

# Cuvier's analogy and its consequences: forensics vs testimony as historical evidence

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One of the strands of error in secular history leads back to Georges Cuvier's analogy of fossils as the artifacts of the prehistoric natural world. This metaphor implied a superiority of forensic methods, or 'scientific' history, to eyewitness testimony. This eased the way for displacing biblical truth with scientific speculation. But Cuvier's comparison rested on a weak foundation: the uniform prehistory that 'required' forensics and contradicted Genesis was never demonstrated—merely assumed. Our present pursuit of truth about the past requires a better understanding of the relationship between science and history, and a corresponding reassessment of the balance between testimonial and forensic evidence—one built on something more solid than Cuvier's analogy. Clarifying these categories is essential, and Mortimer Adler's 'mixed question' approach to natural history is recommended.

You cannot turn on the television today without seeing one of the CSI shows. People watch because they love a good mystery, especially when the solution is found in an obscure DNA sample or microscopic fibre. Forensic criminology has been a hit since Sherlock Holmes and is thought by many to be the last word in evidence. That mindset extends to history, especially archaeology and natural history. But the Bible's take on history is different, emphasizing eyewitness testimony in matters of historical record. How did culture reject the Bible's evidentiary stance in favour of forensics? Can the two approaches be reconciled?

Promoting forensic evidence over human narrative is an Enlightenment error linked to an anti-revelatory view of history. This epistemological error stems from an important question of *historiography*—what constitutes reliable evidence: artifacts or testimony? Today's preference for forensic data is not simply an outgrowth of technology; it flows from a network of ideas related to the hostile takeover of history by science during the 19<sup>th</sup> century that in turn emerged from the Enlightenment attack on the Bible. Replacing Genesis with science required a shift in method—elevating forensic over testimonial evidence.<sup>1</sup>

That shift did not just happen. It was sold to the public by a

perceived necessity to investigate the prehuman world of deep time. Obviously, if no one was present to record those epochs, a forensic approach was the only possible key to the past. If that door was opened only by 'scientific' evidence, the Bible was irrelevant. This line of reasoning created a crack in the walls of the biblical worldview that opened a breach to the rampaging secular hordes that captured the

Western intellectual tradition in the 19<sup>th</sup> century and destroyed it in the 20<sup>th</sup>.

In order to understand this methodological flaw, we must first see the logical link between prehistory and forensic evidence. That point was emphasized by the analogy made by Georges Cuvier (1769–1832) between fossils and human artifacts of antiquity. Cuvier argued that fossils opened the door to prehuman history just as ancient coins and pottery opened the door to older human history. This clever metaphor helped elevate forensic natural history at the expense of the Bible.

But it is not enough to understand how this transition came about. Christians need to understand how to handle both testimonial and forensic evidence as they relate to natural history and to each other. Because modern science pulled the pendulum too far towards forensics, we must understand how to regain a necessary balance and reinsert the Bible into the debate



**Figure 1.** Georges Cuvier (1769–1832) was the leading French naturalist of the early 19<sup>th</sup> century. A brilliant comparative anatomist and paleontologist, he advocated a geohistory distinct from Lyell's by its repeated catastrophes and related extinction events. Ironically, his views are probably more similar to current ideas than Lyell's. His metaphor of fossils as nature's antiquities helped drive natural history away from its biblical roots.

over Earth’s history. To do this, we need to understand strengths of narrative testimony that are lacking in forensics, and that have been selectively ignored for more than two centuries.

### Prehistory requires forensic history

One reason that Christians lost the intellectual fight two hundred years ago was the unassailable internal logic of the secular position. Step followed step. If the greater part of the past is found in an extended prehistory, then the traditional data of historical study—written eyewitness or investigative testimony—are useless. Only nature’s artifacts, translated by science, can show us that prehistory, just as human history is illumined by ‘antiquities’. Science, not the Bible, is the key to the past.

