A Big History Directory, 2011

Barry Rodrigue University of Southern Maine (USA)

This Directory began at the end of the summer in 2009, in the wake of the Russian Academy of Sciences' Fifth International Conference on *Hierarchy & Power in the History of Civilizations*. At this conference, several professors of Big History participated in a series of panels on "Macroevolution: Hierarchy, Structure, Laws and Self-Organization." The presentations of Fred Spier and Barry Rodrigue focused on the pedagogy of Big History, describing the rationale and structure of their courses. In the process, we came to appreciate the need to get a better handle on how Big History is taught around the world.

The first step was to identify where these courses were being taught, their content and audience, and who was doing it. So, upon his return to the States, Barry set about gathering this information. The Directory grew in a very organic manner. Barry put together a list of the courses about which they knew and sent it to those instructors. These colleagues then added to that list. At that point, David Christian suggested a posting on H-Net, which drew quite a number of new courses and links to other instructors. While contacting these people, more courses and professors were discovered, and excellent suggestions were made: Add biographical statements, a basic reading list, websites, etc. It was a very friendly and collegial process.

This Directory contains many surprises. First of all, the ballpark figure that many of us had been using of a dozen Big History courses being taught around the world was far too conservative. We discovered that Big History is taught at many more institutions than ever imagined – and more are being added all the time. We also discovered that the older view of "Big History" was too simplistic a concept. In addition to entry-level survey courses about Big History, there are other courses that do not fit under this category. Some are World History courses that have been expanded to include presentations about cosmic origins, while others have a more focused topic in a Big History context, such as "The Big History of Grass" and "Macrosociology." Other courses grew out of public lecture series into formal offerings for academic credit, while the opposite trend of scholarship engaging public projects also occurred. The pathways are intriguing for offering models for outreach!

What all the courses have in common is a "big" context that is keyed to large-scale and thematic aspects of the natural and social sciences. The content of courses in *Big History* tends to vary somewhat from instructor to instructor. In part, this is a result of the professional formation of the instructors, who come from many disciplines: Astronomy, Psychology, History, Anthropology, Geology, Chemistry, Philosophy, Geography, etc. Astronomers tend to focus on cosmic influences, while anthropologists focus on human development. Nonetheless, all the instructors strive for an interdisciplinary and holistic format.² This Directory is a work in progress. While it seems to focus on the English-speaking world, we are aware that there has been independent development of Big History in a variety of global

regions, such as Universal History in the Soviet Union. So, there needs to be a renewed effort to learn about these other academic traditions. This is an exciting prospect!

The opportunities for the growth of Big History into THE basic course in global education are auspicious. Big History has been incorporated into the General Education curriculum required of all students at several universities, while other Big History courses are offered online. Also, some are specifically designed as continuing education courses for primary or secondary level school teachers. Big History has even begun receiving public endorsements from prominent public figures like computer engineer Bill Gates and Nixon White House consul John Dean!

We created a Big History Bibliography with Fred Spier, which includes internet and multimedia materials. All of these, along with Big History syllabi, articles and other materials were placed on our USM Big History site: (http://usm.maine.edu/lac/global/bighistory/). In addition, one of our colleagues, Alex Moddejonge at California State University at San Marcos, is engaged in writing a historiography of Big History. We invite you to read his information flyer in the Addendum of this Directory and to contact him. We will continue to update this Directory and ask you to contact Barry Rodrigue with any information that might help us in this on-going project.

Most recently, in August 2010, six Big Historians met at the Geological Observatory at Coldigioco, La Marche, in the Apennine Mountains of Italy. They founded the International Big History Association (IBHA) and developed an ambitious schedule of projects – from producing a journal and website to organizing an international conference in 2012. The IBHA promises to become an important vehicle for promoting Big History. Its website can be found at: (http://www.ibhanet.org/).

Please contact me with ideas, suggestions, editings and additions to this Big History Directory.

With warm wishes,

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Big History:A Working Directory of Instructors & Courses

(In order to avoid spam attacks, we've substituted # for @ in the e-mail addresses)

Assembled by Barry Rodrigue University of Southern Maine (USA)

Academic Survey Courses on Big History

Australia

New South Wales

Macquarie University, Sydney:

<u>Instructors</u>: David Christian, Professor, Department of Modern History, Politics, International Relations & Security (david.christian#mq.edu.au). Dr. Christian is originally a historian of modern Russia and the USSR, publishing research on aspects of the social history of 19th century Russia. Since 1989, he has developed and taught courses on Big History. He is trying to bridge the gap between these very different scales by completing a history of Inner Eurasia.

Peter Edwell, Lecturer, Department of Ancient History (pedwell#hmn.mq.edu.au). Dr. Edwell presently convenes "An Introduction to World History" for the Department of Modern History. He specializes on the study of Romans in the Middle East and is currently researching the role of smaller polities, such as the Palmyrenes, in promoting exchanges between the agrarian civilizations of Greece, Rome and Persia from c 500 B.C.E.—1000 C.E.

Course Description: HIST 115 "An Introduction to World History." While most history courses look in detail at a particular country, theme or period, our course surveys history on the biggest possible scale. It begins with the origins of the universe and goes on to tell a series of linked stories about the origins of the stars and planets, the earth and its inhabitants, human beings and various types of human societies to the present day. Questions range from how and when the universe created to what practices and ideas give shape to the modern, capitalist world. Students also ponder the similarities between "big" history and traditional creation myths.

Queensland

University of Queensland, Brisbane:

<u>Instructor</u>: Paul Turnbull, Professor, School of History, Philosophy, Religion & Classics (p.turnbull1#uq.edu.au). Dr. Turnbull's research interests are focused on the construal of

humanity's deep past by European scientists and intellectuals from the late 18th to the early 20th century. He is also greatly interested in the use of networked digital media in historical research and teaching.

<u>Course Description</u>: Big History is taught at first year undergraduate level under the title of HIST 1601 "Turning Points in World History." It explores significant themes and issues in world history through a detailed study of selected critical "Turning Points" that have shaped and defined the history of our modern world. It commences by exploring select themes in cosmology, the history of the earth, the emergence of life and the evolution of the human species. The course makes significant use of David Christian's *Maps of Time* and is supplemented by other recent scholarship in the field of Big History.

Egypt

The American University in Cairo, Cairo:

<u>Instructor</u>: David Blanks, Associate Professor, Department of History (dblanks#aucegypt.edu). Dr. Blanks originally trained as a medievalist and has written about the medieval Mediterranean world, with a particular emphasis on western views of Islam. More recently, he has begun to teach, research and publish on world history, especially the global histories of exploration, higher education and food.

<u>Course Description</u>: HIST 111 "Big History" is the study of the past as a whole—not just of human societies. It includes the study of the earth and the universe and tries to understand how human beings are connected to their environments and the billions of years of historical evolution that preceded their appearance on the planet. Beginning with Big Bang cosmology and continuing all the way through to the future, Big History is an attempt to put *everything* into perspective.

India

Gujarat

Physical Research Laboratory, Navrangpura, Ahmedabad:

<u>Instructor</u>: Tom Gehrels, Fellow. Dr. Gehrels began as a Sarabhai Professor in India, which evolved into a lifetime fellowship. He works at the Physical Research Laboratory once a year in the spring semester. (See below, under Arizona, for more details).

