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On multiple fields. Between the material world and media: two cases from the Peloponnesus, Greece

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Abstract

Deeply embedded in much of archaeological thought is an epistemological scheme of the 'field' as separate from the 'home-base', whether laboratory, archive or study. This modernist division is inadequate, for it fails to account for the interconnected and nonlinear process of archaeological knowledge construction. Taking direction from science studies and specifically from the work of Bruno Latour, this article sketches a model of multiple fields, which may serve as an alternative to this divide. Through the effective juxtaposition of two case studies from the Greek Peloponnesus, it explores two disparate yet complementary cases of how multiple fields make up the epistemological terrain of archaeology. The first case study traces the strains of an early 19th-century web, which situates the process of knowledge production at that time, while the second focuses on the archaeological process by closely following the transformation of things into documents during a regional survey. By recasting and multiplying the 'field' in archaeology we move from an oversimplified and bounded modernist scheme to one that allows for the complexities of archaeological practices which involve the action of instruments, media and human beings.

Keywords

material world; media; multiple fields; practice; William Martin Leake; the Argolid Exploration Project

Introduction

In archaeology the notion of the 'field' (as in 'fieldwork') is conventionally counterpoised to the supposed contexts of knowledge production, whether laboratory, archive or study (here refer to Lucas 2001b, 10–14; Berggren and Hodder 2003, 427–28; regarding gender, Gero 1994; in the context of anthropology, Gupta and Ferguson 1997). At the basis of this separation is a commitment to that (most) fundamental divide, the 'Great Divide' of modernism, between ideas and things. Indeed, this scheme is so pervasive that it can be found in the very definition of archaeology, for example in the popular introductory textbook *Archaeology. Theories, methods and practice*, where the authors define archaeology as 'both a physical activity out in the field, and an intellectual pursuit in the study or laboratory' (Renfrew and Bahn 2000, 11). Marking the boundaries of archaeological knowledge production, this scheme is often reproduced in the very language of popular field manuals

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(e.g. Collins and Molyneaux 2003; Drewett 1999; Ewen 2003; Roskams 2001; Wheeler 1956). In *A complete manual of field archaeology*, Martha Joukowsky states,

> Archaeological investigations require a great deal of both outdoor and indoor work. Outdoor work consists primarily of surveying, pre-excavation exploration, and the excavation process itself: indoor work consists of cataloging, artifact analysis, drafting, and the preparation of the results for publication (Joukowsky 1980, 7–8).

Here recast as 'indoor' verses 'outdoor', the separation of the field from laboratories, archives and studies is tied up with the almost standard and now heavily interrogated separation of data and interpretation (e.g. Andrews, Barrett and Lewis 2000; Hodder 1999; Lucas 2001b; Thomas 2004a) – so that if the data are the what, then the field is the where.

Certainly, the field/home-base (actually bases – plural) divide underlies so much archaeological thought that it is often taken for granted. Furthermore, it is representative of more pervasive modernist values regarding our relationship with the material world and is thus parallelled in other 'field' sciences. This separation of the field and archaeological home-bases is important to creating an objective distance and thus maintaining the radical gap between the material world and discourse (in a Foucauldian sense). Yet a description of the field as the locus of data collection as opposed to labs, archives or studies, the loci of analysis and interpretation, greatly oversimplifies the process of knowledge construction. This separation fails to account for complexities of practice and the multiple connections that extend beyond the contexts of archaeological work (cf. Gero 1996; Shanks 2002). Moreover, it rests upon a mistaken singular 'Great Divide' between language and things.

Such divides have been regarded as debilitating (cf. Rowlands 1998; Thomas 1996, 11–30; Thomas 2004b, 35–95) for a 'discipline of things *par excellence*' (Olsen 2003, 89) that is being stretched across the ever-expanding rifts of modernism (Latour 1993). Similarly, many are now aware of this polarized notion of the field and some have begun to advocate possible alternatives. Ian Hodder, for example, has called for a dispersal of the term 'field' (2000). For Hodder,

> The separation of an archaeology carried out 'in the field' sets up oppositions between descriptive recording and later writing up in the laboratory. It helps to reinforce binary opposites: us and them, self and other, objective and subjective, general and local. To counter this hegemonic, colonial perspective, there is a need to disperse 'field' and 'site' (Hodder 2000, 17–18).

Hodder, following Marcus and Fischer (1986; also Marcus 1995), foregrounds the idea that there are multiple groups and locales through which disparate forms of knowledge are produced in relation to the archaeological 'field' (refer to Bartu 2000, 101–9; also refer to Lucas 2001b, 143–44). In

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this way, the links and nodes that constitute the sociopolitical networks of archaeological practice become 'fields' relevant to a pluralistic knowledge of the past. Such a multi-sited assessment of the notion of 'field' would break up the homogeneity of the term by focusing on the multiple and complex connections that come together during 'field' practice. What is more, this would potentially open up the archaeological field to more voices and take us beyond debilitating binaries. Nevertheless, while this is an appropriate and necessary direction to take, it would not go nearly far enough. The multiple links and nodes that situate archaeological production encompass not only sociopolitics but also materials, instruments, media and many other corporeal 'allies'. Furthermore, the disjuncture between what archaeologists do and what archaeologists say they do can only be addressed by focusing on archaeological practice up close. How does this divide play out, for example, in the course of an archaeological survey? How does it relate to what we archaeologists do with things?

Taking direction from science studies and specifically the work of Bruno Latour, I articulate a notion of 'multiple fields' in place of the divide between the field and archaeological home-bases. Latour, a sociologist and anthropologist of science, bypasses (as opposed to overcomes) modernist divides altogether, abandoning by the wayside contradictory relics such as subject/object, nature/culture, mind/body and structure/agency. To be sure, there are many other thinkers behind this endeavour – Michel Callon, Donna Haraway, John Law, Michel Serres and Isabelle Stengers, to name only a few. Nevertheless, this essay works closely with Latourian thought, as the repercussions of Latour's ideas for archaeology are significant. Essentially, Latour wishes to close the gap that separates ideas and people from materials and things. In place of this 'Great Divide' he articulates mixtures, imbroglios, hybrids of humans and non-humans. This endeavour requires a whole suite of concepts that are not weighed down by the conceptual burdens of the modernist predicament. This essay will work through a few. Altogether, Latour draws attention not only to how instruments and media have an active role in knowledge construction and thus effectively redistribute action to the realm of things, but also to how that process is entangled within other spheres of influence – social, political, personal and so on.

In what follows, I address the notion of multiple fields through two distinct yet complementary case studies from archaeology in Greece and more specifically from the Peloponnesus. In the first section I focus on modes of engagement with and articulation of landscape as practised by Colonel William Martin Leake (1777–1860). I argue that Leake, as a military geographer, was part of a unique assemblage of allies that encompassed not only military and diplomatic institutions, discipline and knowledge, but also survey instruments, aristocratic social groups and media (text, plans, maps, illustrations and so on). In place of a singular 'field' denoting the Greek countryside I contend that these allies form recursive links to other entities and locales and therefore constitute multiple fields. These multiple fields set Leake apart from his contemporaries and oriented his modes of engagement, not only as a definitive base for topographical fieldwork in Greece, but also as a standard in the scholarly documentation of landscape.

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As multiple fields situate Leake's knowledge-making in the early half of the 19th century, so too do they situate ours. In the second section I focus on what archaeologists do. More specifically, I detail the ways in which the Argolid Exploration Project (AEP), an intensive archaeological survey, progressively packaged things into language and text. I contend that we need to rethink the notion of field in relation to the archaeological process, in relation to the mobilization of the material world, whereby archaeological materials are transformed into text, plans and documents – into media (specifically refer to Latour 1986, 1–40; 1999, 24–79). My purpose here is to shift the field from the material side of the divide and situate it along a series of transformations that occurs between the Greek countryside and the final publication volumes from the AEP.

By emphasizing the multiple connections that linked 'antiquarian practice' in Greece to the 'outside' world in the case of Leake, and the multiple contexts of knowledge production within the AEP, my aim is to displace both the historical roots and the conceptual base of the very divides we take to situate archaeological practice. By way of contrast, an alternative scheme based upon these multiple fields is sketched out, one which allows for the complexities of archaeological knowledge construction. In this way, this essay is a contribution to a symmetrical archaeology where both meaning and action are reconfigured within networks and collectives of human beings, archaeological materials, instruments and media (here refer to Olsen 2003; or visit http://traumwerk.stanford.edu:3455/symmetry/Home).

The 'fields' of the topographer

In order to begin to understand how we move between the material world and our modes of documentation, I examine a case from a few decades prior to the professionalization of archaeology in Greece, when practices involving the mobilization of the archaeological landscape, in terms of both engagement and articulation, were inconsistent and varied. First, I scrutinize the locus of the field in relation to the process of knowledge construction at a historical moment when no division between the 'field' and the 'cabinet' had yet solidified (for an excellent account of the earlier roots of this relationship refer to Schnapp 1997). Second, I employ a few strategies from the sociology of science to situate how knowledge of the Greek countryside was made and how that process was interwoven with other 'fields' of practice. Third, I emphasize the action of instruments and media in that process. My contention is that in the case of Greece the military geographer William Martin Leake was part of a network, one which separated him from his contemporaries and situated his modes of engagement and articulation as a standard for how topographical fieldwork and documentation would come to be undertaken in the archaeology of Greece.

