Discovering Big History
Discovering Big History: An Unorthodox Journey

Robert Moore's first person narrative explores a religiously conservative young man's journey through decades of evolving complexity to Big History. A graduate of a southern military boarding school and a Presbyterian college, he served as a U.S. Army Captain on West Point's faculty. After becoming a tenured professor at the University of Maryland, Robert left academia and eventually became a senior executive of a global corporation. He has been an advocate for Big History since 2007.

A Southern Heritage

Growing up in the coal mining and farming community of Madisonville, Kentucky, did not seem to offer a promising start for a boy and girl who would go on to become university professors. But, for Cynthia Stokes and me, it was a useful point of departure.

We lived one block from each other and attended the same public schools. Cynthia Stokes Brown, as she is now known, was two grades ahead. Her brother Jimmy was one of my best friends, and I was constantly in and out of the Stokes home. Among my earliest childhood memories are the distinct differences between Mr. and Mrs. Stokes and other Madisonville parents.

The Stokeses were “Northerners.” In the view of their neighbors, they were nice enough folks – but not from around here – not one of us. Cynthia discusses this “otherness” in her “Preface” to Big History: From the Big Bang to the Present (2007). Recalling that our hometown gave her a “bicultural experience right inside the USA,” she notes that her father, Bud Stokes, “assimilated as thoroughly as he could” into a strange southern culture.¹

Conversely, mother Louise “clung to her native Wisconsin customs and values.” Cynthia writes that “multiple perspectives” of North and South were an indelible aspect of her Kentucky years before leaving to attend Duke University.²

The Stokes family offered me a bicultural experience. I related more easily to them than to native Kentuckians. This empathetic connection was confusing and perplexing. Why was I drawn to outsiders? Cynthia’s family had a worldview that was nuanced.

For them, life was not as simple and straightforward as it was for my parents and their friends – particularly on pivotal matters such as race, religion and education. Their different ways of thinking were intriguing, and a bit scary.

As Cynthia notes, “identifying with my mother, I never felt part of the South.” In the early 1930s, Louise Bast Stokes, had been a middle-school biology teacher.
Cynthia describes her as having broad “intellectual interests” ranging from “astronomy through geology and biology to world religions.”

To my mother and her friends, Louise Stokes was essentially an alien being. She was better educated than most, and locals agreed that she held strange views; however, it was NOT generally known that she “accepted evolution as the underlying principle of life” or that she taught Cynthia that it was essential to see the living world through the lens of evolution.

Charles Darwin’s findings, along with their implications for understanding planetary history and humankind, were a bridge too far for me in the 1950s. It was not the “underlying principle of life” that was being taught every Sunday in Madisonville’s Baptist, Methodist, Disciples of Christ, or other churches. Sadly, Catholics and Jews were not welcome in many small southern towns during that era. There were no Catholic churches or Jewish synagogues in our hometown.

Echoes of war and Southern history reverberated through the lives of Madisonville children. Our town is the county seat of Hopkins County, named for General Samuel Hopkins, a Revolutionary War veteran and early settler. The courthouse lawn features a twenty-five foot high memorial, constructed in 1909, topped by a Confederate soldier in battle regalia.

Race & Religion

Despite an immersion in Protestant dogma, Cynthia’s family inadvertently encouraged my receptivity to levels of complexity – an evolving state of mind that would be helpful in working through racial and religious prejudices. Although Cynthia’s mother laid essential groundwork for her coming to see Big History as a natural way of thinking, my path was much more circuitous.

Some of my most formative experiences as a child were with Mrs. Ola Graham, our family’s African-American cook and housekeeper. Although Ola Graham was subservient to dominant white culture, she was a strong woman and a nurturing presence who offered the unconditional maternal love that a child craves.

Ola was an outsider – like the Stokes family. Through identifying with her and with Cynthia’s family, I increasingly saw myself as different – as an insider who was, in truth, an “outsider.” This self-definition was reinforced as a freshman after my parents were divorced during my time as a military school cadet at McCallie on Missionary Ridge in Chattanooga, Tennessee. Divorce was simply not done in the 1950s in my extended family or within our circle of friends.

My confusion was further compounded when classmates chose me as their religious leader and I served as President of the Young Men’s Christian Association, a major campus organization in the 1950s. The all-male school’s motto was: “Man’s chief end is to glorify God and enjoy Him forever.” After graduating from McCallie in 1958, I struggled to integrate conflicting thoughts and feelings about family, race relations, religion, and southern culture.

Operation Crossroads Africa

During college years at Davidson in North Carolina from 1958 – 1962, I was increasingly preoccupied with arguments about segregation and concerns about relations between blacks and whites. It was the early days of the Civil Rights Movement. The Student Nonviolent Coordinating Committee (SNCC) was yet to be founded, and Dr. Martin Luther King was several years away from writing his landmark “Letter from Birmingham Jail.”

Perceptions about racial injustice were heightened by service as an officer of a progressive college YMCA group. Religious inclinations lead me to take to heart Jesus’ teachings of love, compassion, and good will. It was troubling how seldom these teachings were reflected in the behavior of most whites, particularly in their treatment of our black neighbors.

In 1960 I received a fellowship from New York-based Operation Crossroads Africa (OCA). Its goal was to build bridges of friendship and understanding between young Americans and young Africans. Lead by Dr. James H. Robinson, an African-American Presbyterian clergyman, OCA aggressively recruited college students of various races and ethnicities for African work projects.
Dr. Robinson enjoyed considerable recruiting success, especially among Ivy League schools, but attracting black or white students from the South was another matter. Finding white students in 1960 who were willing to participate in an integrated group, especially one going to Africa, was daunting. However, I saw the fellowship as a constructive and exciting opportunity, much to my parents’ embarrassment and chagrin.

