

**2000 ANNUAL LECTURE**

***'Big History', Globalisation and Australia: Towards a  
More Inclusive Account of the Past***

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# **‘Big History’, Globalisation and Australia: Towards a More Inclusive Account of the Past**

## **Introduction**

The year 2000 symposium of the Australian Academy of the Humanities takes up UNESCO’s theme for the year: ‘Cultures of Peace’. Speakers have been asked to discuss five related issues: reconciliation, tolerance, respect, cooperation, and sharing. These issues invite us to think hard about the possibilities for a future in which warfare and conflict may play a less devastating role than they do today. Can there be such a world? Can there be a world in which communities once divided by conflict learn to respect, tolerate and cooperate with each other in new ways? Of course, this is a question that comes up in every generation. Can we pass on a better world to our children and grandchildren?

It is easy to dismiss such questions as naive and utopian. Historians, in particular, find it easy to respond with a weary cynicism to hopes for a better world. So many times they have seen high hopes for the future dashed. As someone who has taught Soviet history for 25 years I know the feeling all too well. Nevertheless, it is important to resist cynicism and respond seriously to such questions. So, I take very seriously the questions raised by this symposium: Are there trends in the modern world that point to the real possibility of a less violent and less divided future? And are there ways in which teachers and scholars in the Humanities can support such trends?

I am extremely honoured that the Academy has invited me to discuss these rich, complex and important issues. And I am very grateful that we have been given the chance to debate them seriously over the next two days. I hope my approach to these themes can contribute to the discussions that will follow.

I will argue that scholars in the Humanities, and historians in particular, have much to contribute to the building of a culture of peace. This is because the Humanities can shape our sense of personal and group loyalty in very powerful ways. They help define who we think we are, and which groups we think we owe allegiance to. However, existing discipline boundaries and conventions about scholarship and teaching, particularly in history, can limit the ways in which we teach and even think about issues of identity and loyalty. They do so in many subtle ways, but the cumulative effect is to exert an insidious, but powerful form of censorship. Though they don’t necessarily choose our themes for us, existing scholarly conventions do steer us in particular directions; and by doing this they can determine what is in the centre of our field of vision, and what is pushed to the periphery. Sadly, some of the ideas and approaches pushed into our

peripheral vision in this way may be exactly those we need to encourage the emergence of a culture of peace. I will argue that if history is to make a more positive contribution to the emergence of such a culture, historians may have to break with some powerful conventions about how history should be written and taught. I will suggest some ways in which we can do this, and explore some of the implications of these changes for world history and for Australian history. I will make this argument primarily as a historian, but I believe that much of what I say is also relevant to the work of scholars and teachers in other fields.

## **History and identity**

### *Teaching about Identities*

In the Humanities disciplines, and particularly in history, teachers try, amongst other things, to help their students understand who they are. This means helping them answer some deep but naive questions about identities: What is my community? What duties do I owe that community? What is my place within that community? What other communities exist? What is my relationship towards them and what are my obligations towards them?

Our self-definitions can shape our behaviour at the deepest levels.<sup>1</sup> A clear sense of identity can tell us who is a friend and who is a foe. Where similar identities are shared by many people they shape collective behaviour, which is why collective identities can be such potent historical and political forces. They map the fault lines across which conflict is most likely to occur, and the zones of safety within which co-operation is more likely. So considering how such identities are formed is directly relevant to the central themes of this symposium.

Because our sense of identity depends so much on memories, both personal and collective, it can be shaped very powerfully by the way we understand the past. So the discipline of History can be a powerful constructor and shaper of identities. As Ross Poole puts it:

Every identity carries a conception of its past and its future. The self which acts is always a temporally extended self. It exists, not merely at the moment of action, but through time. ... [M]emory and anticipation are not merely modes of cognitive access to what we did in the past and will do in the future, but are the very forms through which our identity is constructed. As in memory and anticipation we identify with past and future selves and appropriate their action as ours, so we make ourselves one with those past and future selves. Different identities convey different pasts and futures, and they locate us differently in these pasts and futures.<sup>2</sup>

Anthony Smith puts it even more strongly: 'there can be no identity without memory (albeit selective), no collective purpose without myth, ....'<sup>3</sup>

This means that historians have a peculiar responsibility to think hard about how they shape the self-identities of their students. In a book on the sense of identity in today's global society, Manuel Castells writes: 'who constructs collective identity, and for what, largely determines the symbolic content of this identity, and its meaning for those identifying with it or placing themselves outside of it.'<sup>4</sup> So, one way of raising the central themes of this seminar is to ask: how does the way we teach about identities affect the possibilities for an emerging culture of peace? Do we teach in ways that encourage the emergence of a culture of peace? Do we teach about identities that divide communities from each other? Or can we also teach our students about those identities that all humans share?

#### *History and the nationalist paradigm*

In practice, most of the ways in which history teaches about identities do not support the notion of a single, human community with a shared identity. On the contrary, most of the identities we discuss as historians and many of the ways in which we teach about the past undermine the internationalist idea that there can be a single, global community and a single human identity. This reflects in part the prominence in modern historiography of nationalism and the nation state. Seen on a global scale, national identities encourage division rather than cohesion, for they offer clear definitions of in-groups and out-groups. As Ross Poole has argued: 'A national identity is always a form of difference and thus a form of exclusion.'<sup>5</sup> So it is a shame that national identities are, at present, the identities that historians seem to teach best. Yet in an increasingly interdependent world, in which several states have nuclear weapons and long-range delivery systems, and ecological and economic problems cut across national boundaries, the teaching of national identities can no longer count as a positive contribution to a culture of peace.

That national identities are so central in modern historiography is no fluke. To a degree that is often forgotten the fate of the history profession has been tied to that of the modern nation state.

There are three sides to the triangle formed by History, State and Nation. Modern nationalism is very much a product of the modern state.<sup>6</sup> The unprecedented reach and power of modern states means that a shared sense of subordination can itself be enough to generate new forms of identity. And the more powerful the state, the more significant the sense of national identity is likely to become, as ancient myths of community—dynastic names, tales of origin, costumes, songs—begin to orbit modern

politics, dragged in by a sort of political gravity. The democratic structures of so many modern states also play a role, for they make it so much easier for ordinary citizens, however remote from real power, to think of the state as 'their' state. The result is that in the modern world, the sense of national identity overshadows many other possible markers of identity.<sup>7</sup>

On the other side, emerging states have had both the incentive and the means to cultivate nationalism. In particular, they have immense influence over the syllabi taught in schools and universities, and good reason to ensure that those syllabi teach students about national identities. As Pilsudski is supposed to have said: 'It is the state which makes the nation and not the nation the state.'<sup>8</sup> This is an exaggeration, of course. A powerful sense of nationhood can survive despite the absence of a unifying national state. So the real challenge for the modern state was to weave traditional markers of identity into the symbolic fabric of the modern state.

