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Big History, Civilization & Human Survival

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Abstract: The inclusion of large-scale studies in the world's educational systems is of great importance for resolving the most serious problems that humans face today. In the United States, the development of such macrohistorical studies began with courses in Western Civilization a hundred years ago. Global studies came to be increasingly offered in universities after World War II and evolved in two directions. The first developed into Globalization Studies, a hierarchical model that was discipline-based and focused on power-relationships in regions and markets. The second was a mondialization or horizontal model, which was interdisciplinary and used the entire world as a reference point. Similar academic models also came into existence around the world that paralleled this U.S. experience in Macrohistory. A problem that today's scholars face is how to reconcile these two visions, not only for global benefit but for our very own survival. One suggestion is to continue moving with the current trajectory and adopt a model of mega-studies, such as the example provided by Big History.¹

A pervasive problem that historians face in the United States is that we lack an appropriate point of reference from which to adequately address today's global issues. The source of this problem is an antiquated model of society that is still taught in our universities, one that largely reflects the society that existed in the United States a century ago. I'm a geographer and archeologist, working as a professor at the University of Southern Maine, where I teach North American and World Studies.² For the last decade, I've been struggling to adjust this problem at our university, but it is only recently that some success has been achieved, primarily through the introduction of Big History as a new paradigm.

Antique Education

When I began work at the university, I was asked to teach a course called Western Civilization. This is one of the two most widespread and fundamental history courses in the United States. It was created as an academic study about 100 years ago and embodied the concerns of the elites for that time.³ In this period, around 1910, the United States had grown into its present boundaries and was involved with incorporating overseas territories into its domain.
This expansion had resulted from the conquest of millions of kilometers of Native American territory and half of Mexico, boundary adjustments with Canada, purchase of Louisiana from France and Alaska from Russia, and seizure of the island kingdom of Hawai‘i, as well as the Philippines, Cuba and Puerto Rico. A variety of peoples had been brought into the United States by this territorial expansion, but they did not share the elites’ English-American heritage. Among others, these new citizens included French Canadians in Maine, Spanish Mexicans in Texas, Indigenous peoples in Kansas and Russians in Alaska.

As a result, these varied peoples joined millions of newly freed African-American slaves to form the United States’ social underclass. Moreover, this process had taken place during the Industrial Revolution, when millions of new immigrants were also arriving into the United States from Eurasia. The elites certainly wanted the new lands and the new workers, but found themselves encumbered by an unwanted diversity of cultures that included “radical” ideas about equality, as well as the sharing of power and wealth. In response, educators developed a course of study that they called Western Civilization.4

The goal of Western Civilization was to provide cultural and historical legitimacy for the United States by showing that the young nation was derived from Greek democracy, Roman administration, the Protestant Reformation and English property rights, all of which had been carried to the Americas by colonial expansion. Its central message was that 2000 years of western European institutions had been brought to perfection in the United States.

By teaching the superiority of western European society and its colonial offshoots, educators expected that U.S. residents could be convinced to support elite institutions. In other words, Western Civilization developed into a tool of acculturation and assimilation, as well as the academic base for the study of United States History.5 Over the next century, its instruction became required at almost every college and university in the United States, while its themes trickled into elementary schools, high schools and public culture.6
Although *Western Civilization* has been liberalized over the years, a “culture war” developed between its supporters and those who believed that the concept of a “Western Civilization” was exclusionary.\(^7\) While I very much enjoyed teaching Western Civilization, I also saw it as an inappropriate reference point for a modern university, especially since the United States has become a much more diverse nation than it was a century ago – with our citizens coming from every part of the world.\(^8\) So, I made a deal with my Dean: I would teach *Western Civilization* for two years, but then would then replace it with *World History & Geography*.\(^9\)

*World History & Geography* is now an established course at our college, but I came to appreciate that this is not a generally accepted trend, even in the other colleges of our own university.\(^10\) Nonetheless, there is a campaign to make it a more general requirement in the United States, such as through the work of the World History Association.\(^11\)