<u>Course Description</u>: This course is a short and specialized version of "Universe, Humanity, Origins & Future" (described below under Arizona). It is for graduate students and is sponsored with the Centre for Space Science and Technology Education in Asia and the Pacific (affiliated with the United Nations) for selected graduate students from Kazakhstan, North Korea, Indonesia and locations in between.

Italy

Regione Marche

Osservatorio Geologico di Coldigioco (Geological Observatory of Coldigioco), Frontale di Apiro, Province of Macerata (in the Apennine foothills, 45 kilometers south-west of the port-city of Ancona).

<u>Instructors</u>: Alessandro Montanari, Director, Osservatorio Geologico di Coldigioco (sandro.ogc#fastnet.it). Dr. Montanari (PhD, UC Berkeley) has devoted many years to reading the chronicle of Earth history recorded in the Jurassic-Miocene sedimentary rocks of the Umbria-Marche Apennines, which are arguably the finest archive of information for this 150-million-year time interval anywhere on Earth.

Walter Alvarez, Professor, Department of Earth & Planetary Science, University of California Berkeley (platetec#berkeley.edu). Dr. Alvarez is the geologist on the Berkeley research team that discovered the first evidence that an asteroid impact caused the extinction of the dinosaurs, and was involved later in the proof that the Chicxulub Crater in Mexico was the site of that impact. His field work has long centered on the Umbria-Marche Apennines.

<u>Course Description</u>: Big History Field Workshop. Given for the first time in August 2010, this one-week field course is designed to teach Big History professors from other disciplines (history, astronomy, archaeology) how geologists read the rock record of Earth history. It includes field excursions to the sedimentary rocks of the Umbria-Marche Apennines, as well as laboratory study of rocks under the microscope and analysis of the history recognizable on geological maps. Attention is also paid to the human history of this part of Italy. After this taking this course, a Big History professor should be completely comfortable teaching students about Earth history.

Netherlands

Noord-Holland

University of Amsterdam, Amsterdam:

<u>Instructors</u>: Fred Spier, Senior Lecturer, at the Institute for Interdisciplinary Studies (f.spier#uva.nl). Dr. Spier has organized the annual Big History course in Amsterdam since 1994. Trained as a biochemist with research experience in genetic engineering, he subsequently studied cultural anthropology and received a Ph.D. in cultural anthropology and social history. During this period, he studied the 10,000 year interplay of religion and politics in Peru, which led to the publication of two books.

Esther Quaedackers, Lecturer, at the Institute for Interdisciplinary Studies (e.quaedackers#uva.nl). Ms. Quaedackers was trained as an architect and has been teaching Big History since 2006. She is working on a Ph.D. thesis on the connection between architecture and Big History in general and on the "little big history" of Tiananmen Square in particular.

Course Description: "Big History." For centuries, people have wondered about the origin of the world around them and have created stories as answers to these questions. The contemporary scientific version of these narratives is Big History, which places the history of humanity within the entire known cosmic past, from the beginning of the Universe up until life on Earth today. By explaining how everything has become the way it is now, Big History helps students to understand their position in time and space in a way no other approach to history can offer. The insights gained in the Big History course may also help students to prepare themselves better for the future.

Big History, University of Amsterdam: (http://www.communities.uva.nl/bighistory).

Amsterdam University College, Amsterdam:

<u>Instructor</u>: Fred Spier and Esther Quaedackers (see above).

Course Description: "Big Questions in History" offers an overview of human history placed within the context of the history of life, the Earth, the Solar System and the Universe. This approach to human history is known as Big History. Special attention will be paid to the last 10,000 years of human history, when culture took over as the main adaptive mechanism. This period witnessed the worldwide emergence of agriculture as well as the rise of state societies, while globalization, science, industrialization, urbanization and democratization have all contributed to deeply transform human societies during the past five hundred years. We focus on how humans have been transforming their natural environment, while the last lecture will deal with what we may expect from the future. This course has been taught at the newly-founded Amsterdam University College since 2009.

Big History, Amsterdam University College: (http://www.auc.nl/acadprog/bigquestions.cfm/208EA647-1321-B0BE-A4F932B08288ADC3).

Noord-Brabant

Eindhoven University of Technology, Eindhoven:

Instructor: Fred Spier and Esther Quaedackers (see above).

<u>Course Description</u>: This course has been taught at the Eindhoven University of Technology since 2003 (see description above).

Big History, Eindhoven University of Technology: (http://www.studiumgenerale-eindhoven.nl/bighistory/).

Russian Federation

Moscow Region

International State University, Dubna:

<u>Instructor</u>: Akop Nazaretyan, Professor, Department of Sociology & Humanities (anazaret#yandex.ru). Dr. Nazaretyan's research specialty is in the theory of catastrophes and mass psychology. He is also an academic in the Russian Academy of Sciences, Institute of Oriental Studies, where he works in the Department of Cross-Cultural Research; a Visiting Professor at Moscow State University, in the Department of Psychology; and a member of the Russian Academy of Natural Sciences and the U.S. Society for Cross-Cultural Research.

<u>Course Description</u>: "Big History" surveys the concepts and foundations of the discipline. We look at mega-trends in cosmic, geological, biological and social evolution. The course questions if the history of humankind has been a single unified process, in keeping with the evolution of the Universe, and considers the pre-history and evolution of intelligence. We study techno-humanitarian balances (a systems relationship between technology, behavior-regulation, and sustainability) as an explanation of human-generated crises and advances. And, finally, we ponder the crossroads and dramas of the 21st century, as well as longer term prospects.

Student: Sazhienko Ekaterina Vladimirovna (cuore-87#mail.ru).

Komi Republic

Syktyvkar State University, Syktyvkar:

Instructor: Igor Fedorovich, Department of Philosophy (fiv#rol.ru). *

Course Description: *

South Korea

Ewha Woman's University, Seoul:

<u>Instructor</u>: David Christian, Visiting Professor, Institute of World & Global History (see above).

Course Description: Summer course # 10946 "New World History, Global History & Big History" presents a new form of world history that is called Big History. Like all forms of Big History Directory

world history, big history tries to move beyond the nation-centered perspectives that dominate history teaching in most universities. Instead, it offers a more human-centered global approach to history. Big History surveys the past at all scales, beginning with the origins of the Universe and ending in today's global world, before looking into the future. So, it is like a modern creation story. This is a form of world history that helps us understand the place of human beings within our Universe, using the best scientific information available to us early in the 21st century.

USA

Arkansas

Arkansas Technical University, Russellville:

<u>Instructor</u>: Alexander Mirkovic, Assistant Professor, Department of History & Political Science (amirkovic#suddenlink.net). Dr. Mirkovic teaches courses in Middle Eastern, European and Modern World History. His current research project is a history of Serbian nationalism in the 19th and 20th centuries. He is assistant editor of the forthcoming ABC-CLIO *World History Encyclopedia, Era 8: 1900–1945* and assistant editor of the *World History Bulletin*.

Course Description: HIST 4514 "Big History" examines history on a "big" scale, from the Big Bang to Modernity and seeks the largest possible themes, issues, and patterns. It looks at the history of various theories of the origins of the cosmos, the natural history of human race, the nature of human complex societies, and the process of modernization and industrialization. It studies the changing perceptions of time through history and their dependence on human and technological development.

