Part IV: Archaeological Description

I. ARCHAEOLOGY AND THE HISTORY OF IDEAS

Foucault writes that his aim has been to develop a method that is ‘neither formalizing nor interpretative’ (AK 151, 177). In steering a path between structuralism and hermeneutics, he is implicitly following the programme for historical analysis that Serres proposed in 1961.30 But he is gripped by the doubt that the weighty apparatus he has put in place has served only to conceal that the form of analysis he proposes in fact remains within the framework of the history of ideas. Having set out the archaeological method, its terms and structures, Foucault therefore turns to consider what it means for the way historical analysis is actually conducted. In doing so, his overriding concern is to distinguish archaeology from the history of ideas.

A history of ideas can take several forms and for this reason it is not easy to pin down. Foucault identifies two principal characteristics. First, it hands over the history of the developed sciences to specialist studies and takes as its focus the margins that have either contributed in one way or another to science, or else which never gained the authority of other branches of study and faded from view: the history of alchemy, of phrenology, or of newspapers, the history ‘of opinions rather than of knowledge’ (AK 153, 179). Second, it charts the boundaries between existing disciplines and the exchanges that have taken place across them, and it records the rise and fall of disciplines, the emergence and disappearance of themes. Putting these characteristics together, the history of ideas describes the transition to philosophy, science, or literature (or whatever it may be) from what is then presented as a primitive stage to be left behind. However, rather than treating this as a sharp (epistemological) break, in a manner reminiscent of Bachelard, the history of ideas analyses the ‘silent births, [and] distant correspond-
ences’ that contribute to the emergence of the discipline in question (AK 154, 181). Although there appear to be certain guiding principles that archaeology shares with the history of ideas, the general orientation of such a history is, writes Foucault, towards genesis, continuity and totalisation. It is a form of description for which Foucault declares our own time no longer suited. He then proposes to identify four key ‘points of divergence’ between archaeology and the history of ideas: the attribution of innovation, the analysis of contradictions, comparative descriptions, and the mapping of transformations (AK 155, 181). These are the themes of the following four chapters. First, in the remainder of this chapter, Foucault outlines four principles that characterise the archaeological method.

First, archaeology does not look for what discourse reveals or conceals, but simply examines discourse itself. This amounts to a repetition of the already familiar point that archaeology is not concerned with hidden meanings, and is not a hermeneutic practice of any kind. This sets archaeology apart from what is known as the ‘hermeneutics of suspicion’ associated broadly with the modes of analysis found in Marx, Nietzsche and Freud. There is no truth concealed behind the surface of discourse, and archaeology ‘refuses to be “allegorical”’ (AK 155, 182).

The second feature of archaeology mentioned by Foucault is also familiar, but is raised here in a way that draws to the fore an issue that will have to be addressed in relation to a later chapter. Foucault writes that archaeology does not trace the transition between discourses as a continuous series of ‘insensible’ steps on a ‘gentle slope’ (AK 155, 182), which is a way of saying that archaeology does not treat change as continuous. Accordingly, it also sets aside the idea that discourses can be seen to develop a potential, reach a stage of fulfilment and then decline. Instead, it defines discourses ‘in their specificity’, showing how the rules by which they operate are ‘irreducible’ to those of any other (AK 155, 182), effectively meaning that transformation is discontinuous, taking place in step changes. It is in this sense a ‘differential analysis of the modalities of discourse’ (AK 156, 182). Yet if the effort of archaeology is bent on marking discourse off from what lies close to it, and on demonstrating the irreducibility of each formation to anything else, it appears to deny itself the language in which to speak of change. If each discourse is differentiated from every other by its very specificity, then there is a risk that history may be reduced to a collection of frozen tableaux (this issue will be addressed directly in the chapter ‘Change and Transformations’).

In contrast to the history of ideas, as Foucault describes it, archaeology does not regard creativity as the expression of the spontaneous
freedom of the subject, and therefore does not aim to identify the point at which the creativity of an individual gives rise to a new cultural form. The rules for discursive practices that it traces may characterise only part of the larger cultural forms that the history of philosophy describes, but they may also run through more than one such form and thereby establish larger-scale patterns of regularity in the discursive universe.

Finally, archaeology does not try to recover an origin, and especially not the origin of a cultural form at the point at which it passes from the spontaneous but inner freedom of an individual to the wider social sphere. It is, writes Foucault, ‘nothing more than a rewriting; that is, in the preserved form of exteriority a regulated transformation of what has already been written’ (AK 156, 183). These lines may appear enigmatic at first, and it is not clear in what sense archaeology is a ‘re-writing’ of what has already been written. Perhaps the first thing to remember is that archaeology does not aim to recover something concealed within discourse, thereby making discourse say something that it had refrained from saying before. In so far as discourse is a network of relations between statements and groups of statements, archaeology simply describes what it finds. However, if archaeology is a ‘re-writing’, this means that it is not an objective analysis that leaves its topic untouched. Archaeology describes regularities in the relations between statements and groups of statements, and this description is already a translation from one code into another, and as such already a transformation. Moreover, as Foucault has made clear before, archaeological analysis is itself subject to forms of regularity and its description of discourse is not therefore a detached observation. Even in its fidelity to discourse, an archaeological analysis is a new event that may interfere with the patterns of regularity shaping the discourse it describes.

2. THE ORIGINAL AND THE REGULAR

Foucault deals here with the first of the four ‘points of divergence’ between archaeology and the history of ideas that he mentioned in the previous chapter. At stake is the way that historical analysis deals with the emergence of what is new, which then leads to a consideration of what counts as ‘new’ and how it is recognised. The history of ideas, writes Foucault, operates with two basic schemas. The first identifies what is rare and without precedent, while the second builds blocks, groups and traditions that tie discourses into the past. In practice, the two schemas overlay one another as the history of ideas traces both the inertia of the old discourse and the conditions under which the new
was able to emerge. However, Foucault’s point is that this approach understands the emergence of new forms in terms of originality, and this in turn presents two basic problems. The first is that it presupposes a smooth continuity with which what is ‘original’ effects a break. Closer examination of such a continuity will, however, reveal discrepancies, discontinuities and relations that might otherwise have been passed over. The second problem is that this way of viewing events first places them in relation to one another according to time, and then asks whether they represent a continuation of what came before or a break. As such, the history of ideas assumes that discourse takes its place, and changes, within a temporal dimension that is continuous, and that underlies discourse as its condition of possibility. By contrast, time features in archaeology as an immanent property of a discourse, arising from the forms of relation by virtue of which it coheres internally, and by which it is linked to its own iterations, and ultimately to events at its borders and beyond. As such, archaeology is characterised by temporal pluralism.

A familiar epistemological problem arises here. As the resemblance between the works of one author and another, or between different vocabularies, is ‘an effect of the discursive field in which it is mapped’ (AK 160, 187), continuity can only be established by working from within a discourse, and not from a discourse-independent position. This threatens to make it impossible for archaeology to do what it sets out to do, because it cannot establish a ‘discourse neutral’ position from which to chart the contours and discontinuities of discursive formations. As mentioned earlier, this is essentially the difficulty encountered in the philosophy of science by those, such as Kuhn, who regard theories as grounded in a set of practices that are specific to each, and which therefore do not provide the basis for a comparison between theories. There is then no currency for evaluating one against another. As for Foucault, so for Kuhn, discontinuity appears to deprive the historian of the category of progress. However, whereas Kuhn’s descriptions of theories are elaborated from within, leaving the periods of revolution between paradigms beyond the reach of a description that could be identified as ‘rational’ in any privileged sense, Foucault seems to grant archaeology the ability to see both a given discursive formation and the discontinuities that distinguish it from other formations. The charge here would be that archaeology is attributed a view from on high at odds with its insistence on discontinuity and dispersion.

Clearly, there is no option of moving to a meta-level discourse to achieve this view (at least not definitively). With this ruled out, there seem to be two alternatives. The first is to concede that all archaeological
analyses are provisional and relative; in which case their value is hard to establish on strict epistemological grounds, and one is likely to fall back on criteria of interest and utility. For each analysis or description, one would then have to ask: why is this useful or interesting and what other analyses and descriptions can be given? There is, however, a serious weakness to this ‘pragmatic’ alternative, in so far as evaluations based on interest and utility come down to the subject, which is thereby reintroduced as a fundamental category for historical analysis. This cannot be what Foucault intended, and, more importantly, would make the not inconsiderable weight of critical apparatus that he has assembled so far in this book all but redundant.