In 1960, OCA sent 183 students to ten West African countries in groups of twelve to fifteen. “Crossroaders” began with a week of orientation in New York City at Union Theological Seminary and the United Nations. This was followed by training in Paris, Monrovia, Accra and Cotonou (Dahomey) before my group was sent to the Atlantic Ocean peninsula of Ogonekame near the remote Dahomeyan village of Grand Popo. The “Year of Africa,” 1960, was a historic time for Dahomey and sixteen other African nations that gained their independence from European colonial rule. Dahomey’s day of freedom was August 1, and we were to be guests of the new President, Hubert Maga, at his inaugural celebration. Prior to that grand event, we worked for two months with our African peers and local craftsmen at a school construction site and traveled to other West African countries. (Dahomey was renamed Benin in 1975). The 1960 OCA projects were subsequently studied as “pilot projects” for The Peace Corps, which was officially established in March 1961. OCA is still in operation today.11

This multiracial experience profoundly reinforced my “otherness” from white southern culture and from much of America. I had seen the startling differences in perspectives and societal norms produced by geography and history, as well as by diverse social and political dynamics. This gave me an unsettling and transformative sense of the complexities of the human condition. The world had become an infinitely more complicated and uncertain place.12

The Silos of Academia

During the volatile 1960s I pursued Ph.D. studies in literature and history at the University of Wisconsin - Madison.13 My dissertation brought together different disciplines to probe Nobel Prize laureate William Faulkner’s novels and stories. I also investigated what his fellow Mississippians and other southerners thought about him as well as his work -- with particular focus on his writing as a resource for better understanding the South and its people.

Fortunately, this unorthodox approach was sanctioned by several prominent Wisconsin faculty members, including historian Merle Curti, English Department chair, Walter Rideout, and his young colleague, Thomas Tanselle. Many humanities faculty were dismayed by their engagement with interdisciplinary work, and my idiosyncratic approach sowed the seeds for future professional difficulties.

I left Wisconsin in 1968 to serve as a U.S. Army officer. After initial training, I was selected for a faculty appointment at the United States Military Academy at West Point, which offered yet another intense bicultural experience.

Approximately 90% of West Point’s faculty were Academy graduates and career Army officers. Many were coming to terms with how ineffectual they (and the U.S.) were in Vietnam. Their American worldview had not prepared them to succeed in an Asian culture. They, their fellow soldiers, and the Vietnamese were paying a terrible price for American hubris.14

After West Point, I taught from 1970-1976 at the University of Maryland in College Park, where a growing interest in multicultural and interdisciplinary studies had a paradoxical affect. It made my course offerings popular and lead to my coauthoring a book with historian Joseph Ellis. Our School for Soldiers: West Point and the Profession of Arms was published by Oxford University Press in 1974 and selected as a New York Times “Book of
One of my most popular and controversial courses was a General Honors seminar -- “Writers and Scholars Respond to the Vietnam Conflict.” Students were exposed to alternative views of the War. They read diverse selections, and, when possible, authors came from Washington, D.C., New York and West Point to participate in the seminars.

Students studied the differing perspectives of journalists, historians, Vietnamese citizens, sociologists, disenchanted Vietnam veterans, political scientists, career Army officers and others. After reading and interacting with authors, students learned that their convictions about the Vietnam War tended to change from week to week. Their evolving notion of “the truth” about the conflict reflected the various lenses through which they viewed the war. They learned – firsthand – how it felt to uncover disciplinary biases and discovered that “pertinent facts” could be determined by the disciplinary prism and experience through which “facts” are framed.

Students experienced the disorientation of meeting a journalist, novelist or military officer whose writings they did not like – only to discover that talking face to face with them frequently altered their opinion. Some realized that their majors in discrete academic disciplines were not as broad-gauged as they assumed, and they came to appreciate the limitations of viewing the world through a single discipline. When students carried these discoveries back to their academic departments, most of their instructors were not amused – and fellow professors were even less happy with my course offerings and with me.

Despite tenure as an associate professor on the graduate faculty, I realized that my interests and those of my colleagues were not aligned. An interdisciplinary approach that made sense to me was an anathema to them.

Discovering Big History

In 1977, I resigned from the University of Maryland for Congressional and public sector work. I spent several decades in the private sector as a senior officer of Alexander & Alexander Services Inc. (A&A). We were a 22,000-person risk management consulting company with operations in over eighty countries; this international exposure expanded my understanding of other countries and cultures.

Work at A&A required reporting directly to the Chief Executive Officer, which meant that I was “on call” 24/7. This responsibility took an increasingly heavy personal and professional toll. In the mid-1990s I left the company to focus on research, writing and pro bono work.

In 2007, a childhood friend sent a note reporting that Cynthia Stokes Brown was publishing something called Big History. My wife Pat and I soon began reading Cynthia’s narrative as it ranged over time from the Big Bang to the present. We were riveted by her contention that “history is a part of the scientific undertaking, and there is no sound reason” why it “should be cut into two segments; one labeled ‘science’ and the other ‘history.’”

Cynthia argued, “We need to extend our story backward, for the five thousand years of recorded history tells us only a millionth of the lifetime of Earth. To understand the kind of world we live in and the kind of creatures we are, we must look beyond the written record.”