As a young military officer, William Martin Leake travelled in Greece in 1802 and again, more widely, between 1804 and 1810. It was in 1804 that the British government, alarmed by the possibility of French invasion, sent Leake into the Morea (as the Peloponnesus was then known). As an emissary behind a British national imperative to check French expansion in Greece (Wagstaff 2001a, 191; 1992), the colonel was charged with coordinating among

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local Ottoman authorities, assessing the defences, determining the potential for local support of French forces should invasion occur, and gathering geographical information of the relatively unknown interior (Marsden 1864, 16–18; also refer to Curtius 1876, 242–43; Wagstaff 2001a, 191). Therefore the competing interests of Britain and France are critical to an understanding of Leake's antiquarian practice (here refer to Pratt 1992). Nevertheless, Leake was also a surveyor and topographer. In fact, his contemporaries regarded him as a 'model geographer' (de Grey and Ripon 1860, p. cxv). In addition, Leake was an avid collector, especially of Greek and Roman coins, and possessed a great knowledge of Greek and Roman geographical literature.

Leake published 10 substantial volumes based upon his travels in Greece: *Topography of Athens* (1821), *Travels in the Morea* (1830), *Travels in northern Greece* (1835), and *Peloponnesiaca* (1846). These works came to set an authoritative topographical standard for both fieldwork and documentation in classical archaeology (Clark 1858, p. ix; Curtius 1876, 247–49; Lolling 1889, p. cxv; cf. Pearson and Shanks 2001, 39; Shanks 1996, 72 and 165). Moreover, given his thoroughness and attention to detail, subsequent topographical work by archaeologists was often, and in certain areas exclusively, in dialogue with Leake's (e.g. Clark 1858, p. viii; Curtius 1851; 1852; Forster 1907; Grundy 1896; Pritchett 1965; Ramsay 1890). Whether he is complimented on venturing into the Peloponnesus just prior to the Greek Revolution, or on being the first to identify a particular site, scholars hold Leake in high regard as a topographer of Greece (Curtius 1876; Eisner 1991, 103–5; Lolling 1889, p. cxv; Stoneman 1987, 155–64; Wagstaff 1992; 2001a; 2001b). For example, the classical historian and topographer R.W. Ramsay, in his *The historical geography of Asia Minor*, characterized Leake as 'the greatest of modern Topographers' who 'has done more to make a real understanding of Greek life possible than any other Englishman' (1890, iv, 98; quoted in Ferguson 2001, 32). More recently, Leake has been regarded as peerless among other topographers of classical Greece, deserving a place alongside Pausanias (Eliot 1996, 666). Another scholar has described him as 'the leading British authority on the topography of ancient Greece in the second quarter of the nineteenth century' (Wagstaff 1992, 277).

Rather than add to the annals of the singular figures, the 'great men', in the history of classical archaeology, I aim to break down the divides between Leake's topographical and scholarly work and the military, political and social aspects of his modes of engagement in Greece. In fact, while manoeuvring around the modernist notion of the field, I prefer to leave the 'knowing individual' entangled within a collective network that encompasses not only military institutions, discipline and knowledge, but also survey instruments, aristocratic social groups, and media (text, plans, maps, illustrations and so on). Let us, then, begin with a day in the course of Leake's 1805 journey in the Peloponnesus.

On 3 April Leake passed by Paleópoli, where he identified the site as ancient Gythium (for a subsequent topographical treatment of the area following in the topographical tradition associated with Leake, refer to Forster 1907). Of interest were the remains of a theatre 90 yards distant from the shore ('of a semi-transparent kind of white marble, of a very coarse grain, and

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marked with broad parallel streaks of brown'; 1830, i, 244), the masses of Roman ruins further inland, large foundations projecting into the sea, and sundry materials, including an alleged architrave with a Latin inscription, which had been reused in the construction of the village of Marathonísi. Leake was astonished that none of the Roman structures piqued the interest of the ancient author Pausanias (regarding Pausanias' ambivalence towards Roman structures refer to Alcock 1993, 27–29). The narrative moves freely between what is seen by Leake and literary descriptions by the Greek geographer Strabo, or quotations from Pausanias (most of the literary work was the product of subsequent study). The juxtaposition of ancient description and contemporary observation, albeit in a more structured comparative form, would later become a standard topographical means of dealing with such sites (e.g. Curtius 1851; 1852; Forster 1907; Grundy 1896; Pritchett 1965).

On 3 April 1805 Leake was en route from Monemvasia, where he stayed for a few days as the guest of Hassán Bey, the Turkish governor of the area and captain of the Sultan's galley, to the Laconian peninsula known as the Mani. Leake stopped off in the village of Marathonísi. Here he liaised with a local corvette commander and government deputy, Andón Bey (*bey* is a Turkish title of authority and respect given to Ottoman officials). Leake stayed for a short period at the house of Tzanét Bey, who had been banished (and had subsequently fled to the area) for conspiring with the French and receiving a shipment of gunpowder from them. Leake discussed local sympathies towards the opposition and skirmishes that had taken place over French influence. Names, locations and the ties of potential threats were discussed. He detailed the economic base of the region and conjectured the probable yearly regional output of the Mani in pounds sterling (1830, i, 243). After estimating the local population (in case the French should sway the Greeks), Leake immediately segued into his discussion of ancient Gythium.

How should we understand these events that occurred in Leake's day? As an archaeologist, do I separate out his ancient topographical endeavours and treat them as isolated from his military duties? The political mission for the solemn and stern military historian, the ancient topography for the eager and eclectic practitioner concerned with the history of archaeology? Far from it; to draw such divisions can only bring us more misunderstanding. On the contrary, the links that crisscross between military strategy, politics, geographies, social groups, emotions, theodolites, sextants, timepieces and media in fact serve to situate Leake's mobilization of the Greek countryside. In accentuating this point, I focus on the connections between military discipline, skills and ways of seeing with organized knowledge, its production and its manifestation in particular media (Foucault 1995; also Chadha 2002; and Dubbini 2002).

Although there are many different modes by which one could write regarding the land, Leake's *Travels in the Morea* takes the form of a travelogue. In the late 18th and early 19th centuries the travelogue was a mixed genre, which appealed simultaneously to a more general readership and to a more demanding scientific society. Even though the day-by-day narrative of potential danger, toil and intrigue was popular among a wider audience, the form was also conducive to laying out what was deemed worthy

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of observation and record in the course of one's travels (Driver 2001, 24). In fact, the reviewers of *Travels in the Morea* in the *Monthly review* regarded the very word 'travels' as a misnomer. These 'Travels', according to the reviewers, 'instead of answering the too generally light and unsubstantial character of that description of writing, will be found to be in effect a most elaborate and important topography, ancient and modern, of the once renowned, and now doubly interesting peninsula, the Peleponnessus' (*Monthly review* 1830, 1). Leake himself shared this view, having remarked in the critique of another travelogue that a romantic and poetic style was 'not so well suited to a statement of facts' (1826, 203).

If Leake's 'critical acumen' lay in his scientific observations during his travels, his 'erudition' lay in the links to ancient texts and inscriptions which he established during the years of subsequent research and study (adjectival accolade borrowed from de Grey and Ripon 1860, p. cxiv). Leake centres his discussions of ancient topography on Pausanias' *Periegesis*. Similarly, many ancient sites are considered in respect of the connections formulated between Leake's observation of archaeological remains and his reading of the textual accounts of those structures as described in the *Periegesis*. Yet Leake does not confine himself solely to Pausanias; rather he pulls in every ancient author at his disposal – Strabo, Herodotus, Ptolemy, Livy, Thucydides, Xenophon, Plutarch, Ovid and many more. He also links his work to contemporary oral histories. In estimating the total number of villages and towns in the Mani, for example, he cites a contemporary poetical enumeration, which confirms the names of all 117 villages (1830, i, 263). Throughout the *Travels* the narrative moves back and forth between issues of ancient topography, contemporary chorography and aspects of military interest.

The *Travels* do not represent the mere peregrinations of a gentleman scholar at leisure. Despite being at times a romantic, Leake is precise and well disciplined (given geographical standards at the time) in his observation. And so the reviewers from the *Monthly review* were reluctant to indulge in anything more than sheer praise for the *Travels* because the text transgressed the lines of popular literature. 'The display of vast erudition, of great industry well and aptly applied, immense perseverance in enquiry, as well as ingenuity in speculation where opportunity is given for doubt, and above all a degree of precision in his geographical computations', according to the reviewers (*Monthly review* 1830, 1), placed the *Travels* in a category of its own.

