

reading a piece on the Classics is at the mercy of manipulation because the modern audience in all likelihood had no idea which authority on a Classical subject was indeed truthful. Any reader of this anthology does not have to go far to think of television programmes like *Ancient Aliens* or dubious sources that exist on the internet. From quotations to monuments, nothing is left unaffected.

My one fault with this anthology, and it is certainly not with the quality of scholarship involved in compiling the volume from some very illustrious authors, would be that the active goal to provide authority or new thinking on the truth will be missed by the vast majority of people who have an interest in Classics. In most instances they won't know of this Bloomsbury edition because it is too academic. Thus, the target audience of this anthology will always remain classical scholars themselves. And most of them already know which side of the authority debate they are on, or that a broad sense of consensus has already been reached on the subject of Authority in History.

The anthology is an excellent example of the reception of ancient rhetoric with modern modifications and the various debates around those modifications. And it presents to the reader views that, in whichever side of the profession they may fall, they can agree on one thing: that subversion of the facts must be weighed against the author's own claim of legitimacy. If in this equation the former is found to be true, then it deserves to be discarded. Although it can always be said that no one holds a monopoly on the truth, this equation will at least give the reader the comfort of a certain legitimacy for whatever truth of subject matter they were reading or watching. I don't think that it will ever be really possible to end all subversion of facts or even the perpetuation of certain ideologies in their entirety. The world has become too wired up for that to ever happen. And it was most certainly the reason why so few arguments and debate about controversies existed in the Classics in the last century. They might have been there or somewhere under the surface, but you never got wind of them, because the community was too close-knit to air dirty laundry in public.

The editors and the authors of the many essays in this anthology have proved that, in the world of social media and the internet, the reader has become as important as the writer. And that this relationship might not always be symbiotic. The anthology proves that both modern readers and writers can also be parasitic with the thoughts and writings of each other and that the Classical field probably has a greater share of parasites than other fields of study. However, this should not be an overwhelming cause for despair, even though classical terminology might change its meaning from one decade to another. This modern to-and-fro between reader and writer should also have the effect of creating a more open mind.

It is this open mind, that, in the end, will always be responsible for the shedding of light into every corner of Classical Studies, and where such studies have proven themselves to be segregated and insular this anthology proves that the individual reader who derives the most pleasure will in the end force even the most insular and controversial studies or departments into the light of day. This I believe is the original ethos of the writings of the Greeks and the Romans that was carried over into modern writing, this ethos being one of openness towards the individual and the individual's experience of language, mythology and history. *Authority and History*, with its multiple contributors, shows the classical teaching world how this is both relevant to truth and to the development of the field. All serious teachers and thinkers should take note of this anthology.

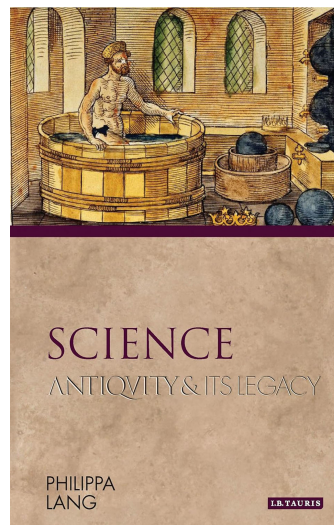
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## Science: Antiquity and Its Legacy

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'It seeks to engage, provoke, and stimulate, and to show how, for large parts of the world, Greco-Roman antiquity continues to be relevant to debates in culture [...] and society' (p. xiii). So writes Phinoze Vasunia in the foreword to clarify at the outset the stakes of Philippa Lang's work and of the books belonging to the Bloomsbury series *Ancients and Moderns*. Aware that the scale of the subject-matter obviates anything like a comprehensive treatment, the author has written a book which aims to offer some sense of the legacy of ancient exact sciences and technology by

presenting a closely interrelated set of arguments and colourful examples.

Despite its brevity, the book treats a big wealth of evidence, ranging from the sixth century BC, when Greek culture started developing 'the concept of abstracting a mathematical technique and demonstrating that it must necessarily hold for any and all particular cases' (p. 130) and the notion of an axiomatic-deductive proof, until late antiquity, despite focusing especially on the Hellenistic and Roman ages, which saw the rise of astronomers like Aristarchus of Samos, who first proposed a heliocentric model of the universe, or Hipparchus, whose impressive contributions included the discovery of the precession of the equinoxes; moreover, the Hellenistic age saw the invention of complex machines like the 'Antikythera mechanism', an analogue computer designed 'to perform a limited but complex set of calculations concerning astronomical bodies' (p. 161), or like the *automata* invented by Heron of Alexandria, such as the first automatic vending machine operated by pneumatic means.