After years of frustration with conventional academic fiefdoms, this approach...
to integrating information from various disciplines was exhilarating. Pat and I bought copies of *Big History* for our youngest son, his college classmates and others. When I told Cynthia about reactions to her work, she responded in late August of 2007, “I am hoping that interdisciplinary study is coming more into style now than it was for us.” She asked, “Are you in touch with any colleges, institutions that might be fertile ground for a Big History course? We think that there might be only eight to ten worldwide, but there is one Ph.D. program in Sydney, Australia.” Fortunately, through the dedicated efforts of IBHA members and the support of Bill Gates & his associates, these numbers have grown exponentially.

**A Business Perspective on Big History**

In conclusion, I would like to share some reflections about Big History’s future. These comments inevitably mirror scores of interactions with the business community over the last thirty-five years.

First, it is critical to sustain the integrity of Big History’s work product. In managing a Washington D.C. based analytical office, and a New York global communications operation, the mantra for our staff was:

- Let’s do the best work we can.
- Let’s thoroughly document our findings.
- Let’s articulate our story as clearly and as enterprisingly as possible.

Hopefully, Big Historians will follow similar principles in bringing their work to a broader public. Many readers may be hostile to our research and commentary. This should not be surprising. As Fred Spier has noted, our work is “a radical departure from established academic ways of looking at human history.”

Individuals and groups will seek to discredit Big History as our work becomes more prominent. We should be mindful of challengers waiting in the weeds.

Secondly, while we are drawn to studying nuance and evolving complexity, most individuals are not comfortable in that space. They prefer familiarity and simplicity. People tend to compartmentalize, especially when scientific findings and teachings challenge traditional behavior or religious beliefs.

Thirdly, Big History calls upon us to “understand the integrated history of the Cosmos, Earth, Life, and Humanity” and to do so by “using the best available empirical evidence and scholarly methods.” We are encouraged to be adventuresome while upholding the best qualities of scholarly methodology.

Lowell Gustafson has candidly acknowledged, “The big history approach challenges traditional history in content and method.” And, it also asks “other disciplines in the liberal arts” to “redefine” themselves.

While our work may be frequently resisted, there will be opportunities for fair and balanced hearings. And, there will be happy exceptions as Walter Alvarez reported in “The Gentle Art of Scientific Trespassing” in a recent issue of *Origins*. He finds that “crossing disciplinary boundaries” is quite possible and that it can bring “great rewards, both personal and scientific.”

We need to be patient and embrace the long view. It may take a decade or more for the enlightened common sense of Big History’s basic precepts to be widely recognized by a significant number of teachers and administrators. However, there are tangible signs of institutional progress.

For instance, I have been talking with progressive leaders in the independent colleges community and encouraging them to incorporate Big History offerings in their curriculum. As a result of these discussions, Professor Mojgan Behmand and a colleague were invited to make a presentation to The Council of Independent Colleges (CIC) in November 2014. CIC officials reported that their account of Big History’s evolution and description of Dominican University’s experience with curricular development were well received. Interestingly, many CIC schools have
more flexibility with curriculum than most of the country’s more celebrated colleges and universities.28

*Fourthly,* bureaucracies in whatever form -- public or private -- tend to be soul destroying and dysfunctional. In this regard, I concur with Bill Gates’ insight when he told David Christian that the best way to launch Big History was “to go through particular schools.” Gates cautioned, “Don’t try to go through the education bureaucracy. Get particular schools to try this, and get feedback from them.”29

*Lastly,* contemporary media is the most powerful communications resource we have. It is likely that on-line courses and other uses of the Internet will revolutionize American education over the next decade. Developments will be messy, chaotic and painful -- there will be clear winners and losers. We are off to a good start with our IBHA scholars & teachers, as well as The Big History Project and other initiatives, but there is much good work yet to be done.

One of the most promising areas will be developing Big History courses for diverse audiences with a range of skill sets. Obviously, not one size fits all. We will need introductory courses for conventional high school students, others for more advanced secondary school students, as well as different courses for community colleges, four-year colleges, universities, and graduate schools. Additionally, there should be diverse voices representing a range of ethnicities, cultures, and countries.

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**Notes**

2. Ibid., xiv.
3. Ibid., xiii-xiv.
4. Ibid., xiii.
12. An excellent discussion of the impact on “Crossroaders” of the African work experience is Ruth T. Plimpton’s *Operation Crossroads Africa* (New York: The Viking Press, 1962), with a “Preface” by Ambassador Adli E. Stevenson. Ruth Plimpton was the wife of Amherst College President Calvin H. Plimpton and their son David was a member of RHM’s Dahomey work project. See “Acknowledgments,” page viii.
13. A superb account of this tumultuous period in Madison is provided by the Pulitzer Prize winning journalist David Maraniss in *They Marched Into Sunlight: War and Peace, Vietnam and America, October 1967* (New York: Simon & Schuster, 2003).
House, 1988) which won the Pulitzer Prize and the National Book Award. Sheehan and the novelist Tim O’Brien were two of my General Honors guests at Maryland whom students found especially provocative and interesting.


17A&A was acquired by Aon Corporation in 1997 and became part of what is now London-based Aon plc with 65,000 employees in more than 120 countries. Corporate experience gave me a more global perspective and has influenced my pro bono and philanthropic interests, which span a range of disciplines: Founding member, Advisory Council, Mindfulness Practice Center of Fairfax (Thich Nhat Hahn); The Mayo Legacy in Minnesota; Founding member, Board of Visitors for The Dictionary of American Regional English (DARE) (Wisconsin/Harvard University Press); Tanzania Education Fund; Sustaining Fellow, Smithsonian; among others.