Arizona

University of Arizona, Tucson:

<u>Instructor</u>: Tom Gehrels, Professor, Department of Planetary Sciences (tgehrels#lpl.arizona.edu). Dr. Gehrels is an astrophysicist who studies the start of Big History in the multiverse, where our physics and principles of evolution originated. He pioneered the first photometric system of asteroid identification, as well as wavelength dependence of polarization of stars and planets, discovered several asteroids and comets, and initiated the Spacewatch program to guard Earth from such impacts.

<u>Course Description</u>: NATS-102, Sections 14, 15H, 791 "Universe, Humanity, Origins & Future" is a survey of Big History as seen by an astrophysicist – with an emphasis on origins, without a detailed discussion of the history of any one species. On the other hand, a third of the course focuses on modern problems, such as Earth's asteroid hazard and its mitigation, birth control (as Vikram Sarabhai approached it), and the search for basic principles in tackling modern problems. Students also participate in producing the second

edition of the textbook, *Survival through Evolution, from Multiverse to Modern Society* (Amazon/BookSurge Publishing, 2007). The course and book are taught in the fall at the undergraduate level. The core paper on the multiverse is kept up to date and linked to the website: (www.lpl.arizona.edu/faculty/gehrels.html).

California

University of California, Berkeley:

<u>Instructor</u>: Walter Alvarez, Professor, Department of Earth & Planetary Science (platetec#berkeley.edu). Dr. Alvarez is the geologist on the Berkeley research team that discovered the first evidence that impact caused the extinction of the dinosaurs, and was involved later in the proof that the Chicxulub Crater in Mexico was the site of that impact.

Course Description: EPS C51 (= LS C70X) "Big History: Cosmos, Earth, Life, Humanity." Usually, when we think of "history," we have in mind the story of *humanity* – what has happened to *people* over the last few thousand years – the history that is written down in books and documents. But there is another, much broader view – that "history" is *everything that has ever happened* – not just to human beings, but to all living organisms, to the Earth and to the entire cosmos. At Berkeley, many different departments are involved in reconstructing the past: The Astronomy and Physics departments are figuring out cosmic history, the Department of Earth & Planetary Science studies the history of the Earth and the Planets, the Department of Integrative Biology and the Department of Molecular & Cell Biology focus on the history of Life, and the history of humanity is spread across many different departments in Humanities and Social Sciences. Up to now, no one has tried to tie all these kinds of history together. This is the goal of Big History.

<u>Course Description</u>: EPS 98/198 "Advanced Big History" is taught one hour per week and is open to students who have taken EPS C51 (= LS C70X) above, being numbered EPS 98 for lower-division students and EPS 198 for upper-division students. The course covers topics that integrate at least two of the four regimes of Big History (Cosmos, Earth, Life, Humanity) – in a seminar/discussion format, based on reading assignments.

University of California, Riverside:

<u>Instructor</u>: Nigel Hughes, Professor, Department of Earth Sciences (nigel.hughes#ucr.edu). Dr Hughes is a paleontologist who works on the geological history of the Himalaya and an authority on the evolutionary developmental biology of fossil trilobites. He is a former student of Vishva Bharati University in West Bengal.

<u>Course Description</u>: HNPG025G "The Testament of Time." This class considers the relationship between us as individuals and the history of the Earth. It explores the ways in which we attempt to know Earth history and the methods we use to do so. It stresses why an understanding of the past, both recent and truly ancient, is more critical now than at any other time in the history of our species. This is because our views on the age of the

Earth have a direct consequence for the way in which we approach pressing issues of the future. The class explores the development of scientific and cultural views of the history of the Earth and traces how human understanding of history has evolved. We explore the premises that different approaches use, as well as human attempts to comprehend the size and scale of the solar system and universe, the immense age of the Earth and universe, and the human artistic attempts to transcend time's moving but restrictive grasp. See our Paleobiology site at (www.trilobyte.ucr.edu).

Dominican University of California, San Rafael:

<u>Instructor</u>: Cynthia Brown, Professor Emerita, History Department and Education Department (cbcynthia#earthlink.net). After directing the university's single-subject credential program (Grades 7–12) for twenty years, while teaching world history part-time, Dr. Brown is using her retirement to teach and write Big History.

Course Description: FYE 1000 "Big History: From the Big Bang to the Present." This course surveys history on the largest possible scale, over the course of 13.7 billion years, from the Big Bang to the present. The course begins with the origins of the universe, continues with the origins of galaxies, stars, planets, the Earth and its inhabitants, and reaches all the way to human beings and the many types of human societies that have existed up to the present. This account constitutes the modern scientific creation story, a coherent narrative based on what international scientists have learned and verified. It also gives students a chance to integrate all their previous knowledge within one framework, onto which they can add all their future learning. Its professors include Mojgan Behmand, Neal Wolfe, Bernard von Bothmer, Arturo Arrieta, Cynde Taylor, Joseph Bloom, Mairi Pileggi, Thomas Burke, Jim Cunningham, and Cynthia Brown.

Connecticut

Connecticut College, New London:

<u>Instructors</u>: Fred Paxton, Professor of History (fred.paxton#conncoll.edu). Dr. Paxton is a historian of early medieval Europe, specializing in Christian ritual, sickness, health, death, dying and the dead. He has assembled a team from the Department of Physics, Astronomy & Geophysics, including astrophysicist Dr. Leslie Brown (leslie.brown#conncoll.edu) and geophysicist Dr. Doug Thompson (doug.thompson#conncoll.edu), as well as biologist Dr. Phillip Barnes (Phillip.barnes#conncoll.edu) from the Department of Biological Sciences for this Big History course at Connecticut College.

Course Description: HIS 101 "Big History: From the Big Bang to the Present." This is history on the largest scale: From the origins of the universe to the history of humanity and our unfolding present. An astronomer, geologist, biologist and historian trace the fundamental forces shaping change and continuity across time, with an eye to how history and the historical sciences learn about the past. Students will become conversant with the major eras and turning points in the history of the universe, planet, life on earth and

humanity. This course is meant to get students to see links between various branches of knowledge and to ground all their learning in the widest possible perspective.

Maine

University of Southern Maine, Lewiston:

<u>Instructor</u>: Barry Rodrigue, Associate Professor, Arts & Humanities, Lewiston-Auburn College (rodrigue#usm.maine.edu). Dr. Rodrigue is a geographer and archeologist working on the Big History of the Norumbega Peninsula, between the St. Lawrence River and the Gulf of Maine. His academic focus is on French and Indigenous interaction in North America. He and his students are also engaged in global human rights work, notably in Chechnya, as well as with Indigenous and Métis issues.

Course Description: LCC 350 "Global Past, Global Present: From the Big Bang to Globalization" is a thematic survey of global history from its origins in the Big Bang to the present. The result is a more realistic understanding of how humans fit into the vast expanse of the universe, instead of orienting the universe around humans. Students also consider the challenges of modern globalization, in the light of Big History, with an important theme being on the quest to develop sustainable and ethical 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 world and off of it. It is a core curriculum course, required of all students. This course is also offered online.

Big History, University of Southern Maine: (http://usm.maine.edu/lac/global/bighistory/).

Massachusetts

Harvard University, Cambridge:

<u>Instructor</u>: Eric Chaisson, Harvard-Smithsonian Center for Astrophysics, Harvard College Observatory (ejchaisson#cfa.harvard.edu). Dr. Chaisson is an astrophysicist and science educator who has taught, researched and written about cosmic evolution for some 30 years. He is also noted for his original research on the interstellar clouds and emission nebulae of the Milky Way Galaxy, as well as for his leadership in improving science education, both nationally and internationally. Web: (www.cfa.harvard.edu/~ejchaisson).