### A Redirection of Macro-Studies

You may ask: “Don’t American universities teach international studies?!?” Yes, they do. But these courses are often taught in an old-fashioned style of “us” versus “them.” This polarization is the result of centuries of nationalist discourse supercharged by decades of the Cold War and, more recently, by the so-called “War on Terror.” There has been change, but it is often not necessarily for the better. For example, in the study of Macro-economics, nationalism might recede into the background, but the orientation is still conflictual – focusing on “our profits” versus “their profits.” The results of such binomial education can then be seen in the highly competitive life of today’s “real world,” from stock market meltdowns to leveraged buyouts.\(^12\)

This dichotomy of “us” versus “them” can be highly nuanced. Professor Sharman Haley, a scholar at the University of Alaska in Anchorage, describes how issues of pan-Arctic social science are not played out so much by nation, but by Northern residents versus Southern centers of political, economic and cultural power. She also describes how, despite an internationalist intention, researchers tend to use their own familiar national models as international paradigms, which can be just as polarizing. Furthermore, since the end of the Cold War and the start of the recognition of the catastrophic effects of climate change, she

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notes the opposing tendencies to seek international solutions but also to establish new national claims in a melting Arctic seascape.\textsuperscript{13}

Nonetheless, I have hope. There is a movement in the United States towards a more humanistic and ecological globalism, which many French activists distinguish as “mondialisation.”\textsuperscript{14} Professors are offering new courses that use the entire globe as their basic reference point. In addition, academics are creating new global networks and are interesting university administrators in such reform.\textsuperscript{15} I believe that biased history is not usually intentional. Rather, it is the result of generations of people thinking in traditional ways. It is our job as academics to begin transformation towards new models.

However, during the process of promoting \textit{World History & Geography}, I came to appreciate that an even larger paradigm shift was needed. In the last decade, we have become more aware that entire species of life are vanishing, along with fresh water supplies. Pollution makes parts of the world uninhabitable. Nonrenewable resources are being exhausted. Global warming is impacting the entire planet, from the melting of the world’s ice sheets and permafrost to the related rise in sea levels and changing storm patterns. Local agriculture and business are destroyed by competition from multinational industry, resulting in the vast concentration of people in urban areas, as more and more residents are dropped to the lowest rungs of society. Unlike past crises, the scale of this situation could lead to the end of life as we know it. Regardless of what happens, the world will be a much different place in fifty years, as a result of depleted petroleum resources and its impact on the world economy.

As I became aware of the enormity of this crisis, I also came to understand that \textit{World History & Geography} does not sufficiently address these challenges, because of its human-centered and nation-based approach. Fortunately, I came across an article by Professor Fred Spier of the University of Amsterdam about his work in \textit{Big History}, soon followed by the good fortune of meeting him at a conference in Maine.\textsuperscript{16} There, I learned about the pioneering of this discipline in the 1980s and 1990s by an international group of interdisciplinary scholars that included Fred Spier, Eric Chaisson, John Mears, David Christian, and others. It appeared that \textit{Big History} might be the academic vehicle for which I was searching, so I designed a course in this new discipline.

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Mega-Studies & Big History

*Big History* is a holistic and scientific survey of existence from our origins in the “Big Bang” to the present – and beyond. It considers how humans fit into the vast expanse of the universe (or multiverses), instead of orienting the universe around humans. *Big History* also considers the challenges of modern globalization, with an important theme being on the quest to develop sustainable lifestyles. The overall focus is on what such knowledge might mean in our everyday lives and how we should – as responsible individuals and a responsible species – conduct ourselves on this planet and off of it.\(^\text{17}\)

In this new course on *Big History*, students get exposure to quantum mechanics, plate tectonics, evolutionary biology and social development. They consider the emotional landscape of a philosophy without organized religion. They study environmental problems and solutions, as well as ecology movements around the world. They meet with workers on farms and at production sites, in addition to communicating with scholars on the internet and through telephones. Their capstone event is an Earth Day or other celebration that brings together citizens of our region in central Maine. The message is that these disciplines all are linked together and students need to be engaged participants in changing human activity.\(^\text{18}\)