18 Brown, xi.

19 A periodic involvement with academic institutions has continued from the 1970s including DARE at University of Wisconsin (1966 - present); Southern Historical Collection, University of North Carolina at Chapel Hill (2007-present); Department of English & Philosophy, West Point (1970-1976 and 2010-2013); Corporate Advisory Board, Queens College, CUNY (1985-1996); Career Opportunities Institute, University of Virginia (1982-1986), among others.

20 Cynthia Stokes Brown email to RHM, August 2007. I recently asked Andy Cook of the Big History Project to provide his best estimate of the schools which are offering Big History Courses in 2015. He replied in an August 6, 2015 email that “>1000 is a good number – that is the core number for our target markets of AU and US. Of the >1000 we maintain a special program for districts and other ‘managed’ accounts which will have >250 schools that we work directly with teaching the program soup to nuts. If you take a global # it’s >1500 but we have no proof of compliance, etc.”


22 Bogardus and Moore, 191.

23 Encouraging a general audience’s interest in Big History is an ongoing challenge but worth pursuing. Many otherwise sophisticated and educated individuals initially respond to Big History as “too extreme” or “too out there.” I have successfully used the “14 Talking Points About Big History” which Cynthia Brown and I published in Origins 4 (October 2014), 26-27. The 14 points succinctly lay out a case that Big History is our shared story—a story based on overwhelming evidence. Thus, understanding ourselves in the context of cosmic and planetary development requires us to engage the known facts of our history.


29 Kate Torgovnick quoting David Christian’s comments to the TED blog, accessed February 27, 2014, http://blog.ted.com/2013/12/03/david-christians-big-history-gets-much-bigger/
The Axial Ages of World History

Lessons for the 21st Century

Ken Baskin & Dmitri M. Bondarenko

Big History and the Stovepipe Implosion

By Ken Baskin
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One of the great joys of studying Big History is the duty – if I can use such an old-fashioned word – to explore alternative ways of thinking. Because Big History pushes us beyond the disciplinary stovepipes of the old Newtonian worldview, it invites us to use new tools to explore exactly those ideas that we thought we’d understood best. In this essay, I’d like to discuss one such approach – how Dmitri Bondarenko and I used tools from a variety of disciplines in our recent book, *The Axial Ages of World History* (2014), to suggest an alternative pattern in the evolution of human cultural evolution.

It’s not that the generally used pattern, grounded in “means of production”, is wrong. The variations on hunter-gatherer, agrarian, and modern/industrial eras, used for example by David Christian in *This Fleeting World*, have produced a rich mélange of insights, profoundly deepening our understanding of cultural evolution. However, by drawing on tools from such disciplines as Complexity Theory or neurobiology, it becomes possible to provoke further insights, especially concerning what we see happening around us today.

Dmitri and I first met in 2006 in Stellenbosch, South Africa, at a workshop on Complexity and Philosophy. I’m a generalist, and Dmitri is an anthropologist. Yet both of us had become fascinated with Complexity Theory, and at the workshop, each of us presented a paper examining issues around applying Complexity Theory to history and anthropology. (See Baskin, 2007 and Bondarenko, 2007.)

When we met again in 2009, we realized that we were both interested in similarities between the Axial Age (c. 800-200 BCE) and Modernity (c. 1500 CE -the present). Both periods, after all, were times of rapid technological innovation, social experimentation in governance and religion, and devastating warfare. Most often, the Axial Age is treated as part of the Agrarian stage of cultural evolution, and Modernity/Industrial as a separate stage. What would happen, we wondered, if we treated these two periods as what Complexity Theory calls “phase transitions,” transformational periods in the evolution of human culture?
For Dmitri and me, the key to our alternative began with several ideas from Complexity Theory. There's good news and bad news in our use of that discipline. The bad news is that, if you set out to make an emerging discipline difficult to approach, you couldn't do a better job than the people who developed Complexity Theory. The name alone makes it sound like a study only slightly more difficult than Quantum Mechanics. And the vocabulary – full of “strange attractors” and “bifurcation points” – is the sort of thing only the mother of a mathematician could love. Finally, there's the non-linear mathematics, which I don't even pretend to understand.

The good news is that Complexity Theory offers the most powerful model of human behavior that I've come across. This discipline emerged in the late 1970s, as researchers in a wide variety of fields modeled their subjects using non-linear math, which makes it possible to represent situations where a small cause can create an enormous effect or a large cause can have little effect. They discovered remarkable similarities in the way phenomena, from colloids to weather systems and ecosystems, behave. If you can penetrate beyond the math, as I worked to do, this new field suggests patterns of behavior that explain human cultural evolution in striking ways. Consider this back-of-the-cocktail-napkin figure I drew nearly 15 years ago when I was trying to understand Complexity Theory:

![Figure 1: Life Cycle of an Attractor](image)

It's actually a pattern you've experienced many times: For example, throw a chunk of ice in a pot on a stove and turn up the heat. It will remain ice until it approaches the melting point and, then, go into a turbulent phase transition, after which it will become water. It will then remain water until it approaches the boiling point, go into a turbulent phase transition, and become water vapor. Water can be in any of these three phases, but it can only be in one at any moment, depending on the conditions of its environment.