And this is where the history profession came in. Historians have played a vital role in shaping modern national identities, by creating authoritative, coherent and inspiring accounts of the past. The great national histories gave a deeper meaning to the banal reality of shared subordination to a modern state. Indeed, the modern history profession established its importance within the modern state precisely by meeting this challenge so successfully. But the success with which the Michelets, the Macauleys and the Manning Clarks met this challenge should not obscure its difficulty. In the USA, for example: 'There was no uniform ethnic stock, no binding rituals from an established church, no common fund of stories, only a shared act of rebellion. Americans had to invent what Europeans inherited: a sense of solidarity, a repertoire of national symbols, a quickening of political passions.'<sup>9</sup> But the truth is that European historians had to do almost as much 'inventing' as American historians. As Eugen Weber argued in his classic study, *Peasants into Frenchmen*, even in France, a country with more homogenous traditions than most, few regarded themselves primarily as French even at the beginning of the twentieth century.<sup>10</sup> Despite these difficulties, historians in country after country produced rich and inspiring national histories that created a powerful sense of shared identity amongst people from very diverse backgrounds. The 'nations' whose histories they described were, of course, 'imagined communities', as Benedict Anderson has argued.<sup>11</sup> But the sense of national identity was real enough to shape most of the major conflicts of modern history.

History and nationalism remain more closely identified today than most professional historians care to admit, and the idea of the nation state still exerts a powerful gravitational pull on the way historians handle their

material, and choose their themes and categories. This is easiest to see in course listings, in the sub-divisions of University departments, in journal titles, in the way that different types of expertise are classified within the discipline. It is apparent in the feeling (shared even by world historians) that a graduate student without a national or regional expertise has little chance on the job market. Conceptually, the bounded community of the modern nation state has provided a model of what all human communities are. And this model has guided historical thinking even about periods in which there were no nation states. Where the nation state is not the immediate object of study, the 'region' or 'area' often acts as a surrogate. The term, 'civilisation', has often played a similar role, whether defined in religious terms, or in terms of a particular cultural style. Methodologically speaking, the nationalist paradigm has encouraged historians to think of history as a story about distinct bounded communities; and this has encouraged historians to focus more on differences than on commonalities. The nationalist paradigm also guides research to the extent that historians acquire linguistic skills associated with a particular state; or get used to working in the archives of a particular state. As a result, though historians have long since ceased to regard the national state as the central theme of their discipline, it can still provide the basic framework within which they approach questions of gender, of social and cultural history, and many of the myriad themes that historians have taken up in the last half century.

The dominance of the national paradigm in modern historical thinking means that, consciously or unconsciously, historians teach that national identity is the most powerful of all possible identities. The very fact that I have taught courses called 'Russian history' conveys to my students the subliminal message that Russianness is at the centre of my teaching. And that means reinforcing an even deeper message: that divisions between human communities are more fundamental than anything those communities may share.

It may be that there is an even deeper methodological bias at work here. That is the research strategy of analysis, a strategy that has dominated modern research in many fields of scholarship. That strategy starts out from bits and pieces of information and tries to assemble from them a coherent picture of reality. Its underlying assumption is that the most effective way of understanding the world is to start with the fragments and move towards a larger and more coherent account of the way things are. In reality, of course, all fields of research try to bring together empirical details and high theory; but in historical research in the last century, the overwhelming tendency has been to assume that the most effective strategy is to start with the details. It may be that the time has come to search more

seriously for the underlying unities of which different nations, regions, civilisations and cultures are a part.

Whatever the cause, the result of approaching the past in this way, coupled with the powerful inertia of the 'nationalist paradigm', is that historians offer a fragmented picture of the past. We describe particular communities well, but we struggle to see humanity as a whole.

### *A history of humanity?*

Is history bound to convey such a fragmented account of the past? Or could historians offer a more inclusive view of the past, one that might support, rather than hinder the creation of a global sense of identity and citizenship? Clearly, the way to do this would be to construct a coherent and authoritative history of humanity as a whole. This is a challenge that the archaeologist Andrew Sherratt raised at the 19th International Congress of Historical Sciences in Oslo, in August 2000. History, he argued, is now 'invited to provide a more comprehensive vision which can appeal to humankind in general, rather than simply to local segments of the world's population.'<sup>12</sup>

The key question, I think, is this: can historians construct a history of humanity as compelling as the great national histories of the past, but without their divisive sting? Could such histories be as authoritative, as inspiring and as influential as the histories of a Klyuchevsky or a Churchill? If it was possible to create nationalist histories against the odds, should it prove any harder to write an analogous history of humanity as a whole?

The idea is not new. H.G. Wells tried to write a universal history in the terrible aftermath of the first world war. 'There were many reasons to move a writer to attempt a World History in 1918,' he wrote in an Introduction to the 7th edition of his *Outline of History*. 'It was the last, the weariest, most disillusioned year of the Great War. Everywhere there were unwonted privations; everywhere there was mourning.... There was a copious discussion of possible new arrangements of world politics; of world treaties for the abolition of war, of leagues of nations, leagues of peoples. Everyone was "thinking internationally," or at least trying to do so.' Yet Wells found that the discipline of history offered little help to those seeking a more internationalist perspective on the world. 'They had been taught history, they found, in nationalist blinkers, ignoring every country but their own, and now they were turned out into a blaze.'<sup>13</sup> Wells concluded that only a universal history could offer any guidance to those interested in avoiding future wars.

Processes of globalisation have given peculiar salience to the idea of a global history. Indeed, the very idea of a global community would have

been difficult to imagine before modern times.

To speak of globalisation is already to speak from a cultural discourse in which the world is a sphere, spinning in space. Neither the shape, nor the extent, nor the place of the earth in the universe have always been so conceived; the ways in which cultures have placed themselves within a broader cosmos, earthly and heavenly, have been highly varied. Few cultures prior to the European Enlightenment thought of the world as one whole and the people within it as a single generic humankind, above and beyond any sociological, biological or spiritual distinctions. It is from within that discourse that we can describe a particular form of the globalisation of culture—the emergence and diffusion of ideas and beliefs about the globe and humanity itself. Even though most people remain rooted in a local or national culture and a local place, it is becoming increasingly impossible for them to live in that place disconnected culturally from the world in which it is situated.<sup>14</sup>

But despite the pressures of globalisation, writing global history has turned out to be surprisingly difficult. And some have even concluded that it may be impossible. Anthony Smith has argued that cultures are by definition plural not unitary: 'Hence, the idea of a "global culture" is a practical impossibility, except in interplanetary terms. Even if the concept is predicated of *Homo sapiens*, as opposed to other species, the differences between segments of humanity in terms of lifestyle and belief-repertoire are too great, and the common elements too generalized, to permit us to even conceive of a globalized culture.'<sup>15</sup> Community identities, he insists, are based in subjective experiences arising from shared cultural and historical experiences. They imply a sense of continuity between generations, shared memories of specific events and a shared sense of destiny. And he concludes: 'It is in just these senses that "nations" can be understood as historic identities, or at least closely deriving from them, while a global and cosmopolitan culture fails to relate to any such historic identity. Unlike national cultures, a global culture is essentially memoryless.'<sup>16</sup> Perhaps global history is bound to be bland and homogenised, lacking the colour and particularity that made national histories so seductive and so powerful.