The alternative is, at least initially, unproblematic. The difficulty for the history of ideas arises because it is committed to a form of history that can be called ‘empirical’ in so far as it deals with unities as existing things, and aims to trace when a new object has arisen, or when a new concept with which to present reality has appeared, and so on. In each case, however, it practises a form of history that is in one way or another divided into the thematic material that is addressed, and some other element that is necessary for the historical account, but with which it cannot deal. This may happen in a variety of ways. For example, empirical history may rely on formal or even transcendental conditions for the possibility of experience, where such conditions necessarily lie beyond the reach of historical discourse itself; if the conditions are made historical, then there may be still be laws determining the shape of historical development that do not themselves become the objects of historical description. In a quite different sense, the reconstruction of the history of science as a tale of the reason homing in on the truth, or even simply increasing the predictive power of theories, will often hand over to sociology or psychology those episodes for which it cannot compose an account of continuous rational debate. In each case, the history of ideas is pushed into giving an incomplete account by virtue of the demarcation it draws between the rational and the historical. But this is precisely the kind of demarcation that archaeology breaks down to reveal networks of overlapping relations. Its focus on regularities, not things, means that the order described by archaeology is not that of empirical events and the forms of unity on which the history of ideas relies. The regularities in question are, as has been well established by now, those between statements, groups of statements, and non-discursive events, and their analysis works on a case-by-case basis to determine where new statements arise on the basis of transformations in the regularities that serve as the condition of their existence. For the most part, breaks are not emphatic; even
where a break is deemed sufficient to warrant speaking of a discontinuity between discursive formations, there will be several regularities at play in any example, and some of them will meet with more disruption than others, as Foucault will observe at the end of this chapter. Moreover, some of the regularities will extend beyond the borders of a given discursive formation, tying it in partial and often hidden ways to other discourses, either contemporary or historically remote. The significance of this here is that it gives archaeology more to describe and new relations to map. In this sense, discontinuity between discursive formations does not mean that archaeology is reduced to silence about the relations between them. In fact, the ‘gaps’ between the borders of discursive formations, along with the borders of the discursive formations themselves, are the richest materials for archaeological analysis. ‘Discontinuity’ here does not entail a kind of void, where analysis must cease and which it cannot cross. Instead, closer analysis is generally rewarded with more material on which to bring the analysis to bear.

One can see here the extent to which history is an intrinsic part of Foucault’s thought, and not merely a topic he addresses. Incommensurability is a problem that arises for a philosophy in so far as it is committed to providing a purely rational account, or discovering purely rational grounds. For such a philosophy, history will always be an unwelcome companion, and often a profoundly obstructive one. By contrast, Foucault willingly supplements description with further description, increasing the dimensions in which regularities may form from the line to the table and beyond without this undermining the accomplishment of his basic aim. Because archaeological description does not aim to establish originality, the initial appearance of a sentence is not ranked higher than its repetition years, or centuries, later. Instead, their proximity reflects a similarity in the rule of their formation, which may be the same rule; that is, the regularity that gives rise to the existence of each may be the same regularity. The fact that it is constituted over a scale quite distinct from the usual chronological order may simply mean that their discursive proximity is not broken down by time and the intervention of other events. However, it also throws light on the fact that events which initially appear to interrupt or stand outside the prevailing order are not necessarily by that token ‘irregular’. They may be part of a regularity that spans a different scale or different variables. But even where this is hard to establish, one is dealing with different kinds and degrees of regularity, not with ‘irregularity’, as this would imply that certain events were ‘rule based’ and others somehow not (AK 161, 189). For archaeology there cannot be
any one regularity that takes precedence as of right over others and no regularity is absolute.

Foucault sees this form of analysis opening up in directions that have yet to be properly explored. The first concerns what might be called lateral or diagonal relations between different discursive regularities. Taking linguistic analogy, logical identity and enunciative homogeneity as three possible forms of relation between discursive groups, Foucault pits the third (which characterises archaeology) against the first and second, suggesting that what appears unrelated according to linguistic analogy and logical identity may in fact be differentiated in terms of enunciative homogeneity; conversely, what appears to be translatable or equivalent according to linguistic analogy and logical identity may in fact display remarkable enunciative homogeneity. In a situation where ‘Enunciative homogeneities (and heterogeneities) intersect with linguistic continuities (and changes), with logical identities (and differences), without any of them proceeding at the same pace or necessarily affecting one another’ (AK 163, 191), the field of archaeological analysis is complex and may reveal surprising affiliations and hybrids.

The second direction of research opened up by this conception of archaeology concerns what Foucault calls ‘interior hierarchies within enunciative regularities’ (AK 163, 191). That it bears a certain similarity to phenomenological description means that what differentiates it stands out all the more clearly. First of all, Foucault notes that no statement is ever the simple reproduction of an original; not because statements conform to the logic of the simulacrum, but rather because, as Foucault puts it, the enunciative field ‘never sleeps’: each statement puts into operation a set of rules that run through different formulations, and which therefore cannot be presented synthetically in a single formulation or extrapolated from a single statement. As a consequence, each statement actively contributes to the formation of the rules that set up the space of coexistence in which they themselves occur. This basis in the rule as regularity needs to be borne in mind when Foucault acknowledges that certain groups of statements deploy the rules in their ‘most general and widely applicable form’ (AK 163, 192). This makes it possible to see how other less general objects, concepts, enunciative modalities and strategies are formed. The idea that objects and concepts can be described as specific kinds of more general objects and concepts, culminating in the ‘most general’, recalls other forms of classificatory discourses, and perhaps especially the phenomenological conception of formal ontology and formal apophantic (though this pertains to judgements rather than concepts directly). The connection appears to be strengthened by Foucault’s suggestion that archaeology will identify
the governing statements that concern the most general possibilities of characterisation and that define ‘observable structures and the field of possible objects’ (AK 164, 192). However, the description of rules as regularities means that this can only be a limited similarity. If the rules that run across different formulations cannot themselves be given in a single formulation, then archaeology cannot in principle achieve the fundamental status that Husserl attributed to formal ontology and formal logic; and if each statement contributes to the rule that governs its own existence, then the rules are themselves neither fixed, nor stages on the way to a final destination. Indeed, as archaeology follows the ‘derivation’ of each successive degree of specificity, it leads to new discoveries, conceptual transformations, and the emergence of new ideas. Archaeology is oriented to open-ended transformation. Furthermore, the stages of this transformation ‘must not be confused with a deduction that is made on the basis of axioms’, nor understood as the unfolding of a general idea, or as a movement that has its genesis in the psychology of the subject (AK 164, 193). In short, the field that archaeology analyses is not defined in its possibilities by the initial point from which it is derived; an observation that follows directly from the fact that statements contribute to the regularities that they put into operation, which means that even the ‘most general’ rules to which an archaeological derivation can return must itself have antecedent conditions and there can literally be no ‘first principle’ or necessary point of departure. Where, as may happen, it appears that archaeology reproduces other forms of analysis, Foucault would have us remember that the orders and homogeneities it uncovers are only ever partial, provisional, and already, if imperceptibly, in transformation.

The chapter closes with Foucault reflecting back on a common criticism that had been levelled at The Order of Things; namely, that its division of history into periods was too crude and encouraged a selective reading of events. As noted above, in what Foucault refers to here as the ‘confused unities’ we call historical periods, there will be different stages and paces of development associated with elements such as concepts, theories, levels of formalisation and linguistic development, each with their own ‘temporal articulation’ (AK 165, 194). Whether Foucault is correcting a misunderstanding of The Order of Things or correcting a misleading tendency in his own analyses is a question for another time. What is clear is that for archaeology as Foucault understands it in this text neat historical divisions are a consequence of taking up a viewpoint at a distance, where closer inspection will reveal threads of continuity and frayed ends that turn the borders of such periods into complex spaces.
3. CONTRADICTIONS

In the previous chapter, Foucault wrote that departures from regularity do not lapse into simple irregularity, but rather enter into variations of regularity. This theme is taken up again in the present chapter, as Foucault considers the way the rationality of a critical or analytical method is revealed by its approach to contradiction, the kind of contradiction it recognises, and its response. The answer to these questions says a good deal about what archaeology takes to be ‘rational’ and how it embodies this sense of rationality. Given that Foucault has taken such trouble to suspend credence in the forms of unity around which the coherence of a method is organised, there appears to be a risk that its relentless pursuit of difference and divergence within discursive formations may deprive archaeology itself of sense, even as it unmasks the careless assumptions of other forms of historical discourse.