Or watch a column of smoke rise from a lit cigarette. First it rises, straight and stable, then becomes turbulent (phase transition), and then stable again. The pattern continues until the smoke dissipates.

I drew this figure to better understand what seemed, even from these two examples, to be a pattern that repeated in many phenomena. However, I soon began to think that this figure had something nearly universal in it. Some readers will recognize Punctuated Equilibrium, the pattern of evolutionary development defined by Niles Eldredge and Stephen Jay Gould more than 40 years ago. I might even have been unconsciously thinking of Punctuated Equilibrium when I drew the figure.

Or think about human psychological development. Each of us begins in a stable state, as a fetus in our mother’s womb. At birth, we enter several years of phase transition, as we figured out how to survive with our parents. The result is the stable state of childhood personality, which each of us takes out into our neighborhoods and hones in our schools. Then, just as most of us start getting comfortable with that personality, we experience the emotional tsunami of adolescence, and find ourselves in a phase transition, which finally ends in the stable state of an adult personality. For most people, this pattern is repeated when we move through a “mid-life crisis” phase transition.

Soon, I was finding phenomena that reflected this basic pattern almost everywhere I looked:
- Michel Foucault’s theory of the evolution of Western Culture in *The Order of Things*;
- Giovanni Arrighi’s theory of the development of Western Capitalism in *The Long Twentieth Century*;
Gerhard Mensch’s examination of the Western cycle of economic depressions and booms in *Stalemate in Technologies*.

What happens in all these instances is similar. When a stable state ends – say, for instance, the end of the great stock market boom of the 1920s – the network of agents, ideologies and technological artifacts within that phenomenon falls apart, and its agents begin to explore their current environment in a transformational phase transition. Those agents continue in that highly innovative period until they find patterns of behavior that enable them to survive. Because these patterns help them survive in more and more situations, the patterns become habits, what people in Complexity Theory call “attractors,” the narrow range of all possible behaviors that come to characterize any phenomenon. Capitalism in 21st century America, Christianity in 12th century Europe, Neo-Confucianism in 15th century China – each of these terms describes the complex of ideas, stories, technologies and behaviors that characterized their societies.

As the environment of any phenomenon changes over time, it continues in its stable state and adapts to those changes. The longer those habits are successful, whether in healthcare or education or government, the deeper the relationships based on them become. If these habits continue to be successful long enough, people can find themselves depending on them to support their sense of identify, their financial security, and the esteem of their colleagues. As a result, when the changes in the environment become so great that the old habits make it difficult, or impossible, to adapt, people find themselves locked in old behaviors because they fear what they may lose. At that point, the phenomenon enters “senescence”, in which its agents try to force the old habits to deal with new challenges, creating a sense of crisis. (Most of our social systems today are in senescence.) Finally, these agents are no longer able to cope, the overall network falls apart, and its components re-enter phase transition (or dissipate).

When Dmitri and I applied this pattern to human cultural evolution, we found something surprising. Rather than a series of relatively stable periods in which cultures were dominated by their economic systems, we saw those stable periods as integrated institutional arrangements that enabled people in them to succeed *at a certain level of social complexity*. However, as that level of complexity increased, due to larger populations, better technologies, and more intense trade, each stable period would reach a state of senescence and eventually fall into phase transition. Here, entire societies would undergo a transformation that would enable people to succeed in their more complex social environments.

As a result, Dmitri and I began to think of the evolution of human culture in this way:

![Figure 2: Human Cultural History as “Punctuated Equilibrium”](image)

From this point of view, the Agrarian Era (Christian dates it from 8,000 BCE to 1750 CE), as it’s often called, looks like two different stable periods – the pre-axial and post-axial state. These two types of societies reflect a cascade of changes introduced by increasingly widespread iron metallurgy, accelerating literacy, and an increasingly international trade system. The Axial Age represents the phase transition in which the cultures in Greece, Israel, India, and China transformed. In Greece, India, and China, these cultures remained agricultural, yet each moved from a grounding in religions derived from oral mythologies and governments based on personal loyalty to a king believed to have a special connection to...
the divine, to new cultures built on Religions of the Book and bureaucratic governments. (The Israelite experience is unique because, for example, it produced a culture that could survive without a state, for people spread from Spain to China.)

Moreover, in this framework, Modernity appears to be a transformational period, rather than a stable one. Toward the end of the dominance of post-axial state cultures, changes again cascaded across societies around the world. Machine technology became more widespread, as Chinese advances – from guns to industrial machines to the printing press – were integrated into European culture. Widespread printing would have the same effect in Modernity that literacy had had in the Axial Age. And trade globalization became all but inevitable, as the Mongols created the first trans-Eurasian trading system during the 13th century, and first Chinese, then European, fleets began to explore the globe in the 15th century.

As we developed these ideas, we also realized that we could apply tools from current developments in fields such as neurobiology and evolution. The result is a much richer theory of human cultural evolution, integrating biological evolution, the peculiarities of the human brain, and growth in cultural complexity.

In this way, we noticed that the “mythic” stories of cultures – we called them “world stories” – in both axial and modern phase transitions, were essential to their transformations. The key role of stories was fascinating because of the growing realization in neurobiology that human beings experience the world in terms of the stories we accept as a model for a reality we can't fully perceive. (See, for example, Michael Gazzaniga's *Who's in Charge?*)

From this point of view, both axial and modern transformation would begin with world stories from the stable culture that preceded them, which would be tested in action, producing learning that would drive “rewritten” world stories. People, in turn, would enact the rewritten stories. This cycle would repeat until, at the end of the transformational period, people in any culture had developed a way to succeed in their more socially complex world. To our surprise, this appears to be what occurred.