Through Leake's work the lines between dilettantism and scholarship in Greek topographical studies were drawn. Beyond his knowledge of ancient geographical literature and his apt comparisons with the contemporary archaeological landscape, what other factors separated Leake from his contemporaries? According to that famed father of classical archaeology and excavator of Olympia, Ernst Curtius, Leake 'distinguished himself among all his contemporaries by the great, thorough cohesion of his projects, by the methodological and expansive nature of his travels, by his sense for history as well as by the technique/skill, which he brought to his projects from his training as an engineer [artillery officer] and military topographer' (1876, 245). *Pace* Curtius, this precision is due to common underlying practices

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between military survey and that of the geographer/antiquary. In this respect, the very term 'field' takes on a dual valence in Leake's work, invoking both the military and the archaeological.[1]

As a future founding fellow and once vice-president (1830–35) of the Royal Geographical Society, Leake was doubtless, by the time of the publication of the *Travels*, familiar with the often heated controversies concerning the sites of geographical knowledge production. These controversies were often manifest in what historians of geography have identified as 18th- and early 19th-century distinctions between the scholarly work of the cabinet and the more adventurous work of the cartographic explorer or military surveyor (Driver 2001, 13). But as Felix Driver has pointed out, these boundaries were by no means fixed. One of the ways through which individuals attempted to reconcile these differences was by the publication of instructional literature. How, for instance, did the traveller know what to observe? Driver reminds us in *Geography militant*:

> Observation was more than a matter of simply looking: in order to see properly, one had to observe methodically, to follow a rule. This applied especially to the observation of the traveller. In *What to Observe* (1841), for example, Colonel Julian Jackson (the newly appointed secretary of the RGS [Royal Geographical Society]) represented travel as a necessary but insufficient means of acquiring geographical knowledge; it would become truly useful, he insisted, 'only when travellers shall have learnt how and what to observe' (2001, 51).

Jackson, like Leake a member of the RGS, was a colonel, and many of the solutions concerning questions of how and what to observe were derived from the military. Indeed, the RGS was an association largely comprised of career diplomats and military personnel. Of its 460 founding members in 1830, 'army and naval officers constituted around one-fifth and this proportion was to remain remarkably stable throughout the next seventy years' (Driver 2001, 41). While instructional literature for travellers dates from much earlier (e.g. Tucher 1757), one of the most important manuals on 'field' observation in the 19th century was published by the RGS as *Hints to travellers* in 1854. Five of the six contributing authors were military officers and surveyors. Beyond their emphasis on expertise born of experience, the authors share the conviction that precise observation depends upon the character and quality of the instruments one carries, while good maps and plans require the immediate notation of measurements and descriptions 'written with the objects *in view*' (Fitzroy and Raper 1854, 330, original emphasis). *Hints to travellers* even includes lists by category of questions concerning what geographical information to collect (Fitzroy and Raper 1854, 353–58). One could get lost in the minutiae of these instructional texts, but the point I emphasize here is that military geographical knowledge, through such instructional literature, played a major role in shaping the outlines of the field and was based on a recognition of the importance of instruments and particular media. Let us trace this link further.

Interspersed within Leake's itinerary are references to the location, and descriptions, of potential military material resources. These include resources

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of general importance, for instance sources of fresh water (1830, i, 251), or those more specific to military interest, such as saltpetre (potassium nitrate, a constituent of gunpowder (1830, i, 200)). In descriptions of topography he is careful to mention the best harbours or, likewise, points of difficult navigation (both important in determining likely landing points for French forces), the depth of rivers at their crossing points, and road conditions. Leake also includes examinations of towers and areas of potential defence and vulnerability.

Such points of interest were specified in his deployment orders, while archaeological materials fell under the rubric of valuable resources (Marsden 1864, 16–18). In this way, Leake's 1805 and 1806 itineraries in the Peloponnesus were structured by his military responsibilities. While en route, Leake travelled with Turkish officials or armed Greeks and stayed in the houses of various figures within the Ottoman sociopolitical network. Indeed, during his mission in the Peloponnesus, Leake's position as an officer in the British army allowed him to 'mobilize allies', to use the Latourian vocabulary, in a very direct sense and thus facilitated his ability to journey into areas dangerous to most foreign travellers.[2] To take one example, on 11 April 1805, when Leake is travelling in the area of the Mani known notoriously as Kakavoulia or the land of 'Evil Council', one of the 'chieftains', Tubáki, ordered by the bey to conduct the colonel through the region, confides in one of Leake's servants that, 'If the bey had not given such precise orders concerning you, how nicely we should have stripped you of all your baggage' (1830, i, 268). Many of these individuals in this sociopolitical network also double as archaeological and geographical informants and guides. Leake's excursions to ancient sites throughout the Peloponnesus are structured by these liaison responsibilities and concomitant access to local topographical knowledge.

Leake's daily narrative begins with the hour he sets out from his lodgings. While en route, Leake records the time it takes to move between his destinations by marking the moment at which he reaches a turn in the road or the edge of a village or any other prominent feature. On 15 March 1806, for example, Leake records while travelling from Argos to Anapli: 'Leave the house of Kyr V – at 1.51: at 2.3, the last houses of the town; – 2.11, cross the river Bánitza; – 2.31, pass through Delamanára, at 3.1 I arrive at Paleó-Anápli, as the ruins of Tiryns are called' (1830, ii, 349). This to-the-minute precision in the breakdown of distances imposes temporal regulation and segmentation on the countryside. This was, of course, a form of military measurement, a chronometric control (refer to Foucault 1995, 149–52 on the connection between the 'timetable' and the military). Exact measurement of time was also the key to accurate mapping. Consider that the undeniable utility of John Harrison's chronometer in marine mapping and navigation – in calculating longitude – was only established through James Cook's 1776 voyage to the Pacific (Wilford 2002, 152–62; Sobel 1996). Nevertheless, by the beginning of the 19th century the military timetable had been well integrated and established as a regulatory base in pedagogy, factory production and prisons (Foucault 1995). It had also come to structure many travel itineraries. Both Edward Dodwell and Sir William Gell, two of Leake's

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contemporaries, use time as a convenient means of establishing distances for travellers (Dodwell 1819; Gell 1817).

When Leake first set foot in the Peloponnesus he was a captain in the Royal Artillery. Trigonometry, triangulation, computation of distance – for the artilleryman, exact calculation meant the difference between victory and defeat. For the surveyor, the geographer, these forms of numerical calculation provided modes of delineating and ordering space (cf. Godlewska 1995). Leake's orders specified that he was to 'take surveys, and lay down plans whenever such operation can be conducted without the fear of exciting jealousy and displeasure in the people of the country' (Marsden 1864, 16). To this end, Leake (despite having to do without the aid of the military surveyor and draughtsman he had requested (Wagstaff 1992, 283) and yet presumably with the aid of a valet, whom he almost never mentions (Wagstaff, personal communication)) derived over 1,500 measurements towards the mapping of the interior (1830, i, p. vii). Bearings in degrees when combined with distances measured through a combination of time and measured paces served as a basis for the triangulation with which he constructed his maps. Of course, Leake could not accomplish this without the help of other actors – sextant, theodolite, pocket watch (it is unlikely that Leake carried a chronometer; Wagstaff, personal communication), tape and notebook at prominent geographical stations (for discussions of material actors in the context of contemporary archaeology refer to Olsen 2003; Yarrow 2003). These instruments and media establish regularity to practice, a 'template to standardization' (Foucault 1995; also Bourguet, Licoppe and Sibum 2002).[3] Given the same instrumental mixture (machinic assemblage), transforming ramparts of a citadel into a series of grid coordinates involves a similarly structured engagement, a routine, whether one is at the site of Roman Gythium or the Bronze Age citadel of Tiryns. In addition, Leake's survey work was clandestine and low-key in contrast to the huge state-sponsored military missions of the French – Egypt, the Morea and Algeria. It was also feasible and repeatable on a small scale without great expense. Landscape studies on the scale of the French missions, consisting of large collaborative bodies of artists, antiquarians, botanists, draughtsmen, geologists, epigraphers and so on, would not be emulated in Greece for well over 120 years (McDonald 1972, 10–11).

The time it would take to move military resources, the course and condition of overland routes, areas of offensive and defensive superiority, details of agricultural production and local economy – there are fundamental crossovers between issues of ancient topography and these aspects of military interest. The British military was after such information and especially better maps (Marsden 1864; de Grey and Ripon 1860). One could not effectively establish and control an empire without the ability to grasp the coastline or understand the potential difficulties posed by the overland movement of supplies, troops and guns. Here we should bear in mind that this was the period when mapping became an ongoing national enterprise. Large flows of funding from the governments of Britain and France led to a substantial amplification in geographical research and technological innovations such as John Harrison's timepiece (in the French context refer to Godlewska 1999, 148–90). In all this,

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accuracy was becoming more critical. We may recall that 'the first sustained effort to map Great Britain in its entirety began in 1791' (Harris 2002, 229) under the auspices of the Trigonometric Survey of the Board of Ordnance, later to be known as the Ordnance Survey. The product of this endeavour was not published till 1801 (the year Leake crossed over into Egypt as part of the general British survey, in the company of the then private secretary to Lord Elgin, William Richard Hamilton, the rescuer of the Rosetta Stone from the French and Elgin's Marbles from the sea – they were shipwrecked for a short time (de Grey and Ripon 1860, pp. cix–cx)).