Lang's book offers a beguiling mixture of ancient accounts and modern examples arranged in an often thematic order. To give some examples, in the first chapter, which is devoted to a wide range of cosmologic questions, including the origin of the universe, the issue of whether the cosmos has always existed or whether it had a beginning, as it was discussed in Plato's *Timaeus*, leads to a curious anecdote on how the Big Bang theory was proved: a group of pigeons roosting around an antenna built in New Jersey allowed the scientists to discover the 'Cosmic Background Radiation', which confirmed that the universe began if not from nothing, then from something completely different, that, just like the *chaos* in the

origin stories, was incomprehensible to explication and reason because it lacked structure. In the third chapter, which is devoted to natural laws and the methods to discover them, the story of Archimedes proving that the golden crown of the Sicilian king was actually an amalgamation of gold and silver, relying on the measurement of its density, gives the cue to talk about Lavoisier's 'Law of Conservation of Mass'. In the fourth chapter, devoted to illness and medicine, Galen's method used to demonstrate that the kidneys were responsible for separating excess and poorly-concocted bodily humours and for the secretion of urine, which could provide a diagnostic mirror of internal imbalances, is compared with the Q.E.D. test which detects the imbalanced alcohol consumption by measuring the presence of ethanol in the body. In the fifth chapter the author, challenging every claim that Greek science was only a theoretical one, deals with instruments and means of controlling the world, and focuses on mechanics, which was able to 'dramatise' the power of mathematics and science 'to explain and manipulate the world' (p. 162). Here she mentions a famous quotation by Archimedes: as several ancient sources after Plutarch report, the scientist, 'emboldened by the strength of his demonstration' about the so-called 'Law of the Lever', said, 'give me a place to stand and I will move the world'; Lang persuasively explains that this was the 'extreme claim about the power and the truth of mathematical physics, mechanised in the three-dimensional form (the lever) and specific to a precise, quantified place in a mapped universe (the right place to stand)', and sets a comparison between Archimedes' words and the ones pronounced by J. Robert Oppenheimer after watching a nuclear test bomb explode, 'I am become death, destroyer of worlds': this was not a lever but a powerful demonstration that science has not only a creative but also a destructive power and that machines, if created to expand nature's repertoire, sometimes apparently work against it. Such considerations lead to the final chapter, where the author draws some conclusions on the bioethical impact of medicine and technology.

The weakest points of this book are that the juxtaposition of the examples is sometimes hard to follow, and comparisons with modern science are not always effective; moreover, the breadth of the subject-matter often risks simplifications or historical inaccuracies. For example, the author says that 'in spite of a considerable loss of texts throughout classical antiquity and the subsequent Dark Ages, some treatises were preserved in the Arabic intellectual tradition . . .', or that the maps of Ptolemy's *Geography* 'are lost but can be reconstructed from the text' (p. 142), that are evident trivialisations.

Although lacking some academic rigour, Lang's contribution offers several miniature sketches that give a vivid overview of certain issues in a style that is approachable for general readers or students. Even though there are factors that limit the utility of the book for the Classics teacher, like the fact that many ancient terms and scientific concepts are introduced without adequate contextualisation, taken as whole this volume demonstrates the ongoing pertinence of the Classics and their outstanding contribution to our idea of 'science' and it may definitely serve as a stimulant for discussion within a classroom setting or a non-specialistic context.

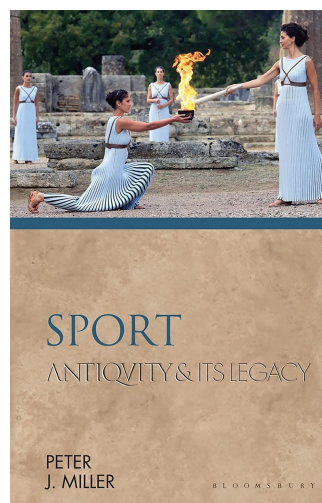
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## Sport: Antiquity and Its Legacy

Miller (P.J.) Pp. x + 223, ill. London: Bloomsbury Academic, 2023. Paper, £19.99 (Cased, £65). ISBN: 978-1-350-14021-9

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Professor Miller is a specialist on ancient sporting phenomena, having taught such courses at Canada's University of Winnipeg for a number of years. His erudition with this subject matter not only sparkles on each page of the work reviewed here, but he has diachronically stretched his expertise to encompass the ancient Greek and Roman worlds, a particularly strong focus upon the Olympics (ancient and modern) and then into multiple modern continuities of such phenomena. Miller also plays quite master-

fully with the tension between sports and spectacles as enjoyed by the ancients and how their modern-day transmission and reception is often artful at best. Bouncing along his greater-than 3,000 year timeline, the reader is entertained by Miller's deft control of his expansive topic(s), especially where he presents astute observations of the idealised athletic physique in both antiquity and modernity, or engages in cleverly informed interpretations of everything from gladiatorial spectacles, chariot racing and gymnasium culture to the manner in which open competition spaces evolved into architecturally-significant structures that continue to 'live on' as often-immense arenas, stadiums or even Colosseums (as with the Los Angeles Memorial Coliseum, which hosted the Olympics in 1932 and 1984 and will again in 2028 – p. 156).

After his brief introductory chapter – which pays particular attention to the lacunose historical record involving female athletes (p. 4) and Miller's own desire to highlight the more neglected and novel aspects (p. 6) of his broad field of study – the six key chapters address primarily Western sporting traditions in a thematic fashion. Somewhat unusually, there is no concluding chapter, with a mini-summation of each chapter being sequentially embedded. Nor is there much attention paid to the reception of non-Western cultures to the sporting traditions of the West, other than some passing references to the Tokyo Olympics of 1964 (pp. 172–173). Far from minimising or undercutting the conclusive weight of his work, though, Miller's judicious excising is in part-keeping with the sheer bulk of his