Jan Assmann had already observed this dynamic in *Cultural Memory and Early Civilization*, as he examined the Israelite axial experience. We found this process in all transforming cultures. In axial Greece, for example, the “foundational” stories were versions of the oral mythologies, as expressed in Homer’s *Iliad* and the poetry of Hesiod. The *Iliad* presented a group of fractious independent states that pull together to face a threat from the East (Troy) and defeat it.

The Greek poleis seem in many ways to reflect the Greek states of the *Iliad*, as independent brothers who fight with each other, come together in the early 5th century BCE to defeat the enemy from the East (Persia), and go back to acting like fractious brothers. What they discovered, however, was that their in-fighting was as devastating as the Persian Wars. The response to this realization appears in Greek tragedy and philosophy, which formed what Dmitri and I called “new world stories.” That response largely focuses on the question: How can people who are intelligent and well meaning, like Oedipus, navigate a world where their actions can lead to terrible, unintended consequences?

People in the Greek poleis then acted on these new stories and learned their lessons. Eventually, they discovered that the fragmentation of poleis political power created chaos, no matter what they did. With Alexander the Great, a new political order, reflecting the culture's axial learning, came into existence, a bureaucratically governed empire. That form of government would be perfected, in the West, with the Roman and Byzantine Empires. A similar process, with similar results would emerge in China and the dynasties starting with the Qin (221-206 BCE) and Han (206 BCE-220 CE).

Our conclusion that a culture's critical stories were crucial to the process of cultural evolution seemed extremely provocative. However, even more provocative is what our explorations suggest about events going on all over the world today. For the last half millennium, cultures have struggled – in the modern phase transition – to find effective ways to thrive in an increasingly globalized world. As with China or Greece at the end of the Axial Age, we are now working to integrate what we have learned to define the institutional habits that may enable us to enter a new stable cultural state.

Cultural phase transition has always been a difficult and dangerous process. In China, it created the Warring States Period (403-221 BCE), which culminated in unification under the Qin and then Han Dynasties. In Greece, the process resulted
in the Peloponnesian War (431-404 BCE) and the Empire of Alexander the Great. In the Modern world, the process was reflected in the world wars of the 20th Century, the Cold War, and the current period of revolution and uncertainty.

Of course, no one can predict that will happen, but our theory suggests two paths into the future. First, people in cultures all over the world can find a way to work together in a fully globalized world. This is likely to be a difficult path, but it can lead to a new stable cultural state that takes advantage of the marvels of our age. Second, people can fall back into their old habits and watch our current global network dissipate. Such a path is likely not only to be violent, but self-destructive.

The key to embracing the first path, we now believe, is for people in cultures across the world to redefine the “Other”. Because any group's world stories define how to experience the world and act toward other people, the resulting culture defines who is to be trusted and considered “fully” human. It also helps people distinguish the Other, the person who can't be trusted because he or she is “psychotic, politically motivated to a point beyond all redemption, or just plain inferior,” as Edward Hall put it in *Beyond Culture*.

In previous cultural phase transitions, societies redefined the Other by reducing its scope. For hunter-gatherers, almost anyone was Other - anyone out of the band (perhaps 30) or the mega-band (up to about 200). During the Agrarian Revolution, cities swelled to tens of thousands, so that these societies had to expand vastly the idea of who could be trusted as part of the group. Similarly, during the Axial Age, the state had to be reinvented so that empires could govern more than a hundred million members in the post-axial state. Once again, this further reduced those defined as the Other.

In the modern world, however, human societies are preparing to operate in a world that is intensely globalized. Certainly the problems we face – from global warming to terrorism to our financial interdependence – can only be addressed by international cooperation. If we can't address those challenges, the world could be thrown back into a dark age; our very ability to survive on Earth could be destroyed. Yet, how do we cooperate with people whose culturally determined behavior makes them seems psychotic, unacceptably political or inferior?

Dmitri and I don't agree with those who suggest that a single, worldwide culture will emerge. With nearly 5,000 years of cultural differentiation, people across the globe are probably too fixed in the most fundamental of those differences for us to expect a single culture.

Rather, we believe that the members of our intensely globalized world need to understand that these differences are the results of our having lived according to the different cultures provided by our world stories. Our hope is that we can redefine the Other to be not quite so dangerous. After all, why is it so difficult to believe that if I am quite happy living by my world stories, that you can be equally happy living by yours, even if they are very different?

Some readers will respond that such tolerance is inconceivable. Sitting at my desk in 2015, it does seem difficult to believe. And yet, if you could have told a hunter-gatherer living twenty thousand years ago that people just like her would one day live in gatherings of ten million, would she not have said that was inconceivable? As with biological evolution, cultural evolution is all about survival. Under the pressure to survive, living things have accomplished what might have seemed inconceivable before. And they shall probably do it again.

This is the kind of provocative thought that Dmitri and I found emerging from applying all sorts of disciplines to our work in Big History. For us, the greatest potential of Big History may be its ability to uncover these sorts of provocative ideas in the search for that first path into the future. With the remarkable increases in knowledge across fields, we today understand more about how and why our world works than ever before. And through Big History, it may be possible to integrate that knowledge in a way that enables us to find the roads that will lead us to a more positive, life-enriching future.


Sign up to take the free Coursera Big History course from David Christian and David Baker from Macquarie University!

