

OMPHALOS, MIRACLES, AND OCCAM'S RAZOR

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Abstract

Philip Gosse's Omphalos (1857), which attempted to reconcile Genesis with science by proposing that the pre-Adamite stage of the world existed only as a Platonic idea, has usually been criticized as violating Occam's razor and being unfalsifiable. It is argued here that this is faulty, because Gosse makes different assumptions about the data to be explained. The theory was rejected by Christians not because of logical problems but because of its theological meaningfulness. In this it differs from miracles, which also involve the introduction of extra data.

Key words: Omphalos, miracles, Occam's razor, parsimony, Philip Gosse, Incredulous Stare, creationism, science, religion.

In 1857, the respected naturalist Philip Gosse, a Fellow of the Royal Society, published *Omphalos*,¹²³ which attempted to reconcile scientific evidence of geological time with a literal reading of Genesis. The book was published before Darwin's *Origin of Species* and, although well-informed scholars such as Gosse were aware of new ideas, the conflict was being expressed more in terms of *geology*. The account in Genesis seemed to be inconsistent with the evidence, which implied huge periods of time. Many were seeking some reconciliation of the two,¹²⁴ though it would not be long before the quest was abandoned by scientists. It is important to note that Gosse was not a theologian but a scientist, not only "the finest descriptive naturalist" of his time¹²⁵ but "the David Attenborough of his day",¹²⁶ noted for his popular works and public lectures. He was a pioneer of the aquarium and indeed seems to have invented

¹²³ Philip Henry Gosse, *Omphalos: An Attempt to Untie the Geological Knot: With Fifty-six Illustrations on Wood* (London: John Van Voorst, Paternoster Row, 1857).

<https://archive.org/download/omphalosanatem00gossgoog/omphalosanatem00gossgoog.pdf> accessed 23 September 2017.

¹²⁴ Gosse reviews some of these attempts: *Omphalos*, pp. 5–24.

¹²⁵ Stephen Jay Gould, "Adam's Navel", in *idem, Adam's Navel and Other Essays* (London: Penguin, 1995), p. 3.

¹²⁶ Gould, "Adam's Navel", p. 2.

the word.¹²⁷ It is for *Omphalos*, however, that he is perhaps now best remembered:¹²⁸ it was almost universally rejected, and yet debate over *why* it is unacceptable has continued ever since.

Gosse fully understood, and accepted, the implications of the geological record, and was insistent that it must be taken seriously.

Truth is above every thing: there is no such thing as a pious fraud ... and that religion which can be maintained only by dissembling or denying truth, cannot proceed from ‘Him that is Holy, Him that is True’ but from him who is ‘a liar, and the father of it.’¹²⁹

Gosse would presumably have rejected the “creation science” approach of some modern (largely American) creationists, who have attempted to construct a different scientific narrative compatible with Genesis; probably he would have classed it with many well-intentioned theories of his own time which he regarded as based on poor scientific knowledge.

On the other hand, Gosse assumed a fairly literal reading of Genesis. He was ready to consider alternative readings, but (like others) assumed that a reconciliation must involve some fitting of the text to the physical evidence, and did not consider the (now mainstream Christian¹³⁰) view that Genesis 1 should be read as about the meaning rather than the physical process of creation. Thus, although he considered the theory that the six days should be understood as ages, he found it unsatisfactory since the geological record did not match the order of the “days”.¹³¹

The basis of Gosse’s approach was quite different, and derived from a consideration of the logical implications of the world being created as a going concern, with plants and animals already existing. Gosse pointed out that individual plants and animals were part of a cycle of life, and to create them at one moment would require the inclusion of prior parts of the cycle. For example, a tree would have to have tree-rings, marking non-existent previous years.¹³² Gosse also considered other aspects of the earth which were continuing processes. The water flowing in rivers, the Gulf Stream, the clouds, all implied prior existence.¹³³ In particular, the

¹²⁷ “aquarium, n.”. OED Online. March 2018. Oxford University Press. <http://www.oed.com/view/Entry/10022> accessed 25 April 2018.