Furthermore, Leake's scholarly success lies not only in his literary and survey work but also in what Latour calls 'immutable mobiles' – his other media. Here specifically I define media as the modes of articulation through which knowledge is mobilized, manifested and materialized. I use the term 'media' mainly to refer to two-dimensional, fungible and superimposable inscriptions such as text, plans, maps, illustrations and so on. (Latour 1986; 1999). Likewise, inscription 'refers to all the types of transformations through which an entity becomes materialized into a sign, an archive, a document, a piece of paper, a trace' (Latour 1999, 306). However, in the two case studies presented in this article, media also include both archives and collections. The point here is that neither geography, nor botany, nor archaeology 'can describe what they talk about with text alone; they need to show the things' (Latour 1986, 13). In the *Travels* Leake does not publish the more popular picturesque views or idealized ruins (e.g. Dodwell 1819; Gell 1823). He publishes maps. Compare, for example, Dodwell's map of Greece to that of Leake's from the *Travels* (Figures 1 and 2). The student of Dodwell's map had no way of determining what was and was not actually physically surveyed. In contrast, the 'model geographer' attends to details of what are known (through both topographical and nautical survey) and unknown through the use of set conventions – thicker lines are used in areas of more certainty, thinner ones in areas of less, while a dotted line is used to denote an area completely unknown, such as the south coast of Hydra. Perhaps more importantly, interior geographical features, routes and ancient sites are located for the first time with a degree of measured accuracy. Leake's map, however, was soon overshadowed by the map produced in 1832 by the huge state-sponsored collaborative mission of the French Expédition scientifique de Morée (1829–31). Leake regarded the map as the most important result of the French labours in the Peloponnesus (1846, p. vi). Because of its precision and detail Leake published an augmented version of the French map with his *Peloponesiaca* in 1846.

Leake also publishes, at various points in the text, two-dimensional plans of structures, as well as detailed and exact planimetric drawings of inscriptions. Of course, Leake does not include plans with consistency. His ability to map structures was dependent upon the amount of time he was able to spend at a particular site. Nevertheless, it is important to keep in mind, as Latour points out, that this showing of the things was utterly impossible before the mixture of 'graven images' and the printing press in the mid-15th century. Before that, 'a text could be copied only with some adulteration, but not so with a diagram, an anatomical plate, or map' (Latour 1986, 13). And again it was some time

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Figure 1 This map accompanied Edward Dodwell's *A classical and topographical tour through Greece, during the years 1801, 1805, and 1806* of 1819. At first glance it seems to represent the two-dimensional projection of Greece, but observe closer. Compare with Figure 2 the representation of inland mountains and rivers, the location of villages and even the coastline details. On what secure grounding does Dodwell's map rest? Controversies sparked by such questions led to the divide between the acquisition of knowledge on the ground and that produced in the study in the RGS.

before a plan could be mobilized with a level of 'optical consistency' and standardization in map and drawing, which was easily legible, combinable and verifiable. Compare, for instance, George Wheler's late 17th-century map of Athens to Leake's topographical map of the Bronze Age citadel of Tiryns (Figures 3 and 4). In the *Travels*, maps, scaled diagrams and measured plans are placed directly into the text (Figure 5). This combination of media is part of geography's answer to the problem of description in the late 18th and early 19th centuries, both in Britain and in France (Godlewska 1995, 11). It also makes Leake's work easily legible, fungible (future archaeologists can build on it) and verifiable.

Thus not only was Leake able to link the Greek countryside to ancient texts and inscriptions with the thoroughness that would come to be expected of subsequent scholars, but he also mobilized space and time in a way that

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Figure 2 This map was published as an insert in Leake's *Travels in the Morea* of 1830. It is based upon over 1,500 measurements, timed distances in the interior regions and Admiralty surveys of the coastline. Areas of less measured certainty, inscribed with thinner lines, extend around the gulf of Argos. Note the treatment of the south coast of Hydra where no information is available.

sets him apart from earlier travellers and antiquarians in Greece. The modes of topographical documentation in Greece were beginning to take shape. Again, it is not enough to focus exclusively on the media, for tape, theodolite, sextant, timepiece and writing and drawing utensils come together in this visual culture. Without these corporeal actors the material world could not have been transformed into the three volumes of *Travels in the Morea* or the subsequent *Peloponnesiaca*, both accompanied by 'valuable maps' (de Grey and Ripon 1860, p. cxv).

Leake must convince people as well. Once again we must note that the 'model geographer' made significant strides towards standardization and compatibility. Furthermore, Leake had at his disposal a different combination of skills (military, geographical), materials (survey instruments), texts (Pausanias) and so on than anyone had hitherto been able to make use of. But even these cannot function independently in the 19th century. What of trust and authority? Leake's membership (subsequent to his military career) in the most learned societies of the period linked him to a social, political and intellectual network that legitimated his authority and reinforced his distinction as a topographer and scholar. Among these were the Society of the Dilettanti (Leake was second on the list after Lord Aberdeen), the

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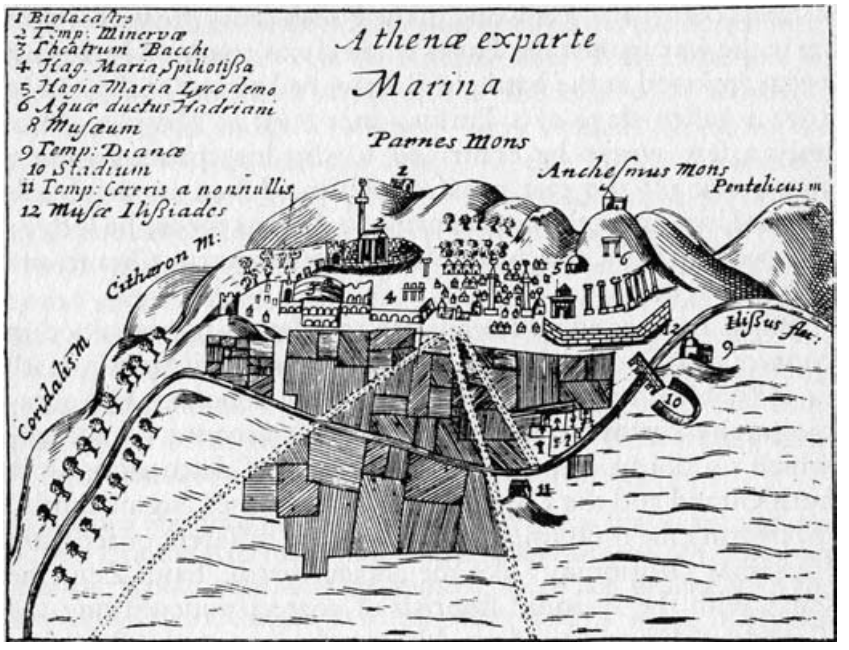

Figure 3 The visual elements of George Wheler's late 17th-century map of Athens are arbitrary. In this 'windowpane' visualization the map lacks any qualities of optical consistency, combinability and verification in planimetric perspective based upon repeatable and standardized practice.

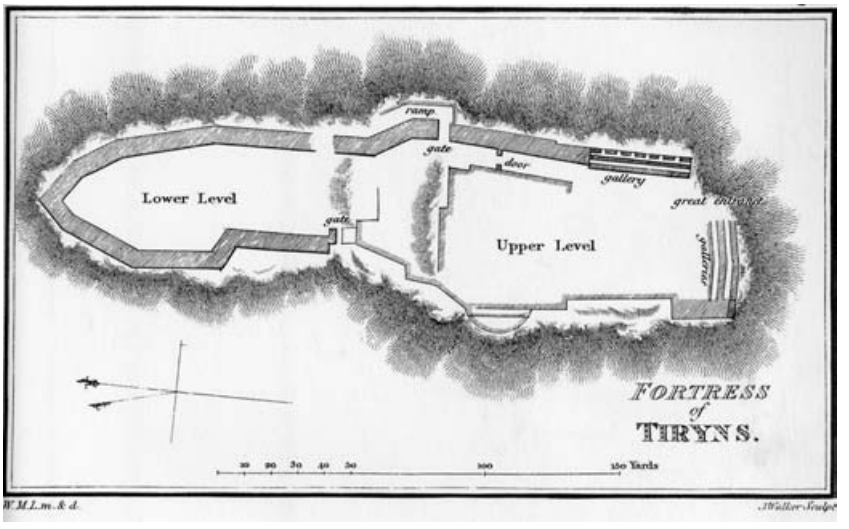

Figure 4 Leake's planimetric map of the Bronze Age citadel of Tiryns is an immutable, mobile, legible, fungible inscription that can be combined and built upon through reiterable and standardized practice.