<u>Course Description</u>: Astronomy 8 "Cosmic Evolution: The Origins of Matter and Life" is a study of the evolution of the Universe, from its origin in a cosmic expansion to the emergence of life on Earth and possibly other planets: Big-bang cosmology, origin and evolution of galaxies, stars, planets, life and intelligence, discussions of Nature writ large, from quarks to quasars, microbes to minds. The materials used are largely descriptive, based on insights from physics, astronomy, geology, chemistry, biology and anthropology.

Boston University, Boston:

<u>Instructor</u>: Thomas Bania, Professor, Institute for Astrophysical Research, and the Department of Astronomy (bania#bu.edu). Dr. Bania studies the interstellar medium of the Milky Way and other galaxies by using the techniques of radio spectroscopy. He studies promordial nucleosynthesis during the Big Bang, stellar nucleosynthesis, and the chemical evolution of the Milky Way galaxy by measurements of the light isotope of helium, 3-He.

<u>Course Description</u>: Astronomy 117 "Cosmic Evolution: The Search for Extraterrestrial Life" is an interdisciplinary course that follows the evolution of matter in the Universe, the evolution of life on Earth, the ascent of Humankind and the invention of civilization and technology. It will then discuss the search for other galactic civilizations, possible techniques for communication with such civilizations, and the future of Humankind. The goal of Cosmic Evolution is to build a scientific base from which to view all of creation and the presence of intelligent life in the cosmos.

University of Massachusetts, Amherst:

<u>Instructor</u>: James Walker, Professor, Department of Biology (jwalker#bio.umass.edu). Dr. Walker's work has focused on the phylogeny, classification and evolutionary phytogeography of flowering plants. He has used scanning and transmission electron microscopy of the earliest known fossil angiosperm pollen grains from rocks of the Lower Cretaceous in this search. Dr. Stephen Schneider, Professor, Astronomy Department, is the co-instructor.

Course Description: Biology 190A (GenEd SI) "Cosmos: From the Origin of the Universe to the Evolution of Life and Intelligence" is a team-taught course with faculty from Departments of Physics, Astronomy, Geosciences, Microbiology, Biology, Anthropology, Psychology, Computer Science, Philosophy and History. Topics include Cosmic Fundamentals – space, time and relativity; the Universe – cosmology, dark matter and dark energy, origin and evolution of stars, the elements and the solar system; Life – its nature and origin, the microbial world, plants and animals; Intelligence – origin and evolution of biological intelligence, artificial intelligence and robotics. Friday Forums include topics such as Quantum Weirdness: "Nobody Understands Quantum Physics" –Nobel Laureate Richard Feynman, and The Grandest Finale: How Will It All End? Begun as a small (25-student) honors course in 2002, it evolved into a large (200-student) general education course for all students by 2008.

Salem State College, Salem:

<u>Instructor</u>: Hope Benne, Adjunct Professor, History Department (bennekh#msn.com). Dr. Benne specializes in Asian history, particularly Southeast Asia, and Peace History. She is working on a book titled, *The World History of Peacemaking*. She has taught Big History for 15 years.

Course Description: HIS 101 "World History I" is a freshman course and, along with HIS 102 "World History II," forms a required sequence for all graduates. The goal is to explore factors that have affected humankind from the Big Bang to now and into the future. Some of these factors include the evolution of the universe and solar system, the emergence of life on Earth, and the behavior and lifeways of primates. Books used are *Maps of Time* by David Christian, *Big History: From the Big Bang to the Present* by Cynthia Brown, *The Human Venture* by Anthony Esler, *Ways of the World* by Robert Strayer, and *Cosmopolitanism: Ethics in a World of Strangers* by Kwame Anthony Appiah.

Michigan

Grand Valley State University, Allendale:

<u>Instructor</u>: Craig Benjamin, Associate Professor, Department of History and Meijer Honors College (benjamic#gvsu.edu). Dr. Benjamin specializes in ancient Central Asian history, world historiography, world history teacher-training and Big History. His most recent book on ancient Central Asian nomads is: *The Yuezhi: Origin, Migration, and the Conquest of Northern Bactria* (Brepols Silk Roads Studies XIV, 2007). He has taught Big History in Australia and the United States for 14 years, and is currently writing a Big History textbook for McGraw-Hill, with Cynthia Brown and David Christian.

Course Description: HST 101 "An Introduction to Big History" looks at the past on the largest possible time scale: it begins with the latest scientific account of the origins of the universe, and goes on to describe the origins of stars and planets, of life on earth, the emergence of human beings, and the various types of human societies that have existed up to the present day. Ultimately the course encourages us to consider our place in the global world of the twenty-first century, and to think of how we might contribute to the future of that world.

University of Michigan, Ann Arbor:

<u>Instructor</u>: Douglas Northrop, Associate Professor, Department of History, and the Department of Near Eastern Studies, (northrop#umich.edu). Dr. Northrop is a specialist on the modern history of Central Asia, focusing on questions of empire, culture and environment. His first book investigated the struggle over Muslim women's veils in early Soviet Uzbekistan, while he is now writing a comparative study of natural disasters along the Eurasian frontier.

<u>Course Description</u>: History 239 (cross-listed with Geosciences) "ZOOM: A History of Everything" is an interdisciplinary course in Big History that integrates the human story with its terrestrial and cosmic surroundings. The course focuses on two key themes: 1). Scale, by "nesting" each topic and disciplinary perspective within its predecessor, from cosmic groups of galaxies through the solar system and our own planet to questions of biology, life and the human experience; 2). Complexity and connection, showing how the Universe and Earth have their own histories, which began with the Big Bang, and that

these histories have been characterized by the emergence of more complicated aggregations of atoms, molecules and elements. Yet, just as stars and galaxies ultimately face collapse or a slow demise (via entropy), so human society confronts a range of resource challenges that are difficult to deny or overcome.

Missouri

Washington University, St. Louis:

<u>Instructors</u>: Ursula Goodenough, Professor, Department of Biology, (goodenough@wustl.edu); Dr. Goodenough and her colleagues study the molecular basis and evolution of life-cycle transitions in the flagellated green alga, *Chlamydomonas reinhardtii*. Michael Wysession, Associate Professor, Earth & Planetary Science (michael@mantle.wustl.edu); Dr. Wysession's research focuses on seismic wave propagation, whole mantle seismic attentuation, and evidence for water in the lower mantle.

Course Description: BIO/EPS/PHYS L41 210A "Epic of Evolution: Life, Earth, and the Cosmos" is a study of the evolution of the Universe, Earth and life, all woven together in a narrative. Themes of complexity, scale, entropy and information are applied to the Big Bang, origins of matter, formation and history of the Earth, origins of life and diversification of species. We study the implications of the scientific epic for religion, philosophy, the arts and ethics.

University of Missouri, St. Louis:

<u>Instructor</u>: Kevin Fernlund, Professor of History and Education, (fernlund#umsl.edu). Dr. Fernlund is the executive director of the Western History Association and was a Fulbright scholar to Vietnam in 2001–2002. Author of *Lyndon B. Johnson and Modern America* (2009) and *William Henry Holmes and the Rediscovery of the American West* (2000), he also edited the 1998 volume of original essays and maps, *The Cold War American West*, 1945 to 1989. His article, "To Think Like a Star: The American West, Modern Cosmology, and Big History," appeared in the Summer 2009 issue of *Montana The Magazine of Western History*.