It is surely a special circumstance when us educators put a course together and have it work the way that we intended the first time. When I read the papers of my students, I wept. They all got the point – we are but one life form in the known universe and we are responsible for whether our species or, at least, our civilization persists or becomes extinct. One student, Amanda Monroe, wrote:

> When I was first asked to consider my role in the universe four months ago…I do not think I fully realized there was even a living community around me, never mind an Earth full of other humans and an entire universe beyond…But after this long, incredible voyage of exploration…I have a newfound sense of what the universe is. I have learned…that we are all part of the Global Future, and I can make a difference in my life as well as the lives of others. I feel honored to have been a part of the big history movement, along with the University of Amsterdam and a few others. I know that I am a better, more wholesome being because of this experience. My role is now to change my ways and respect this beautiful planet that granted us life, and to get others to join me.\(^\text{19}\)

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Even more surprising, each student pledged to change their life and work towards the greater shared good of the world. You have to realize that this self-generated commitment is a shocking result in the context of the selfish, consumer-driven society of the United States. I have never seen this result from another course.

Certainly, macro-studies are not new, either in academia or in popular society. Indeed, *Western Civilization* itself is a macro-study, but one loaded with ethnocentric bias. The difference with *Big History* is that: 1). It uses the entire Universe and Earth as reference points, and 2). It uses the scientific process. Indeed, the motto for my course comes from the U.S. writer, Philip K. Dick:

> Reality is that which, when you stop believing in it, doesn’t go away.\(^{20}\)

Our college at the University of Southern Maine is interdisciplinary in its orientation and was adopting an entirely new core curriculum just as I was developing my course in *Big History*. Indeed, Lewiston-Auburn College is one of the first post-secondary institutions in the United States to implement such a sweeping change in general education. This new core curriculum integrates arts, natural sciences, humanities and social sciences in a global perspective that emphasizes social consciousness and is titled: “How, then, shall we live?”\(^{21}\) This opportune change of direction for our core curriculum made it an excellent home for *Big History*, which is now included in it under the name: *Global Past, Global Present*.

Our students have embraced these transformations. They have created Facebook sites, in order to promote worldwide networking among students of *Big History*. The course has been so successful that I made it “hyperflexible,” in which students may sign up to take it in the classroom or online. As a result, our online students have participated from as far away as Germany and Korea.\(^{22}\) I am now designing a sequel course that is called, *Global Futures*, which Professor Spier tells me, has already happened at the University of Amsterdam.\(^{23}\)

*Big History* has been the high point of my academic career. I feel as if I am doing something that changes lives and changes society. It transcends national boundaries,
religious disputes and economic systems. It serves as a new, unifying reference point for the world.\textsuperscript{24}

\section*{A Challenge & A Proposal}

We, as scholars and educators, must find ways to address global problems using global linkages between ourselves, our students and our communities. It is commonly reported that when our cosmonauts and astronauts went into space, they saw no political boundaries on the Earth and came back confirmed internationalists and activists.\textsuperscript{25} It's in this spirit of global endeavor that we educators need to ignite world change by empowering our world citizens with new ideas – in a process that English physicist David Hookes calls “Global Enlightenment.”\textsuperscript{26}