The difficulties are clearly formidable. In the UNESCO history of the world, Louis Gottschalk attempted a history that included as many distinct communities as possible. The result was inclusive, for sure, but it lacked coherence. Gilbert Allardyce described Gottschalk's method, cruelly, as "equal time" impartiality parading as "historical perspective".<sup>17</sup> Contemporary World History has still not found an entirely satisfactory way of constructing a global account of the past. In practice, world historians have tended to focus mainly on the history of the last 5,000 years,



for which we usually have some written evidence, and familiar institutions, such as cities and states. Arnold Toynbee offered a world history that was really a comparative history of different 'civilisations'—regions linked by a shared written and religious culture. And today the 'civilisational' approach is still alive and well, partly because it has generated some fine history, including W.H. McNeill's classic, *The Rise of the West*. World Systems theorists have offered an alternative to the notion of civilisations by describing world history primarily in terms of large, regional systems and their eventual unification within the last 500. Some have gone even further, finding nascent world systems within Eurasia as early as the third millennium BCE.<sup>18</sup> But what is striking is how hard it has proved to take the Palaeolithic era seriously. And that means that in practice modern world history has not been a history of humanity, but rather a history of the period of 5,000 or so years dominated by the history of agrarian and then industrial societies.

Perhaps surprisingly, the recent acceleration in the pace of globalisation has done little to ease these difficulties. Multiculturalism has nowhere generated new and more global identities (nor was it necessarily intended to do this). Attempts to construct trans-national identities have largely failed in the USSR, and, so far, in the European Union. In Europe, considerable resources have been devoted to the task of generating a sense of a common European identity, but according to polls in the early 1990s, fewer than 5 per cent of those interviewed thought of themselves primarily as Europeans, while 45 per cent claimed to have no sense at all of Europeanness. As David Held and his colleagues conclude: 'if this is the best that can be managed after four decades of systematic effort in a region that possesses, for all its fault lines and geographical oddities, a sense of shared history and cultural inheritance and possesses transnational institutions of considerable political weight—how much harder will the task be at a transregional and global level?'<sup>19</sup>

### *The difficulties of writing a history of humanity*

Why has it proved so difficult to construct a truly global history? One reason may be financial and political. What organisations could have an interest in supporting such a project? The UN or UNESCO, perhaps. But neither organisation has the financial muscle or the intellectual leverage of mature modern states.

Other difficulties are subtler. Perhaps the most important arises out of the way we define and frame the discipline of History. Historians conventionally work on time scales of at most a few thousand years. Yet to write a coherent history of humanity you really need to shift to much larger

time-scales. And these take us beyond the methodological and conceptual comfort zone of most professional historians and into territory more familiar to archaeologists and prehistorians. Modern humans have been around for at least 100,000 years. But the earliest hominines, or proto-humans, may have existed as much as 4 to 6 million years earlier. To survey the past on these scales, you have to move well beyond the conventional terrain of modern historiography, and in the process you have to discard much of the discipline's conceptual and methodological baggage.

In short, a coherent and unified history of human beings cannot be written with the concepts and methodologies of modern historiography. It will have to be written at a time-scale of at least 100,000 years, which takes us beyond most of the conceptual and methodological markers of the history discipline. This scale takes us away from written sources, away from agriculture, away from cities and states. And by doing so it devalues the expertise and the skills so painfully acquired in the PhD, the profession's most fundamental rite of entry. Even worse, at the earliest stages of this scale, the historian has to tangle seriously with Darwinian concepts and methodologies, because all the vital questions about the origins of modern humans lead us into Darwinian territory.

All in all, the legacy of traditional historiography has both positive and negative consequences for those interested in the project of constructing a coherent history of humanity. The great national histories offered an inspiring model of how to construct a powerful sense of shared identity out of extraordinarily diverse historical material. But the habits, the methods and the concepts of modern historiography create significant barriers to the construction of a unified history of humanity because they start from the assumption that divisions between humans are more fundamental than the things all humans share.

In the rest of this talk, I would like to describe my own attempts to move towards the large time-scales that historians will have to adopt if they are to construct a unified history of humanity. I will then describe some of the implications and consequences of looking at the past on these large time-scales.

### **The perspective of 'Big History'**

Looking at the past on very large time-scales is one of the goals of 'Big History'.

*What is Big History?*

At Macquarie University I have been teaching since 1989 a course that looks at the past on the largest possible scales. In a 13 week semester, my

colleagues and I started 13 billion years ago, with the 'Big Bang', the moment of origin of our Universe. And we ended today, early in the 21st century of the Christian calendar. Roughly speaking, we covered 1 billion years a week! And it was precisely the course's chronological extremism that made it so interesting. For it turned the course into a sort of conceptual and methodological battering ram. And something like that may be just what is needed to help us construct a coherent history of humanity.

Given the conventions of modern historiography, such a course inevitably seems bizarre. So I will take a little time to describe how I began teaching in this way, and to explain why I think such a course has a legitimate role to play in the teaching of history in a modern University. I will do so briefly, as I have already argued the case for such a course elsewhere.<sup>20</sup>

University history departments periodically go through a curious rite we can call the 'Debate about the first year history course'. The rite begins when the teacher of a large first year history course dies, retires or goes missing. At this point, members of the department start debating who should take over and what they should teach. The question they discuss is: what do we need to teach first year history students? What a Martian anthropologist would find odd about this debate is that everyone secretly knows it will have little impact on the outcome. That will be determined by a combination of serendipity and the power relations within the department. Often, the most powerful figures in the department rule that their area is the natural starting point for aspiring historians, and that settles the issue.

We had one of these debates at Macquarie University in the mid 1980s. Irritated by its apparent futility, I said petulantly: 'For Heaven's sake, let's teach them everything!' A colleague challenged me to explain myself, and all I could do was to bluster about 'starting at the beginning' and 'including the history of everyone'. But I had nothing serious to contribute and the matter was soon dropped.

Except that over the next days and weeks I found myself obsessed by the question I'd raised. When did history begin? What would it mean to start 'at the beginning'? And what would it mean to teach a history of everything and everyone? To put it more formally, the question that concerned me was: What is the whole of which particular histories are a part? Naively, I thought that others, wiser than myself, might have considered such questions more deeply, and could give me some answers. I was soon disabused of that hope, because I found that professional historians as a class feel little need to ask these questions. Indeed, many regarded my questions as metaphysical and pointless.

However, to me they seemed important. As I tried to think these questions through for myself, I started sketching out what a first year course on the history of everything might look like. Clearly, it would have to be global. Equally clearly, if it was to include all human communities it would have to start deep in the Palaeolithic. These two steps already took me beyond my formal expertise and the normal syllabus of a Modern History Department. But when exactly should the course start? This question led me beyond even the territory of archaeology and prehistory, and into that of palaeontology and biology. To ask about the origins of humans was to ask about the origins of species and that meant asking about the origins of life itself. And these questions raised further questions about the history of the Earth, and, eventually, the Universe.

Here I found I could stop. For in modern Big Bang Cosmology, there did appear a clear answer to my question. The Universe has a datable origin, about 13 billion years ago. But we can say nothing about what preceded it. So this is as far as we can go. This was the framework within which all other histories were set.

I began to sketch out what such a course might look like, and soon decided that the problems were not as great as I had imagined. And so, to cut a long story short, I persuaded my colleagues to let me offer a first year history course on this huge scale. And two years later, in March 1989, I began to teach it, with the generous support of colleagues in many different disciplines.