Course Description: HIS 1999 "Big History: From the Big Bang to the Blackberry" (9 credit hours). Big History is the study of the cosmos, earth, life, and humans in a unified and interdisciplinary way. This course surveys 13.7 billion years, from the Big Bang to the present. We will explore the origins and evolution of the universe, the evolution of life on earth, the emergence of human beings, the creation of complex societies and how they creatively expressed themselves, the impact of these societies on the environment, as well as the future of the planet. Moreover, an important subtheme will be how in Western thought the sciences, social sciences, and the arts (or their intellectual equivalents and antecedents), have—over the past 500 years—fragmented into specializations and then gradually reunited. Building on students' prior knowledge, this course provides a synthesis

of the sciences, social sciences, and humanities upon which students can build their future learning as well as understand their place in the story of the universe. We will 1) listen to guest lectures and presentations; 2) read, discuss and review books and articles; 3) visit local museums and cultural sites of historic, archaeological, literary, artistic and scientific interest; and 4) view select documentaries.

Nevada

Sierra Nevada College, Incline Village:

<u>Instructors</u>: Daniel O'Bryan, Professor, Associate Provost (<u>dobryan@sierranevada.edu</u>). Dr. O'Bryan brought Big History to SNC, making it a strong component of the college's core curriculum for undergraduate education. His research interests are in American and European history, historiography, religion, philosophy and theory, and his publications include articles on historical personages as varied as Darwin, Marx, Nathaniel Ward and Buddha:

June Saraceno, Professor, English Program Chair, Founder, Editor and Faculty Advisor of Sierra Nevada Review (<u>jsaraceno@sierranevada.edu</u>). Her book, *Altars of Ordinary Light*, was published in 2007. Her poems and chapbooks have been published widely, including most recently in *Common Ground: A Journal of Contemporary Poetry*.

Robert King, Adjunct Faculty, Contributing Editor for *Journal of Philosophy: A Cross-Disciplinary Inquiry* (rking@sierranevada.edu). Dr. King specializes in Continental philosophy and systems theory, and he has published essays in *Film-Philosophy* and in *Teaching Philosophy*. He is currently at work on a book-length study examining concepts of systematicity in the historiography of Big History.

<u>Course Description</u>: CORE 301 "World Civilizations" offers a comprehensive review of world history from the Big Bang to the present, employing large interlocking movements of Big History to cover all aspects of human culture and civilization. The traditional chronological periods from the Stone Age to the present are examined through the connecting factors of chance encounters, kinship, friendship, worship, rivalry, enmity, economic exchange, ecological exchange, political and military cooperation and competition.

New York

New York University, New York City:

<u>Instructor</u>: Michael Rampino, Professor, Department of Biology & Environmental Studies Program (<u>mrr1@nyu.edu</u>). Dr. Rampino has been teaching "History of the Universe from Big Bang to Big Brain" for more than 30 years. His background is in Geology and Earth History.

<u>Course Description</u>: V360210 "Evolution of the Earth" covers the cosmic, geological and biological history of Earth. The subject matter includes the astronomical context of planet Earth; the origin of Earth and other planets; what makes a planet habitable; the major highlights in Earth's development; and the origin and evolution of life and intelligence. The course combines lectures, videos, and visits to the American Museum of Natural History.

Oregon

Portland State University, Portland:

<u>Instructor</u>: Todd Duncan, Adjunct Research Professor, Center for Science Education (<u>duncan@scienceintegration.org</u>). Dr. Duncan is also director of the Science Integration Institute (a nonprofit organization helping to connect human experience to a cosmic perspective). He holds a Ph.D. in astrophysics from the University of Chicago and is author of *An Ordinary World: The Role of Science in Your Search for Personal Meaning* and coauthor of *Your Cosmic Context: An Introduction to Modern Cosmology*.

Course Description: "Our Cosmic History" began as a public lecture series in 2008-2009, funded by the Oregon Department of Education. It provides a big-picture context for science and history in K-12 education. This perspective on who we are, where we came from, and where we're going is perhaps more important now than ever, as we make decisions that affect the fate of our species and our planet. But this broad perspective is difficult to achieve, particularly within today's formal education system. This lecture series is designed to complement and support existing formal education by combining a unified scientific account of how things came to be as they are, with guidance on how to incorporate these insights into classroom units. Now entering its third year, the series is being transformed into a course that will be available both as a free public lecture series and for continuing education graduate credit. "Our Cosmic History," Portland State University: (http://oregonteacherscholars.pbworks.com/Our+Cosmic+History).

Pennsylvania

Villanova University, Villanova:

<u>Instructors</u>: Lowell Gustafson, Professor, Political Science Department, (lowell.gustafson#villanova.edu). Michael Zimmerman, Adjunct Professor, Biology Department (michael.r.zimmerman#villanova.edu).

<u>Course Description</u>: Social Science 1000 (SSC 1000-001) "Becoming Human–Becoming Social."

Texas

Southern Methodist University, Dallas:

<u>Instructor</u>: John Mears, Associate Professor, History Department (jmears#smu.edu). Dr. Mears began his career studying the emergence of standing professional armies in early modern Europe, as well as comparative revolutionary movements. His growing awareness of how global forces transformed the context of human existence in the 20th century motivated him to make World History a primary area of concern. His view of larger contexts continued to expand, which led him to Big History. He served as President of the World History Association (1994–1996).

<u>Course Description</u>: HIST 1301 & 1302 "World Cultures & Civilizations" is a year-long introductory course for undergraduates. The larger cosmic and evolutionary parts of Big History are directly used in the first half of the first semester, in order to create the largest conceivable context within which to place the human historical experience. The course is then structured around three great transformations of human history: the Upper Paleolithic takeoff, the origins of agriculture and urban life, and the global integration of human societies in recent centuries.

Courses with a Focus on Aspects of Big History, Expanded World History Courses, Public Seminars, Projects, Etc.

Australia

Australian Capital Territory

Australian National University, Canberra:

<u>Researcher</u>: Graeme Snooks, Coghlan Research Professor of Economic History, and Director, Global Dynamic Systems Centre, Research School of Economics, Institute of Advanced Studies (graeme.snooks#anu.edu.au). Dr. Snooks began his academic career as an economist and economic historian, but now focuses on the construction of social and biological theory using the historical method (induction).

Homepage for Graeme Snooks: (http://caligula.anu.edu.au/~snooksweb/).

<u>Project</u>: For the past 20 years Graeme Snooks has been developing a general dynamic theory (dynamic-strategy theory) to explain the emergence, development and future of life in general and humanity in particular. In short, it is a theory of Big History. It has also provided a new approach – a demand-side approach – to the theory of complex systems. This large-scale project has resulted in a dozen books and many articles in journals, such as *Advances in Space Research, Complexity, Social Evolution & History*, and *Globalization Studies*. Currently, this work is being conducted in the Global Dynamic Systems Centre at the Australian National University.

Global Dynamic Systems Centre: (http://econrsss.anu.edu.au/GDSCpapers.htm).