¹²⁸ Apart from his probably misleading portrayal in his son’s memoir: Edmund Gosse, *Father and Son: A Study of Two Temperaments* (London: William Heinemann, 1907). <https://ia902606.us.archive.org/30/items/fatherandsonast00gossgoog/fatherandsonast00gossgoog.pdf> accessed 16 April 2018.

¹²⁹ Gosse, *Omphalos*, pp. 6–7. The “father of lies” refers to the devil (John 8:44).

¹³⁰ See e.g. “Statements from Religious Organizations”, National Center for Science Education website, <https://ncse.com/media/voices/religion> accessed 22 April 2018.

¹³¹ Gosse, *Omphalos*, pp. 15, 17–18.

¹³² Gosse, *Omphalos*, p. 347.

¹³³ Gosse, *Omphalos*, pp. 355–6.

first man would have a navel (Greek *omphalos*), marking a birth which had never actually happened.¹³⁴

Gosse drew upon extensive scientific examples to show that it was impossible to picture creatures, even if suddenly brought into being, without such evidence of their life-cycle. In a long and fascinating section, written in the loving descriptive style that attracted his popular audience, he imagines that he is present immediately after the Creation, and goes about inspecting plants and animals, showing, with considerable sophistication, how they necessarily bear the marks of previous existence. Examples ranged from elephants to tapeworms, with particular attention to the marine invertebrates which were his specialty.

Yonder Feather-star (*Comatula*) notice; which, having just now started into mature life at the almighty fiat of its Creator, goes careering joyously through the sea, expanding and contracting its many-jointed and feathery arms, as if it had been accustomed to the alternation for a long life, and ever and anon settling itself by grasping the points of rock with its dorsal claws. You would hardly think that those flexible and slender arms were made of stone: yet they are; every joint of the stems and of their pinnæ is a vertebra of stone (precious stones, you will say—topaz and ruby—from their brilliant hues), which has been formed and deposited atom by atom, by the slow and gradual process of secretion of calcareous matter; the lime having been primarily collected from the sea-water which held it in solution. At least, such is the physiological deduction.¹³⁵

Gould notes, as particularly interesting, Gosse's observation of the hippopotamus's teeth. An adult hippopotamus's teeth could only function in a state achieved by wear, so the animal would have to be created with evidence of such a past.¹³⁶

Gosse believed that he had proved the propositions "All organic nature moves in a circle" and "Creation is a violent irruption into the circle of nature."¹³⁷ He was aware that the chicken-and-egg logic assumed that species were immutable: if it was granted that a species could develop from something simpler, then at some point in the past the cycle collapses into a point. He specifically noted this, making the immutability of species one of his postulates and conceding in advance that, for anyone not holding this view, his argument would be invalid.¹³⁸ Whatever else we think of Gosse's argumentation, it was entirely honest.

¹³⁴ The question of whether Adam had a navel had been raised before, as Gosse notes (p. 289n.), but apparently without appreciating that it was only a special case of a general problem about Adam's body.

¹³⁵ Gosse, *Omphalos*, p. 193.

¹³⁶ Gould, "Adam's Navel", p. 7.

¹³⁷ Gosse, *Omphalos*, p. 126.

¹³⁸ Gosse, *Omphalos*, p. 111.

Gosse now took another step. In creating an animal, God must have had a sort of Platonic Idea¹³⁹ of the creature's life cycle. In the same way, perhaps God had an ideal concept of the history of the universe, and brought it into being at some particular point in that history? Gosse realized that

In order to perfect the analogy between an organism and the world, so as to show that the law which prevails in the one also obtains in the other, it would be necessary to prove that the development of the physical history of the world is circular, like that already shown to characterise the course of organic nature.¹⁴⁰

Gosse admitted that he could not prove it, but stated that it could not be disproved either.¹⁴¹ Here, he seems to have meant not that it was unknowable but that empirical evidence was lacking.