The course has turned out to be surprisingly very easy to teach. And it works remarkably well as a first year history course. Because of its scale (and the extremism of its time-scale) it raises deep historiographical questions in simple, but powerful ways. In particular, it keeps raising the unifying question: what is the whole of which particular subjects are a part? It also teaches effectively about evidence and historical argumentation. And, because we use essays as a form of assessment, it teaches the basic writing skills. Above all it is fun to teach and fun to learn, and that, I think, makes for good education. (As a non-motor-bike rider, I suspect that teaching this course is as close as I'll ever get to riding a motor bike very very fast!)

In teaching it, I thought I was being original. In fact I was not. At almost the same time, John Mears began teaching a similar course at Southern Methodist University in Dallas, Texas. And I soon realised that many science departments have taught courses on these large scales. But even for historians, the project was not as original as I had imagined. H.G. Wells attempted such a history in 1920.<sup>21</sup> Some forty years earlier, Leopold von Ranke, often thought of as the founder of modern, archive-based,

empirical historiography, also attempted a 'Universal History'. Earlier in his career, Ranke offered a good definition of what Universal History might mean: 'Universal history comprehends the past life of mankind, not in its particular relations and trends, but in its fullness and totality'.<sup>22</sup> And Ranke was at the end of a long line of historians who felt the need to attempt a complete account of the past. That line includes Voltaire, and reaches back to classical antiquity.<sup>23</sup> Indeed, it reaches further back than that. For the task of constructing and teaching 'total stories' about the past has been taken up in almost every society of which we have any knowledge. The cycles of Creation Myths that appear to have existed in all human communities were precisely attempts to account for the past in its totality.

All in all, the project of trying to understand the past on very large scales is not particularly original. Today, there are several history courses that teach about the past on this scale. What is odd, though, is that so few historians have tackled this project in the last century, since the emergence of modern, 'scientific' historiography. Seen in this light, Big History is merely a return to a historiographical project that has been (temporarily?) pushed to the margins of modern historiography.

Before I go any further, I feel I should explain (and apologise for) the label, 'Big History'. I fear I am responsible for it, as I used it, not entirely seriously, in an article I published in 1991.<sup>24</sup> Since then, it has proved more vigorous than I had expected, and it may stick. But I am not sure I like it. Its virtues are that it is snappy and memorable. And it conveys an appropriate sense of capaciousness. Its vices are that it is grandiose, portentous, pretentious and over-aggressive. In particular, it too easily invites the question: what is 'Small History'? So I should say right away that I use it with some hesitation. I use it simply as a label for the project of looking at history on many different scales, up to the largest scales available to us. And I see Big History not as a threat to other forms of history, but rather as a necessary and valuable complement to them.

### *A chronology for Big History*

What Big History can do peculiarly well is to help historians move between many different time scales, and explore the different themes that emerge at different scales. As I will try to demonstrate, each time scale suggests different ways of thinking about identities.

The simplest way to illustrate this is to give a brief chronology. At the most naive level, our course consists of a narrative, a story. The skeleton of that story is threaded onto a simple list of dates. I have included a brief chronology for Big History as an appendix to this article. To make this

more manageable, I have shrunk the time scale by a factor of one billion, so we can see the chronology in a more familiar framework. The result is that a billion years is now compressed into a single year. This generates a chronology covering a mere 13 years, but maintaining the temporal emerge from this chronology is how brief is the period covered by most history teaching. If we imagine that the Universe was created on January 1, 1987 and that we are now close to midnight on December 31, 1999, then the whole era since the Industrial Revolution occupies a mere six seconds; the first agrarian civilisations would have appeared about 3 minutes ago; humans would have entered PNG/Australia for the first time about 26 minutes ago; and the earliest modern humans would have lived in Africa less than an hour ago.

If history is about context, this is a marvellous and vivid way of explaining the context of human history! And it is immediately apparent that at these scales divisions between humans are far less salient than what humans have in common.

*Big History in context: multiple time-scales, multiple frames*

The best way of explaining the relationship between Big History and other, more familiar, approaches to the past, is to see it as a survey of several quite distinct time-scales. Some time-scales are familiar; others are not. But what is striking is how different themes and topics enter our field of vision at each scale.

*The Scales of Micro-History*

By this, I mean scales of less than a few years. We can perhaps take Emmanuel Le Roy Ladurie's *Montaillou* or Natalie Zemon Davis's *The Return of Martin Guerre* as examples, but much historical biography also works at this scale. This scale is good at reminding us of the personal and the contingent; so it can be used effectively to show how the personal is embedded in deeper and larger structures.

*The Conventional Scales of Modern Historiography*

By this, I mean the scales on which most professional historical research is conducted today. These scales range from a few years to a century or two. The object that stands out most crisply at this scale is the nation state, particularly in the modern era. Indeed, I suspect (though I cannot prove it) that the prominence of these time-scales within the modern history profession reflects their importance in nationalist historiography.

*The Global History Scale: 500 years*

Within contemporary world history, the study of the last 500 years is

emerging as a strategic sub-field in its own right. Sometimes it is referred to as 'global history'.<sup>25</sup> The work of Fernand Braudel and Immanuel Wallerstein has done much to legitimise historical study at this scale. What is less obvious is the thematic unity of global history. It is inevitably dominated by the modern, European, world system and the emergence of world-wide patterns of interaction, so it is the natural scale at which to study modernisation and globalisation.

*The World History Scale: 5,000 years*

This is the scale of most modern World History textbooks. The standard world history text today has an introductory chapter describing the evolution of humans and the Palaeolithic era. But these topics normally appear as a prologue to other, more prominent themes. The 5,000 year time-scale brings into sharp focus the role of literate, agrarian civilisations, a type of human community that appeared for the first time about 5,000 years ago. Prehistory is usually very blurred at this scale; and most communities not based on agriculture, not organised within states, and without literacy also tend to fall out of focus. The importance of this time-scale explains why civilisations and the relations between civilisations dominate debates in modern world history writing and teaching.

*The Human History Scale: 100,000-4 million years*

This is the scale at which to explore the unity of human beings, for this is the smallest scale that can include all human societies. Oddly, it is a scale that professional historians have largely neglected, though it is more familiar to prehistorians and physical anthropologists. It is a powerful and highly significant scale for historians, because it offers the most complete sample of different types of human community. For this reason, it is the first scale which allows of more or less rigorous generalisations about human society and the distinctive features of human beings. It is the scale on which to discuss the distinctive identity we have as human beings. This time-scale is also strategic in other senses. It is, for example, the first scale that forces historians to move beyond familiar types of evidence and familiar paradigms. It forces us to engage seriously with archaeological evidence. And, particularly once questions about human origins are raised, it forces us to start thinking seriously about biological as well as cultural change. As E.O. Wilson has recently argued, hard thinking about the relationship between these two forms of historical change will be vital if we are to see human history as part of the wider history of the biosphere.<sup>26</sup>

*The Planetary Scale: 4.6 billion years*

This is the scale at which to explore the human relationship with the

environment and the biosphere. The issue of global warming, for example, can be understood properly only when seen in the context of climatic histories over many millions of years. The issue of biodiversity also has to be explored on a scale of hundreds of millions of years.

*The Big History Scale: 13 billion years*

The most striking aspect of this scale is that it offers a sense of completeness. As far as we know, it cannot be exceeded. So this is the scale within which to answer the question that first encouraged me to look at very large scales: what is the whole of which particular histories are a part?