Given that unity has always been the hallmark of reason, contradiction and opposition challenge the state of rationality at a given time: either the conception of rationality is mistaken, or there is an error or illusion that has to be overcome in order to heal the rift and recover unity. But if, as in archaeology, unity is neither a first principle nor an aim, if contradiction is treated as an intrinsic characteristic of discourse and not as a ‘fall’ or error, then does its toleration put the coherence of archaeology at risk? Is archaeology itself a rational form of analysis? These questions bear not only on the basis of archaeological analysis, but also on what it hopes to achieve in and through that practice. Responding to them thus opens onto the question of the ‘value’ of archaeology as such, and how such a consideration can be addressed. In other words, why should one prefer archaeology over other forms of analysis? One might think here of genealogy, in both its Nietzschean and (later) Foucaultian forms, for which differences are pursued back to points of emergence without resolving into a single origin. Such an approach leaves open the genealogical challenge of discriminating between ‘active’ and ‘reactive’ tendencies. For Nietzsche, the ‘value’ of genealogy can, for argument’s sake, be estimated according to its contribution to an ideal of health, and the form of life that its practice encourages. But there is no easy way to tie Foucault’s critical practice into any similar basis for evaluation. This makes it all the more important to make the connection between archaeology and the new sense of critique that he proposes in The Order of Things – one based on the ‘mathematical a priori’ and on the idea of temporal dispersion. If there is a prevailing value here, it is that of experimentation, and the possibility of transforming the conditions of existence. Another way of putting this is to say that history
always has the last word for Foucault, and that any philosophical truth will always be submitted both to the work of history, carried out through the very relations that establish even those truths that appear to lend form and structure to the work itself, and which in this sense may include the kind of archaeological analyses that Foucault proposes. Yet it must be a modified sense of history in so far as it begins to take over roles that were once those of philosophy. Neither practice will remain unchanged by the developments Foucault sees, and which he then promotes.

As in earlier chapters, Foucault marks out the profile of archaeology through a series of contrasts. The history of ideas tends to attribute to the discourse it analyses a basic coherence, thereby implying that any irregularities it discovers are merely provisional and can be resolved, usually by detecting a deeper or more extensive principle of cohesion that sustains the unity of the discourse in spite of the now superficial irregularity (AK 166, 195). The heuristic principle is therefore bound within a circular practice that aims to restore a cohesion that it assumes was there at the beginning. To achieve this, it may characterise the source of the contradiction as ‘external’, rather as political dissent is often blamed on foreign agitators; in this case the foreign agents may be psychological weakness on the part of practitioners of the discourse, or the social conditions in which it occurs. It may be attributed to the incursion of the unconscious, or the interruption of ideal meaning by the material sign. Another common gesture is to disqualify a recalcitrant text by identifying it as part of an author’s juvenilia, or as a careless expression that detracts from a deeper intention. While moves of this kind may appear to be simple and rather reductive, the rich variety of forms that coherence can take is such that the history of ideas is never short of subject matter. At the end of such an analysis, the contradiction will have been made to disappear. Alternatively, it may be revealed as itself the principle on which the unity of a discourse is based, as in psychoanalysis and Marxism. In the first case, discourse is the ‘ideal figure’ that rises above the empirical source of contradiction; in the second, discourse is the ‘empirical figure’ whose apparent cohesion has to be exposed to reveal a fundamental contradiction that discourse has concealed. Although proceeding in opposite directions, what these approaches share, notes Foucault, is their occupation of a space defined by concealing and revealing contradiction, by its appearance and disappearance. By contrast, archaeology does not try to do anything with contradictions, which are treated simply as ‘objects to be described for themselves’ (AK 169, 198). Referring to the example of Linnaeus’s ‘fixist principle’, Foucault notes that it was opposed...
by a series of evolutionist proposals in the works of Bufon, Diderot, Bordeu, Maillet and others, but that archaeology does not try reveal a more fundamental set of shared theses underlying the opposition, or to characterise the opposition as the mark of a more general conflict running through ‘all eighteenth century knowledge and thought’ (AK 169, 198–9). The archaeological strategy is to show that the two theses share a common locus in a description of species and genera organised around the visible structure of organs. This move does not resolve the contradiction, but neither does it ‘transfer it to a more fundamental level’ (AK 170, 199). It simply identifies the point at which the contradiction occurs and describes the structure and extent of the separation between the two theses in terms of the elements of archaeological analysis that Foucault has set out.

As elsewhere, one can see Foucault describing the elements of discourse simply as they occur, or as they present themselves, and therefore not taking an element as an example of a general kind; here, it is contradiction that is in each case to be described ‘in its own terms’ and not as a particular instance of the general category. To this end, Foucault breaks down the general category of contradiction into contradictions of type, level and function (a division that must itself be provisional). Archaeology takes little interest in contradictions between different propositions that arise from the same discursive formation, according to the same conditions, or those that enter into opposition with one another while arising from distinct discursive formations (e.g., Linnaeus’s fixism and Darwin’s evolutionism, which belong to natural history and biology respectively). Contradictions of these kinds are visible to more orthodox forms of history. By contrast, archaeology looks for contradictions that arise within a discursive formation and that, on closer inspection, reveal divisions that had not been evident previously. These, Foucault explains, will not reflect different views of the same object, or different usages of the same concept. The archaeological focus is on the way statements are formed, which means that attention falls on the patterns of regularity that order the enunciative function and strategy, the relation of concepts to objects, and all the relations into which statements enter in giving consistency to discursive formations. Such contradictions will be complex and ‘distributed over different levels of the discursive formation’ (AK 171, 201), thereby providing archaeology with a starting point for further analysis. To illustrate this, Foucault describes the contradiction in the eighteenth century between systematic natural history and methodical natural history, which turn out to have involved different objects, enunciative modalities and concepts and to have pursued different theoretical options. Taking a longer
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view, these contradictions can be seen to have had different functions in a discursive practice: in some cases, they will have been obstacles to overcome, in others a starting point from which to proceed, while in other cases again they may have prompted a new development, or the reorganisation of the discursive field. As Foucault writes, their effects are too various to describe simply in terms of the acceleration or deceleration of history. Time, he adds, ‘is not introduced into the truth and ideality of discourse on the basis of the empty, general form of opposition’ (AK 172, 202). This is to say, discourse is not essentially timeless, its historical character representing a modification that, viewed in the proper way, reveals a moving image of its true timelessness. Moreover, the temporality of discourse is not derived from a general and all-encompassing structure to which events must conform. Just as the regularities constitutive of the rules shaping discursive formations emerge from the relations between the elements of discourse themselves, so too do the patterns of difference on the basis of which temporal discriminations are made; that is, the category of ‘opposition’ or ‘contradiction’ emerges from more specific forms of relation which archaeology aims to bring to light. The variety of forms of contradiction therefore support different temporal forms, which may overlie one another and intersect, or just run parallel, and which together make up the temporal pluralism of discourse. This way of viewing time is directly related to the idea of temporal dispersion that Foucault drew from his reading of Kant’s Anthropology, where synthetic activity is ongoing, local and provisional.

Finally, it is important to see that if Foucault identifies several forms of contradiction, operating at different levels and exercising different functions, closer attention to any one of these may reveal further discontinuity. Archaeology must allow that this is possible, and that the forms Foucault discusses here are simply those which his analyses have revealed so far; there is no assurance that they exhaust the field of all possible forms of contradiction, or that they may not be eclipsed by other forms of contradiction that have remained out of sight so far. The reflexivity by which the form and elements identified by Foucault may themselves be transformed by the processes to which they give order is fundamental to the coherence of archaeology as a method. The impetus of archaeology is to push past apparent unities and points of origin to reveal disparity and dispersal, and this applies equally to the eventual problematisation of its own terms.
4. THE COMPARATIVE FACTS

This is the last of the chapters in which Foucault deals with how archaeology differs from existing approaches to history. However, as in the previous cases, it is more than just an exercise in mopping up misunderstandings, and archaeology is brought into sharper focus, especially in its relation to epistemology, Marxism and structuralism.