Victoria

Swinburne University of Technology, Melbourne:

Researcher: Joseph Voros, Senior Lecturer in Strategic Foresight, initially of the former Australian Foresight Institute, now part of the Faculty of Business & Enterprise (jvoros#groupwise.swin.edu.au). Dr. Voros began his career as a theoretical physicist with interests in mathematical extensions to General Relativity and the foundations of quantum theory. His interests broadened into the interaction of technology and society, and ultimately into thinking systematically about the future of humankind. He has been teaching in the Master of Strategic Foresight (MSF) at Swinburne since 2003. His research interests are broadly multidisciplinary, and are always champing at the bit to go into new areas of inquiry.

University biography page: (www.swinburne.edu.au/business/staff/directory/jvoros.html).

<u>Courses</u>: Many of the subjects taught in the Master of Strategic Foresight (MSF) contain or make use of macro-models of human development, including macrohistory. One particular two-hour class grew over the years into two journal articles listed elsewhere. One of the main framing models for the MSF uses the "integral approach" of the American philosopher, Ken Wilber, which seeks to combine the insights of all disciplines and human knowledge traditions into a single coherent picture of human evolution – from the Big Bang to today's global information and techno-economic system and even beyond. The model seeks to unify, at the level of "orienting generalisations," the insights of the physical sciences, social sciences, humanities, arts and spiritual traditions. It is a very useful map of both the territory and the map-maker, and currently represents one of the broadest macro-framing perspectives of which we are aware.

The Master of Strategic Foresight (MSF) course information can be found at: (http://courses.swinburne.edu.au/Courses/Master-of-Management-(Strategic-Foresight)-B MSF640/postgrad).

Canada

British Columbia

Simon Fraser University, Burnaby:

<u>Instructor</u>: Luke Clossey, Assistant Professor, Department of History (clossey#sfu.ca). Dr. Clossey works on early-modern world history, with a focus on religion.

<u>Course Description</u>: HIST 130 "Modern World History: Little Big History" is a survey of world history from the beginning to the end, with an emphasis on the period from ca. 1405 C.E. to the present. It is book-ended with initial and final lectures that seek to cover all of time, but from a Buddhist cosmological perspective, with links to modern science and other creation/destruction "myths."

Ontario

University of Western Ontario, London:

<u>Instructors</u>: William Turkel, Associate Professor, History (wturkel#uwo.ca). Dr. Turkel's research and teaching integrates traditional historical methods (Big History; history of science, technology, environment and medicine) with computational techniques, physical computing and desktop fabrication. He is the author of *The Archive of Place* (2007). See (http://williamjturkel.net).

Rob MacDougall, Assistant Professor, History (rmacdou#uwo.ca). Dr. MacDougall studies the history of the late 19th and 20th century United States, with a special interest in the human histories of American technology and business. His first book tells the story of two intertwined technologies that rose to prominence in the late 19th century: the long-distance

telephone and the nation-spanning corporation. His current research is on the history of American "pseudoscience" and "crank" inventors, and the changing place of technological expertise in a democratic nation. See (http://robmacdougall.org).

Course Description: History 1805E "Science, Technology and Global History." This course will introduce students to Big History, which uses the tools of scientists, social scientists and historians to unite traditional history with the deep past of our species and our planet. We begin with the Big Bang and go all the way to the future. We examine the past at different scales, from microscopic bacteria to human beings to thousand-year empires. We ask how the history of science and the world look different when viewed from India or China or Africa, from Renaissance Europe or ancient Greece. We consider alternate histories—what if things had happened differently?—and alternatives to the modern university and its disciplines. We talk about ways to end all life on earth and consider how science and history might help save the planet. Above all, we argue against the separation of history and science, discovering how science and technology have always been shaped by human history and vice versa. And we do all that in one lecture a week! See (http://www.robmacdougall.org/1805/).

Russian Federation

Moscow Region

Russian State University for the Humanities, Moscow:

Instructor: Andrey Korotayev, Senior Research Professor, Institute for African Studies and Oriental Institute of the Russian Academy of Sciences, as well as Professor and Departmental Chair at the Russian State University for the Humanities (akorotayev#gmail.com). He is also a coordinator of the Russian Academy of Sciences' Presidium Program, "Complex System Analysis and Mathematical Modeling of the World Dynamics" (with Askar Akaev and Georgy Malinetsky). Dr. Korotayev is originally a historian of Arabia; he subsequently did research in quantitative cross-cultural anthropology, general theory of social evolution, and mathematical modeling of the World System development. Together with Leonid Grinin and Alexander Markov he has studied regularities that are common both for biological and social macroevolution, and developed a number of mathematical models that are applicable for both types of macroevolution. They are founders of the "Evolution" almanac dedicated to the studies of the universal evolution, and thus closely connected with the Big History.

<u>Course Description</u>: "Mathematical Modeling of the World System Development" deals mainly with the evolution of the human World System; yet, the course relies heavily on the parallels with the biological macroevolution, and thus has a clear Big History perspective.

<u>Instructor</u>: Dmitri Bondarenko, Professor, Center of Social Anthropology (dbondar@hotmail.com, dmitrimb@mail.ru). He also serves as Vice Director for Research of the Institute for African Studies in the Russian Academy of Sciences. Originally an anthropologist and historian of Sub-Saharan Africa, Dr. Bondarenko has conducted field research in a number of African countries, done research into general theory of social evolution, theory of political

processes, World & African History dynamics, Complexity & Global Studies, and intercultural relations, including the variable opportunities of ethnicity and religion in the contemporary world. He is author of over 300 publications, including five monographs. Together with Leonid Grinin and Andrey Korotayev, Dr. Bondarenko co-founded and edits the journal, *Social Evolution & History*, in which articles and editions devoted to Big History regularly appear.

Course Descriptions: "Political Anthropology" is devoted to study of evolution in relations between individuals, society and power structures through time and space, i.e., from the most ancient times to the present day and in all culture areas. "History & Anthropology of Sub-Saharan Africa" covers all major periods of African history, combining descriptions of African history as part of World History, with analysis of the main aspects of culture dynamics (social institutions, religion, etc.). In "The History of Anthropology," attention is paid to parallels and interrelations between social and biological evolution, and how they contribute to the formation of the discipline and have been assessed and reassessed throughout its history. All these courses have a Big History perspective—history on a large scale across long time frames through a multi-disciplinary approach.

Lomonosov Moscow State University, Moscow:

<u>Instructor</u>: Alexander Dmitrievich Panov, Senior Researcher, Skobeltsyn Institute of Nuclear Physics (panovenator#gmail.com).

Course Description:

The Paleontological Institute, Russian Academy of the Sciences, Moscow:

<u>Instructor</u>: Alexander Markov (markov_a@inbox.ru).

Course Description: *

Volgograd Region

Volgograd Center for Social Research, Volgograd:

<u>Instructor</u>: Leonid E. Grinin, Senior Research Fellow, Volgograd Center for Social Research. He is also an editor of the "Evolution" almanac (dealing with Universal Evolution/Big History), and such journals as *Social Evolution & History* and *Journal of Globalization Studies* (both of them are regularly featuring articles on Big History). Dr. Grinin is originally a specialist in the theory of historical process and social evolution. Together with Alexander Markov and Andrey Korotayev he has studied regularities that are common both for biological and social macroevolution, and produced an exhaustive list of such regularities.