I propose that we engage in building bridges between ourselves and our students in a global dialogue using the platform of \textit{Big History}. Furthermore, I propose that we create an inter-university and online “Institute of Mega-Studies” or a “One World Institute.” We could then encourage students to take each others’ courses and offer a \textit{Certificate in Mega-Studies}. There is major restructuring underway in the world’s universities at this time, so proposals for mega-studies fit into the spirit of change. There is a need for such wide views today in every field and subject. It is something that we can do right now. The survival of our species and our world civilization is at stake.\textsuperscript{27}
Courses in *Western Civilization* do not commonly exist elsewhere in the “western” world. However, there has recently been a move towards something similar to it in Europe, reflecting development in the European Union. For example, a course of study that is called the “Dutch Canon” was submitted to the Netherlands’ government in 2007. It is essentially Dutch History couched in a European context, along with overseas colonial history (Indonesia). Fred Spier, University of Amsterdam (Netherlands), personal communication (e-mail), Barry Rodrigue, Lewiston, Maine (USA), 1 June 2009. *De canon van Nederland*, 2009, (http://entoen.nu/default.aspx?lan=en). Also, four universities joined together, in 2008, in order to offer a two-year graduate program in “European Civilization” in Greece, France and Italy. Makki Marseilles, “Greece: Four-university postgraduate programme,” in *University World News* 51, 2 November 2008: (www.universityworldnews.com/article.php?story=20081031095000526).

*Western Civilization* was more than just a single course. It developed into an entire sub-curriculum that involved the study of art, literature, politics, religion, etc.

The present course description for *Western Civilization I* at the University of Southern Maine reads: “A basic survey and introduction to the heritage of Western society from ancient to early-modern times. Particular attention is given to the ancient civilizations of Egypt, Greece and Rome. Medieval civilization is explored with a focus on the institutions it bequeathed to the modern world. The Renaissance and Reformation and the rise of the great nation-states are studied. Throughout the course important individuals are considered such as Alexander the Great, Caesar, Charlemagne, Michelangelo, and Elizabeth I.” That for *Western Civilization II* reads: “A basic survey and introduction to the heritage of Western society from early modern times to the atomic age. Particular attention is given to the Enlightenment, the French Revolution, the rise of the industrial era, the growth of nationalism, and the World Wars. Personalities such as those of Napoleon, Hitler, and Stalin are studied.” University of Southern Maine, *Undergraduate Catalogue*, 2008–2009, (Portland: University of Southern Maine, 2008), p. 167.

The spread of the concepts of *Western Civilization* in the United States was furthered by schooling being made increasingly mandatory for children in the early 20th century. Although *Western Civilization* was a course of study primarily for colleges and universities, its message filtered into parallel and lower venues of education, such as government-run Indian Schools for Native Americans, Settlement Houses for immigrants and Adult Education programs for workers, as well as into courses in elementary and high schools. In this way, concepts of “the West” became pervasive long before the Cold War popularized them. Certainly, the content of *Western Civilization* has been liberalized over the years, as many of its negative aspects began to be discussed, from the Inquisition to the Holocaust, while its perimeters were expanded beyond just western Europe to include Russia, North Africa, Greenland and other “fringe” areas.

Selma Botman, a scholar of modern Egypt and President of the University of Southern Maine, notes: “We may all take this [the acceptance of a global context] for granted now, but it has taken a whole generation for western historians to appreciate the significance of placing the west in a context that respects and acknowledges the contributions of others.” Selma Botman, University of Southern Maine, Portland, personal communication (e-mail) to Barry Rodrigue Lewiston, Maine (USA), 16 June 2009.

Debate about the appropriateness of *Western Civilization* as a core study in higher education in the United States is active and open. For example, see Peter Stearns, *Western Civilization in World History*, (New York: Routledge, 2003). Broad-ranging assessments of history courses seem to indicate that use of either Western
Civilization or World History as a base course of study are about equal in today’s universities. One source that indicates this is Robert Townsend’s article, “Latest Figures Show Sizable Increases in History Majors and Bachelor Degrees,” in *Perspectives*, American Historical Association, April 2004: (www.historians.org/Perspectives/Issues/2004/0404/rbtstudents0404.htm). Peter Stearns, George Mason University, Fairfax, Virginia, personal communication (e-mail) to Barry Rodrigue Lewiston, Maine (USA), 12 June 2009. Matthew Keough (and Robert Townsend), American Historical Association, Washington, D.C., personal communication (e-mail) to Barry Rodrigue Lewiston, Maine (USA), 12 June 2009. However, courses in “World History” can easily become *Western Civilization* in disguise – with content largely drawn from western European cultural areas.