Unlike orthodox epistemology, archaeology is concerned not with the internal structure of a theory *per se*, but with the differences between the various elements a theory deploys and those deployed by other theories and to other ends. As Foucault underlines here, its aim is not to determine the meaning of basic terms within a theory, to define its objects, to set out the forms of inference appropriate to it, or to establish the conditions of epistemic justification associated with a given theory or science. Although closer to the ‘historical epistemology’ of Brunschvicg, Bachelard and Canguilhem, archaeology is distinguished by its emphasis on dispersion, and by its incorporation of dispersion into the historicity of knowledge at each level. In this respect, it is closer to the methodology developed by Serres in the series of *Hermes* books that takes as its model the way mathematics incorporated epistemology into its own practice, its development as a discipline being driven by the problematisation of its own practice (a principle central to Cavaillès’ conception of mathematics), and the translation of this methodology into philosophy and other discourses. Archaeology follows suit in recognising that the rules which govern a discourse, and the changes that shape it, are formed within the discourse itself. A further and perhaps more far-reaching difference between Foucault’s archaeology and epistemology is that archaeology is concerned not just with a given discourse in its strict sense, but also with ‘a set of events, practices, and political decisions, a sequence of economic processes that also include demographic fluctuations’ and many other ‘non-discursive’ elements that feed into discourse in its wider sense (AK 174, 205). In this way, knowledge is not simply embedded in practices that represent its historical conditions or possible applications. Rather, knowledge and the events, practices, decisions and processes associated with it have a significant degree of formal equivalence and make up a single network, albeit one that is internally differentiated and without well-defined boundaries. It is easy to see how archaeology thereby has something in common with pragmatism, and indeed with other forms of ‘naturalised’ epistemology that in one way or another break with the idea that knowledge is regulated by well-defined rational principles. However, to place knowledge on the same plane as social events and
the communication through which it is decided what ‘counts’ is not the same as developing a conception of discourse in which they are thoroughly integrated. For its part, in so far as it draws legitimacy from the unity of a particular discipline, the naturalisation of epistemology on the basis of psychology, neuroscience, evolutionary biology, or indeed any other region of discourse, might be the starting point for an archaeological enquiry, but cannot be the basis on which such an enquiry rests. For this to be possible, a region of discourse would have to serve as a general principle for the intelligibility of the rest, which would reintroduce the continuity that Foucault set out to remove from the analysis of discourse in the first place. The remainder of this chapter is a review of, and a warning against, the ways in which this might happen.

Foucault begins by claiming that the comparison in *The Order of Things* of General Grammar, the Analysis of Wealth and Natural History in the Classical period was not aimed at recovering forms of rationality that extended throughout the period. For archaeology, there is no easy passage between the particular and the general, the local and the global, and such an extension would probably have been unwarranted. So the characterisation given of the Classical period was never intended to be exhaustive, and by implication the same could also be said for the other periods studied. Although the relations between discursive formations, such as General Grammar, the Analysis of Wealth and Natural History in the Classical period, do not ‘spill over into adjacent domains’, the fact that they are not a total description of the period inevitably means that other discursive formations may not conform to the same pattern and may therefore not begin and end at the same borders. As noted before, these borders will look more like the result of messy negotiations rather than clean incisions. This is reflected in Foucault’s response to the imagined criticism that in place of General Grammar, Natural History and the Analysis of Wealth he might have discussed cosmology, physiology or biblical exegesis, as though he had privileged certain discourses above others, covertly or for no good reason. Foucault not only concedes that his analysis is limited in this respect, but insists that he made it so quite deliberately (AK 176, 208).

Had it been otherwise, he points out, he would merely have added to the already long line of attempts to characterise the ‘spirit’ of a given time. Any omission or imprecision would then throw his whole account into question. Instead, archaeology is presented as a method, in much the same way as phenomenology is a method, its possibility higher than its actual form at any moment, with scope always remaining for further analyses and greater refinement.

Taking as its subject matter ‘a tangle of interpositivities whose limits
and points of intersection cannot be fixed in a single operation’ (AK 177, 208–9), archaeology commits itself to a series of comparative analyses with no expectation of arriving at a final ‘correct’ version. Indeed, its aim is to have a ‘diversifying’ effect. Ultimately, this emphasis on the transformability of the subject area will circle back to take in the methodology itself, so that its terms and perhaps even the key distinctions that provide a framework for it may themselves mutate. The fact that archaeology may be caught up in the processes it analyses inevitably prompts the doubt that it is not fundamental, and that it must rest on some more permanent basis or set of principles. But such criticism assumes that a credible methodology will necessarily be both fixed and independent of the processes or events with which it deals; in other words, it assumes an ideal of objectivity to which archaeology does not subscribe, and whose construction would be just the kind of event for which it sought to provide a historical analysis. Moreover, it is not alone in being a methodology that is responsive to the domain in which it is applied, as the same could be said of phenomenology, hermeneutics and even pragmatism. The cases are not all equivalent, however. Phenomenology has been adapted and refined at least in part as a result of the analyses it has undertaken, but the changes have aimed at securing fuller and more adequate access to the phenomena it has been studying. In this sense, it has been refined in response to them, but it has not been directly affected by them. Hermeneutics is a slightly different case As Gianni Vattimo describes it, hermeneutics is historically situated in modernity as the best interpretation of the history that has led to the point at which the interpretation is made. It is therefore planted in a two-way relation, interpreting the meaning of the conditions that led to its own emergence. This means that hermeneutics is itself an interpretation, and not a basic truth about interpretation. Something similar is the case for archaeology, except that its relation to its own conditions is closer to a material process than to an interpretative process. For Foucault, discourse is a complex configuration of relations in which events feed back into their conditions and it is ultimately impossible to insulate a level of analysis from what it describes. In short, the principles of archaeology are implicated in the history it analyses and archaeology must therefore be prepared to problematise its own appearance, structure and development. Pragmatism may be said to do something similar by virtue of its refusal to anchor its own legitimacy in a meta level of any kind, but only in so far as it is prepared to let criteria such as utility and consensus themselves be called into question.

Foucault writes that, in analysing General Grammar, Natural History
and the Analysis of Wealth in the seventeenth and eighteenth centuries, he could have looked for the implicit postulates they shared in spite of their differences, and could have speculated on the lines of communication between them. However, this would have involved tracing the translation of general principles from one domain to another (e.g., from botany to the analysis of the origin of languages); but such an analysis would, he writes, have relied on the idea of influence, which takes for granted the existence of some kind of unified form as its currency. By contrast, archaeology proposes to uncover the conditions that make such exchanges possible, which ultimately lie in the laws of their communication and exchange (AK 177, 209). Setting out in detail what this might involve, Foucault identifies five distinct tasks. Interestingly, these involve analyses whose aims cannot be resolved into a single clear point of view: different discursive elements may be based on similar rules, which may or may not be applied in the same way; different concepts may occupy a similar position in their respective positivities, even though they be quite different in their domains of application, degrees of formalisation, and historical genesis; a single notion may cover two quite distinct elements; and finally hierarchical relations between discourses may be established (AK 178–9, 209–11). Where a step towards simplification occurs, it is countered by a move towards dispersal, thereby ensuring that unities are not allowed to consolidate to the point where they begin to appear immune to change.