Royal Society Club, the Royal Geographical Society (in which, as mentioned, Leake was a founding member and vice-president), vice-president of the Royal Society of Literature, 'an honorary member of the Royal Academy of Sciences

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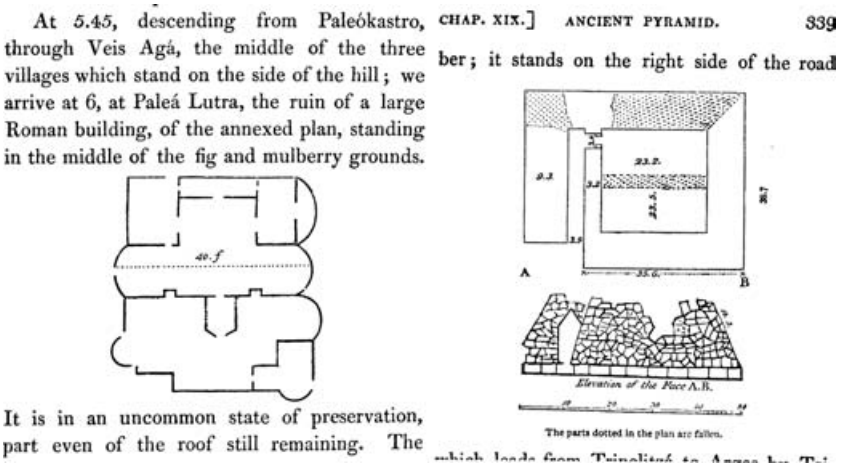
At 5.45, descending from Paleókastro, through Veis Agá, the middle of the three villages which stand on the side of the hill; we arrive at 6, at Paleá Lutra, the ruin of a large Roman building, of the annexed plan, standing in the middle of the fig and mulberry grounds.

It is in an uncommon state of preservation, part even of the roof still remaining. The

CHAP. XIX.] ANCIENT PYRAMID. 339

ber; it stands on the right side of the road

The parts dotted in the plan are fallen.

Figure 5 The immediate juxtaposition of text and measured plan highlights the disparity and mutual reinforcement of the disparate modes of inscription.

at Berlin, and a correspondent of the Royal Institute of France' (de Grey and Ripon 1860, p. cxvi). Leake's authority as a member, as a lettered and educated man, helped solidify his credibility and situate his work at the centre of a network out of which classical archaeology would emerge as an academic profession.

Where, in all of this, is the field? Do we still believe it to be out there separated, solitary and static in the Greek countryside, near Marathonísi, in ancient Gythium? Is it on the plain of potential battle? Or near a point of ambush should the French invade? The problem with stating that all of these are the field is that all of these are also complex networks of interaction. The Greek countryside is not free from the workings of national politics, social groups, institutional interests, avid collectors or any multitude of instrumental mixtures and media. It was this unique collective of allies – the military institutions, discipline (in the Foucauldian sense), knowledge, instruments, social groups and media – that set Leake apart from his contemporaries and oriented his modes of engagement and articulation as a base for how topographical practice would come to be undertaken in the archaeology of Greece. Even though I have focused more on the military and media aspects of Leake's work (because they are largely neglected), each of these links is a field that conditioned Leake's practice. There were no hard and fast boundaries. Instead these broader and diverse linkages are composed of multiple fields. Just as these multiple fields – military infrastructures and skills, political interests and alliances, ancient literature, learned societies, instruments, materialities and media – come together in Leake's practice, so too do they situate archaeological production today (Figure 6).

And even at this point, after very briefly following the links out from Leake's engagement and articulation of the Greek countryside and back again, I must confess that these multiple fields are far more nuanced than I have suggested. These links can be broken down further. And so far what I have said of

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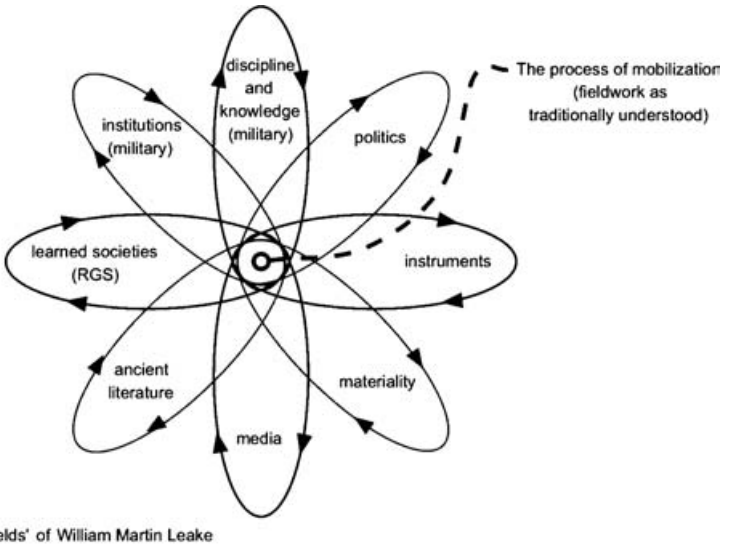

Figure 6 The multiple fields that situate William Martin Leake's practice. Each and every link connecting Leake's mobilization of the Greek Peloponnesus is made up of multiple fields, which facilitate and situate his practice. There is a dynamic and recursive relationship between these multiple fields and Leake's engagement with and articulation of Greek chorography.

multiple fields does not yet account for the clear divide, the 'Great Divide', that exists between the material world and the ideas Leake wrote down in his study, now inscribed in his text, *Travels in the Morea*. This issue, the very idea of a singular divide between the material world and language, will be the focus of the following case study.

Before we move on, however, let us consider once again the field of media – specifically, two-dimensional plans, maps, diagrams and illustrations. Historical treatments of field practice have overlooked the 'simple drift from watching confusing three-dimensional objects, to inspecting two-dimensional images, which have been *made less confusing*' (Latour 1986, 16, original emphasis; refer, however, to Lucas 2001b, 206–14; Moser and Gamble 1997; Svestad 1994, especially 218–24; also Olsen and Svestad 1994; Webmoor 2005 (in press); in relation to photographic media refer to Shanks 1997). This point has, strangely enough, eluded archaeologists who have placed emphasis on the act of writing, on narration (this criticism extends to some of my own work; Jackman and Witmore 2002). Hodder, for instance, in detailing how writing styles in archaeological site reports changed in Britain between the 18th century and the 20th, concentrates solely on the language of the reports without acknowledging the potential impact the use of maps, plans, illustrations, diagrams or photographs might have had upon these narratives (Hodder 1989). Text or images or maps, when incorporated in archaeological publication, do not work in isolation; they are juxtaposed. Meaning is contingent upon the exchange between these disparate modes of documentation. It is only in the context of the exchange between text and other modes of two-dimensional inscription that we can situate archaeological

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media. In this I hold that it is critical that we recognize how our media allow us to speak with a degree of confidence. These less confusing media come to shape our engagements with the material world. They shape our fields and define our fieldwork. It is not coincidental that a media standard, the unique combination of plan, map, illustration and text, is established at a moment when modernist definitions of the field are being formulated. Of course, these media do not work in isolation (contrary to McLuhan (1994) and some post-structuralist thought (e.g. Welsch 1997, 176–77)) – they are '*the fine edge* and *the final stage* of a whole process of mobilization' (Latour 1986, 17, original emphasis). Twenty years passed between the end of Leake's journeys in the Peloponnesus and the publication of *Travels in the Morea*. What developments took place in the interim? How did Leake's intermediates, his immutable mobiles – notebooks, lists of measurements, sketches and so on – factor into the process of publication? Leake also possessed collections of coins, sculpture and artefacts, and these too have a part to play in this process.

The 'fields' of the Argolid Exploration Project

In this second section, I focus on the process of archaeological production during a regional survey in Greece. Again I am interested in dispersing the notion of 'field'. More specifically, I articulate a scheme of multiple fields through focusing on what archaeologists do in the process of knowledge construction. I regard this process as transformative (cf. Lucas 2001a; 2001b), whereby the material world is mediated, manifested and mobilized (regarding the concept of mediation refer to Witmore 2004 (in press)). This endeavour will involve following in detail the many steps between the landscape or site and the final publication. To this end I revisit the Argolid Exploration Project (Jameson, Runnels and van Andel 1994; Runnels, Pullen and Langdon 1995; Sutton 2000; van Andel and Runnels 1987).

The AEP grew out of a series of extensive topographical surveys conducted by M.H. Jameson (with the aid of V.B. Jameson in 1950) in the southern half of the Argolid peninsula in the 1950s (Figure 7). These topographical surveys were the basis for the work of T.W. Jacobsen at Franchthi Cave and M.H. Jameson at Halieis. It was during the excavations of these sites in the 1960s that both Jacobsen and Jameson recognized the limitations of focusing on two sites within a 'complex archaeological landscape' and decided that a more intensive programme of survey was warranted (Jameson, Runnels and van Andel 1994, 8; refer also to Jameson 1976). The programme initiated by the pair for the surrounding countryside came to be implemented under the Argolid Exploration Project. This programme was multidisciplinary in scope and composed of archaeological, geological, botanical, oceanographic, historical and ethnographic research. Given my purpose here I focus specifically on the archaeological survey.