But this scheme required a crucial component. Logically, the past is only accessible to science if present knowledge can be extrapolated across time.<sup>2</sup> That necessity was noted by the Scottish skeptic David Hume (1711–1776), who pointed out that such *induction* is unprovable. But that did not stop ‘scientific history’ from becoming as a working axiom in the 18<sup>th</sup> century.<sup>3</sup> It has not been seriously questioned since by mainstream intellectuals. Public acceptance of this ‘historiographic uniformitarianism’ in the 1700s would reinforce secular geohistories of the early 1800s that were in essence a long, boring timeline that minimized, ignored and then openly repudiated the Genesis Flood.

We can only look back with amazement at the ease with which biblical history was overthrown. All it took was Christian compromise on two key presuppositions, and then logic led them inexorably down the path of biblical irrelevance—a path whose trajectory can be tracked through

the 1700s by the gradual stratigraphic restriction of Flood strata to the topmost ‘diluvium’. Agassiz’ identification of those sediments as glacial relics a few decades later merely handed secularists the bullet needed to finally put Noah out of his misery. Geology secured the breach, biology followed with evolution, and then the so-called social sciences cemented the materialist position in Western culture.

### The two fatal assumptions

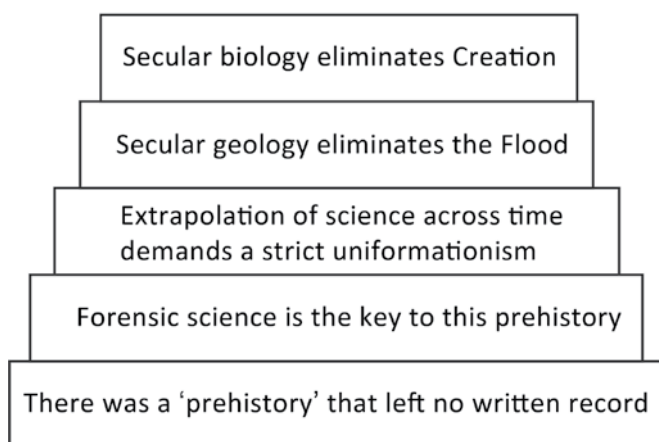
Though the internal logic of the secular position is strong, its foundational axioms are not. Christians can therefore best address this historical train wreck by backtracking through the logic to those two key assumptions. If it can be shown that these assumptions cannot be justified by the secular worldview, all the logic in the world cannot save the whole edifice from collapsing on itself. The two presuppositions that merit our careful attention are: (1) the existence of prehistory, and (2) uniformitarianism.<sup>4</sup>

A good way to track down the problems with these two assumptions is to seize the thread of methodology—the primacy of forensic evidence as contrasted to the biblical emphasis on eyewitness testimony. We can follow that thread to a key juncture in Western thought, expressed in the work of Georges Cuvier.<sup>5</sup> His remarks illustrate the interesting intellectual dichotomy between the *strong logic* and *weak assumptions* of the secular position. As we will see, those assumptions were incredibly vulnerable; exhibiting the *desires* of the early atheists, not scientific or logical rigour.

One of these vulnerable presuppositions is that of uniformity across time. Although Rudwick<sup>3</sup> does not explore the topic, he makes it clear that geological uniformitarianism was no revolution—it was the common assumption of most late 18<sup>th</sup> century naturalists.<sup>6</sup> I believe that it rose from sloppy thinking—the uniformity assumed for science (and justified by Christianity)<sup>1</sup> was transposed into history in the intellectual excitement over extending the scientific method into that domain. As happened in a number of cases, Christian presuppositions were shanghaied into secular naturalism without a second thought.<sup>7</sup> Lyell did not invent uniformitarianism; he simply cemented the most rigid possible version consistent with linear time (another Christian tenet) into geology,<sup>8</sup> gaining prominence for his peculiar version through relentless self-promotion. Though pictured in opposition to Lyell, Cuvier’s catastrophism was uniform too—in much the same sense that modern neo-catastrophists consider themselves uniformitarians. But the key point is that uniformitarianism of either brand was never *demonstrated*; it was merely a necessary precondition that had to be true if the non-biblical version of the past was to hold water ... a form of secular wishful thinking, to be blunt.