9 At this time (2003), our Dean at the University of Southern Maine’s Lewiston-Auburn College was Professor Betty Robinson. World Studies have been prevalent in other nations to varying degrees, but – as in the United States – it often can be a form of *Western Civilization* in disguise; Although a course title might say “World History” or “World Artistic Culture,” its content might be largely drawn from European cultural areas. On a German perspective: Professor Michael Heine, University of Western Ontario, London, Ontario (Canada), personal communication (e-mail) to Barry Rodrigue Lewiston, Maine (USA), 2 June 2009. On a Russian perspective: Professor Alexei Gusev, Moscow State University, Moscow (Russian Federation), personal communication (e-mail) to Barry Rodrigue Lewiston, Maine (USA), 10 June 2009.

10 My two-course sequence in World History & Geography is a requirement for our major in Arts & Humanities at the University of Southern Maine’s Lewiston-Auburn College. My course description for *World History & Geography I* reads: “This is the first in a series of two courses that are designed to not only develop an understanding of and an appreciation for world history and geography, but also to help students become more knowledgeable participants on today’s rapidly changing planet. The goal is to provide students with a humanistic background from which to better comprehend global complexities, as well as to make links between historical events and current events. In other words, it is a primer in ‘global citizenship.’ This course will cover the period from Prehistory to the Age of Modern Expansion – from about 50,000 to 500 years ago.” That for *World History & Geography II* reads: “This is the second in a series of two courses that are designed to not only help students develop an understanding of and an appreciation for world history and geography, but also to become more knowledgeable participants in today’s rapidly changing world. Its goal is to provide a humanistic background that can be used to unravel complexities of the modern world – by helping to make links between historical materials and modern world situations, as well as find locations on a map! In other words, it is a primer in ‘global citizenship.’ This course covers the modern period from the Age of World Exploration to the Present – from c 1500 to 2009 C.E.” University of Southern Maine, *Undergraduate Catalogue, 2008–2009*, (Portland: University of Southern Maine, 2008), p. 361.

11 Ironically, although many high schools (for students from 14–18 years old) teach courses in *World History & Geography*, many colleges and universities still require *Western Civilization* and feel that *World History & Geography* is “exotic.” An example of a textbook on *Big History* that is oriented towards this younger group of students is Christopher Lloyd’s *What on Earth Happened?: The Complete Story of the Planet, Life, and People from the Big Bang to the Present Day*, (London: Bloomsbury, 2008). A hindrance to the establishment of *World History & Geography* or any macro-study as a base in our colleges and universities is that many of our students are driven by the focused desire of professional certification in a particular job, which often precludes non-required electives. In order to encourage more global reference points for students, I have also widened the parameters of other subjects that I teach. For example, my course in *World Indigenous & Native Studies* discusses more than just “American Indians,” incorporating materials on the Basques, Chechens and Kurds as indigenous peoples, as well as the indigenous origins of Europeans. Likewise, my course on *International Labor* considers more than just the American Federation of Labor, as the students also study the Third International, the Catholic Worker Movement and the African National Congress. In this way, the residual provincialism in higher education in the United States is slowly broken down – in a process that is similar to that by which *Western Civilization* was established.

12 Some of the issues about how global studies are dealt with in today’s universities in North America are discussed in Jane Knight, “The Internationalization of Higher Education: Are we on the Right Track?” that appears in *Academic Matters: The Journal for Higher Education*, (Canada), May 2009: (www.academicmatters.ca/currentissue/article.gk?catalog_item_id=1234&category=/issues/OCT2008).