Is it not possible—I do not ask for more—that, in like manner, the natural course of the world was projected in his idea as a perfect whole, and that He determined to create it at some point of that course, which act, however, should involve previous stages, though only ideal ... ?¹⁴²

Admit for a moment, as a hypothesis, that the Creator had before his mind a projection of the whole life-history of the globe, commencing with any point which the geologist may imagine to have been a fit commencing point, and ending with some unimaginable acme in the indefinitely distant future. He determines to call this idea into actual existence, not at the supposed commencing point, but at some stage or other of its course. It is clear, then, that at the selected stage it appears, exactly as it would have appeared at that moment of its history, if all the preceding eras of its history had been real.¹⁴³

In modern terms, Gosse was suggesting that the prehistoric past existed as virtual reality rather than physical reality. This is now a familiar concept; computer models can produce a simulation of what will happen, or has happened. Simulations can be started at a convenient point with preloaded date; for example we might start a global-warming simulation in 2030 with particular assumptions about CO₂ levels, and let it run from there.

Thus, Gosse argues, although the physical evidence does indeed point to an earth millions of years old, and although this can be assumed to be God's plan for the universe, is it

¹³⁹ An Idea, in Platonic philosophy, is an eternal archetype from which actual examples derive. In Christian thought such Ideas may exist in the mind of God.

¹⁴⁰ Gosse, *Omphalos*, pp. 342–3.

¹⁴¹ Gosse, *Omphalos*, p. 343.

¹⁴² Gosse, *Omphalos*, p. 345.

¹⁴³ Gosse, *Omphalos*, p. 361.

not possible that in fact the *physical* reality of the universe started at a later time, consistent with Genesis?

I will refer to the earth's past in Gosse's theory and in the normal view as virtual prehistory and physical or real prehistory respectively. Gosse used the terms "prochronic" and "diachronic" (both apparently his own coinages) for virtual and actual time, but the modern terms may be clearer.¹⁴⁴ Both theories accept that the physical evidence of geology and fossils indicates a very long past development of the earth, in certain patterns which are not consistent with the literal truth of Genesis. Physical prehistory is the common-sense proposition that this past actually happened. Virtual prehistory proposes that this past took place as a sort of virtual reality in the mind of God, up to a relatively recent moment of creation when physical reality began.

Gosse speculated about the nature of long-term biological change, noting that "We have reason to believe that species die out, and are replaced by other species, like the individuals which belong to the species".¹⁴⁵ The present species might in some way imply particular former species, and belong to a "circular revolution in some higher, unnamed, life-history".¹⁴⁶ This would connect the prehistoric animals more closely to his circularity argument, but is not essential.

The book was a total failure. The theory was widely misunderstood, and Gosse was misrepresented as suggesting that the fossils had been placed there as a temptation to unbelief.¹⁴⁷ This deeply unfair distortion is still repeated. The episode is unfortunately normally studied from his son's somewhat fictionalized *Father and Son*,¹⁴⁸ which among other things depicts Gosse as being cast in morbid despair by the book's failure and having burnt his boats with the scientific world, rather than from his earlier and probably more accurate *Life of Philip Henry Gosse, FRS*,¹⁴⁹ which describes him as in good heart and beginning the period of his most important scientific work.¹⁵⁰

However, there are more serious objections, which have made the theory a point of interest in philosophy. One objection is that the theory violates Occam's razor, the scientific

¹⁴⁴ "Diachronic" is now used in various academic disciplines to refer to change over time, as opposed to "synchronic" studies of phenomena at a particular time.

¹⁴⁵ Gosse, *Omphalos*, p. 343.

¹⁴⁶ Gosse, *Omphalos*, p. 344n.

¹⁴⁷ Gosse, Edmund, *The Life of Philip Henry Gosse F.R.S.* (London: Kegan Paul, Trench, Trübner & Co. Ltd, 1890), pp. 278–9. <https://archive.org/download/lifeofphiliphenr00goss/lifeofphiliphenr00goss.pdf> accessed 9 April 2018.

¹⁴⁸ Gosse, *Father and Son*, pp. 115–36.

¹⁴⁹ Gosse, *The Life of Philip Henry Gosse F.R.S.*, pp. 276–84.

