices. Nevertheless we aim to show that our proposition remains valid, that photography, as photowork, is an architectural, spatial practice that draws upon the archaeological imagination.

What began as mobile phones have become hybrid, morphing, multifunctional devices. And they are not just devices. They are internet capable assemblages. At the heart of mobile media lies the interoperability of global networks, physical infrastructures of cabling, production and management facilities, server farms and satellites, and the standards upon which interoperability is established - agreements over data and transmission formats, regulation of patents, intellectual property, access to bandwidth. The mobile media device is, relationally, a sociotechnical assemblage. And more and more the visual is offered as a key component of its use—pictures, moving and still, increasingly accompany every function. The camera has become a protean and invasive network. Its images are pervasive, viral, sticking to everything, propagating everywhere. Much of the value of photography now lies in instantaneous linkage and translation—image to SMS message to email to Flickr photosharing to Facebook group to YouTube video to Google-Plus to self-published book sold on Amazon. And the more heterogeneous connections the better.

Analog silver based photography was also a sociotechnical assemblage involving infrastructures of manufacture and supply (cameras, film, chemicals), processing, distribution, standards of chemistry and format (35mm, Kodachrome, APS etc) that came in the wake of early experiments undertaken by the likes of Talbot and Daguerre. Digital photography has broken with this network of connection, hence the demise of Kodak—the company failed to incorporate itself within the new assemblage.

The photographic image is no longer a printed image; it is much more likely to be seen on a screen than on paper. Images can be easily shared and disseminated via the web, which has superseded traditional modes of presentation and publication such as the physical snapshot or album. They can be tagged and annotated and archived for prosperity. Photography has never been so instantaneous or so disposable, one click to capture and another to delete.

Photography carried out with mobile devices is one of various interrelated forms of multimedia communication. The device has the capability to propagate and interact with various modes of communication such as text, sound, and images. At the heart of the digital is fungibility: the ability to transform and morph from one form into another while retaining the fidelity of an original. Fungibility makes the original multiple. The choreography of previously diverse and discrete materials (image, text, sound, video) through the digital realm inevitably breaks down the structural properties of what have been commonly referred to as “media”. The term medium has usually referred to an institutional agency of communication, such as TV, or the materials and methods used in the production of an artwork, such as oil on canvas. Media have typically been seen as formalized methods for conveying specific kinds of information to specific participants, involving issues of control and negotiation in relation to institutional control of technologies: for example, TV, radio, movies, the journalistic press have all been heavily regulated and controlled with only few corporations involved. This is changing.

Fungibility, the fluid manner in which visual material, for example, is turned into animation, photographic print, video, online album, blog and so on, means that material form is less and less important in defining the “medium” of the product generated. Instead, the way a reader or viewer is engaged by those agencies which distribute cultural works, and the way authors/makers engage their audience in specific ways, occasions and sites is an increasingly significant factor in any attempt to mark the difference between given works. Hence we propose that the notion of mode of engagement offers a more accurate and useful way to categorize the format and placement of cultural works in the public or private arena. Crucially, these formats are not being driven so much by subject matter or discipline (one concern of academic discourse), nor the material or form (one concern of arts’ discourse), but by an interface or hybridization of distributing institutions, individuals, families and social or professional groupings. Media are now so evidently about social/cultural groups making themselves via things/interactions/information transfers. As the revenue problems of the traditional media industries like journalism and Hollywood show, media are less now material/technological forms or forms of discourse (TV, publishing, movies, the music industry). Media are not “media” per se—coming between, mediating units that are given, a posteriori, primacy—but are intimate aspects of the fabrication of the social and cultural fabric.

This conspicuously applies to mobile digital photography, still and video. Consider the many modes of engagement with a digital image: projected on a large screen in a lecture room and viewed together with a large audience of enthusiasts for its subject matter, printed in a photo album and shared in the family kitchen, viewed absent-mindedly from a car on a billboard alongside a freeway, scrutinized on the high resolution screen of a mobile phone held in the palm of one’s hand as one walks a pet dog. An oil painting viewed upon a wall may have been copied as an engraving or a photograph and subject to different modes of engagement, for example in a book. What is different now is the ease of translation from one type of engagement to another. And

the exact same (original) digital image file is shared among all the experiences that are otherwise very different in their location, circumstances, and in their rhetoric.