<u>Course Description</u>: In collaboration with Sergey Malkov and Andrey Korotayev he is developing a course in mathematical modeling of the World System development (with

USA

California

California State University, Fullerton:

<u>Instructor</u>: Jonathan Markley, Assistant Professor, History Department (jmarkley#fullerton.edu). Dr. Markley's focus is on ancient history, specializing in Roman and Chinese studies. His work deals with both civilizations' relations with "barbarians" and on the historiography in both parts of the world. He teaches courses on both ancient Rome and China, in addition to world history. His book, *Peace and Peril, Sima Qian's Portrayal of Han-Xiongnu Relations*, will appear in the Silk Road Studies series, published by Brepols next year. He is currently working on a "Big History of Grass," a project that covers the period from the first evolution of grass to the present day.

<u>Course Description</u>: History 110A "World Civilizations to the 16th Century" is a general education course, and has a large number of sections. A large measure of freedom is given to instructors on how to pursue standardized learning goals, so only the sections taught by Dr. Markley can properly be characterized as "Big History." The course begins with the Big Bang and progresses to the advent of the human race. More attention has to be paid to different human civilizations than in many Big History courses, but emphasis is placed on bigger factors, such as the impact of the evolution of grass, volcanism, plate tectonics, ways in which human societies can be characterized as symbiotic or parasitic.

<u>Course Description</u>: Dr Markley is in the process of developing "The Big History of Grass," which will trace the story of grass from its evolution c 90 mya, through the evolution of specialist grass consumers, to its domestication of humanity (not the other way around), to the emergence of the pastoralist/agriculturalist divide, to its growing importance both now and into the future.

California State University, San Marcos:

<u>Researcher</u>: Alex Moddejonge, Graduate Researcher, (modde001#cougars.csusm.edu). Mr. Moddejonge is currently writing a Master's thesis on the intellectual and pedagogical development of Big History as a field.

<u>Project Description</u>: This project is to create a history of Big History – a narrative and annotated historiography called, *The Biggest Story Every Told*: *The Development of Big History, 1989-2009*. First, I will determine a working definition of what Big History is; then a chronology of big history's evolution since 1989 will be drawn through sketches of the academics teaching such courses and the kinds of diversity existing within the field. Connections to the intellectual antecedents of big history – world history, environmental history, macro-history, universal history, and cosmology – will then be established. The view of historians outside the field, of general reviewers, and of readers will be considered to provide context. Finally I will offer my own critiques of Big History, draw links to

certain intellectual trends in the past two decades (notably environmentalism, cosmopolitanism and secularism), and speculate further on its future as a field. (Attached at the end of this Directory is a research request form).

<u>Researcher</u>: John West, Graduate Student, History, (west038#cougars.csusm.edu). Mr. West has developed a website titled, "Zooming In and Out of History," which is located at (http://public.csusm.edu/west038/index.html). It provides background information on Big History and includes a video tour of Big History courses, projects and professors that was derived from an early version of this Directory.

<u>Project Description</u>: The website will combine traditional argument with progressive web-design to demonstrate that Big History's wide lens view enhances the comprehension of other genres of professional history through contextualization. Furthermore it will expose novel historical patterns revealed via the Big Lens approach. The analysis will explore the impacts of micro and environmental histories at the time of their development while placing them within the context of the whole of the past. I intend to demonstrate the unity between micro history and the multiple disciplines of Big History. As an example I will explore the evolution of human and civilization, by retracing Carlo Ginzberg's Mennochio, the 16th Friulian miller, and his nemesis, the Italian Inquisition.

http://public.csusm.edu/west038 (under development).

Menlo College, Atherton:

<u>Instructor</u>: Jeremy Neill, Assistant Professor, History Department (jneill#menlo.edu). Dr. Neill specializes in gender, imperialism and historiography.

Course Description: HIS 189 "Human Society & the Natural World" is a broad survey of the relationship between humanity and natural forces, what historians today refer to as Big History. We examine relationships between resources; climate change; interaction with other species; migration; and the development of human societies – how people changed their environment and how environments changed people. An emphasis is placed on relationships between differing environments and the means by which human societies have coped with them. Most importantly, students are asked to think in long-term and large scales. The course is broken up into three units: 1). The development of complex societies, 2). The downfall of complex societies, 3). The germs and seeds of industry. The Big History Course is taught as part of the Ethical and Environmental awareness theme within the business management degree program.

Colorado

Colorado Mountain College, Summit Campus, Breckenridge:

<u>Instructor</u>: G. Siegfried (Sig) Kutter, adjunct faculty member (skutter#colorado.net). Dr. Kutter is an astrophysicist who has been affiliated with the University of Virginia, NASA's Goddard Space Flight Center, and The Evergreen State College. His research

has focused on hydrodynamic events in stellar evolution. Additionally, he managed grants programs in the Astrophysics Division of NASA Headquarters and the Division of Astronomical Sciences of the National Science Foundation; and he was employed as Senior Scientist in the aerospace industry. He has published two science texts and a popular book on fitness and nutrition. One of his science texts, *The Universe and Life: Origins and Evolution* (1987), was influential in the founding of Big History.

Course Description: Astronomy I "The Solar System" and Astronomy II "Stars, Galaxies, and the Universe" are introductory courses intended mainly for Liberal Arts majors. The first of these two semester-long courses focuses on the history of astronomy; the tools of the astronomer; the contents of the solar system, including the planets, dwarf planets, moons, asteroids, comets, and meteoroids; and orbital mechanics. The second course emphasizes the structure and life cycle of the stars; the sun; galaxies, their distribution across cosmic space, and galaxy collisions and evolution; and the universe as a whole, including cosmology and relativity. Both courses incorporate laboratory experience. The principal text resources are weekly notes developed and kept up-to-date by the instructor and posted on the college's website. Additional resources are a selection of current web and print articles.

Illinois

Illinois State University, Normal:

<u>Instructor</u>: Thomas Burr, Assistant Professor, Department of Sociology & Anthropology (tburr#ilstu.edu). Dr. Burr researches the institutional foundations of consumer markets, long-term globalization and the evolution of human societies.

Course Description: SOC 220 "Global Social Change: An Introduction to Macrosociology" focuses on human social evolution. Drawing on archaeology and ethnology, social psychology and macrosociology, world history, international relations and macroeconomics, this class focuses on the expansion and increasing complexity of societies of one species, *Homo sapiens sapiens*, over the last ten millennia. It starts with the simplest human societies, foraging bands, and analyzes changes such as the Neolithic Revolution, the rise of the state, and the global expansion of Europe in the modern era. These changes have led to horticultural and pastoral tribes and chiefdoms; horticultural, pastoral, and agrarian states; industrial capitalist states; the development of the current global social system; and post-colonial, "developing" societies.

Lutheran School of Theology at Chicago, Chicago:

<u>Instructors</u>: A diverse panel of scholars and professors teach this course. They come from the University of Chicago, Northwestern University and other institutions. Big Historian Ursula Goodenough of Washington University in St. Louis (see above) has taught there.

<u>Course Description</u>: LSTC T-456 "The Epic of Creation: Scientific, Biblical, and Theological Perspectives on Our Origins" is offered as a public lecture series and as a graduate level seminar. It has been offered since 1989 and is unique in the United States. It is sponsored by the Zygon Center for Religion and Science.

Epic of Creation: (http://www.zygoncenter.org/epic.html).

Maine

University of Southern Maine, Lewiston:

Instructor: Barry Rodrigue.

<u>Course Description</u>: HUM 498 "Global Future: Reflection & Action" serves as a sequel to the survey course on Big History, LCC 350 *Global Past, Global Present*. Although it also provides a survey of Big History, through the use of Fred Spier's *Big History and the Future of Humanity*, it is more of a course on applied Big History – on the challenges of modern society and the quest to bring about a sustainable future. In other words, it is a primer on how we can become good global citizens once informed by the paradigm of Big History.