¹⁵⁰ Frederic R. Ross, "Philip Gosse's *Omphalos*, Edmund Gosse's *Father and Son*, and Darwin's Theory of Natural Selection", *Isis*, Vol. 68, No. 1 (Mar., 1977), pp. 85–96, esp. p. 86. <http://www.jstor.org/stable/230375> accessed 9 April 2018.

principle that simpler or more parsimonious explanations should be preferred.¹⁵¹ It explains the same data as the theories of evolution and scientific geology, but adds a large extra aspect to the explanation which alters nothing in the predicted data. Logically, it is impossible to prove that the world was not created five minutes ago complete with all our memories, but this is rejected on the same grounds. Why not ten minutes? Why not fifteen minutes? (Gosse was in fact quite aware of this point, and noted that there was no logical reason why the Creation had to be at the time of Adam; it would be quite possible for God to have created the world in 1857, with everything as it was.¹⁵²) The idea is often described as the *Omphalos hypothesis*.

The late Stephen Gould, a palaeontologist and philosopher of science and history, criticized the theory for being untestable. The very thing which made it attractive to Gosse, that it was completely compatible with the scientific evidence, was also its downfall. We cannot prove it wrong, and we could not know if it were right. As an explanation, therefore, it does not tell us anything. Its significance is in demonstrating a principle of scientific methodology.¹⁵³

However, I would like to question this analysis. In doing so I do not mean to suggest that I think Gosse's theory, which I will refer to as Omphalos, is plausible, but rather that the arguments given above are not in fact entirely satisfactory.

The argument that Omphalos violates Occam's razor assumes that the data of the two theories are the same. But I suggest that this is not in fact the case. Gosse includes, as a datum, that God created the world as described in Genesis. The usual data set, used by the normal geologist, consists of the physical evidence of the rocks. The data set used by Gosse consisted of, firstly, the physical evidence of the rocks, and secondly, the proposition that the world was created as described in Genesis. For Gosse's data set, physical prehistory leads to a

¹⁵¹ Defined by OED as "The principle that in explaining anything no more assumptions should be made than are necessary." "Occam's razor, n." OED Online. June 2017. Oxford University Press.

<http://www.oed.com/view/Entry/234636> accessed 2 October 2017. Occam's razor is in fact much less straightforward than is often imagined. It classically applies "all other things being equal", which is arguably seldom the case in practice, and there are sometimes tensions between simplicity of theory and goodness of fit. However, this paper will not focus on these issues. See Alan Baker, "Simplicity", *The Stanford Encyclopedia of Philosophy* (Winter 2016 Edition), Edward N. Zalta (ed.), <https://plato.stanford.edu/archives/win2016/entries/simplicity/> for an overview of the issues.

¹⁵² Gosse, *Omphalos*, pp. 352–3.

¹⁵³ Gould, "Adam's Navel". Gould also notes that Gosse's attempt to apply the circularity of life to geology is empirically faulty. It should be noted that although not a believer, Gould sought a better understanding between science and religion on the basis of what he called the NOMA model: "Non-Overlapping Magisteria". That is, the two deal with different areas of life and should not attempt to pronounce on each other's subjects. He set this out in Stephen Jay Gould, *Rocks of Ages: Science and Religion in the Fullness of Life* [1999] (London: Vintage, 2002).

contradiction, whereas virtual prehistory does not. Thus Omphalos would explain the data better.¹⁵⁴

Omphalos—development of the world in virtual time—is obviously a less simple explanation of the geological evidence than the explanation that it developed in real time. However, it does account for an additional datum, namely that the world was created at some instant in the relatively recent past. The logical choice between the two is thus essentially on the basis of whether the extra datum can be accepted. This determination is complicated by the fact that the extra datum does not seem to be of the same type as the others, since it is not observable. This brings us to the nature of science.

It will be objected that there is no reason to accept Gosse’s extra datum. This, however, is open to question. Clearly there is no *scientific* reason to do so, and from a purely scientific point of view Omphalos thus violates Occam’s razor. But Gosse asserts the datum on different, religious grounds. Gosse’s theory therefore only makes sense to someone who accepts his extra datum. It reconciles a problem for these people, but is pointless for others. Gould is correct that it does not constitute a scientific theory in the usual empirical model, but this does not mean that it does not have a logical function.