Uniformitarianism was not the only unsubstantiated assumption. The other was the simple idea that there was such a thing as a ‘prehistoric’ past. Prehistory never was (or

### Steps in the 19th Century Secular Hijacking of History and Culture



**Figure 2.** The logic of the new Enlightenment method guaranteed the overthrow of traditional history by the new secular ‘scientific’ view. Note that the existence of ‘prehistory’ was the linchpin of the new forensic method, but that prehistory was never demonstrated by science or reason.

has been) proven; it was simply accepted because the only alternative was Genesis. Of course there have been reams written about the great spans of time required to deposit the rock record (circularly assuming low rates) and about how the absence of human fossils in ‘older’ strata demanded a prehuman past, but there was no serious objective weighing of the biblical option—just a rush to judgment by people who wanted no part of God.

But the church and the Bible could not be completely ignored. Both were powerful in the post-Reformation culture of Europe; biblical literacy was typically quite high. So getting rid of the Genesis account required decreasing public confidence in its accuracy as a historical record. Since biblical evidence was eyewitness or investigator testimony, another class of evidence needed to be emphasized to sidestep the quagmire of arguing the merits of the Bible *per se*—a losing proposition since Christian apologists had proven their proficiency for nearly two millennia. Secularists seized on the public fascination with the ‘scientific’ study of ‘artifacts’ in the 18<sup>th</sup> and 19<sup>th</sup> centuries—the collection and assessment of ancient human antiquities. Napoleon’s famous expedition to Egypt (1798–1801) included an army of savants to collect and interpret Egyptian antiquities. Such were the times. Greek, Roman and Egyptian statuary, coins and monuments were all the rage, not just among the French, but among all Europeans. Enlightenment naturalists seized on this fervour and drew the analogy between rocks and fossils as nature’s ‘monuments’. Note how Cuvier blended these themes together:

‘Henceforth it will therefore be necessary to add, to the [*natural*] history of the animals that exist at present in each country, that of animals that have lived or been transported there in the past. For this it will be necessary for physicists [*physiciens*] to do for the history of nature what antiquarians do for the history of the techniques and customs of peoples; the former will have to go and search among the ruins of the globe for the remains of organisms that lived at its surface, just as the latter dig in the ruins of cities in order to unearth the monuments of the taste, the genius, and the customs of the men who lived there. These antiquities of nature, if they may be so termed, will provide the physical history of the globe with monuments as useful and as reliable as ordinary antiquities provide for the political and moral history of nations.’<sup>9</sup>

In all this, Cuvier never *demonstrated* the existence of such a prehistory; he merely *assumed* its truth and justified that conclusion with the weak (absence of evidence is not evidence of absence) appeal to the distribution of human fossils. Considering the rudimentary knowledge of the fossil record in 1800, this was an incredibly fragile empirical assertion, as well as being logically defective. Like his Enlightenment peers, Cuvier overestimated his objectivity; his work was driven by his model and his desire to make a

name for himself, not data. Note that he was not addressing the possibility of prehistory, only its nature:

‘As he had suggested in some of his earliest work ... Cuvier clearly regarded the most recent revolution as the one that separated the present human world from the one that had been essentially prehuman.’<sup>10</sup>

Rudwick described the transition over the 18<sup>th</sup> century from a natural history *parallel* to biblical history to one that *displaced* the Bible. Note Rudwick’s assessment of Genesis’ history as ‘sparse’, ‘unreliable’, ‘difficult to interpret’, ‘enigmatic’ and ‘garbled’—all inaccurate, as anyone who bothers to read Genesis can attest. These terms merely demonstrate Rudwick’s own bias—hardly a scholarly starting position! Note too that Rudwick tacitly admits that the existence of prehistory was based on ‘suspicions’ or ‘hunches’.