New On-line Big History Course!
Syllabus

Week 1

Big History, Critical Thinking, & Transdisciplinarity
1. A History of Everything
2. ZOOMING IN: Thinking Historically
3. ZOOMING IN: Knowledge - Testing Claims
4. THRESHOLDS 1-3: Linking the First Three Thresholds
5. Why Does This Matter?
6. Quizzes

Week 2

The Universe, Stars, and Planets
1. Keep Calm and Carry On!
2. ZOOMING IN: The Big Bang
3. ZOOMING IN: The First Stars
4. ZOOMING IN: New Elements
5. ZOOMING IN: The Periodic Table
6. THRESHOLD 4: The Solar System
7. ZOOMING IN: The Birth of Planets
8. ZOOMING IN: The History of the Earth
9. Why Does This Matter?
10. Quizzes

Week 3

The Evolutionary Epic
1. THRESHOLD 5: Emergence of Life
2. ZOOMING IN: The Origin of Life
3. ZOOMING IN: Dating Methods
4. ZOOMING IN: Evolution
5. ZOOMING IN: Palaeontology, Study of Evolution
6. THRESHOLD 6: Humankind
7. ZOOMING IN: Anthropology, Study of Evolution
8. Why Does This Matter?
9. Quizzes

Week 4

Human History
1. ZOOMING IN: Life in Palaeolithic Africa
2. THRESHOLD 7: Agriculture
3. ZOOMING IN: The Origins of Writing
4. ZOOMING IN: The Silk Roads
5. TOWARD THRESHOLD 8: Connecting the world zones
6. Why Does This Matter?
7. Quizzes

Week 5

Modernity
1. ZOOMING IN: The Industrial Revolution
2. ZOOMING IN: Breakthrough to Modernity
3. ZOOMING IN: A Global World System
From Big Bang to Galactic Civilizations: A Big History Anthology, Volume I
Our Place in the Universe
An Introduction to Big History
Edited by Barry Rodrigue, Leonid Grinin and Andrey Korotayev
2015, xii + 358pp, hb
Series ISBN: 978-93-84082-45-1; Primus

The Book
Big History is a new field that has been developing rapidly around the world. What is Big History? According to its professional definition: Big History seeks to understand the integrated history of the Cosmos, Earth, Life and Humanity by using the best empirical evidence and scholarly methods. Big History deals with the universe's grand narrative of 13.8 billion years and provides a connection between our past, present and future. It encompasses all forms of existence and all time scales. The present collection is divided into three volumes and is the first international and comprehensive anthology of Big History. In volume one Our Place in the Universe: An Introduction to Big History our existence is regarded from different points of view: as a history of the universe, as a philosophy, and as a factor in the life of people. This edition will challenge and excite your vision of your own life and the new discoveries going on around us. Together with the authors, who come from all the inhabited continents of our planet, readers will engage in a fascinating trip into the depths of time and space, and we hope they will join us in coming to an understanding of our origins and our future.

The Editors
Barry Rodrigue is a geographer, archaeologist and historian who works as a Research Professor at the Eurasian Center for Megahistory and System Forecasting, Institute of Oriental Studies, Russian Academy of Sciences. Rodrigue is a founding member of both the International Big History Association and the Asian Big History Association.

Leonid Grinin is Senior Research Professor at the Institute of Oriental Studies, Russian Academy of Sciences, and Deputy Director of its Eurasian Center for Megahistory and System Forecasting.

Andrey Korotayev is Senior Research Professor at the Eurasian Center for Megahistory and System Forecasting, Institute of Oriental Studies, Russian Academy of Sciences and Head of the Laboratory for Monitoring Socio-Political Destabilization Risks, National Research University, Higher School of Economics.

International orders may be placed with Mrs Supriya Arora via e-mail at <sarora@ratnasagar.com>. Each book will cost about $50 + shipping; they are hardcover with beautifully stitched binding.
New and Returning
IBHA Members

One of the key purposes of the IBHA is for those of us who are interested in Big History to have a place to associate. It is a place to learn of other members’ Big History activities and thoughts. So we are delighted to welcome new members to the IBHA – and by the vote of confidence and recognition of the value of our association by those who have renewed their membership. It is a pleasure to have each of you with us.

John Kneebone
Cynthia Leonard
Greg Nielsen
Jean Robinson

Heathe Yeakley has challenged IBHA members and friends to contribute to a research fund. We are grateful for the contributions toward this that he and Cynthia Leonard have made. Now we are hoping for yours!
The Big History Anthropocene Conference
A TRANSDISCIPLINARY EXPLORATION

Agenda

Show All Sessions Go

Wednesday, December 9, 2015

8:00 AM - 9:00 AM Conference Registration Opens
Over three days we will examine the idea of the Anthropocene from different disciplinary perspectives to help clarify some of the implications of this new era for political and economic decision-making.

9:00 AM - 10:30 AM Keynote Address: David Christian
Speakers: David Christian

10:30 AM - 11:00 AM Morning Tea

11:00 AM - 1:00 PM Defining the Anthropocene
For the past fifteen years, scientists have employed the term “Anthropocene” to describe a new era in which the biosphere has

Thursday, December 10, 2015

Friday, December 11, 2015

Full Program Here
Call for Papers

INTERNATIONAL BIG HISTORY ASSOCIATION CONFERENCE
July 14-17, 2016
The University of Amsterdam
The Netherlands

Building Big History: Research and Teaching

DEADLINE FOR PAPER / PANEL SUBMISSIONS IS FEBRUARY 12th, 2016

The theme for the 2016 conference is “Building Big History: Research and Teaching.” The conference seeks to present the latest and the best in Big History research and teaching, while creating a forum for the articulation and discussion of questions that are central to Big History. Among the topics that are to be addressed at the conference through a series of panels, roundtables, and discussions, are:

- Approaches to Big History; Big History research agenda; Scholarship contributing to Big History;
- Big History teaching at universities, secondary, and primary schools: achievements and challenges; Little Big Histories; Reactions to Big History. We encourage proposals along these lines on any topic related to Big History.