A possible complication arises in that the extra datum has been derived from a source outside the normal scientific process. By Gould’s model of non-overlapping magisteria (NOMA),¹⁵⁵ this is problematic. The scientific conclusions of the scientist with religious beliefs derive entirely from the same processes of observation and analysis as those of other scientists, and there is no reason why they should be any different. There is nothing logically incoherent in the religious scientist holding that there may be a miraculous exception, which does not affect the science. In the case of Omphalos, however, the added religious datum does lead to a different conclusion about the implications of observations. Whether this is a problem in NOMA terms depends perhaps on whether one considers Omphalos as a different *scientific* conclusion. Since Omphalos is unfalsifiable, it is not, in Popper’s terms, a scientific theory.¹⁵⁶

There is also the question of realism versus instrumentalism in science. Instrumentalism is the principle that scientific laws are to be understood simply as descriptions of observation, and that the question of what is “really” there is not part of science. Realism however asks that scientific laws not merely conform to observation but in some sense tell us about what is really there. For an instrumentalist, Omphalos is arguably not even a different theory, since it not only makes the same predictions but does so on the same basis. The Omphalos view of the reality behind is metaphysical rather than scientific. For the realist (such as Gosse, and most nineteenth-century scientists) the two are different, though there is no way to determine which is true.

¹⁵⁴ This is relevant to the argument that the world could logically have been created five minutes ago. For Gosse, that would not match his special datum found in Genesis.

¹⁵⁵ Gould, *Rocks of Ages*.

¹⁵⁶ Karl Popper argued that scientific method is based on *falsification*—theories can be falsified but never finally verified—and that for something to be a scientific theory there must be conceivable data that would falsify it.

The question has some affinity with the western philosophical issue of what lies behind the “phenomenal world” of our senses. William of Ockham (c. 1287–1347),¹⁵⁷ among others, argued that God could replace an object with an illusion, thus creating evidence of something that does not really exist.¹⁵⁸ However, his contemporary William of Crathorn (fl. 1330s) concluded that while this is logically possible, “God or the first cause does nothing groundlessly and supernaturally so as to lead human beings into error” and that “everyone of sane mind judges that such an action is incompatible with divine goodness”.¹⁵⁹

In the case of Omphalos, a distinction can be made between what might be termed “ecological Omphalos”, the argument that the creation of life required a virtual history, and “geological Omphalos”, the theory that the history of the world in deep time is virtual until a certain point. The question of deception arises mainly with the latter, since with ecological Omphalos it is unclear who is being deceived—Adam and Eve being aware of their recent creation and the animals presumably uninterested in the question—and the virtual history is not, in William of Crathorn’s term, groundless. Both objections do arise with geological Omphalos.

In many ways, the biggest problem with Omphalos is not logical but the psychological implausibility of the idea. David Lewis’s modal realism theory that all possible worlds actually exist has been criticized on various grounds, but one suspects that most of its critics never really considered it as an option, due to “what Lewis calls ‘the Incredulous Stare’—the chief critical response to his modal realism. The Incredulous Stare is simply the view that modal realism is intuitively grotesque.”¹⁶⁰ It has been pointed out with some justice that the Incredulous Stare is not an argument, yet it is arguably what really killed Omphalos in the eyes of Christians. Could it really have been necessary for a Creator God to install so much detailed simulation?

Charles Kingsley wrote to Gosse¹⁶¹ that while he saw the logic of Gosse’s case about instantaneous creation, the conclusion had made him doubt the concept of instantaneous creation:

Your book tends to prove this—that if we accept the fact of absolute creation, God becomes a *Deus quidam deceptor*. I do not mean merely in the case of fossils which pretend to be the bones of dead animals; but in the one single case of your newly created scars on the pandanus trunk, and your newly created Adam’s navel, you make God tell a lie. It is not my reason, but my *conscience* which revolts here; which makes

¹⁵⁷ Occam’s Razor is named after William of Ockham, but he did not formulate the principle in the forms now current.