The two most commonly cited points of contrast between Foucault’s archaeology and his later genealogical method are that genealogy widens the perspective of analysis beyond discourse to include non-discursive events, and that in doing so it allows a more developed sense of historical change. In each case, the changes are less clear-cut than they may initially appear and may come down to shifts in emphasis rather than wholesale changes. The first point has been discussed already, but Foucault addresses it directly here and it is worth pausing to take in what he is saying. Archaeology, he states explicitly, describes relations not just between discourses, but also between discourses and institutions, political events and economic practices (AK 179–80, 212). In doing so, it does not attribute explanatory force to a causal process either moving from the discursive to the non-discursive or vice versa; archaeology sanctions neither the dominance of discursive formations over empirical and cultural history, nor the power of empirical events alone to determine the structure and development of thought. Foucault’s refusal to treat discourse as separate from the reality it constructs, either in principle or in practice, means that it is inextricably bound up with non-discursive events. The example he gives is of the relation between
medical discourse and political practice, which is more complex than a relation of cause and effect pointing in either direction (AK 181, 213). Although Foucault modified his methodology, and in fact did so repeatedly, the idea that taking such events into consideration required a radical shift from archaeology to genealogy is misplaced. However, one can perhaps see here an ambiguity that prompted a revision. It was already clear back in Chapter 1 that the relations between discourse and non-discursive events played a significant role in the formation of regularities (AK 32, 41), and discourse is presented here as so closely bound up with non-discursive events that the relations seem to be a part of discourse itself. At the end of this chapter, Foucault encapsulates the difficulty when he writes that the autonomy of discourse does not entail its ideality or its historical independence. But how can a discourse be autonomous without being historically independent? What Foucault has in view here is any notion of historical independence that follows from the ideality of discourse, leaving open the possibility of a form of autonomy compatible with history and the complexity of historical relations. Once again, Cavaillès is a significant precursor here, thanks to his account of mathematics as an autonomous formal discipline that is essentially historical. However, given the implication of discourse with non-discursive events (and their institutional form), it is still not clear how one could draw a line between discourse and non-discourse without straying dangerously close to making precisely the kind of distinction between formal conditions and empirical events that archaeology tries to avoid. Allowing this already blurred distinction to fade away altogether is a factor in the shift from archaeology to genealogy.

The second point, that archaeology cannot account adequately for historical change, is related to the first, in that one will look for the account of such change to emerge from the constructive processes through which discourse and non-discursive together take on the form that they do. It is a question, then, of the extent to which the account of discursive formations and their temporal dispersion in fact provide a convincing story of the transformations that belong to them, or allow such a story to be told.

5. CHANGE AND TRANSFORMATIONS

In Part IV, Chapter 3, Foucault showed how the general categories of contradiction, opposition and negation conceal patterns of complex relations that lie within them, and in this chapter he sets out to make a similar point with respect to the category of change. In place of ‘the empty abstract notion’ of change, archaeology aims to reveal a plural-
ity of transformations involving different elements of discourse. His point is essentially that discourse is complex, and the transformations that occur cannot be encompassed in a single form without concealing their true variety. Given that Foucault’s book aims to promote a new methodology for historical analysis, this is clearly an important question. However, *The Archaeology of Knowledge* is also part of Foucault’s alternative to what he regarded as the failed strategy of an analytic of finitude, which sought to ground knowledge in philosophical anthropology centred on human finitude. In his Introduction to Kant’s *Anthropology*, Foucault alludes to an approach based on temporal dispersion, rather than the original unity of temporality proposed by Heidegger, but this sketch is given more detail in *The Archaeology of Knowledge*, and nowhere more so than in this chapter. The replacement of a single category of change with multiple senses of transformation is therefore especially important, as it lies at the heart of Foucault’s response to the phenomenological, and above all Heideggerian, emphasis on the fundamental unity of time as the mark of human finitude and as the condition for ontology. However, the move Foucault makes here has its problems. First, simply to call all the events in question ‘transformations’ appears in itself to assume an identity or form that they have in common; if so, is this not a candidate to replace the ‘empty category of change’? By discarding the idea of change as such, does archaeology not then foreclose an engagement with its own conditions, much as regional ontologies fail, in Heidegger’s view, to ask the more fundamental question of Being? Yet if Foucault is right and there is no such general category of change, will the sense of transformation itself not splinter into confusion? Whether the general concept of change is deliberately ignored, or simply does not exist, there is a risk that archaeology may be unable to account adequately for the transformations it describes. Of course, much will depend on the sense one attaches to the idea of an ‘adequate’ account, but I’ll come back to this shortly.

If the questions I have just outlined all hang in the air in this chapter, Foucault’s declared purpose is to counter the perception that archaeology freezes history into a series of tableau, immobilising the thought whose movement it aims to release from the constraints of a conception of history based on continuity. From this perspective, discourse would be separated from any law of development and ‘established in a discontinuous atemporality’ (*AK* 184, 217); that is, time would disappear and the analysis of discourse would be structural, and therefore primarily spatial. For all its apparent neutrality, there are at least two accusations implicit in this criticism. First, the phenomenological response to Kant that passes from Husserl through Heidegger made time absolutely
central to its interpretation. Above all, time was seen as crucial for re-awakening philosophy to ontological questions. Failing to accommodate time places the possibility of providing an ontology in doubt, and if one understands epistemology as essentially a founded discourse, then this amounts to leaving the job half done. In addition, it seemed odd, or worse, that Foucault should construct a method for historical analysis in which time played little or no part. The idea that time is sacrificed and archaeology is a spatial form of analysis is a familiar one, but, as this chapter shows, it is not accurate. All that is sacrificed here has in fact already been sacrificed much earlier in the book; namely, the idea of continuity as an underlying condition of ontology, and of discourse. For one of the things we learn from this chapter is that continuity as such is less the issue than certain ontological assumptions that are made when continuity becomes a guiding principle. So, although the opposition to continuity in Part II Chapter 1, and the emphasis given to the idea of discontinuity more or less throughout, may encourage an expectation that continuity will be resisted in all its forms, this is not actually the case. In this chapter, Foucault sets out a view of plural transformations in which continuity and discontinuity both feature.

The chapter begins with Foucault acknowledging the objection that archaeology appears to ignore temporal relations within discursive formations in order to focus attention on the transitions between them, yet these transitions paradoxically have the character of blank atemporal jumps as ‘one sudden formulation replaces another’ (AK 184, 217). To this extent, it appears as though archaeology deliberately neglects change within discourses in order to focus on changes between them, only then to find these changes themselves hidden from view. However, Foucault clearly thinks the objection is misconceived, in so far as it treats archaeology’s attention to limits as the expression of a desire to establish clear demarcations between discourses, whereas in fact the analyses Foucault offers repeatedly take what appears to be a simple limit and reveal it to be made up of a series of displacements that do not exactly coincide. Moreover, the objection takes the archaeological commitment to discontinuity seriously enough not to situate distinct discourses within the same temporal dimension, and then takes this separation as proof that there can be no temporal relation between them – but this simply assumes that temporal relations can only occur within a pre-established continuous dimension. In short, the objection assumes that a transformation can only appear when its beginning and its end are marked in a single dimension, and when the path from one to the other passes through a (potentially infinite) series of intermediary points. Of course, Foucault does not accept this view. Yet, as he
points out, the alternative need not entail trying to establish a different rule in every single statement, as discourse would then be hopelessly fragmented and an account of transformation would again be impossible. Pitching his account somewhere between these two extremes suggests that continuity will remain important for archaeology, though its role cannot be that of a fundamental condition underlying a single dimension of change and time. In this way, Foucault moves away from the idea of a single dimension of change that lends itself to a universal history, and – more importantly – would allow the issue of the ground of knowledge to be raised all over again. More specifically, he is exploring an alternative to Heidegger’s proposal that Kant’s anthropology could only be redeemed by placing it on the basis of a fundamental account of temporality as the condition of the finitude of Dasein. But for this to work, Foucault needs at least to hold open the possibility of an account of change and time that is not grounded in the unifying condition of continuity. Such an account can be found in Bachelard’s temporal atomism, though Foucault does not follow him precisely. So while Foucault has gestured in this direction before with the idea of temporal dispersion (see the Introduction), this chapter presents an opportunity to flesh out the idea.