Flickering experience

We are arguing that archaeology and photography are processes of site specific engagement unfolding in the present, as a continuity of fragmented or arrested moments characterized by temporalities of actuality/kairos and duration.

Photography is a stabilization, a freezing, bringing to a halt, and making a more or less durable image that might be taken up and looked at later. The photograph fixes a relation between the photographer and the depicted, and enacts a relation between the photographer and people with whom the image is shared (if there is any sharing). However banal the image is, it bears testimony to a past, a temporally located moment of capture, of emotional intensity, a relation, an encounter, a simple engagement. The act of taking a picture of someone, something, or someplace is capturing a moment of intensity, and sharing it is an act of dispersing this engagement and intensity. Digital photography enhances this function of the photograph as a point of entry into a past moment, and a platform to communicate from, because the digital image is so easily made and dispersed, displaced from its site of origin.

These articulations of past and present through moments of encounter and capture create an archive of lapidary material forms (even when they are digitally bitmapped silicon). Archaeological finds are gathered in museums. Photos are taken and displaced into collection. With digital photography the web has become a vast archaeological archive that begs acts of reconnection, in the Google search, in tagging someone in Facebook, in posting favorites in Flickr. As much as they are potential evidence witnessing the past, photographs and archaeological finds reference essential gaps and lacunae, because their recollectable actuality disrupts any flow or continuity in our experience of time.

What does it mean to be here, or there? Mobile phones and photography are often associated with the disruption of presence in a situation, through duration, actuality, displacement, as we have just discussed. A photograph connects us to another time, as does an archaeological find. Awareness is shifted out of the present. We are deflected; presence is disrupted by a relation with an absent past.

Archaeographic experience is constantly on the move, in mobile temporary articulations of place, person, artifact, event. Multiple, shimmering relations between the human subject and the world are the central theme in Serres' philosophy of mingled bodies (Serres 2009). His is an incessant, fluid and flickering blend of human and world (also, from a perspective of performance, see Pearson and Shanks 2001). Human and nonhuman are continuously merged and mixed. Serres highlights shifts, mediations, shimmer and the multifaceted. The human is dispersed into various

nonhuman elements, and the senses play a central role in this dispersement, in this propagation. The senses are points of exchange between the world and the body. It is relations which are centre stage. Relations spawn objects, beings and acts, not vice versa. (Serres and Latour 1995, page 103 and 107). This unsettles the essentialist understanding of experience, located within the individual, by accounting for experience as propagation, as mediation and distribution, as sensory discourse, journey and engagement (Olsen et al 2012 and against a phenomenological archaeology).

Archive, architecture, mortality

Talbot looking through his camera lucida is one arrangement between observer and object. Cartier-Bresson out in the urban environment with Leica held at waist height is another. An incessant photographic logging of the everyday afforded by a mobile phone uploading to Facebook is another again. We have termed these photography's architecture, as images are gathered and then shared. Architecture and arrangement runs to the heart of the archive. We now want to explore how the archive is primarily again an architectural matter.

This is not meant to be mysterious; the architecture of record and representation can be quite mundane. Take the archaeological museum as an example. Sorting artifacts often needs tables and space; sorted collections need boxes and cupboards to keep them ordered. Consulting archives requires good sources of light and facilities to take notes. Museums are stages for the presentation of the past, with their galleries, displays, arrangements around which visitors walk. The museum as archive also involves administrative apparatuses of accounting, storage, surveillance, and disbursement.

Consider three cognate terms: architecture; archive; archaeology. The prefix *arche* is Greek for beginning, origin, foundation, source, first principle, central location and origin of power, authority, sovereignty. It represents a starting point or founding act in both an ontological sense ("this is whence it began") and a nomological sense ("this is whence it derives its authority"). Archives are, we suggest, all about narratives of origin, identity and belonging, and the politics of ownership, organization, access and use.

Archaeological collections are prominent objective correlatives in narratives of origin and identity; they developed in the nineteenth century in close association with notions of national and regional identity. We do not wish to rehearse this well-established association.

Instead we sketch a tripartite evolution of archival systems. Archive 1.0 comprised bureaucracy in, for example, the early city states of Mesopotamia, with temple and palace archives, and with writing/inscription as an instrument of management.