‘Over a century earlier, back in Burnet’s time, Robert Hooke had lectured regularly to the then newly founded Royal Society in London; in discussing fossils he had famously suggested that it might one day be possible to “raise a Chronology” from them. The history that Hooke imagined being constructed—with at least some of the rigor of the chronologers of his time—would have been a history of nature, but only as it had run parallel to the relatively brief history of the human race. Like his contemporaries, Hooke scarcely envisaged the possibility that there had been vast spans of totally prehuman geohistory. Fossils simply had the potential to supplement more conventional sources of historical information, particularly in the very earliest or “fabulous” periods of human history, for which the textual sources—if any—were sparse, unreliable, and difficult to interpret.

‘Hooke suggested how fossils could be treated as nature’s “medals” or coins, but the context shows that he meant this in the sense that they could supplement the kind of information supplied by ordinary coins of human origin. In northern Europe; for example, antiquarians found Roman coins, which supplemented the textual records and confirmed that the Roman Empire—or at least Roman commerce—had once extended to many regions far from Rome. Likewise, naturalists found fossils of shellfish such as clams and scallops far from the coast, which implied that the sea had once extended well beyond its present limits. The period at which it had done so could then be set within a broader narrative history; clearly it had been even more remote than Roman times. But it was taken for granted by Hooke’s generation that even such a remote period had already been within the span of early human history and that the fossils were simply supplementing what could be gleaned more

obscurely from Genesis and ancient secular sources, enigmatic or garbled though they might be.

‘However, as already mentioned, there had been a growing suspicion among savants, during the decades after Hooke’s death, that much of the earth’s history might have preceded the human presence altogether. This was the hunch that Buffon made explicit when he defined the first appearance of human beings as the very last of “nature’s epochs” ... . Fossils continued to be treated routinely as ‘nature’s coins’, but the meaning of that metaphor was slowly transformed. Having been regarded merely as supplementary to textural evidence, fossils came to be treated as historical evidence in their own right; they were evidence of events for which there could never be any human records because the periods had apparently been prehuman. Along with other kinds of natural evidence, fossils could then, in principle, be used to construct a geohistory for those long spans of prehuman time, which—it was hoped—could be linked to the more recent and familiar history of the human race. From being merely supplementary to human records, fossils became complementary, providing evidence for the long periods before human history.’<sup>11</sup>

And Cuvier stood among those ‘savants’. He was not bashful or reticent in his aims. He intended to remake history, in both content and method. He would use the science of comparative anatomy (his specialty) to spearhead the displacement of biblical narrative with forensic evidence. In doing so, he would secure his place in the pantheon of science:

‘The “Discourse” opens with a bold and vivid claim ... the focus was not on the wonders of nature, let alone—as would have been expected in an earlier age—on the wisdom of its Creator, but on the savant himself. Expanding the metaphor of the naturalist as archaeologist, which he had used frequently ever since he first publicly outlined his research project ... Cuvier presented himself as a “new species of antiquarian”. Some earlier naturalists had sought to use the reasoning of antiquarians to reconstruct the history of the earth: the metaphor of fossils as the “coins” or “monuments” of nature was a commonplace. What Cuvier claimed as novel to his project was specifically his use of a hitherto neglected kind of evidence, that of fossil bones.

‘The antiquarian metaphor was taken further, however, in a way that reveals Cuvier’s attitude towards his scientific material. Just as savants were currently wrestling with the problem of deciphering the ancient hieroglyphic inscriptions that Napoleon’s expedition had brought back from Egypt, so Cuvier had to decipher what his fossil bones *meant*. Their

significance was not self-evident; it had to be “read,” as it were, in the language of comparative anatomy, a language that had to be learned like any other. Cuvier here showed that his conception of “facts” in science was far more subtle than that word in its modern usage might suggest.