Massachusetts

Harvard University, Cambridge:

<u>Instructor</u>: Daniel Lord Smail, Professor, Department of History, (smail#fas.harvard.edu). Dr. Smail's research concentrates on medieval subjects ranging from law, violence, and space to politics, conquest and colonization. He also addresses deep history or early global history. His book, *On Deep History and the Brain* (2008), tackled issues associated with deep history. A long-term project is to write a deep history and, to this end, he works with a group of historians, anthropologists, archaeologists and other paleohistorians to define some of the domains around which deep historical narratives can coalesce.

<u>Course Description</u>: History 70c "Topics in Natural History" is an undergraduate reading seminar aimed at students majoring in history. The course focuses on series of domains in which it is possible to envision a deep human history. Major themes, covered on a weekby-week basis, include: expansion and diaspora; biology and culture; sex and reproduction; language and gossip; material culture; food and diet; politics and status; environment and ecosystems; brain and behavior; and demography. An additional goal of the course is to explore the philosophy and methodology underlying a deep history of humanity.

Texas

Southern Methodist University, Dallas:

<u>Instructor</u>: John Mears (see above). Big History Directory

<u>Course Description</u>: I contribute a series of seminars to a supporting field my department calls global and comparative history. Its purpose is to place the American experience into larger historical contexts and provide broad interdisciplinary perspectives on particular topics of global significance. My three seminars are entitled Global and Comparative History: Methods, Concepts, and Theories (HIST 6315), Confrontations and Connections: World-Historical Borderlands in Comparative Perspective (HIST 6316), and Modern Revolutions in Comparative Perspective (HIST 6347). My approach in all three of these seminars, but especially the first one, is influenced directly or indirectly by the assumptions and purposes of Big History.

Public, Private & Community Projects Involving Big History

Netherlands

Noord-Holland

<u>Frank Niele</u> (Frank.Niele#shell.com) is a senior research scientist at the Royal Dutch/Shell laboratories in Amsterdam and a member of the global Shell coalition for radical innovation. He joined Shell in 1988 with a Ph.D. in Chemistry from Utrecht University and has worked on a variety of exploratory research topics in the fields of homogeneously and heterogeneously catalysed industrial properties. Dr. Niele has a long-standing interest in sustainable development and his main interest has shifted to the search for innovative pathways towards a sustainable energy future. In his explorations of the future, he incorporates evolutionary insights from the past 4.5 billion years and fuses perspectives from the natural and social sciences.

Jos Werkhoven (JosWerkhoven#DeArend.nl) is an educator based in Kortenhoef. For thirty years (1972 to 2002), he served as a Montessori teacher, director, trainer, supervisor and developer of educational materials. Since 1995, he has run his own publishing house, from which he produces educational material in the spirit of Dr. Maria Montessori. Besides publishing, Mr. Werkhoven is active with the development of new educational material. He works with Montessori professionals to develop material for mathematics for primary education, as well as for language. He is working on a book of his ideas about modern education based on "Cosmic Education". At the same time, there will be work on a new part of the Lines of Life – the Line of Evolution. He still teaches and supervises Montessori teachers and is involved at primary Montessori schools. His aim is the enhancement of "Cosmic Education" (the name of Big History in Montessori education).

United Kingdom

Merseyside

David Hookes (davehookes#aol.com), University of Liverpool, is a Physicist and Molecular Biologist, whose early research focused on molecular and transport structures of bio-membranes. He later expanded into Digital Electronic Engineering and began investigation of bio-sensors, robot tactile sensing, and computer-interactive educational technology. This led to development of a "Physics-is-Fun" workstation and an open-source patent initiative. After retirement, he became an Honorary Senior Research Fellow at Liverpool University's Computer Science Department. His present research involves questions on how to save the planet from global warming, renewable energy technologies, application of ideas from physics to political economy and computer networks, computer-interactive educational technology, and foundational problems of physics. A Big Historian, Dr. Hookes engages in public discussion at numerous global venues, from the Russian Academy of Sciences and the World Social Forum to the Praxis Research & Education Group and the Liverpool Dock Workers Union.

United States

Arizona

Erika K.H. Gronek (erikakay#gmail.com) is an educational technologist, web-designer, film-maker and children's book writer-illustrator. She holds a B.A. from Arizona State University in Political Science and Anthropology, as well as an M.A. in Educational Technology Leadership from George Washington University. Her creative work started in web-design in 1997, then merged into photography, film-making and education. She also worked as an educational technologist for the Institute for Supply Management in Tempe, Arizona for 6 years and taught at the Art Institute of Phoenix. Her volunteer work includes video editing for The WILD Foundation, as well as photography and web design for The Harvard Club of Phoenix. She lives in Phoenix, Arizona with her husband and son.

Addendum



Information Sheet

The Biggest Story Every Told: The Development of Big History, 1989-2009

Invitation to Participate and Purpose of Research

Alexander Moddejonge, a graduate student at California State University San Marcos, is conducting a study on the development of Big History. You are invited to participate in this study because you teach or have taught a course related to Big History or have written on the subject.

Procedures/Activities

If you agree to participate in this study, you will be asked to answer the following questions:

- 1). What is your academic background and how has it led you to big history?
- 2). How did you construct your course in big history? This includes the administrative, pedagogical, and intellectual details involved in such an effort.
- 3). Explain who the target audiences of these courses and/or writings are?
- 4). How is your version of big history similar to or different from other versions?

Further questions may be asked based upon your answers to those above or based on other sources of information (such as your writings on the subject).

Risks and Inconveniences/Benefits

There are potential risks involved in your attribution of certain information relating to reaction of fellow faculty members and administration to your Big History course or opinions on other Big History courses. The time taken to answer these questions may pose a potential inconvenience. Potential benefits include the dissemination of your views on Big History and the specific of how you teach such a course. This could have an influence both on the development of Big History as a field and on its pedagogy.

Safeguards, Confidentiality, and Voluntary Participation

Participation in this study is purely voluntary. If you do not wish to be involved or wish to withdraw you may do so at anytime. Any information you have divulged will be excluded from the final project. If you do wish to participate interview will be conducted via email. This will minimize any inconveniences by allowing you to answer questions at your leisure. I will forward a draft for verification of accuracy prior to publication.

Questions

This study has been approved by the California State University San Marcos Institutional Review Board (IRB). If you have questions about the study, you may direct those to me at:

Alex Moddejonge at 760-473-1023, (modde001@cougars.csusm.edu), or Peter Arnade, Professor of History, CSUSM, (parnade@csusm.edu).

Questions about your rights as a research participant should be directed to the IRB at (760) 750-4029.

¹ The Dussian Academy of Coion

¹ The Russian Academy of Sciences' Fifth International Conference on *Hierarchy & Power in the History of Civilizations* was held in Moscow (Russian Federation) on 23–26 June 2009. The Big Historians at the event included Fred Spier, Akop Nazaretyan, Andrey Korotayev, Leonid Grinin, Alexander Markov, Alexander Panov, Esther Quaedackers, and Barry Rodrigue.

² Some scholars arrived in Big History as a result of training in multiple disciplines. For example, Fred Spier and Barry Rodrigue did their undergraduate work in biology, but moved into anthropology/geography and history in graduate school, along with large amount of ethnographic field work in remote areas.