After some preliminary remarks concerning the variety of ways in which statements may be related to events, Foucault notes that archaeology recognises rules of formation with different levels of generality; that is, the range of a discourse, or its extension, is determined not by the number of examples matching the defining form, but rather by the more ambiguous notion of a territory whose borders are less evident. Every discourse is local, in the sense that it constitutes a number of cases, statements and events within a neighbourhood that is discursive but also historical. Some discourses stretch to include more than others, but none has any claim to universality. This leads to a situation in which the extension of a discourse has two dimensions, reaching out across a range of events and relations that are synchronic, or ‘temporally neutral’, and across time to include events and relations ‘that imply a particular temporal direction’ (AK 186, 219). The archive is made up of a mixture of logical and chronological relations, as some that are necessarily successive intersect with others that are not. In this way, Foucault refuses to allow discourse to be divided into the simply logical (or formal) and the simply historical, which is to say that the formal conditions of discourse are themselves historical. As a consequence, one does not have to decide whether priority lies with atemporal formal conditions or with the contingent events of empirical history carried along by temporal succession.
This ties in directly with the fact that the events archaeology describes are not what we usually recognise as empirical events, but rather shifts in the pattern of relations between the various elements within discourses; for example, between statements, between objects, types of enunciation and concepts, and ultimately between the rules of formation that arise from regularities emerging between these elements. These regularities establish rules of formation that ramify into branches with different temporal characteristics. But as regularities they all necessarily extend beyond individual statements, objects, enunciative functions or concepts. They can be found ‘in statements or groups of statements in widely separated periods’ (AK 184, 217), meaning that archaeology does not group events together according to their proximity on a predetermined historical or temporal scale; rather, it destroys the ‘synchrony of breaks’ between discourses, which means that where there are several transformations underway contemporaneously, each ‘may have its own particular index of temporal “viscosity”’ (AK 193, 229) and one cannot assume that they will coincide. The events that archaeology describes do not fall into a neat temporal order and are not, as Foucault puts it, lined up ‘immediately below one another’ (AK 189, 223).

By describing complex patterns of relations both within certain levels of discourse and between them, archaeology tries to tear away the surface of change as such to reveal the ‘system of transformations’ that constitute it (AK 191, 225). As Foucault notes, this is only possible once archaeology breaks with two models that have dominated thought for a long time. First, the linear model according to which events are arranged in a strict order of succession, a model that Foucault associates with patterns of speech and writing, but which also belongs together with cause and effect; and second, the model of a stream of consciousness whose openness to the future and retention of the past mean that it can never coincide with itself in the present. As Foucault writes, discourse is neither a consciousness externalised in language, nor language endowed with a speaking subject (AK 187, 220–1). Treating discourse in this way, Foucault takes up Cavaillé’s call for a turn away from the philosophy of the subject to a philosophy of the concept, and repeats in a different setting his approach to the historicity of mathematics as distinct and autonomous, independent of consciousness and of any other historical discipline, including logic and natural science. For Cavaillé, the history of mathematics was the ground of its own scientific status. For Foucault, the laws governing discourse are formed along the path of its own development. They are immanent to discourse as a practice ‘with its own forms of sequence and succession’
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The discourses in question are both autonomous, but the significance of this is very different in the two cases. For Cavaillès, the autonomy of mathematics is the condition of its necessity. By contrast, Foucault regards the autonomy of a discourse as an invitation to explore its relations to other discourses, other layers of discourse, and other non-discursive formations, such as institutions, social and political relations and so forth.\(^3\)

At this point, the objection that Foucault’s archaeology sacrifices time for space, and therefore cannot account for historical change, slips into sharper focus. It runs like this. To account for the transformation between two discursive formations one needs to demonstrate its necessity, and to do this one must arrive at a point where it is self-evident. One could appeal to an external principle of some kind, and explain the transformation as caused by economic conditions, or social policy, but this would assume the causal efficacy of events external to the system in question, and Foucault refuses to explain things in this way. Alternatively, one could simply present the steps that lead from one pattern of regularity to another, but this would only constitute an explanation if the steps themselves were in some sense self-evident; as one does not know in advance which events can linked by cause and effect, and as there is no underlying ‘logic of change’, this is impossible. Therefore simply increasing the level of detail in the description will not in and of itself explain the necessity of moving from one step to the next. Even if there are configurations that appear to occupy intermediary positions, they will be at the margins of any single pattern of regularity, and therefore will not themselves carry the force of a rule. One is left, then, with a proliferating number of snapshots of a transformation, but no way of presenting the transition from one to another.\(^3\)

This objection suggests that however much Foucault banks on describing in ever greater detail the emergence of categories commonly taken to be the currency of historical interpretation, he nonetheless has to assume the occurrence of some kind of process from which the regularities described by archaeology first emerge. In other words, when Foucault sets out to describe the historical specificity of a given discursive formation (its unique temporal vector), in so far as this historical specificity emerges with the regularities the discursive formation in question displays, there must already have been some still unnamed process unfolding such that any change at all could occur and fall into the pattern which then constitutes the historical specificity that archaeology describes. In short, so the objection goes, Foucault simply cannot ignore the general category of change, which must underlie his account of transformation whether he chooses to engage with it or not.
However, it is not hard to see that this misunderstands what Foucault is proposing with the idea of archaeology. Above all, the objection assumes that ‘to account’ for a transformation means to demonstrate its necessity in some way. In fact, archaeological description can never reach a point where the step that follows is revealed as ‘self-evident’, mainly because it can never reach the point where descriptive possibilities have been entirely exhausted. As Foucault said elsewhere, the topics he studied could be taken up again in a different way. Even the rules that shape the existence of a certain discursive practice must themselves have emerged from a process, which may in turn be examined more closely or in a different way. Archaeological description is in this sense infinite, even as it is bounded by the discourses it elects to study.34

The transformations that archaeology addresses involve reconfigurations in the rules or regularities embedded in discursive formations. How, then, does one regularity become a different regularity? Again, there can be no single answer. There are so many ways for a discursive formation to be disrupted by another that they are irreducible to a single mechanism. Equally, it may be that a discourse undergoes a form of internal collapse, as the regularity by which it has been sustained breaks down. In whichever way it occurs, the outcome will be the disruption of one pattern and the emergence of another. Describing how this happens, Foucault writes that he has sought to show ‘the very form of the passage from one state to another’,35 which means the specific form taken by each transformation, even though such a demonstration could never be exhaustive, and the form itself never absolutely precise. But if there is no appeal to continuity as a general principle, neither should emphasis be placed too heavily on discontinuity, and transformations will exhibit both. Given that a statement already comprises a set of repeatable relations, this has to be the case. One of the aims of archaeology, therefore, is to show that the continuous and the discontinuous are ‘formed in accordance with the same conditions’ (AK 193, 225), which means that neither is given priority over the other, and neither is simply derivative. Instead, they both rely on the formation of patterns of regularity.

Serres describes time as a pure multiplicity, as a patchwork or mosaic, and as a threshold between disorder and redundancy: in one direction lies a chaotic absence of structure, and in the other an absolutely fixed set of relations; but time is a sporadic, local and ultimately variable order established between the elements in question.36 Where degrees of repetition occur, one has continuity, but this, too, is sporadic, local and variable. Discontinuity is found between such patterns of regularity, and is the condition of a temporal pluralism. From this perspective, the
idea that Foucault has somehow sacrificed time in order to elucidate the spatial architecture of discourse appears hopelessly wide of the mark, as what fascinates him most is precisely this middle ground where order can be described, but never grounded, where it undergoes transformation without conforming to a more fundamental rule than the one that has shaped its existence so far. Archaeological analysis describes the construction of knowledge and experience that takes place in a historical process, but does so through a specific form of repetition, and not by a taking up a viewpoint from which to map the whole. This may sound surprising, given the confidence with which Foucault will sometimes state the essential characteristics of a period, or the characteristics that have changed in the transition from one to another. However, his descriptions are always local, and always situated. What distinguishes them from being a simple repetition of the history they describe is that they address the rules by which historical construction takes place, and the transformation of these rules. As he writes in the concluding paragraph of this chapter, to name a period in history, such as the Classical age, is not to invoke a principle of unity, but to call up ‘a tangle of continuities and discontinuities’ (AK 195, 230–1). To analyse the way such a period ends and gives way to another is to trace a complex group of relations and events, forming a variety of regularities that do not all coincide and may not all be consistent with one another. The operation of time within discourse will be brought to light as one conducts this archaeological analysis, without itself becoming a theme.