‘Cuvier’s claims for his own ability to decipher the language of fossil bones were, as usual, far from modest. But by contrast he presented the “Discourse” merely as a contribution to a small part of “the theory of the earth”, or to what he had earlier defined as an explanatory “general geology.” To express the grandeur of that theme, however, he used some of his best purple prose: it was nothing less than to do for the time dimension of the natural world what Newton—and, by implication, Laplace too—had done for the dimension of space.’<sup>12</sup>

So the early naturalists never demonstrated their assumptions of: (1) a prehuman prehistory, and (2) uniformitarianism. They merely used them to entrap unwary Christians, who would then follow the breadcrumbs of logic down a trail to biblical irrelevance.

### Science vs history

So if the presuppositions of uniformitarianism and prehistory are shown to be unjustified, can forensic evidence still be the hammer of natural history? None of the well-known thinkers of the Enlightenment satisfactorily addressed that epistemological problem, just as they did not carefully spell out just what constituted science as opposed to history, or how the two would interact in their ‘natural’ history. Unfortunately, our 21<sup>st</sup> century perspective provides little additional clarity, and even some creationists appear confused as to what constitutes history and what constitutes science. Fortunately a 20<sup>th</sup> century philosopher provided an answer—one that deserves careful consideration. Dr Mortimer Adler (1902–2001) addressed this problem in his 1965 book, *The Conditions of Philosophy*. He first recognized similarities between the two disciplines that can lead to confusion:

‘... it should be clear at once that history is an investigative discipline and in this respect is like science.’<sup>13</sup>

But we cannot simply assume then that they are the same, as most secularists do. Nor does the common creationist dichotomy of ‘operations science’ vs ‘origins science’ sufficiently clarify the point. That is because there are real differences between history and science, as well as similarities:

‘The information or facts about past events which historical narratives are based on or make allusion to, together with whatever can be inferred from such evidence, constitute items of historical knowledge and are the findings or conclusions of historical research ... Scientific inquiry asks

the kind of questions which call for *general* statements or formulae as answers; these are statements about classes of objects, not about particular instances. Historical research, on the other hand, asks the kind of questions which call for statements about *particulars*; these are statements about singular happening or existences which have unique temporal and spatial determinations. In addition, it should be pointed out that these particulars are all *past* events or *past* existences; for, if they were present and capable of direct observation, they would not be objects of historical research.<sup>14</sup>

The implications of this definition are obvious for natural history, but jarring to sensibilities trained to believe that it is no more than a subset of science:

‘Men who are scientists (such as geologists, paleontologists, evolutionists) sometimes attempt to establish the spatial and temporal determinants of particular past events or to describe a particular sequence of such events; but when they do so, they cease to be engaged in scientific inquiry and become engaged in historical research.’<sup>15</sup>

But that still leaves the question of how science and history interact, since it is obvious that they do with tangible benefit in natural history and archeology. Adler addressed that issue in a uniquely satisfying manner, well worth the attention of creationists:

‘Just as philosophy has pure and mixed questions, so do history and science. The solution of a problem that is a mixed question for science and history may involve a combination of scientific and historical knowledge and a combination of the methods of both disciplines. This would hold true for most of the problems in “natural history” which occur in such sciences as geology and paleontology.’<sup>15</sup>

Since natural history must be a mixed question, then its data should include both historical and scientific information. Since the Bible provides historical information about the ancient world, there is no excuse to exclude its testimonial evidence in favour of forensics, as the Enlightenment savants attempted. Such an approach would dismiss a key ingredient from the mixture that is natural history, like leaving flour out of bread. This is a severe blow to secularists because once biblical evidence is re-admitted, its inherent superiority to forensic evidence begins to be manifested, even apart from any doctrine of divine