¹⁵⁸ Pirooz Fatoorchi, “On Intellectual Skepticism: A Selection of Skeptical Arguments and Tūsī’s Criticisms, with some Comparative Notes”, *Philosophy East and West*, Vol. 63, No. 2 (April 2013), p. 225
<https://www.jstor.org/stable/43285821> accessed 6 September 2018.

¹⁵⁹ Quoted in Fatoorchi, “On Intellectual Skepticism”, p. 225.

¹⁶⁰ Peter King, “David Lewis: Modal Realism”, Pages of Dr Peter King (Pembroke College Oxford)
<http://users.ox.ac.uk/~worc0337/modal.realism.html> accessed 25 September 2017.

¹⁶¹ Full text in Gosse, *The Life of Philip Henry Gosse F.R.S.*, pp. 280–3.

me say, “Come what will, disbelieve what I may, I cannot believe this of a God of truth, of Him who is Light and no darkness at all, of Him who formed the intellectual man after His own image, that he might understand and glory in His Father’s works.” I ought to feel this, I say, of the single Adam’s navel, but I can hush up my conscience at the single instance; at the great sum total, the worthlessness of all geologic instruction, I cannot. I cannot give up the painful and slow conclusion of five and twenty years’ study of geology, and believe that God has written on the rocks one enormous and superfluous lie for all mankind.¹⁶²

Thus, although even the tree-rings were problematic, they paled into insignificance before the fossils. And so, the idea turned out to be, for most Christian believers, “intuitively grotesque”. An interesting case is that of coprolites (fossil excrement), which had been suggested as particularly strong evidence of real existence. Gosse quite correctly rejected any special logical¹⁶³ status of coprolites. But the idea of God creating virtual droppings rather provokes the Incredulous Stare.

The idea that God might have created the fossils for some reason had been raised before, but in the absence of any reason, such an arbitrary act seemed inconsistent with the nature of God. Gosse argued that his theory was different: the prochronic creation followed a consistent and logical law.¹⁶⁴ But even if virtual creation was not arbitrary in the same way as sprinkling random spurious fossils, it still seemed arbitrary in a broader sense.

Despite the failure of Gosse’s book, its logic remains of interest, notably for the logic of miracles. Consider a present-day scientist who holds religious beliefs. There are plenty of such people, despite arguments from atheists against their position.¹⁶⁵ The Nobel Prize-winning physicist Abdus Salam, for example, is a devout Muslim. John Polkinghorne, another physicist, is both an Anglican priest and a Fellow of the Royal Society.

Belief in miracles implies that although the universe functions according to the laws of physics, God can and occasionally does intervene in ways that actually or apparently go outside

¹⁶² Gosse, *The Life of Philip Henry Gosse F.R.S.*, pp. 280–1.

¹⁶³ Gosse, *Omphalos*, p. 353n.

¹⁶⁴ Gosse, *Omphalos*, pp. 368–9.

¹⁶⁵ According to a world-wide survey by the Pew Foundation, religious scientists are common. In some places, including India, Italy, and Turkey, more than half of scientists had religious beliefs. In most places scientists had lower levels of belief than the general population, but there are interesting exceptions to this, with Taiwanese and Hong Kong scientists being more religious than the general population. “First worldwide survey of religion and science: No, not all scientists are atheists”, December 3, 2015, Phys.org website, <https://phys.org/news/2015-12-worldwide-survey-religion-science-scientists.html>, accessed 2 October 2017. For a statement by an eminent Oxford mathematician see John Lennox, “Eliminating the Impossible: Can a Scientist believe the Resurrection?”, 16 April 2014, <http://www.abc.net.au/religion/articles/2014/04/16/3986403.htm> accessed 16 March 2018.

these laws.¹⁶⁶ It is true that some, such as Polkinghorne, have stated that they do not believe God actually violates laws of nature, and seek or at least assume some way of God's acts being within the laws. More generally, it has been argued that the miracle is in accord with the laws of God in some higher sense, that is, that miracles are not arbitrary deviations from natural law but are consistent with their true nature or meaning.¹⁶⁷ However, this does not affect the argument at the ordinary level, as it is agreed that a miracle is not in accord with the normal pattern of nature.