It might be objected that by refusing to deal with time directly, Foucault allows time to operate secretly as the transcendental condition for the processes that are analysed. But such an objection assumes in advance that there is a single form of time that underlies all transformations, which is a view Foucault explicitly rejects. To speak of local discursive temporalities is not to accept a watered-down version in which variations on a fundamental model are described while the model itself is left unanalysed. Instead, time does not precede the formation of regularity in discourse. To analyse such a formation is to reveal the rules by which temporal order itself is composed.

6. SCIENCE AND KNOWLEDGE
The final chapter before the conclusion is already involved in a certain ‘taking stock’, stepping back, as it were, to look over what has been accomplished. As in the previous chapter, Foucault is responding to misunderstandings of his work, and this time the issue centres on what it is that archaeology actually describes. Medicine, psychiatry,
economics and linguistics, the topics he had addressed in his published work prior to *The Archaeology of Knowledge*, do not belong to the so-called ‘precise sciences’. Yet he also ignored literary, philosophical and political texts – all long considered appropriate subjects for careful academic analysis. His choices appear contrary. If, as seems to be the case, Foucault selected his topics at least in part because of their problematic relation to orthodox or established science, then the question arises as to the precise nature of this relation.

Almost as a preliminary to engaging this question, Foucault clears the ground by sideling two of the more obvious responses. Is it the case, he asks, that what archaeology describes are not sciences, but pseudosciences? Unsurprisingly, the answer is no. Using the more neutral term ‘discipline’ for those ‘groups of statements’ that borrow from science without being strictly scientific, he clarifies that disciplines do not coincide with positivities and discursive formations, which are the real topic of archaeological analysis. For example, the analysis of psychiatry took as its focus a network of relations supporting the production of statements not only in the discipline of psychiatry, but also in legal texts, philosophy and literature, and in practices relating to hospitalisation, internment and social exclusion. A discursive practice may even operate when there is no recognisable discipline at all. In such cases it might be thought that the discursive practice defines a science in the making, but Foucault rejects the implication that archaeology selects its subject matter on the basis of a narrative of development. For example, natural history was not an anticipation of biology, and contained much that was excluded by the later science. Also ruled out by Foucault here is the possibility that positivities and science are mutually exclusive, existing alongside one another without entering into a meaningful relation.

Under the heading of ‘Knowledge (savoir)’, Foucault once again situates archaeology with respect to conceptions of knowledge whose understanding of the landscape is defined by the distinction between the empirical and the transcendental. Archaeology identifies the rules in accordance with which a discursive practice relates objects, enunciations, concepts and so forth, but this does not yield ‘a defined structure of ideality’ (AK 200, 237). Accordingly, neither are the elements of a discursive practice to be treated as a heterogeneous group linked only by the lived experience of the subject, from which ideal structures may be distilled. Rather than look for the precondition of ideality in lived experience, Foucault proposes that one look for the precondition of discourse in what has been said. The axis that runs from consciousness through knowledge to science is thereby replaced by another which runs from discourse to knowledge to science. As Foucault points out,
this is not to exclude the subject from discourse and from archaeological analysis, but merely to recognise that it does not play a central role ‘either as a transcendental activity or as empirical consciousness’ (AK 202, 239).

Science insists that in order to fall within its domain, what is said has to be appropriately constructed. Yet, as Foucault points out, there may be affirmations that have the same meaning and that are equally as true, but which are not constructed as science demands. For example Diderot’s *Le Rêve d’Alembert* contains much that is entirely continuous with the natural history of its day without itself belonging to science; or, as Serres demonstrates, the novels of Émile Zola articulate the principles of thermodynamics, yet there is no danger of them being lost to literature. However, archaeology imposes no such restriction, and would treat the work of Diderot and Zola as part of discursive formations that reached across the orthodox disciplinary boundaries in their respective periods. The idea that similar patterns may be found in discourses that on the surface have little relation beyond being historically contemporaneous, and sometimes not even that, suggests that Foucault’s archaeological method is borrowing from structuralism, but this may only be true to certain extent. Serres’ early writing expressed a great enthusiasm for what structuralism could become, but as his work developed into an exploration of the mobility of formal characteristics, and the difference that accompanied repeated iterations of a model, so he ceased to refer to structuralism and to link his own thinking to it. In spite of the admiration Foucault often expressed for Althusser’s work, there’s a case for saying that his thinking is more closely aligned to that of Serres in this respect.

Having established that the territory of archaeological analysis is more extensive than science, Foucault acknowledges that two lines of questioning have opened up. First, what is the place science occupies within this territory? Second, by what process or processes does a science emerge within the territory of archaeological analysis? Responding to the first of these questions, Foucault adheres to the principle of avoiding general patterns of explanation, observing that sciences will play different roles in different discursive formations. However, the conclusion he draws is significant. Knowledge, he writes, is not a terrain that science is programmed to colonise; and conversely science is not compromised by its proximity to knowledge that remains outside its limits. This second point indicates that Foucault is taking his distance from Bachelard’s idea of an epistemological break between science and the forms of knowledge that preceded it and which may continue to exist alongside it, something that is confirmed later in the
chapter. In archaeology, discontinuity is deployed to disrupt unities and to complicate the apparent simplicity of their limits, rather than to establish new unities and new limits. However, this should not be taken as a sign of a wholesale departure from Bachelard, for while his analysis of science does not find its way into Foucault’s archaeology, other aspects of Bachelard’s work do, most notably his constructivism and his account of temporal pluralism.

Having outlined a complex dimension of continuity and discontinuity between science and knowledge, Foucault then situates the question of ideology within it. However, in view of the way the function of ideology is described it is hard to see exactly what purpose its introduction plays here besides that of allowing Foucault to clarify his relation to Althusser and Marxism. For while several Althusserian ideas reappear only slightly modified in Foucault, there is a divergence over the conception of truth and the role of science in its construction and dissemination. Although Althusser does not treat science and ideology as exclusive of one another, he does regard science as the clarification of concepts that have a wider currency such that their reappplication at least in part eliminates their initial errors and obscurity. Devoting more attention to the complex relations between science and knowledge, Foucault places less emphasis on the corrective capacity of science. Instead, ideology occupies the space between science and knowledge; since science and knowledge are not related only at their borders, ideology occurs in the dynamic, multiple and reciprocal relations between them, or in the wider discursive practice in which science is lodged. Although for Foucault, as for Althusser, science constructs truth, archaeological analysis tracks the multiple relations, both discontinuous and continuous, that define its connection to other discursive practices and its separation from them. If in general (and therefore inaccurately) ideology occupies a kind of middle ground between the scientific and the non-scientific, it does not and need not feature in Foucault’s work simply because that dimension consumes the attention of archaeological analysis almost entirely.

Foucault breaks down the general space of knowledge and science into regions separated by four thresholds. First, the threshold of positivity, at which a discourse achieves an individuality by virtue of a single system for the production of statements. Second, the threshold of epistemologisation, beyond which a group of statements claims to validate norms of verification and coherence, and begins to exercise dominance over other groups. Third, the threshold of scientificity, at which the formation begins to obey formal rules for the production of propositions. And finally, the threshold of formalisation, at the point
where the discourse in question can define its axiomatic base, the elements it uses, and the transformations it accepts (AK 206, 244). This last threshold marks the pinnacle of scientific order, and takes the mathematical sciences as its model. That mathematics so completely defines what it means to be scientific is at least in part due to the degree of formalisation (or the capacity for it) that it exhibited from the beginning. By crossing all four thresholds simultaneously, mathematics leaped to being a fully accomplished science from a standing start, whereas most other sciences change more slowly. For this reason, mathematics is atypical and a bad model for the historian of science (AK 208, 247). What appear to be almost teleological stages in the development of science may instead be treated as different localities within the space marked out by the thresholds Foucault describes. As Serres writes, such a systematic space in fact makes possible a variety of temporal lines of development; human knowledge does not move as a single block over each threshold in turn, and different sciences progress at different speeds. What Foucault calls the thresholds of positivity and epistemologisation may be crossed in quick succession, or even simultaneously, by one science, whereas another may cross the first stage and then linger for many decades or even centuries before new transformations occur that carry it over the second. This possibility is reflected in Foucault’s identification of three historical approaches to the dimension as a whole.