**Big history and the problem of identity**

*Multiple scales: multiple identities*

By looking at the past on many different scales, Big History makes it easier to see the extent that we all live with multiple identities. In the context of Big History, identities are like circles drawn around us at varying distances. Each carries a different message about who we are; and each comes with its own mythologies, histories, symbols, and obligations. In practice, we all identify with many, utterly different types of community, from the family, to the nation, to the species-community, to the community of the biosphere and even, ultimately, to the community of our Universe. In this perspective, the national community does not vanish, of course; but it is easier to see it in its proper place, as one of many different sources of identity.

There is nothing original in saying this, of course. The point I am making is really pedagogical. To fully appreciate the significance of these overlapping identities is not easy; which is why it is so tempting to settle for a simpler and more unitary identity, such as the nation, whose demands are easy to understand. But teaching about the past at very large scales is a uniquely persuasive way of bringing home the message that we have different identities, none of which need eclipse the others. It is the extremism of Big History that accounts for its pedagogical power on this, as on so many other issues.

*Global citizenship?*

By allowing us to move more freely between different time scales, the Big History perspective can also open new windows on the questions and themes that arise at each scale. In particular, it can offer some new perspectives on the history of humanity, because it allows us to sidestep some of the methodological and conceptual barriers that historians have faced in trying to construct such a history.



The conventional strategy of those attempting histories of humanity has been to creep up on the human scale from below, carrying the methodological nets and snares that work so well at smaller scales. Unfortunately, most of the concepts that work at the national scale simply cannot capture an object as large as humanity. But if we approach humanity, as it were, from above (in the manner of H.G. Wells), and with the conceptual equipment of disciplines used to much larger scales, we have a greater chance of success. The multiple time-scales of Big History make it as natural to approach the human scale from the direction of palaeontology as from that of modern history. This means moving down the chronological and conceptual ladder, rather than approaching the problem from below.

To approach human history in this way, we will have to start with questions that may seem novel to a historian, but are perfectly natural to a biologist. The key question is clear enough: what is distinctive about the history of the human species in contrast to the history of other species? Note that this question starts from the assumption that there is a fundamental unity amongst human beings. And this is a conclusion fully supported by modern genetics, which shows that modern humans are astonishingly close to each other in genetic terms, much closer for example, than neighbouring communities of chimps.<sup>27</sup> Such an approach need not hide divisions between lifeways and cultures, but these are likely to appear only at a later stage of the argument. At this level the crucial question has to be: what is distinctive about human beings in general?

It is good comparative methodology to compare like with like, so it makes sense at this scale to contrast the history of humans with that of a more than 98% of our DNA with them. So the appropriate comparison may be with chimp history. This way of posing the question may seem strange at first, even comic. But it immediately yields some interesting answers. Here, all I can do is sketch out some of the directions in which such an enquiry can take us.

A striking way of contrasting the histories of these species is to compare them demographically.<sup>28</sup> Between 5 and 8 million years ago, we shared a common ancestor with *Pan troglodytes*, the common chimpanzee, and *Pan paniscus*, the 'bonobo' or pygmy chimp. Since then, these three evolutionary lines have diverged. Modern humans probably appeared 100-200,000 years ago in Africa. We have little reason to think the earliest human populations would have been more numerous than those of chimps a few centuries ago; perhaps we should be thinking of a few hundred thousand. Indeed, there are hints in the genetic evidence that the number of modern humans fell very low indeed as late as 100,000 years ago, to perhaps just a few thousands.<sup>29</sup> At that stage, our species was endangered,

just as chimps are today. Our numbers were so small that slight accidents of climate or disease might have killed off the species entirely, leaving us with no human history to write about. Since then, human numbers have increased, slowly at first, but then dramatically. We have little basis for estimating human populations in the Palaeolithic, but evidence of human migrations from perhaps 60,000 years ago makes it certain that human numbers increased. About 10,000 years ago, human beings could be found in all the major continents apart from Antarctica. And the conventional estimates today are that there may have been 6-10 million humans on earth at that stage. The appearance of agriculture from about 10,000 years ago made it possible for population densities to arise, so from this point on, human numbers began to rise not just through migration to new parts of the earth, but also by intensification. As agricultural technologies spread and improved, human numbers rose in much of the world. Two thousand years ago, there may have been about 250 million humans on earth. This was enough to prompt the Carthaginian theologian, Tertullian (c. 155-220 CE), to write in a period of crisis: 'We have grown burdensome to the world ... In truth, pestilence and famine and wars and earthquakes must be looked upon as a remedy for nations, a means of pruning the over-growth of the human race.'<sup>30</sup> In the last few centuries, the new energy sources and the new technologies of the industrial revolution have allowed an even sharper increase in rates of population growth until at the end of the 20th century there were about 6 billion humans on earth. Meanwhile, the number of chimps has declined in recent centuries, as humans have occupied or ruined their traditional habitats. Today, there may be just a few thousand chimps living in the wild.

What distinctive features of our species have set it on such a distinctive historical trajectory?

This is not the place to explore these questions in detail. But I hope I have shown how such an approach can open up an entire research agenda for historians interested in constructing a unified history of humanity. That agenda begins by trying to identify what it is that humans of all areas and regions share as members of a single species. Then, on the basis of a clear awareness of what humans have shared over at least 100,000 years, it encourages exploration of the many different ways in which human lifeways changed as particular communities established new ways of relating to their environment, and as knowledge of such novelties was exchanged between communities. Such an approach should make it easier to see what human communities have shared, without losing sight of the many things they don't share.

This agenda naturally yields a more inclusive account of human history.

Its primary assumption (one we make on the authority of the best contemporary palaeontological and biological research) is that all human beings, from 100,000 years ago to the present day, belonged to the same species. So we have all shared the same species history. The 'species' is, of course, an imaginary community, like the nation state. But it is no less important for all that. Indeed, it is the 'imagined' community world historians need to work with if they are interested in constructing a unified history of humanity. We are all, in an important sense, 'citizens' of humanity, just as we are citizens of particular modern states.

Such an approach is also inclusive in the sense that it naturally integrates communities that tend to vanish at the conventional time-scales of modern historiography. It naturally integrates the history of the Palaeolithic, and of communities without states or literacy or agriculture, into human history. The fact that most of human history was lived using Stone Age technologies emerges as a central fact in such a history, rather than just a polite cliché. Such an approach makes it easier to treat the Palaeolithic, and the societies of the Palaeolithic, with the respect that is their due. But the Palaeolithic is important in a deeper sense as well for, biologically speaking, we are creatures of the Palaeolithic. As Steven Pinker puts it: 'the mind is a system of organs of computation designed by natural selection to solve the problems faced by our evolutionary ancestors in their foraging way of life.'<sup>31</sup> A world historian, Marilyn Waldman, has made the same point from a historian's point of view:

For me the study of history is ultimately important as part of a larger attempt to understand what it means to be human; for an important part of what it means to be human is what it has meant to be human, during that long, long stretch of time when humans did without writing as well as during that relatively brief moment in which some of them have come to depend on it to preserve their memories.<sup>32</sup>

The wide angle also makes it easier to see and to take seriously many other communities that have often seemed marginal within modern historiography. These include the communities of arctic hunters and gatherers whose activities made possible the earliest colonisation of the Americas; or the Pacific navigators who first settled Oceania; or the pastoralists whose activities sustained tenuous links between the major civilisations of Eurasia over many millennia.<sup>33</sup> It is easy to forget that as late as 1,000 years ago, such communities probably occupied more of the earth's surface than did agrarian civilisations.