Archive 2.0 involved the mechanization and later the digitization of archival databases, with an aim of fast, easy and open access based upon efficient and standardized dendritic classification and retrieval, associated also with statistical analysis performed upon the data. Much of this took hold

from the nineteenth century. The library catalog and criminal records are familiar examples. Photography has been a key component.

We suggest we are moving towards a new system of Archive 3.0, with new prosthetic architectures for the production and sharing of archival resources, for animating archives. What is involved in bringing archives alive? What are signs of this shift? The animated archive is experienced daily online, for example, in the dynamic mobilization of vast amounts of heterogeneous data to deliver personalized purchase recommendations in Amazon.com. Archive 3.0 is characterized by rich engagement, co-creative regeneration, and constant remixing of heterogeneous cultural goods. These are to be seen in the reterritorialization of information resources associated with a variety of web 1.0 and web 2.0 initiatives like Wikipedia and Flickr, with new institutional efforts of libraries and museums to diversify and reach out to users with vast information resources and intelligent customizable search facilities. We have already mentioned the way the world wide web has become a dispersed archive of heterogeneous imagery begging reconnection. Clear in the growing heritage industry is a reemphasis on personal affective engagement with cultural memory. There is a recognition of the importance of developing rich modes of engagement with archival, historical and cultural resources. New interfaces involve processes of recollection, regeneration, reworking, remixing in sophisticated visualizations and customized interactive and participatory experiences.

In Archive 3.0 collections are no longer primarily of artifacts in museums, photos in albums, books on shelves, paintings on walls, entries in criminal records, but include immaterial forms, intangible experiences. This is made possible by mixing analog and digital forms, by ensuring interoperability across diverse information formats.

We wish also to raise the much broader questions of performance and record, and their relationship to the kind of experiences offered in our contemporary mixed realities. Rather than static depositories, archives have always been active engagements with the past. Let us illustrate this with some remarks about physical architecture. Think of the corridor, with doors opening off into rooms of equal size. Such an architecture is a technology of arrangement and ordering. As a storage facility or magazine, it was invented by the Near Eastern temple bureaucracies of 5000 years past. To walk the corridors was to inspect the collections and supplies of the state and to mobilize the documentary apparatuses of seals and tallies, impressions in clay. Such an architecture and apparatus is a prosthetic memory device.

What if a building could remember? What if a corridor spoke of traces somehow retained within its fabric? In a sense the temple magazine does just this. Its form relates to its function. And we are constantly using our archaeological imagination to piece together the past. To pull together the remnants of lives past. Building and rebuilding scenarios, telling and retelling stories of what happened on the basis of what gets left over, as trace or memory. Like in photography and archaeology.

Such archival practices are indeed, we are suggesting, intimately about architecture and place, or rather, place/event. In the archive the question is always about order: items may be lost, fall out of sequence, rot and spoil; there may be too many items to control, not enough resources to maintain order such that chaos ensues. We seek to maintain sense in potentially chaotic remnants, to maintain the fabric of the archive, in the face of constant entropy. Documentation is at the heart of this archaeological sensibility. How to document what went on, who we are, where we come from. Distinguish document from record. Documentation is as much about performance as it is about media and information—walking corridors, locking and unlocking doors, marking check lists, reporting lost and found, checking in new arrivals, and so much more, such as the *mise-en-scène* of archaeography.

Archives also always involve access and exclusion: from their very inception in early cities, archives have necessitated decisions about who and what gets into the archive, who decides what is to be dispersed, disbursed, dispensed, and to whom.

A crucial point is that archival practices (and indeed memory) are as much about managing loss and discard as they are about curating as much of what remains as possible. A living past is as much about what has gone as what remains. Because not everything can be preserved. As with memory, we cannot hold onto everything. The photograph is always a sample. The shutter has to be opened and closed. There is a limited number of frames per second. The resolution of a digital sensor is limited. Grains of silver halide prevent infinite resolution. These are all essential conditions in the connection between past and present, the presence of the past: it is always a dynamic of presence and absence, of the live and the mediated or displaced. Actuality/*kairos*, the located articulation of past/present, is the very condition of the past's persistence. Another way of expressing this is to say that a living past, photographic or archaeological, is rooted, melancholically, in mortality, death and decay.