Between 1979 and 1981 the AEP carried out an intensive systematic surface survey in the southern Argolid, Greece.[4] Three teams, Red, Blue and 'Verification', walked transects, lines set at regular intervals of between 5 and 15 m, across selected areas of the landscape. Operating concurrently, these teams organized space on the basis of 'obvious landscape units' (Jameson, Runnels, and van Andel 1994, 219). Therefore material borders such as

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Figure 7 The survey area of the Argolid Exploration Project (augmented from Jameson, Runnels and van Andel 1994, 14 and 217, Figures 1.1 and 4.1).

terraces, field walls, orchard lines, fences, roads and so on outlined the tracts. In more open areas the teams employed the aid of a compass to establish alignment, and flags to delineate the transect lines against 'the background noise' of the Greek countryside. Temporary material traces of their paths remain in the change in the ground cover under the weight of the walkers, or the presence of flags, or indeed the absence of those materials deemed worthy of removal which lay along the way. The path of each transect is easily transcribed as a number, textual description or line in the 'field' notebook (Witmore and Adler 2004). These transcriptions or inscriptions now mark the activity of survey. But they are not alone, for materials have been collected. Material guarantors exist on shelves in a storeroom in Porto Kheli that are connected to the original context by the fragile link of a tag (Figure 8). But we should not get ahead of ourselves; here I should detail how the things were collected to begin with.

When materials were encountered along a transect, team members would call out what they saw – sherd, obsidian, shell and so on (Jameson, Runnels and van Andel 1994, 224). As densities increased, the team leader made a

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Figure 8 Boxes on shelves in the AEP *apoteke* (store house). Should the need arise the ceramic fragments, loom weights, lithic flakes and so on in these boxes act as material guarantors while tags serve as fragile links to the material contexts in the Greek countryside.

decision as to whether they had encountered a 'site'.[5] Here the project must rely upon the 'experience and judgement' of their team leaders. This is not the same as identifying a tree as *Juniperus drupacea* or a small pebble as goethite. The criteria of site selection need to be specified.

Here we tread on dangerous ground. The spectre of relativism creeps in. What if Tracey, a team leader, is thirsty or feels overheated?[6] What if some of the team are hungover from a night of drinking in the local taberna? Or Sarah and Lena lack sleep from travelling to Epidauros the night before? What if Yannis, Jane and Felix have been at this for several weeks and are simply physically and mentally exhausted? Might their criteria change? Is what was a site four weeks ago too much trouble to deal with now? Conversely, have their seasoned eyes and sense of place made them more adept at locating a trace they might have missed earlier in the season? Or would the presence of a lithic specialist on the team increase the probability of finding chipped stone? These questions (and there could be many more) begin to gnaw away at our confidence.

Of course, here one might, quite appropriately, respond that our dealings with materiality are always ambiguous and arbitrary and that attention to the details of human fallibility only obscures this issue. Here, however, I merely

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wish to underscore how our allies, our media, give us confidence when dealing with the material world – so much so, that other variables, what philosopher Michel Serres describes as *belles noiseuses* (1995), the ceaseless background noise of landscape, including weather, vegetation affecting ground visibility (ranging from poor to excellent), and these human aspects of mobilizing the material world, were (and still are) often the loci of doubt, of nagging frustration (however, for experiments in the measurement of uncontrolled variables in surface survey refer to Schon 2002). To be sure, I do not wish to suggest that issues of what, and what not, to record did not arise, but rather that the media, the inscriptions, plans, charts, maps and so on, demand a specific and consistent mode of engagement with the material world. Let us return to the sampling procedures.

Media standardization is one means of battling the spectre of relativism. One needs to deal with each site in a regular manner, irrespective of its singularity. And again for help we must refer to those 'immutable mobiles': context sheets or map forms. Time to number and record our materials.

Between 1979 and 1982, once a density of materials was designated as a site, a flag was placed at the point where the transect was halted. A sighting compass was used to take bearings by means of triangulation with prominent geographical features easily recognizable upon the map (a 1:5000-scale military creation by the Greek Army Map Service). The site location was then marked on this 1:5000-scale map and designated with a letter (corresponding to the commune) and number (relative to other sites previously located). Map forms designed by what at the time was known as the Cambridge and Bradford Boeotian Archaeological and Geological Expedition (the project later came to be known simply as the Cambridge/Bradford Boeotian Expedition) provided a standardized means of plotting the two-dimensional shape of a cluster of lithics or ceramics, deemed a 'site', upon a circle with radii at every degree (refer to Figure 4 in Bintliff and Snodgrass 1985, 131).

Since we are dealing with what is known as a 'site-based' survey (Cherry 1983, 394–97; Dunnell and Dancey 1983), consistency, comparability and iterability depend upon the site forms. Number, date, location, ownership, contemporary land-use, vegetation, hydrology, artefact densities, definitional criteria, photograph numbers and so on are to be inscribed upon the form. The idiosyncrasies and specificities of each 'site' have a space at the bottom of the sheet. This is the space for such classic variables as weather or ground conditions, vegetation and visibility. Add to this the number of samples taken and bag numbers, and this referent provides the critical link between a few square meters of countryside and the laboratory. In the space of an 8×10 sheet of paper, anthropology, survey, topography, geomorphology, botany and, yes, archaeology come together in the transcription of an engagement with the material world. In this, the exchange between the various modes of documentation – sketch plan, map and text – is crucial. Tape, compass, flags, pencil and ruler all intersect in this endeavour. So does the notebook.

The field notebook is a primary document that narrates the sequence of survey events through day-by-day entries recording the activities of the survey crews. It too specifies weather conditions and ground visibility. It lists the

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transects walked by team members and where they are located. Occasionally, it details the mood of the crew. The notebook outlines the circumstances behind the materials discovered and the character of those materials (typologies, condition and so on) at the moment of the encounter. It details the criteria (size, artefact densities, exposed features, non-modern date and so on) behind the designation of material clusters as 'sites' and offers initial suggestions regarding site identification. Every few pages a map traced from the 1:5000 topographic map is inserted. These maps were marked with lines indicating the length and direction of transects. Other features, including wells and the location of specific sites and finds, were also designated. References to these maps are periodically inserted in the text of the notebook.

The success with which the project can trace materials back to the locale in the landscape depends on the reliability and detail of the person in charge of the notebook. These narratives are, of course, varied. During the AEP field seasons each team maintained a notebook, which was kept by the team leader, an experienced archaeologist (Jameson, Runnels and van Andel 1994, 219). With narrative forms of record there are inevitably disparities in recording styles, and hence a discrepancy in comparative standards. For example, on 1 August 1981 the Red team leader wrote the entry at the end of the day – the entire entry was in the past tense. She commented on weather conditions and laid out their objectives for the day. Given the lack of 'cultural materials', she summarizes the day by briefly describing the six areas surveyed in list form. The Blue team leader in contrast wrote his entry throughout the day. He gave the initials of each team member, yet did not comment on weather conditions. As the events are narrated in the course of the day, details are given concerning the nature of their engagements and their rationale for moving from one area to another. At the end of the day the Blue team leader comments on the attitude and condition of the crew. Yet despite such variations, without the notebook we would miss the first critical steps (for more discussion on the utility of narrative forms of record refer to Farid *et al.* 2000, 25–26), but we are not here negotiating a yawning gap between the material world and documents (Latour 1993). For we still have both materials and documents to show for the long hours of hot and sweaty survey work.

The tags relate the area and transect from which the ceramics, lithics or other finds are derived. The notebooks and site forms encompass those very materials that the teams deemed significant enough to remove and transport to the laboratory. Between 1979 and 1982 the laboratory resided in an old school building (accommodated in an even older house) in Koiladha. Let it suffice to say that at this point materials and their references are linked to fewer individuals as we move into a laboratory context. As materials are reduced so too is the number of personnel involved in the process of transformation. In this way, the division of labour and accreditation can be taken to reinforce artificial divides such as that between the 'field' and the 'laboratory' (Berggren and Hodder 2003; Lucas 2001b, 12–14). But addressing this issue is not my purpose here. Notwithstanding, I must focus in on the activities associated with fewer individuals. Three archaeologists – Mark Munn, Dan Pullen and Susan Langdon – oversaw the operations in the lab. It is here that most of the analyses took place.

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The table covered with freshly washed and dried ceramic fragments, the box of andesite handstones, the plastic bag holding a plain roof tile fragment from B-54; these do not contain the olive pits, terrace walls, thistles or roadside garbage of the Greek countryside. Still, something of that materiality has been transported here and laid out on the table or placed in the box and plastic bag. In the lab we have a host of other materials and media to aid us: comparanda are readily available in the form of diagnostic ceramics found in more secure contexts of excavation and during the survey, along with fabric descriptions, photographs, illustrations of ceramics, handstones and lithics, and Munsell soil-colour charts. Following Latour we might say that we are 'neither very far from nor very close' to the archaeological site. 'We are at a good distance, and we have transported a small number of pertinent features' (1999, 36). Though much has been transformed, something of the material world remains. We are not yet dealing completely with text. We are not yet solely reliant upon media.