To approach World History from the direction of Big History is also to emphasise the relationship of human beings to other species, and to the biosphere in general. World History in this perspective is, inevitably,

environmental history. Studying it, it becomes apparent that all human communities, not just modern human societies, have had, because of the technological virtuosity characteristic of humans as a species, a significant impact on the environment. So here is a third sense in which such a history has to be inclusive: it takes very seriously the relationship between human beings and other species. And it forces us to think seriously about the fact that, as our own species has proliferated, many other species have been forced into extinction.

### **And Australian history**

These arguments have considerable significance for the way we approach Australian history.<sup>34</sup> Here, too, time-scales matter, so that the chronological habits of modern historiography have made it difficult to move away from divisive accounts of the past. They have done so by framing questions in particular ways, and by highlighting the modern nation state. To move towards a more unified account of Australia's past, it may be necessary to be easier to see and to teach from the perspective of Big History.

For most Australians, the phrase, 'Australian History' still brings to mind the history of Australia since 1788. Mainstream courses in Australian History may well include an introductory survey of Australia before 1788, but the centre of gravity of most teaching and writing on Australian history lies in the period after 1788.

This is a fact of enormous consequence for the construction of a modern Australian identity. For it draws a sharp line between two communities, the communities of those who lived in Australia before that date, and those who lived here after that date. Wittingly or unwittingly, the way we define Australian History shapes our understanding of what it means to be Australian. And the deepest message of all—a message carried not so much in the content of the discipline as in the way it frames its questions—is that Australian prehistory and Australian history belong to different conceptual domains.

The point I am making is not new. It was made, famously, by W.E.H. Stanner, who argued in his Boyer lectures in 1968 that Australian historiography seemed almost totally oblivious to the history of indigenous Australians. Stanner wrote:

inattention on such a scale cannot possibly be explained by absent-mindedness. It is a structural matter, a view from a window which has been carefully placed to exclude a whole quadrant of the landscape. What may well have begun as a simple forgetting of other possible views turned under habit and over time into something like a cult of forgetfulness practised on a national scale. We have been able for so long to disremember the aborigines that we are now hard put to keep them in

mind even when we most want to do so.<sup>35</sup>

I first came across this passage in a recent essay by Henry Reynolds, but most Australian historians will already know it.<sup>36</sup> Since Stanner wrote, Australian historiography has taken much more note of indigenous Australians. And Henry Reynolds, of course, has played a leading role in this change of perspective. Yet there remains a gulf between the history of indigenous Australians and that of non-indigenous Australians. The subjects are often studied within different Departments, and almost invariably in different courses, rather as if they dealt with quite distinct national histories. Indeed, in the essay I have just mentioned, Reynolds ends by asking: 'can historians reconcile two histories, two stories, two nations?'<sup>37</sup> The trouble lies, as Stanner argued, not so much in the content of modern historiography, as in the way its problems are framed and its borders are defined. School and University syllabi still seem to presume that there is a fundamental difference between these two histories. What can such a historiography contribute to the project of reconciliation between indigenous and non-indigenous historians. It is, like all forms of nationalist historiography, a divisive view of the past. It can only stand in the way of reconciliation.

Seen from the large perspective of Big History such an approach seems positively perverse. On the large scale, Australian history appears, self-evidently, as one part of a larger history of humanity. It appears as the history of how human beings settled and lived in one particular continent over large periods of time. Its natural scale, therefore, is 60,000 years rather than 200 years. Within that scale, it would seem natural for Australian history to describe many very different human communities with different lifeways, but sharing a common humanity and united in facing the distinctive problems posed for humans by the environments of Australia. To redefine Australian history in this way would, it seems to me, constitute an important way for Australian historians to make sure that, instead of unwittingly standing in the way of reconciliation, they are positively contributing it. For Australian history redefined as a history of 60,000 years would incorporate into its very self-definition the assumption that all who have lived in Australia have shared much, for they have lived in similar landscapes that posed similar problems. Within such a perspective, reconciliation would seem a natural rather than an artificial move. And the identity, 'Australian', will emerge as something much larger and more inclusive than the identity buried within most mainstream accounts of Australian history. Such a perspective ought to make it easier to see and respect the many different traditions present in Australia today, while also seeing what they have in common.

Of course, for an archaeologist there is little that is new in such an argument. So it is important to stress once again that my argument is primarily pedagogical: it is that the Big History perspective, by combining the insights of several disciplines that operate at different time-scales, should make it easier to teach a more inclusive account of Australia's past, an account that many Australians already share.

Redefining Australian history in this way would have another important consequence. It would help us see Australian history as a very significant part of the larger history of humanity. On the very large scale, Australian history has a significance that is not apparent at the scale of 200 years. The colonisation of the ice-age continent of Australia/PNG was a momentous event in the history of humanity for it was, apparently, the first time that humans had settled lands outside of the Afro-Eurasian landmass. It was the first time that humans had made a significant sea crossing. Even during the last ice age, when sea levels were lower than today, and Australia and Papua New Guinea were joined into the single continent that palaeontologists call 'Sahul', the journey required a sea crossing of at least 65 kilometres. In other periods, the distance was at least 100 km. The first humans to colonise Australia also left some of the earliest evidence of symbolic activity, in the form of paintings and carvings on stone, carved objects, and evidence of body painting.<sup>38</sup> In other words, Australia contains some of the earliest evidence that modern humans were beginning to behave in distinctly human ways. These new behaviours include overseas migrations, the use of language, gift-giving and ritual. If, as Tim Flannery and others have argued, the earliest human colonists of Australia were in part responsible for the extinction of Australia's many large mammals, and for a radical transformation of Australian landscapes through techniques of firestick-farming, then we also have in Australia some of the earliest evidence of all for the cultural and technological transformations that archaeologists of the northern hemisphere have traditionally described as part of the 'Revolution of the Upper Palaeolithic'. And we also have some of the earliest evidence of the human capacity to transform the biosphere.

All in all, a redefinition of the phrase 'Australian History' to include a period of 60,000 years offers a powerful way for Australian historians to contribute, at least at the conceptual level, to the process of reconciliation. It also makes it easier to see Australian history as a central component of world history and the wider history of humanity.<sup>39</sup>

### **Consilience: a new intellectual revolution?**

The 'new thinking' required to conceive of human history as a unity, rather

than a mere patchwork of regional histories, will not be easy given the conventions and habits that dominate modern historiography. If I am right in what I have said, historians will be able to make a more positive contribution to a culture of peace only by breaking with many of the existing conventions of their profession. Fortunately, they will probably not face these challenges alone. On the contrary, it may be that discipline conventions and boundaries are due to be shattered in many different fields of modern scholarship. This, at least, is the argument of several influential figures today, from the biologist, E.O. Wilson, to the physicist, Murray Gell-Mann, to the world historian, William McNeill.