Pragmatology - a reclaimed archaeology

We have turned our attention to some aspects of archaeological and photographic practices, diverting attention from archaeological sites and artifacts, photographic images, treating these as products of the political economy of archaeology and photography, archaeography united under an archaeological sensibility. We include this field of archaeographic practice under pragmatology, a transdisciplinary field that aims to understand people and things in their making. While this is something of a thought experiment, our position is supported by much recent discussion in science studies (Serres 2009, Latour 1999), cultural geography (Crag and Thrift 2000), media studies (Ito et al 2005; Connor et al 2011; Van House 2011), archaeology and heritage studies (Olivier 2008; Harrison 2011; Harrison and Schofield 2010), to name but a sample.

Materially, the past does not exist as a sequence of events; and never did. Archaeologists never encounter time as date, flow or sequence. Ontologically the past is all around us, mingling,

merging, decaying, disappearing in the present. The past does not exist as a sequence in any consistent or coherent sense or indeed as past substance, but as intermingling remains that persist through time by virtue of qualities of durability. Every site, every place contains vestiges of its history, because the past, in its materiality, hangs on. Not everything does: some things are more durable than others, or can be made more durable. Duration is one aspect of this archaeological temporality. The other is *kairos* or actuality: the conjunction of past/present at the site of encounter and recovery of the (remains of) the past, in working on the past-in-the-present, just as memory is not a coherent account of the past, but a process of discrete iterative acts of recollection, present moments prompting connections with something that remains. In this archaeology is work performed upon remains of the past. Photography is a mode of engagement between past and present, between people via an image characterized by an articulating temporality of *kairos*, a conjunctive moment of past/present.

There are two distinctive characteristics of this archaeological sensibility. The first is a particular sensitivity to place. A dynamic notion of place is implied by actuality and the association of place and event - “this happened here”, “this could have happened here”, “this might happen here”. The ruin, the archaeological find, the photographic image bears testimony to both the connection and the potential. Displacement is integral to archaeographic place—the photograph is mobile; archaeological finds and documents make their way into the museum archive and into academic discourse.

We have indicated how the spatial and architectural ontology of photography (and archaeology) involves a politics of assemblage. The way people, instruments, sites are organized in relation to archaeological and photographic purpose is a key to addressing questions such as—How might the past be adequately represented? How might imagery document an event authentically? All answers depend upon the politics of association, of inclusion and exclusion, of access and consultation, of control and autonomy in gathering people around things and in the productive output of such assembly.

The central position accorded to the archive references what we see as major shifts in the heritage industry. Our emphasis upon architectures of engagement and processes of actualizing pasts-in-the-present is an argument for treating heritage not as legacy and property, artifacts and sites to be valued and managed, but as, again, dynamic process of incorporating pasts in presents and so involving, primarily, issues of the politics of assemblage, the way people gather around sites and things.

The second characteristic of an archaeological sensibility concerns the everyday, the quotidian. In searching through the ruins and everyday garbage of the past, anything, literally anything might be of interest, significant as information, as evidence. This is a forensic attitude towards place and relates to evidence and witnessing—“at a scene of crime anything might be relevant”. It shares the

potential inherent in the act of connecting past and present. Everyday mundanity is charged with this potential. Mobile digital photography is delivering an enormous archive of contemporary everyday life. The archaeographer scans any site looking to collect things that might matter. The prospect is of creative practices articulating past and present.

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The emphasis on productive and collaborative agency is an outcome of Michael and Connie’s enthusiasm for a (re)turn to design as a field of hybrid practice that offers a model for productive cultural work of all kinds. At Stanford this is represented by the vitality of the d.school, the Hasso Plattner Institute of Design, where Michael is proud to be a faculty member.

Citation in such an experimental essay as this is always selective and risks misrepresentation of the diversity and scope of work drawn upon. Michael refers the reader to his earlier *Experiencing the Past* (1991) and *The Archaeological Imagination* (2012), and to a synthesis *Archaeology: The Discipline of Things* (Olsen, Shanks, Webmoor and Witmore 2012). There is also a companion piece about digital photography (Svabo and Shanks 2012).

Considerable current discussion about all things archaeological, including extensive experiment, can be found on the web at archaeolog.com, archaeography.com, mshanks.com, michaelshanks.org, and archaeographer.com.

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