On the pottery table we enter into a new context of transformation. New inscriptions cross our path. A general 'artefact summary sheet' details the counts and weights of the various things from the units collected (Runnels, Pullen and Langdon 1995, 3). Numbers, and measurements in grams, replace aspects of the materials. Things are sorted. The media disperse along with the materials by category. If we continue to follow the 'ceramics', further details are inscribed upon either a 'nonpottery ceramic form recording rooftiles, loom weights' and so on or 'a pottery recording sheet for identified vessels represented by potsherds' (Runnels, Pullen and Langdon 1995, 3). The former denotes counts of roof tiles, loom weights, spindle whorls and even figurines by site in the rectangular space of a grid laid out upon a spreadsheet. The latter does the same for pottery, whose aspects include fabric, manufacture, shape, decoration and surface treatment, ticked off at the intersection of these categories and the specimen number.

Things are filtered a little more. Pottery fragments may undergo comparative analyses and be recipients of the coveted catalogue entry. The numbers of pottery fragments are reduced depending on our collective articulation of those diagnostic criteria deemed necessary for situating a fragment in time and location. Calliper, slide gauge, metal pincers (for examining the fabric of ceramics in cross section), ruler and so on all aid in facilitating their inscription. Those materials that make the cut may go on to the draughtsman or photographer where they will enter new processes of mediation. In this way tens of thousands of pottery fragments may be reduced to a few thousand catalogued entries. Between 1979 and 1982 these analyses were conducted in the house, turned school, turned laboratory, in Koiladha. In 1983 selected material for the publication catalogue was transferred to the Leonardo storeroom of the Archaeological Ephoreia of the Argolid, in Nafplion, where Mary Lou and Mark Munn, aided by artist Claire Zimmerman, completed the inscription of ceramic finds.

But even at these late stages in the process of transformation steps are retraced. Sites are revisited, transects are reiterated and materials are reassessed based upon knowledge articulated on a table in the lab in Koiladha. Fresh breaks on pottery fragments from a collection unit suggest that sites

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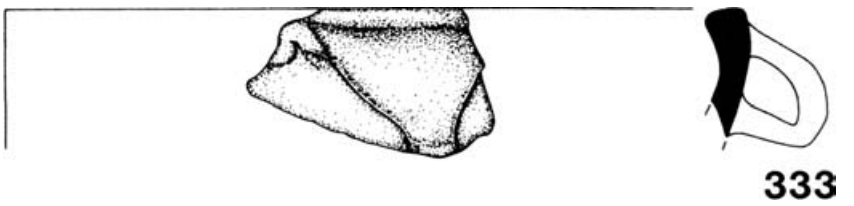

Figure 9 The text on page 167 cannot work alone in relating the material world (Runnels, Pullen and Langdon 1995). Archaeology has to show the things. Thus the text works in exchange with this illustration taken from page 354 of Runnels, Pullen and Langdon (1995).

C-12/C-14 should be reassessed. A single well-worn piece of polychrome might be enough to necessitate revisiting the south slopes of Mt Kotena to search for potential Late Neolithic. In the back and forth movement between landscape, site, material, notebook, tape and laboratory, instruments, comparanda, media and so on we have a little more confidence in our engagement, we are a little more direct in our purpose (for a discussion of this process of articulation refer to Latour 1999, 133–44; Yarrow 2003). In the course of retracing our steps, of reiterating our paths, we return to things 'displaced *a little further*' (Latour 1999, 74, original emphasis).

I will spare us further details of the laboratory procedures, numerical calculation, illustration, photography, additional collation, narration and so on. In place of the things we now have our inscriptions and other media. These 'immutable mobiles' may now move with us into other contexts where they may be further displaced and transformed into final publication volumes, so that eventually on page 167 (along with an illustration on page 354) of the published Pottery Catalogue we are left with number '333 LARGE INCURVING BOWL WITH TABULAR HANDLE Fig. 19 (F32-N-206) Rim with part of tabular handle. D. 0.42, Max. pres. W. 0.07. Semicoarse fabric; some lime; unevenly fired, 5yr 6/6 (reddish yellow) to 5YR 5/2 (reddish gray) [core]. Incurving wall, slightly thickened rim, flattened lip; wide tabular handle attached below rim and below maximum diameter, taenis to left of upper attachment. Exterior slipped (self slip?). Early Helladic II.' (Runnels, Pullen and Langdon 1995, 167) in place of a fragment of pottery from the churned up soil of V----- K-----'s olive grove.

So where do we situate the 'field' in relation to entry 333 on page 167 of the Pottery Catalogue and the corresponding figure on page 354 (Figure 9 above)? Our tradition of archaeological thinking is mistaken in maintaining a single radical separation between the knowledge mediated upon an $8\frac{1}{2} \times 11$-inch sheet of paper and the material world it stands in for – the field. This taken-for-granted scheme does not account for what occurs in practice. Now that we have followed in detail the steps between the material world of the Southern Argolid and our media we realize that we have not fallen into a yawning abyss that is classically held to exist between them (e.g. Butler 1993; James 1978; Preucel and Bauer 2001) (as sketched out in Figure 10). Rather in place of the field over and against the contexts of knowledge production there are multiple fields spaced along a chain of transformation characterized by many small gaps between the world of things and any final publication in the form of text, plans, maps, images, illustrations and so on.

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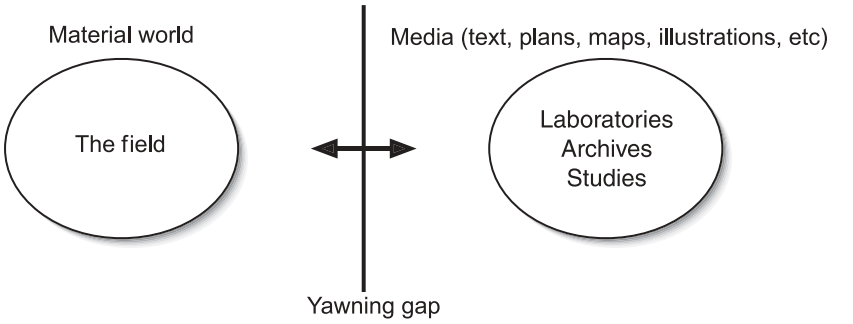

Figure 10 The traditional separation of the field from the contexts of knowledge production (augmented from Latour 1999, 69, Figure 2.20). This scheme maintains a radical, incommensurable and problematic chasm between the 'field' and the archaeological 'home-bases'.

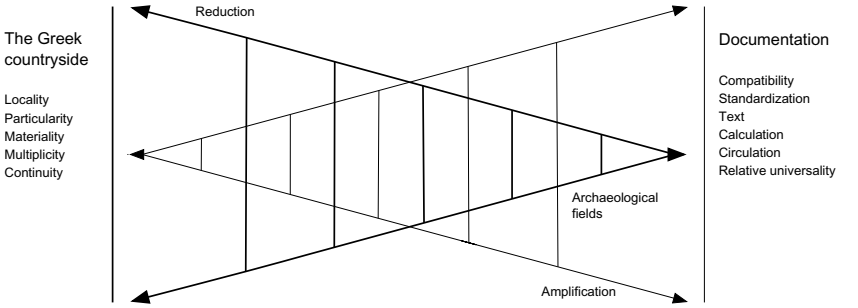

Figure 11 The series of transformations and translations between the Greek countryside and our modes of documentation involve the simultaneous reduction of qualities of the material world and amplification of qualities of discursive media (after Latour 1999, 71, Figure 2.22).

In this chain, which is exemplified by the archaeological process of the AEP, the material world has undergone a series of transformations and translations whereby each successive stage 'takes the place of the original situation' (Latour 1999, 47). With each step from field-walking to drawing sections, taking photographs, sampling, measuring, narrating and so on we leave behind 'locality, particularity, materiality, multiplicity, and continuity', yet we gain 'compatibility, standardization, text, calculation, circulation, and relative universality' (Latour 1999, 47) (Figure 11). The series of references or textual markers established along this chain finds its 'fruition' in the form of a final publication with the references (the markers of each transition), in the form of field notebooks, context sheets, context photos, the archaeological 'finds' and so on, maintained in the form of a project archive. Contrary to the notion of archaeology as a linear process,[7] the purpose of the chain of references, guaranteed by the material archive, is to facilitate our retracing this process of transformation and translation. One must be able to follow the chain of references back to the material world focused upon; it follows that the archaeological process is recursive, that it circulates.

So there is no single vast chasm between the world of things and language (James 1978), as with the divide between the 'field' and archaeological

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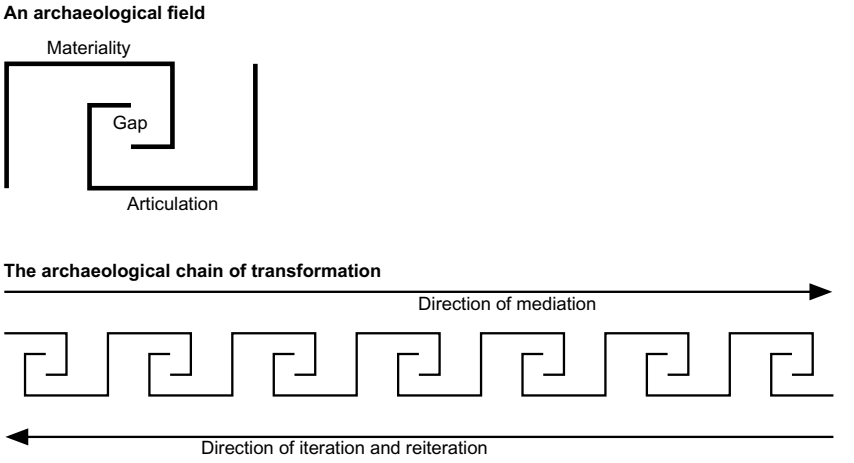

Figure 12 The transformation of the material world into final publication media involves many small gaps (augmented from Latour 1999, 70, Figure 2.21). An articulation from materiality to reference occurs across these gaps as is played out in each individual archaeological field, whether along a survey transect, across the draughtsman's table, under the ceramicist's magnifying glass, or between the stack of various notebooks and the computer screen. The direction of mediation is away from the material world while the direction of iteration and reiteration facilitates revisiting and reworking these fields.