Natural science, as normally understood, is about observable or at least potentially observable things. More important here though is another principle: the *uniformitarian* principle, the idea that nature is the same everywhere and always. (The term originates in fact with geology.) A forensic scientist, for example, conducts experiments of what happens when a gun is fired, because it is assumed that firing a gun in the past in similar conditions would have had a similar outcome. If we did not use this principle, then science would be impossible.¹⁶⁸ Even a scientist who believes in miracles will make this assumption. “[S]cientists make this assumption as part of the cost of doing business, rather than because they are sure it is always true. Even if it is only true most of the time, such an assumption is probably worthwhile.”¹⁶⁹ Although it has been argued that uniformitarianism makes miracles self-contradictory, this seems logically very dubious unless a question-begging assumption is made that natural laws necessarily cover *all* of reality, which is the point at issue.¹⁷⁰

Does belief in miracles involve a violation of Occam's razor? As with Omphalos, the question depends on the data set. The religious believer is using a different data set, which includes sources outside science.

One difference now becomes apparent between Omphalos and miracles. In principle, a miracle *could* be scientifically observed;¹⁷¹ the problem is that such events are by their nature supposed to be very rare, so that a systematic scientific investigation would not normally be possible. Omphalos, on the other hand, is a theory which is *in principle* untestable, since it is of the essence that any possible evidence will be the same for both Omphalos and evolution.

Perhaps more importantly, the significance of the two cases is different. Although it allows for the literal truth of Genesis, Omphalos seems theologically meaningless. Why would

¹⁶⁶ There are arguably some problems with defining miracles as violations of the laws of nature, but I will not address these here.

¹⁶⁷ C. S. Lewis, *Miracles: A Preliminary Study* (Glasgow: Collins, 1982), pp. 99–103.

¹⁶⁸ Barry R. Bickmore and David A. Grandy, “Science as Storytelling”, *BYU Studies Quarterly*, Vol. 53, No. 4 (2014), p. 53 <http://www.jstor.org/stable/43957149> accessed 23 March 2018.

¹⁶⁹ Bickmore and Grandy, “Science as Storytelling”, p. 54.

¹⁷⁰ Leon Pearl, “Miracles: The Case for Theism”, *American Philosophical Quarterly*, Vol. 25, No. 4 (Oct., 1988), pp. 331–4 <http://www.jstor.org/stable/20014256> accessed 23 March 2018.

¹⁷¹ In the Catholic Church, miracles (normally of healing) which are part of the canonization process are scientifically tested, usually by medical experts. For a first-hand account by a (non-believing) expert, see Jacalyn Duffin, “Can a scientist believe in miracles?”, 14 February 2014, BBC website, <http://www.bbc.co.uk/religion/0/24660240> accessed 16 March 2018.

God do such a thing? Inasmuch as Gosse's logic was compelling, it seemed to many an argument against the plausibility of recent and instantaneous creation. Miracles, by contrast, are signs which convey meaning: they reveal the nature of God. C. S. Lewis contrasted the miracles of the New Testament, which are miraculous forms of normal things such as healing, the production of food and drink, and so on, with the arbitrary marvels of Ovid's *Metamorphoses*.¹⁷² Similar points had earlier been made by Cosmo Lang, later Archbishop of Canterbury.¹⁷³

Omphalos is also relevant to the postmodern critique of history. The classic conception of historical research is that evidence reveals a really existing past, which the historian can describe and analyse, albeit fallibly. Some postmodern critics, however, have argued that there is no objectively existing past accessible to us, and that in constructing historical narratives historians are playing a sort of cultural game with the evidence—although they are ready to concede that this game has rules and is not arbitrary fiction.¹⁷⁴

Philip Gosse's vision is, from one point of view, remarkably similar. According to Omphalos, the world's prehistoric past does not exist as a reality in the same way as the present, but only as the implication of the signs. All the fossils and geological strata constitute a giant "text", which has no referent. Perhaps Gosse should be rehabilitated and celebrated as the first postmodernist.¹⁷⁵

