

value as basis for current decision making on the correction of past injustices, thus to restore the dignity and well-being of descendants of a past generation. This is what the application of the research for which Legassick reached out involves. *Hidden histories of GORDONIA* is a gem of a contribution worth reading, and being regarded as part of the valued historiographical repertoire of the history of the Northern Cape.

*Climate change and the course of Global History*

(Cambridge, Cambridge University Press, 2014, 631 pp., bibl., index,  
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**John L Brooke**

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John Brooke's work on climate change can be situated in a burgeoning field of study termed "Big History". It is a very ambitious yet intriguing attempt to contextualize the course of human history within larger structures, ranging from the creation of the universe itself to the geology of the earth and, of course, climate.

Brooke prioritizes climate as a key factor in human history. Through the use of interdisciplinary means ranging from archaeology to advances in genetics, the full scope of human history can be traced and much of it can be briefly summarized as the interaction between culture and climate. At the outset, this interaction would have been dominated by climate, leaving humankind at the mercy of uncontrollable forces that created the conditions of "stress" forcing change in society. Brooke therefore argues against the Malthusian view of overpopulation outstripping available resources – crisis is instead caused by exogenous factors that are beyond human control.

*Climate change and the course of Global History* is divided into four parts – each dealing with a significant aspect of the progression of human history. In the first part, "Evolution and Earth Systems", Brooke emphasizes human evolution as proceeding both gradually and through catastrophe. In a manner that mirrors the uniformitarianism and catastrophism of geology, human evolution proceeded in "fits and starts" (p. 29) and it is, in fact, the moments of crises that drove evolution. Geological forces such as glaciation, volca-

nic eruptions or meteor impacts and climate change caused by minute shifts in the earth's orbit or varying solar activity contributed to mass extinction events. Those most genetically adapted to survive these adverse conditions did so – and thrived, becoming the mammalian ancestors of modern humans. As hominids evolved, however, survival eventually became less due to genetics than to culture where the use of language and tools were key to surviving adverse environmental conditions.

Part II “Domestication, Agriculture and the Rise of the State” follows upon the seminal work of Jared Diamond, focusing in particular on the rise of agriculture and growth of settled communities in the “Old World”. The domestication of animals also had the effect of exposing these groups to diseases as well as building immunity – which would have severe repercussions centuries later, once they came into contact with “New World” societies. The development of early civilisation can be attributed to the more amenable climate at the end of the last Ice Age. The growth of agriculture brought with it larger settlements and social stratification. This can, in no small part, also be attributed to adverse climatic conditions and Brooke shows that small, ecologically vulnerable populations tended to embrace a more centralized, authoritarian rule that offered protection from the vagaries of environment, “Nature strikes in terrible calamity; humanity strikes back to transform natural bounty into the material structures of great walled cities” (p. 212).

A major part of the focus of Part III “Ancient and Medieval Agrarian Societies” is empire. With his detailed consideration of the Roman Empire, Brooke suggests that it was a victim of its own success. In a pattern that can be traced throughout human history, stability, the growth of technology and improvements in food production are conducive to population increase. The effects of population pressure, in conjunction with the communication networks so essential for the maintenance of imperial power – but also responsible for the spread of disease – created the conditions that would ultimately lead to the fall of Rome. The Little Ice Age during the medieval period was yet another crisis – a colder climate brought about by volcanic eruption and a shift in the earth's position in relation to the sun had an adverse effect on agriculture and food supply. This was compounded by the Black Death. The period of conflict was marked by the rise of new states and advances in military technology. Yet humankind rallied. Smaller populations resulted in a higher standard of living and the end of feudalism. The greater resources of these new states ushered in the voyages of exploration and discovery and paved the way for the dominance of Europe.

From the nineteenth century, however, anthropogenic factors have had a growing influence on climate and this is a key argument made in the final part of the book. Climatic changes can now be also attributed to global warming which is itself largely due to increasing greenhouse gas emissions – a by-product of industrialization. An exploding population has created concomitant demands for energy and other resources, leading to further development, deforestation and greater use of fossil fuels. Brooke suggests that much of our current political and economic concerns are a result of this, along with environmental degradation and the periodic outbreaks of epidemics such as the Ebola virus. These contemporary issues, however, are merely the continuation of a trend that has defined human history.

The tendency to make natural history the driving force behind human physiological and cultural evolution indicates a sense of predetermination against which “free will” advocates will instinctively rebel. This pre-determinism is prevalent throughout Brooke’s argument and it is something with which he engages. Admittedly it may sometimes make the reader uncomfortable however Brooke presents a wealth of evidence drawn from a variety of sources to substantiate his arguments and indicate what he sees as a high degree of correlation between environmental factors and human history. Despite the discomfort provoked, *Climate change and the course of Global History* is therefore a fascinating and compelling view of the interconnected history of humanity and the earth.

### *491 Days: Prison number 1323/69*

**(Johannesburg: Picador Africa, 2013, 251 pp., ISBN: 978-1-77010-330-6)**

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*491 Days* is a harrowing insight into what Ahmed Kathrada in the foreword terms “the very coalface of the struggle” (xi). This book, by virtue of its nature, illuminates the difficulties faced by one of the struggle’s most prominent political widows: particularly in terms of being earmarked by security forces; ostracised by comrades in fear of retribution by association; and dealing with the anguish of children becoming political orphans. *491 Days* details the disturbing period which Winnie Madikizela-Mandela spent in detention