13 Sharman Haley, University of Alaska, Anchorage (USA), personal communication (e-mail) to Barry Rodrigue Lewiston, Maine (USA), 8 June 2009.
14 Professor Eric Waddell, a geographer from Laval University (Québec), eloquently described the Mondialisation Movement as it developed in the Causses region of interior France, especially in the area of Larzac. Eric Waddell, Le Vigan, Languedoc-Roussillon (France), personal communication (conversation) to Barry Rodrigue, 2002. One of the intellectual sources of this movement came from the French philosophers, Gilles Deleuze and Félix Guattari, who used the horticultural metaphor of a rhizome to describe horizontal and multifaceted links within and between societies. Gilles Deleuze and Félix Guattari, A Thousand Plateaus: Capitalism and Schizophrenia; London, New York: Continuum, 1987, 2004. Eric Waddell, Québec, Québec (Canada), personal communication (e-mail) to Barry Rodrigue, 16 August 2009.

15 There are a number of good examples of the new movement towards a truly “globalized” view in higher education in the United States. These are reflected in geographer Denis Wood’s Five Billion Years of Global Change: A History of the Land, (New York: The Guilford Press, 2004) and historian Michael Cook’s A Brief History of the Human Race, (New York: W.W. Norton, 2003).

16 The article that I first read by Professor Fred Spier was, “The Small History of the Big History Course at the University of Amsterdam” (http://worldhistoryconnected.press.uiuc.edu/2.2/spier.html). My meeting with Professor Spier took place at the Fourth Conference of The Historical Society: Reflections on the Current State of Historical Inquiry, Boothbay Harbor, Maine (USA), June 2004. Another important article is David Christian’s “The Case for ‘Big History,’” The Journal of World History 2 (2), Fall 1991, (www.fss.uu.nl/wetfil/96-97/big.htm), as well as his seminal text, Maps of Time: An Introduction to Big History, (Berkeley: University of California Press, 2004). At present, there are perhaps two dozen professors teaching Big History at as many universities around the world. It is only recently that efforts have begun to assemble information about Big History being taught in the world’s curriculum. Barry Rodrigue, “A Directory of Big History, 2009.” University of Southern Maine, Lewiston-Auburn College, Global Resources, Big History (http://usm.maine.edu/laac/global/bighistory/) and World History Connected 6 (3) Autumn 2009 (http://worldhistoryconnected.press.illinois.edu/).

17 Feminists, particularly eco-feminists, have also strongly criticized the human-centric vision of course offerings in the university. Diane Wood, George Mason University, Fairfax, Virginia (USA), personal communication (e-mail) to Barry Rodrigue Lewiston, Maine (USA), 11 June 2009. Big History is also referred to as “Megahistory” in some areas. Akop Nazaretyan, personal communication (discussion), Moscow, Russia, 23 June 2009.

18 Earth Day is celebrated on 22 April. Surprisingly, my students say that they get little exposure to the very serious problems facing the world in other university courses, which – in part – reflects the problems associated with professional career education. This educational gap does not bode well for public awareness of the planet-shaking issues that we face today and the need for citizens to deal with them. Ecologist Michael Morrison, who has worked on the Greenland Ice Cap and who participates with both our Earth Day celebration and Big History development, writes about their inter-connection: “Since we discovered the dramatic shifts of which climate is capable, I have a sense of how protected and safe we are here in our “Stable Climate Era,” beginning about 12,000 years ago. Recently, I have begun to think about how so much of the Universe is an extreme version of Earth’s climate: Most of it is profoundly uninhabitable with enormous energies on the one hand, or almost none at all on the other. Even just a few miles up, radiation becomes destructively intense. I have begun to think of Earth as remarkable for, among other things, its stability and for the protection it provides us from a truly inhospitable Universe. It is, of course, because of this rare, pleasant and hospitable circumstance that we are here to appreciate it!” Michael Morrison, Falmouth, Maine (USA), personal communication (e-mail) to Barry Rodrigue Lewiston, Maine (USA), 26 April 2009. Michael Morrison, “Digital Illumination Links” at (http://digital-illuminations.com/Digital_Illuminations/Links.html).

19 Amanda Munroe, University of Southern Maine, Final essay, LCC 350 Global Past, Global Present, Saco, Maine (USA), 19 May 2009.