It is worth asking whether what is "intuitively grotesque" necessarily remains so. Despite this attitude towards David Lewis's possible worlds, the Many-Worlds Interpretation of quantum mechanics, by which all physically possible histories actually happen, has by now made its way into popular culture.¹⁷⁶ This is arguably even more disturbing than Lewis's theory, since it implies that we ourselves have no single future but diverge, whereas Lewis's other worlds are merely *like* ours. In the case of Omphalos there are similar newly familiar ideas. In the classic science fiction film *Blade Runner* the plot involves, among other things, an artificial human being who has a complete set of false memories and believes herself to have lived a normal life. In *Total Recall* people can pay to have false memories of interesting

¹⁷² Lewis, *Miracles*, pp. 137–8.

¹⁷³ Cosmo Gordon Lang, *The Miracles of Jesus as Marks of the Way of Life* (London: Pitman, 1907), pp. 17–22.

¹⁷⁴ For a useful summary see Perez Zagorin, "History, the Referent, and Narrative: Reflections on Postmodernism Now", *History and Theory*, Vol. 38, No. 1 (Feb., 1999), pp. 1–24.

<http://www.jstor.org/stable/2505313> accessed 16 April 2018. See also Michael Stanford, *An Introduction to the Philosophy of History* (Oxford: Blackwell, 1998), p. 68.

¹⁷⁵ A parallel has also been noted between Omphalos and a type of existentialism which denied the meaningfulness of the universe apart from human consciousness. Raymond Ruyer, "Les rapports de la science et de la philosophie et l'étroitesse de la conscience", *Revue Internationale de Philosophie*, Vol. 17, No. 64 (2) (1963), pp. 148–50. <http://www.jstor.org/stable/23940353> accessed 9 April 2018.

¹⁷⁶ E.g. the *Star Trek: The Next Generation* episode "Parallels" (1993).

experiences implanted. Ideas such as this are now familiar to western audiences,¹⁷⁷ and if the hypothesis remains bizarre on a large scale, on a personal scale it now seems merely futuristic. There is also the “simulation hypothesis”, which argues on the basis of certain assumptions that our world is statistically likely to be a simulation.¹⁷⁸

Modern discussion of the issue is complicated by the fact that in present-day Christianity the literal (“Creationist”) interpretation of Genesis is associated, at least in the United States, with a broader set of cultural assumptions. This association tends to obscure the quite different assumptions of Victorian England. It is interesting that Wikipedia has at least two articles on the subject. “Omphalos hypothesis”¹⁷⁹ deals with the generalized idea and describes it as “pseudoscientific”, which is debatable in terms of Wikipedia’s own definition of pseudoscience as things which are without scientific basis but are *claimed to be scientific*. The entry on the book¹⁸⁰ more accurately states that the Omphalos hypothesis is “a largely philosophical position, not a scientific one.”

In conclusion, then, Omphalos raises some interesting logical issues about Occam’s razor and religious belief. In terms of parsimony, Omphalos is worth considering as a case of different premises about the data set. In itself it went nowhere, but ultimately this was less to do with the theoretical issues often raised about it in discussions of the history of science, and more to do with its intuitive implausibility and lack of religious significance for Christians. In this lack of meaning, it differs sharply from the issue of miracles. Thus, its failure was in fact not logical but religious.

¹⁷⁷ In 1988 the comic science-fiction series *Red Dwarf* made use of the idea of one character “pasting” a section of his memories into his companion’s mind as an unasked-for gift. “Thanks for the Memory”, *Red Dwarf*, 1988.

¹⁷⁸ Nick Bostrom, “Are We Living in a Computer Simulation?”, *The Philosophical Quarterly* Vol. 53, No. 211 (Apr., 2003), pp. 243–255. <http://www.jstor.org/stable/3542867> accessed 29 October 2016.

¹⁷⁹ “Omphalos hypothesis”, Wikipedia page, https://en.wikipedia.org/wiki/Omphalos_hypothesis accessed 5 October 2017.

¹⁸⁰ “Omphalos (book)”, Wikipedia page, [https://en.wikipedia.org/wiki/Omphalos_\(book\)](https://en.wikipedia.org/wiki/Omphalos_(book)) accessed 5 October 2017.

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