The point was made as early as the 1960s by Geoffrey Barraclough, who wrote that a shift towards a genuinely universal history of humanity will have such revolutionary implications that it 'can be compared with that from the Ptolemaic to the Copernican picture of the universe; and its results, in opening new dimensions and changing our perspective, may well be no less revolutionary.'<sup>40</sup> William McNeill has recently argued that world history must be willing to link up more closely with the sciences, in particular with other disciplines concerned with the past, from archaeology to biology to cosmology.

World history has an obvious and honourable part to play in the emerging convergence of the sciences .... A first step would be to meld ecological history more fully into the cultural history of humankind. More generally, history written with awareness of the physico-chemical flows that sustained human societies—surveying how our predecessors tapped organic and inorganic sources of energy—would seat the human career on earth more squarely within the biological and physical sciences than I ever thought of doing.<sup>41</sup>

Each of the modern scholarly disciplines concerned with the past offers its own windows on the past. But as we have seen, many important objects and themes do not fit comfortably into the frames they offer. To see these objects clearly we will have to look around and beyond the conventional discipline borders. E.O. Wilson has recently argued that this breaking down of disciplinary borders will turn out to be a major intellectual project of the next few decades. He has described it as the task of 'Consilience'.<sup>42</sup> There is, he has argued, a vast pent-up intellectual energy contained within existing scholarship. It will be released when scholars in field after field begin to show more willingness to share the methodologies, paradigms and concepts developed within neighbouring fields of study. Scholars at the Santa Fe Institute in the USA have been exploring such interconnections for many years. An associate of the Institute, the Nobel Prize winning physicist, Murray Gell-Mann, has eloquently stated the

arguments for consilience as they appear to a physicist.

We live in an age of increasing specialization, and for good reason. Humanity keeps learning more about each field of study; and as every specialty grows, it tends to split into subspecialties. That process happens over and over again, and it is necessary and desirable. However, there is also a growing need for specialization to be supplemented by integration. The reason is that no complex, nonlinear system can be adequately described by dividing it up into subsystems or into various aspects, defined beforehand. If those subsystems or those aspects, all in strong interaction with one another, are studied separately, even with great care, the results, when put together, do not give a useful picture of the whole. In that sense, there is profound truth in the old adage, "The whole is more than the sum of its parts."

People must therefore get away from the idea that serious work is restricted to beating to death a well-defined problem in a narrow discipline, while broadly integrative thinking is relegated to cocktail parties. In academic life, in bureaucracies, and elsewhere, the task of integration is insufficiently respected.<sup>43</sup>

At the Santa Fe Institute, he adds, 'people are found who have the courage to take a crude look at the whole in addition to studying the behaviour of parts of a system in the traditional way.'<sup>44</sup>

If historians are to contribute to the emergence of a global 'culture of peace', I believe that they, too, will have to take a broader view of their subject matter, for only through a very wide lens will it really be possible to see the single, human identity that lies beneath the multiple identities described so well in modern historiography. Widening the angle of vision in this way will not be easy. But I suspect it will be necessary if historians are to start breaking down some of the habits of thought which still, in the early twenty-first century, limit the questions we can fruitfully ask about the past, and, by doing so, make it so difficult to see the underlying unity of all human communities.



## Appendix: 13 billion years in 13 years

1. History of the Universe before our Sun (8 Yrs.): 1987-95.
  - a. the Big Bang, Jan 1, 1987.
  - b. 1 year later, sometime in 1988: the first stars & galaxies.
  - c. 5 years later, by 1992: many stars have already have died, creating new elements in supernovae.
  - d. 8 and a half years later, on c. June 1995: the sun and solar system form.
  
2. History of Earth & Life on Earth (4 Yrs.): 1995-Dec 1999.
  - a. 9 years after Big Bang, early in 1996: first living cells on earth; photosynthesis—> oxygen.
  - b. 12 years after Big Bang, c. May 1999: earliest multi-celled and hard-bodied animals appear.
  - c. In October 1999: Pangaea forms; November 1st, dinosaurs and mammals.
  - d. By early in December 1999: dinosaurs vanish Dec 6, after a meteoritic impact.
  - e. December 6-29: mammals/primates flourish in niches left by dinosaurs.
  
3. Early Human History (3 days): Dec 29—11:55 pm on Dec 31, 1999.
  - a. Early on December 29: first hominines in Africa.
  - b. At c. 11.07 pm on December 31 (New Year's Eve): early Homo sapiens sapiens, probably in Africa.
  - c. At c. 11.34 pm: first humans to reach PNG/Australia.
  - d. At c. 11.54 pm: first humans to reach Americas.
  - e. At c. 11.55 pm: first farmers in Middle East & PNG.
  
4. Later Human History (3 Mins.): Dec 31, 11:57 pm to 11:59:54.
  - a. At c. 11.57: first urban civilizations in Mesopotamia.
  - b. At c.11.59: classical civilizations of China, Persia, India and the Mediterranean; agrarian civilizations in Americas.
  - c. At c. 15 seconds before midnight: human communities linking into single 'World System'.
  - d. At c. 6 seconds before midnight: the Industrial Revolution.
  
5. History of the Modern World (6 Secs.): 11:59:54-midnight.
  - a. 6 seconds to midnight: Industrial Revolution in Europe.
  - b. 2 seconds to midnight: World Wars; Communism.
  - c. 1 second to midnight: Human population reaches 5, then 6 billions; humans walk on the moon; electronic revolution.

## Endnotes

1. For some recent discussions of the role of identity in a globalizing world, see Manuel Castells, *The Information Age: Economy, Society and Culture*, vol. 2, *The Power of Identity* (Oxford: Blackwell, 1997), pp. 6-7; and the fuller

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- discussion in Ross Poole, *Nation and Identity* (London & New York: Routledge, 1999), particularly Ch. 2, 'National and Other Identities'.
2. Poole, *Nation and Identity*, p. 64.
  3. Anthony Smith, *The Ethnic Origins of Nationalism* (Oxford: Blackwell, 1986), p. 2.
  4. Castells, *The Information Age: Economy, Society and Culture*, vol. 2, *The Power of Identity*, p. 7.
  5. Poole, *Nation and Identity*, p. 42.
  6. Some of the most influential modern studies are: Ernest Gellner, *Nations and Nationalism* (Oxford: Blackwell, 1983); Smith, *The Ethnic Origins of Nationalism*; Benedict Anderson, *Imagined Communities*, rev. ed. (London & New York: Verso, 1991); E.J. Hobsbawm, *Nations and Nationalism since 1780*, 2nd ed. (Cambridge: CUP, 1992).
  7. This is how Ross Poole has put it: 'The nation is not the only form of culture, nor is national identity the only form of identity. The modern world provides many different cultural forms and associated identities which cut across, complement or conflict with the nation and its identity. Nonetheless, the nation has asserted its priority over other cultural forms, most obviously in its claim to a political embodiment. It is the nation—not religion, political principle, local community, or social class—which demands its own state. And it could not sustain this claim to priority unless national identity was experienced as more fundamental than others. At least part of the reason for this is that the nation has appropriated to itself the basic means of self-expression and communication. The very means by which individuals form a conception of who they are defines them as members of a specific nation.' *Nation and Identity*, pp. 15-16.
  8. Cited in Hobsbawm, *Nations and Nationalism since 1780*, pp. 44-5.
  9. Joyce Appleby, Lynn Hunt & Margaret Jacob, *Telling the Truth about History* (New York & London: Norton, 1994), p. 92, from a chapter called 'History makes a Nation'.
  10. Eugen Weber, *Peasants into Frenchmen: The Modernization of Rural France, 1870-1914* (Stanford, CA: Stanford University Press, 1976).
  11. Anderson, *Imagined Communities*.
  12. Andrew Sherratt, 'Archaeology and World History', *19th International Congress of Historical Sciences* (Oslo: Nasjonalbiblioteket, 2000), pp. 22-5, cited from p. 23; Sherratt adds quite rightly that this project will have to be undertaken in cooperation with archaeologists.
  13. H.G. Wells, *An Outline of History: Being a Plain History of Life and Mankind*, 7th Revision (London: Cassell and Co., 1932), pp. 1-2.
  14. David Held & Anthony McGrew, David Goldblatt & Jonathan Perraton, *Global Transformations: Politics, Economics and Culture* (Cambridge: Polity Press, 1999), p. 369.
  15. Cited from David Held, & Anthony McGrew, *The Global Transformations Reader: An Introduction to the Globalisation Debate* (Cambridge: Polity Press, 2000) p. 239.