Naturalism	Christianity
Prehistory	No prehistory
Natural history is not constrained by revelation	Natural history must be constrained by revelation
Natural history must rely on rock record	Rock record can supply details not found in Bible
Study of rock record is science; therefore natural history is science	Control defaults to written record; therefore natural history is subset of history
Natural history is science	Natural history is a mixed question

**Figure 3.** The nature of natural history is clarified when the underlying worldview conflicts are made apparent. The logic of the Christian position is no less compelling than the naturalist position, once different presuppositions are granted. (From Reed, Klevberg and Froede<sup>17</sup>).

inspiration. As in many other cases, the issue is clarified by viewing it through the lens of a worldview conflict.

### Forensics vs testimony

Forensic evidence often is thought superior to testimonial evidence for two reasons: (1) it often quantitatively outweighs testimonial evidence, especially in natural history, and (2) criminologists have emphasized the reliability of forensic evidence as opposed to eyewitness testimony based on the potential for eyewitnesses being unreliable or dishonest. Does the same hold true for natural history?

There is no doubt that the forensic evidence of the rocks and fossils is quantitatively superior to the biblical text in any natural history. But I believe that it is *qualitatively* inferior to testimonial evidence for at least two reasons.

First, artifacts cannot provide the ‘big picture’—the historical context within which the details of evidence can be evaluated. Whenever natural history tries to derive megatheories from empirical data (e.g. big bang, plate tectonics), even vast amounts of empirical data cannot prevent the inherent uncertainty of these models because data alone have not built the theory; subjective interpretation remains the elephant in the room. The framework from which that interpretation is derived is not data, it is a worldview. That is the reason why evolutionists and creationists can build opposing models of natural history from the same data.

The second reason testimonial evidence is qualitatively superior to forensic evidence is that it speaks more directly

to human thought patterns. It addresses *conceptual* reality, not just *perceptual* reality. Concept creation and communication in thought and language could be said to be the difference between man and the rest of life. Opossums do not think in abstract terms, nor do monkeys speak in an abstract language. Adler<sup>16</sup> exhaustively discussed the distinction between conceptual and perceptual thought in man and animals, and no subsequent experiment with animal learning or ‘language’ has demonstrated that animals cross that uniquely human divide. Testimonial evidence includes abstract concepts that provide a context and define human motivations which are so essential to really understanding the past. Archaeologists can discern the forensic evidence of Rome burning in AD 64, but can never address the likelihood of Nero’s involvement or his motivations. Only careful study of the testimonial evidence can supply the outline of the story. Heinrich Schliemann (1822–1890) found Troy not because he was led to it by artifacts, but because he followed the evidence found in Homer’s written testimony.

What does all that mean? Simply put, the 18<sup>th</sup> century flight from biblical testimony guaranteed a weak natural history by trying to enforce scientific certainty in an area inherently less knowable. Cuvier’s analogy was completely misguided; he allowed a simplistic metaphor to substitute for the kind of rigorous epistemological analysis summarized by Adler,<sup>13</sup> and then compounded the error by allowing that oversimplification to drive his research, neglecting a careful analysis that might have resulted in the integration of both types of evidence in a proper philosophical framework of mixed questions. Instead, he promoted himself and his specialty at the expense of truth—a trend that continues among secular academicians to this day. The result for natural history has proven disastrous, if for no other reason than the wasted time, effort and money over the past two centuries.

The conceptual framework of the Bible, with its ideas about God, man, nature and their interrelationships, is necessary to understand the ‘big picture’ of Earth’s history and provide the proper context for forensic evidence. Testimonial evidence provides the skeleton; forensic evidence fleshes it out. Failure to appreciate this union of evidence was an essential blunder made by the Enlightenment savants in their rush to shove aside the Bible in favour of science. We need to rethink more than just the forensic evidence; we need to understand how it relates to the testimony of biblical history, correcting the methodological error of Cuvier’s analogy.

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