20 Phillip K. Dick was author of scientific and philosophical fiction that was also produced as popular films, such as Blade Runner, Total Recall and Minority Report.

21 A core curriculum in the United States consists of those courses that all students are required to take; it is also called “general education.” Most of the core curriculums that are being taught today date from the 1960’s or 1970’s and have problems of relevancy that are as challenging as those of courses in Western
Indeed, Western Civilization is often part of old general education requirements. Academics acknowledge that revision is needed, but disagree about course content, which has stalled general education reform at many institutions. The new core curriculum at the University of Southern Maine’s Lewiston-Auburn College was collectively developed by its faculty members from 2005–2007. University of Southern Maine, Undergraduate Catalogue, 2009–2010, (Portland: University of Southern Maine, 2009), pp. 381–384. Rosemary Cleary and Eve Allegra Raimon, “Whose ‘Greater Expectations’ Are They, Anyway? Exposing the Tensions within the Rhetoric of Educational Reform,” in Liberal Education 95 (1), Winter 2009, pp. 30–35.

In many ways, and despite its drawbacks, online course delivery is a productive way for us to reach a wider audience and, for Macrohistory, perhaps this kind of outreach is most appropriate – since it is global and democratic, at least in its best forms.

The content of courses in Big History tends to vary somewhat from instructor to instructor. What they all have in common is a “big” context that is keyed to the large-scale and thematic aspects of the natural and social sciences. Most of the courses presently offered are survey courses that cover the whole of existence in one or two semesters, while some focus on aspects of the whole, such as Macro-sociology or Earth Studies. Barry Rodrigue, “A Directory of Big History, 2009.” The sequel course in Big History at the University of Amsterdam is called, Big Futures, and the text it uses is Lucas Reijnders, Bert De Reuver and Egbert Tellegen (editors), Toekomst in het Groot, (Amsterdam: Amsterdam University Press, 2007). Fred Spier, University of Amsterdam (Netherlands), personal communication (e-mail), Barry Rodrigue, Lewiston, Maine (USA), 25 May 2009. There is also a philosophical aspect of Big History, which has tended to be emphasized in Russia and is linked to Cosmist philosophy. Akop Nazaretyan, “Western and Russian Traditions of Big History: A Philosophical Insight,” Journal for General Philosophy of Science (2005) 36: 63–80.

Educator James Moulton’s response to the concept of Big History was: “Why should we stop at ‘Big History’? – Why not Big Education and Big Political Science!” James Moulton, Bowdoinham, Maine (USA), personal communication (e-mail) to Barry Rodrigue Lewiston, Maine (USA), 2 February 2009. James Moulton, “Technology Integration and Project-Based Learning” at (http://jimmoulton.org/).

Likewise, when our nations went into space, people around the globe said that “We did it,” meaning all of humanity, not just one nation.

David Hookes, Liverpool, Merseyside (England), personal communication (e-mail) to Barry Rodrigue Lewiston, Maine (USA), 19 June 2009.

I appreciate the sharing of thoughts for this paper that came from my wife, Penelope Markle, who is the best editor I have ever met, my students (especially John Kimball and Kessi Watters-Kimball who established the Big History Facebook site), as well as Professor Fred Spier (University of Amsterdam, Netherlands); Professor David Hookes (University of Liverpool); Professor Eric Waddell (Laval University); Professor Sharman Haley (University of Alaska, Anchorage); Professor Michael Heine (University of Western Ontario); Professor Akop Nazaretyan (Moscow State University); President Selma Botman, Professors Mark Lapping, Christy Hammer, Roxie Black and David Harris (University of Southern Maine); Provost Joseph Wood (University of Baltimore, Maryland); Provost Peter Stearns and Professor Diane Wood (George Mason University, Virginia); Dr. Victor Berezhnoy (Moscow, Russia); Michael Morrison (Falmouth, Maine); and James Moulton (Maine Learning Technology Initiative, Bowdoinham, Maine).