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16. Held & McGrew, *The Global Transformations Reader*, p. 241.
17. Gilbert Allardyce, 'Toward World History: American Historians and the Coming of the World History Course', in *Journal of World History*, 1, No. 1 (Spring 1990), p. 37.
18. On this particular debate, see S.K. Sanderson, *Civilizations and World Systems: Studying World-Historical Change* (Walnut Creek: Sage, 1995).
19. Held, McGrew, Goldblatt & Perraton, *Global Transformations*, p. 375.
20. I have described this course in David Christian, 'The Case for "Big History"', *The Journal of World History*, 2, No. 2 (Fall 1991): 223-38; reprinted in Ross E. Dunn & David Vigilante, eds., *Bring History Alive! A Sourcebook for Teaching World History* (Los Angeles: National Center for History in the Schools, UCLA, 1996), pp. 21-30; and in Ross E. Dunn, ed., *The New World History: A Teacher's Companion* (Boston & New York: Bedford Books, 2000), pp. 575-87; 'Adopting a Global Perspective', in D.M. Schreuder, ed., *The Humanities and a Creative Nation: Jubilee Essays* (Canberra: The Australian Academy of the Humanities, 1995), pp. 249-62; and 'The Longest Durée: A History of the Last 15 Billion Years', *Australian Historical Association Bulletin*, 59-60 (August-November 1989), 27-36; and see Fred Spier, *The Structure of Big History: From the Big Bang until Today* (Amsterdam: Amsterdam University Press), 1996.
21. H.G. Wells, *The Outline of History, Being a Plain History of Life and Mankind* (2 vols., London: G. Newnes, 1920); *A Short History of the World* (London: Heinemann, 1927).
22. Leopold Von Ranke, cited from Arthur Marwick, *The Nature of History* (London: Macmillan, 1970), p. 38. The profound Eurocentrism of Ranke's 'Universal History' is less important in this context than the fact that he took the project seriously. See Marmie Hughes-Warrington, *Fifty Key Thinkers on History* (London: Routledge, 2000), p. 260.
23. For a recent discussion see Patrick O'Brien, 'Is Universal History Possible?', *19th International Congress of Historical Sciences* (Oslo: Nasjonalbiblioteket, 2000), pp. 3-18.
24. Christian, 'The Case for "Big History"', *The Journal of World History*.
25. See Bruce Mazlish and Ralph Buultjens, eds., *Conceptualizing Global History* (Boulder, Colo.: Westview Press, 1993).
26. Edward O. Wilson, *Consilience: The Unity of Knowledge* (London: Abacus, 1999).
27. Steve Jones, *Almost Like a Whale: The Origin of Species Updated* (London: Anchor, 1999), p. 429; early reports on the human genome fully support this conclusion.
28. Data from C. Stringer & R. McKie, *African Exodus* (London: Cape, 1996), p. 150; M. Livi-Bacci, *A Concise History of World Population* (Oxford: Blackwell, 1992), p. 31; J.R. Biraben, 'Essai sur l'évolution du nombre des hommes', *Population*, 34 (1979), 13-24; for a good, up-to-date survey of human evolution, see Roger Lewin, *Human Evolution: An Illustrated Introduction*, 4th ed. (Oxford: Blackwell, 1999).

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29. Stringer & R. McKie, *African Exodus*, p. 150.
30. Cited from Steve Jones, *Almost Like a Whale*, pp. 75-6.
31. Steven Pinker, *How the Mind Works* (New York: Norton, 1997), p. x.
32. From an address at Ohio State University entitled 'The Meandering mainstream: Reimagining World History', cited from Ross E. Dunn, ed., *The New World History: A Teacher's Companion* (Boston & New York: Bedford Books, 2000), p. 87.
33. I have personal experience of the difficulties of writing a coherent history of the Inner Eurasian steppes; see David Christian, *A History of Russia, Central Asia and Mongolia, Vol. 1, Inner Eurasia from Prehistory to the Mongol Empire* (Oxford: Blackwell, 1998); and David Christian, 'Silk Roads or Steppe Roads? The Silk Roads in World History', *Journal of World History*, 11:1 (Spring 2000), pp. 1-26.
34. I should emphasise that I am not an Australian historian and have very limited expertise in the field; these comments are made strictly from the standpoint of world history.
35. W.E.H. Stanner, *After the Dreaming*, 1968 Boyer Lectures (Sydney: Australian Broadcasting Commission, 1969, reprinted 1991), pp. 24-5.
36. Henry Reynolds, 'Historians and Indigenous Australians', in Terry Smith, ed., *First Peoples: Second Chance: The Humanities and Aboriginal Australia* (Canberra: The Australian Academy of the Humanities, 1999), pp. 47-59, from p. 51.
37. Henry Reynolds, 'Historians and Indigenous Australians', p. 57.
38. For some illustrations see Göran Burenhult, ed., *The Illustrated History of Mankind: Vol. 1, The First Humans, Human Origins and History to 10,000 BC* (St. Lucia: Univ. of Queensland Press, 1993), pp. 156-9.
39. Tim Flannery, *The Future Eaters: An Ecological History of the Australasian Lands and Peoples* (Australia: Reed New Holland, 1995); for a more sceptical account of the 'human overkill' theory, see John Mulvaney & Johan Kamminga, *Prehistory of Australia* (Sydney: Allen & Unwin, 1999), pp. 124-9.
40. 'Universal History', in H.P.R. Finberg, ed., *Approaches to History: a Symposium* (London: Routledge & Kegan Paul, 1962), pp. 88, 101, cited in Gilbert Allardyce, 'Toward World History: American Historians and the Coming of the World History Course', p. 41.
41. William H. McNeill, 'History and the Scientific Worldview', *History and Theory*, 37, No. 1 (1998): 1-13, cited from p. 13.
42. Wilson, *Consilience*.
43. Murray Gell-Mann, 'Transitions to a More Sustainable World', from Yorick Blumenfeld, ed., *Scanning the Future: 20 Eminent Thinkers on the World of Tomorrow* (London: Thames & Hudson, 1999), pp. 61-79, cited from pp. 61-2.
44. Murray Gell-Mann, 'Transitions to a More Sustainable World', p. 62.