The first is pitched at the level of formalisation, and is characterised as the kind of history that mathematics tells about itself. Referring explicitly to Serres’ account of the way mathematics took over the role of its own epistemology by writing and re-writing its own history, incorporating and transforming its past as it does so, Foucault describes the way mathematics incorporates and transforms its past in a recurrential analysis (AK 209, 245–6: see p. 24 and note 26 on Serres and Bachelard). The second form of history examines the way knowledge crosses the threshold of scientificity, making regions of experience scientific; for example, how concepts are purified of metaphor and the contents of the imagination. Bachelard is the figure most clearly associated with this form of history, which Foucault describes as trying to show how science is established against a ‘pre-scientific level’ that both prepares the way for science and stands as an obstacle to be overcome. The reader is then clearly invited to see archaeology as the third form of history, which aims to reveal ‘discursive practices in so far as they give rise to a corpus of knowledge, in so far as they assume the status and role of a science’ (AK 210, 249). Foucault situates this form of history at the threshold of epistemologisation, but its scope seems to
be defined differently to that of the first two forms. Whereas the first history is addressed uniquely to formalised sciences, and the second to the transition from knowledge to science understood as an expulsion of the non-scientific, archaeology is not confined to a particular region of the map that Foucault defined with the four thresholds. In spite of being situated at the threshold of epistemologisation, it deals with discursive practices that become bodies of knowledge, and that become science, and even that achieve the transition to formalisation. As such, archaeology does not deal with just one stage in the process, but with a level that remains operative throughout the various transformations that a discourse may undergo, and most especially those which carry it across the second, third and fourth thresholds. It finds the discursive practice within science, and tracks the modifications that such a practice undergoes, for example, as a science crosses the threshold of formalisation.

But if, as I have argued, archaeology itself is shaped by the work of Cavaillès and Serres on mathematics, why is Serres mentioned only in relation to the first form of history, and mathematics associated with this history alone? In *Hermes I: la communication*, Serres deals at length with the history and epistemology of mathematics, and Foucault refers to this material both explicitly and implicitly in *The Archaeology of Knowledge*. The Introduction and Chapter 1 of *Hermes I* make it clear that Serres saw in mathematics the model of a structuralism that permeated the whole of culture, but which would be distinct from that practised by Lévi-Strauss. Serres’ approach is to treat science as intrinsically historical, and to reveal its historicity as multiple, made up of distinct patterns of relations (both continuous and discontinuous) and directions of travel, which in turn reveal a multiplicity of temporalities. Taken together, these make up a ‘pan-historicity’ that is the true condition for a more orthodox account of the idealities of science and mathematics in which history features only as a progression towards greater clarity and formalisation. The ‘anhistoricity’ of systematic science is revealed ‘not as the absence of time, but as the fusion of all possible times’ (HI 94). Recognising this opens up new possibilities for the historical analyses of knowledge and science.

Serres describes mathematics as a theory that is externally closed and internally open. By external closure, he means that mathematics is not dependent on other sciences, that it has incorporated epistemological problems and their solution into the body of its own practice, and that it has eliminated intuition, by which it had previously been tied back into the subject. As such, mathematics appears very much like the autonomous formal discipline described by Cavaillès (and to some
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extent by many philosophers of mathematics in the twentieth century). That mathematics is internally open is said by Serres to mean that it is characterised by a recurrential history, going back to its beginnings as much as moving towards a point of fulfilment, that it separates itself off from other practices gradually, and is not constituted in advance, and finally that it discovers and clarifies its rules and its principles as it goes along. To make the distinction at all of course depends on there being a simple contrast to make between mathematics and other discourses or disciplines. At the level to which Serres is referring, this seems to be self-evident, even granted the additional complexity he wishes to introduce into the history of mathematics. However, when we turn to Foucault, the picture is a little different. What Foucault is addressing is not the history of a formal discipline such as mathematics, but rather the history of the formal conditions that underlie the various forms of knowledge and nascent science that he studies. At this level, to say that there is a clear demarcation between one set of formal conditions and another would be to assume that each science was constituted independently in advance, which is the very opposite of Foucault’s intention. It therefore no longer makes sense to distinguish between the external and internal historical characteristics of a discourse: at the level of the historical and formal conditions of discourse, the historical a priori, there is no external/internal distinction. One can then say that Serres’ description of the purity of mathematics denotes the fact that discourse is all there is to describe; that is, it becomes the archaeological analogue of the way that for phenomenology all phenomena are immanent to consciousness, except that now language as it is actually produced (in statements) is distributed in concrete relations with other statements, groups of statements and non-discursive events. This re-location of the conditions for the production of meaning allows the temporal form by which the elements are assembled to open up, revealing multiple temporalities; and these, no longer planted deep in the subject, can in turn be analysed by the historical techniques Foucault describes, and which he groups together under the heading archaeology.

In the closing pages of section (e) of this chapter, Foucault discusses the idea of the episteme that he had used in *The Order of Things*. Given how central a role it played in that study, published only three years earlier, it may be surprising that it makes an appearance only at this late stage. *The Order of Things* was structured around a threefold division of history into renaissance, classical and modern periods, defined not chronologically, but by the epistemes that were the structural conditions of being scientific. Foucault’s presentation had attracted a great deal of criticism for being a crude, not to say artificial, division
of history, and in these few pages he clearly wishes to set right what he regards as a misunderstanding.

Continuing a theme already well-established in this book, his primary concern is to counter the impression that epistemes are fixed structures with clearly defined boundaries. As described here, the episteme comprises: the system of relations uniting a discursive practice that gives rise to an epistemological figure, science or formal system; how the transitions across the thresholds described above occur, the distribution of these thresholds and their relation to one another; and the 'lateral relations' between epistemological figures and sciences that belong to neighbouring discursive practices (AK 211, 250). The fact that the episteme comprises the distribution of thresholds implies that these thresholds are not fixed, and that it is one of the tasks of archaeology to determine their relation to one another. For this reason, among many others, archaeology cannot be reduced to an orthodox epistemological reflection that aims to establish the 'correct' criteria that a discourse must satisfy in order to qualify as knowledge or science. For the description of the episteme 'opens up an inexhaustible field', from which there emerges a 'constantly moving set of articulations, shifts, and coincidences that are established, only to give rise to others' (AK 211, 250). In so far as archaeology does not sift through this confusion to find the conditions of the legitimacy of a given science or epistemological figure, it does not return to the 'critical question' (AK 212, 251). Instead, it accepts the existence of a science as a fact, and then asks what it is for this particular science to be a science. Archaeology therefore has an ontological dimension: it asks how a given science exists as a science, which is not the same as asking how it satisfies the criteria to qualify as a science. On the one hand, archaeology must address the rules by which discourses operate, and in particular how they achieve their status as sciences, and to this extent it appears to be pitched at a meta-level with respect to particular sciences. But on the other hand, the rules in question emerge from existing discursive practices, and are modified by their continuation. For this reason, the description of the rules governing discourse are not independent of the description of the discourses themselves (at the archaeological level of statements, their elements, and the relations between them). So while archaeology focuses on individual sciences, rather than the general question of what it means be a science, its attention moves from the sciences themselves to the conditions by virtue of which they exist as sciences at all. As it does so, archaeology discovers not the simplicity or unity of an origin, but the complexity of the historical relations that constitute discursive formations. The general question of what it means to exist as a science
is eclipsed by the specific question of what it means for a specific science to exist under specific conditions. Rather, it is dissolved entirely, such that there is no longer a general question of what it means for a science to exist, any more than there is a general category of change underlying the multiplicity of transformations that discourses undergo.

This point is carried forward into the final section of the chapter, and therefore of the book as a whole, apart from the Conclusion. Under the heading of ‘Other Archaeologies’, Foucault asks whether archaeology is necessarily directed towards sciences, or whether other bodies of knowledge could be analysed, and picks out the archaeological description of sexuality as a possibility. Such an analysis would reveal how ways of speaking are invested in systems of prohibitions and values, and would therefore be carried out in the direction of the ethical (AK 213, 252–3). The suggestion is of course familiar to us from the work that Foucault did indeed go on to do, and which clearly puts to use a great deal of what he sets out here in this book. Other possibilities involve work on painting and politics. An assimilation of mathematics into philosophy, the opening of discontinuous (plural) dimensions of history, and the displacement of the figure of man have therefore made new forms of inquiry possible.