'home-bases', or data and interpretations. Instead, each of the steps as exemplified in the AEP process constitutes a small gap between the material world and the final publications (refer to Latour 1999, 69–74). In this way, each step, whether it is a transect near the Fournoi village, a table with ordered sherds in a yard in Koiladha, a photographic darkroom or a computer console in the Classics Department at Stanford, is a field of archaeological production. These are the multiple fields that are present along the chain of transformation.

In each of these fields an articulation from materiality to reference occurs across a small gap (Figure 12) and not simply across a single and radical separation between the material context of few square metres of the Greek countryside and a final publication (again compare Figure 10). Each field may be revisited by retracing this process. Just as the AEP retraced their steps on multiple occasions, other archaeologists might reiterate the fields and rework the materials and media produced by previous archaeological projects in order to come up with new translations (also refer to Lucas 2001b). So the catalogue entry on page 167 and the illustration on page 354 of Runnels, Pullen and Langdon (1995) is also a beginning. The transformation of the landscapes of the Southern Argolid continues.

Conclusion

Certainly I have not said enough and there is much more to be done. There is a wider net to be cast regarding the history of archaeological media and their relationship to fieldwork both in Greece and in other areas. There are many finer details to be emphasized in the AEP process. Nonetheless, I have tried to

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demonstrate through two case studies how we might construct an alternative model to the binary notion of a 'field' divided from laboratories, archives or studies that maintains something of the complexities of archaeological practice. These disparate cases of multiple fields are complementary.

Appealing to an example from a period prior of the firm establishment of this divide in geography and archaeology might help re-establish a different epistemological scheme. With the case of William Martin Leake I have called attention to a complex network that situates scholarly knowledge production alongside political, cartographical and military fields. In addition, I have argued that the field, and indeed the figure of the topographer, is dispersed through the diverse linkages and entanglements. It is during this period in the history of archaeology in Greece, when significant strides are being made in the modes of articulation on land, and when advances towards standardization, legibility, combinability and verifiability in plans, scaled diagrams, maps and illustrations are occurring in combination with text, that conceptions of fieldwork are simultaneously solidifying. More than simply a metaphor associated with fieldwork (cf. Joyce 2002, 18–26), military innovation and knowledge played a key role in shaping our practice. Now that we understand that the very instruments and media through which we mobilize and materialize things also drive the archaeological process (field practice as traditionally conceived), the traditional scheme of the solitary and separate field no longer suffices. Moreover, our instruments and media comprise but two fields of many. The point is that multiple fields situate the production of knowledge, whether at the beginnings of the topographical tradition in the early 19th century or in the midst of the 'new wave' of intensive surface survey in the late 20th century. Such a historical awareness of archaeological practice is a crucial aspect of challenging the divides we take for granted.

With the Argolid Exploration Project example, the recursive linkage between the material world and media is broken down even further. Here we begin to understand that the field is not situated on one side of a yawning chasm (Latour 1993, 55–59) across from laboratories, archives or studies but rather at multiple points along a chain of transformations. There is a field of archaeological production at each of the multiple gaps that separate our media from things. Meanwhile, in contrast to an oversimplified, unidirectional scheme of how archaeologists move between the material world and documents (the archaeological process as discussed by Hodder 1999), the AEP process was anything but linear in practice. As these multiple fields account for the back and forth, 'upstream' and 'downstream' movement (Latour 1999, 74) – the mediation and iteration/reiteration – of transformations within the archaeological process, they also make up the links of the network in which our practice is situated. We may maintain this complexity through the alternative scheme traced in the case studies presented here and visualized in Figures 6, 11 and 12.

Archaeologists need to be more aware not only of how we span the multiple gaps, the multiple fields, between the material world and text, plans, maps, illustrations and so on, but also of how these processes are caught up in diverse networks linking fields which encompass everything from funding bodies,

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sociopolitical alliances, media and materialities (refer to Latour 1987; 1999, 80–112) to, for example, even the modes of engagement and articulation practised by an artillery officer in the British military during the Napoleonic wars. We need not only to delineate clearly each of these gaps within our references in the same way as is demanded of us in the excavation trench or along the survey transect, but also to situate this process in relation to these larger networks – these other fields. Things (our tapes, trowels, theodolites, media, etc.), too, have a stake in our nonlinear and interconnected paths of knowledge production (Olsen 2003; Yarrow 2003). They too must be included. This scheme of multiple fields is a means of maintaining something of the complexity of archaeological practice in our modes of documentation and language. It is a means of bypassing the gulf between what we do and what we say we do. Yes, this is a tall order. Nevertheless, it is a course we must consider, for these multiple fields constitute the terrain of archaeological knowledge production in real-time practice.

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Ideas, too, have a collective history. This article consists of portions from three chapters of my dissertation (currently under way) entitled 'Multiple field approaches in the Mediterranean. Revisiting the Argolid Exploration Project'. It has developed out of an earlier version, which was presented in the 'Words and things' workshop series at the Classics Department, Stanford University, in March of 2004. I am extremely grateful to Bjørnar Olsen, Michael Shanks and Timothy Webmoor for their intellectual companionship and guidance. I thank Ian Hodder for his patient reading and thoughtful criticism of this article in several of its earlier versions. This article has also benefited from feedback by Ewa Domanska, Kristian Kristiansen, Ulrike Krotscheck, Gavin Lucas, Joe Manning, Jack Mitchell, Ian Morris, Fred Turner, Barb Voss and Malcolm Wagstaff. I am deeply indebted to both Michael Jameson and Mark Munn for their generosity regarding the Argolid Exploration Project and specifically to Michael for his critical acumen and erudition in respect of an earlier version of this piece. He will be greatly missed. Finally, I am obliged to the anonymous reviewers and the editors of *Archaeological dialogues* for many detailed and constructive comments. All shortcomings remain my own.

Notes

[1] Leake uses the term in the context of a discussion of the Maniáte Wars: 'Next to the captains, the priests are the chief men in the Maniáte wars, both in council and in *field*' (Leake 1830, i, 238, added emphasis).

[2] Take, for example, the French Consul-General M. Pouqueville, who while in the Peloponnesus, according to Leake, 'having traversed only a few of the principle routes . . . has added very little to the geographical information on the peninsula which the public already possessed' (Leake 1826, 202). Leake regarded his *Voyage en Morée* (1805) as consisting 'of such very imperfect information as the author could collect during a close imprisonment at Tripolitza, and at Constantinople, added to that, which some of his comrades in captivity obtained under similar circumstances in Ioannia' (1826, 201). Pouqueville's combination of diplomatic ties and connections to local allies facilitated access to different types of information. Of course, an intense diplomatic and scholarly

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rivalry between Leake and Pouqueville certainly contributed to the exaggeration of their differences (Wagstaff, personal communication).

[3] Olsen and Svestad make a similar argument in the context of the 'disciplinary technology' of the museum, where architecture, exhibitions, collections, diagrams and so on 'played a creative and material role in the construction and enclosure of an archaeological field of knowledge' (1994, 4).

[4] Intensive surface survey also took place in 1972. Although my work focuses specifically on the 1979–81 seasons there are a few contexts I revisited which were within the 1972 survey area.

[5] The AEP defined the term 'site' in the following manner: 'Sites, if we mean by that term places of habitation and special-purpose activities (e.g., animal folds, storage buildings), are identifiable, at least in Greece, as specific *places* in the countryside . . . Our working definition of a site was "any location with ancient features such as architectural remains, or a concentration of cultural materials, e.g., artifacts, ecofacts, or manuports, which could be identified, having a recognizable boundary" (see also Plog et al., 1978: 385–89) . . . The term "site" is thus nothing more than a convenient way to designate a locality where cultural materials were found, apparently belonging together. Thus a grave only a few square meters in area was called a site, just as was a walled settlement many hectares in extent. Our definition of site included isolated features, such as a well or an inscription, but was intended to exclude materials deposited or distributed solely by natural processes' (Jameson, Runnels and van Andel 1994, 221).

[6] The names used here are not those of actual individuals associated with the project.

[7] I suspect that the 'rhetoric of destruction' (refer to Lucas 2001a) associated with excavation has had some stake in treating the archaeological process as an 'unrepeatable experiment' and thus a linear process (refer to Hodder 1999, 26).

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