To allow the Program Committee to effectively group individual participants into panels, we request that you format your proposals as follows:

- Individual paper proposals must include two separate paragraphs of no more than 150 words each.
  - Paragraph one should contain the title of your proposed paper, and provide a summary of its specific content.
  - Paragraph two should carry the title “Methodology, and Relevance to Big History”, in which you address the underlying methodology of your paper, your approach to Big History, and in which you explain how your

The International Big History Association (IBHA) defines its purpose as “to promote, support and sponsor the diffusion and improvement of the academic and scholarly knowledge of the scientific field of endeavor commonly known as “Big History” by means of teaching and research and to engage in activities related thereto.”

Article 2 of the IBHA Articles of Incorporation.
specific paper (as described in paragraph one) relates to the broader field of Big History.

- Your proposal must include your name, institutional affiliation (if you have any), e-mail address, phone and/or fax numbers, and a brief curriculum vitae.
- All of this must be provided as one single file, preferably in MS-Word.
- Proposals for entire sessions or panels must contain all this information for each participant, as well as contact information and a brief C.V. for the moderator, if you suggest one. (The program committee can help find moderators, if necessary.)

Please submit your paper or panel proposal by clicking on one of these links, which allow for submission of information. The deadline for paper and panel submissions is February 12th, 2016. The time limit at the conference for presenting papers will be 20 minutes, and the deadline for submitting papers to the session moderator is three weeks in advance of the conference.

All presenters at the conference must be members of IBHA. Presenters may become members at www.ibhanet.org and will need to do so prior to registration for the conference.

The IBHA Conference will convene on premises of the University of Amsterdam, The Netherlands, located in the center of this beautiful European city. Attendees will have the option of selecting from one of several hotels in Amsterdam and the surrounding area with whom special conference arrangements have been made.

The Conference Planning Committee is already hard at work investigating walking and other pre-conference tours of the city, and a post-conference tour that will visit many of the leading scientific, geological, and cultural sites in Europe. We will keep all members fully informed as plans for the third IBHA conference evolve. (See the IBHA website www.ibhanet.org) For all things Amsterdam, you can go to http://www.amsterdam.com/en/. For a complete guide to the Netherlands and its many attractions, you can visit http://www.holland.com/us/tourism.htm. If you have more time to explore the larger area, similar websites exist for nearby Belgium, France, Germany, and Great Britain.

Please find more details on the conference at www.ibhanet.org. We very much hope that you can join us at the 3rd IBHA conference.

Program Committee: Jonathan Markley (chair), Cynthia Brown, David Christian, Lowell Gustafson, Andrey Korotayev, Esther Quaedackers, Fred Spier, Sun Yue.

The conference will take place at the Oudemanhuispoort (Old Man’s Home Gate). Part of it was built, as the name implies, as a home for poor old people in the early 17th century. In the late 19th century the University of Amsterdam started to use the building. Around that the same time book traders also moved into the little shops that line the main hallway of the building. The book traders are still there. Fred Spier started teaching a Big History course in Oudemanhuispoort 20 years ago. It ran there for 10 years.

We have retained two hotels – IBIS Amsterdam Centre Stopera (http://www.ibis.com/en/hotel-3044-ibis-amsterdam-centre-stopera/index.shtml) within a 15 minute walk to the University of Amsterdam, and the Volkshotel (https://www.volkshotel.nl/) within a 15 minute metro ride to the University. The two hotels are totally different types of hotels; check the great reviews of these hotels on tripadvisor (http://www.tripadvisor.com/). Please mark the dates of July 14 - 17 on your calendars, and start planning to join us in Amsterdam in July of 2016!

If you have any questions – just email Donna Tew, IBHA Office Coordinator @ tewd@gvsu.edu
Big History (and the IBHA Conference) at the University of Amsterdam

The next and third IBHA conference will be held from July 14th to July 17th 2016 at the University of Amsterdam.

The University of Amsterdam has a long history. It was founded as the Athenaeum Illustre in 1632, during the Dutch Golden Age. The prosperous city of Amsterdam wanted and needed a university to educate its citizens about the riches of the world. Yet the central government did not allow it to have one, since a university had already been established in nearby Leiden in 1575, possibly as a reward for that city’s successful resistance against the Spanish. Amsterdam, however, was not discouraged and simply established an educational institution under a different name. It subsequently hired a number of internationally renowned scientists and scholars and started teaching from the Agnietenkapel, a former nunnery. This chapel, which currently houses the university museum, is right around the corner from the IBHA conference location.

The university’s slightly anarchistic nature never quite disappeared. After almost 400 years and numerous upheavals, some of which led to major university reforms, the institution still identifies with its somewhat rebellious roots. Even today, one of its three core values is a form of determination, described on the university’s website as “inherent to any Amsterdam citizen who looks at the world from an independent, critical and self conscious perspective. University of Amsterdam researchers, teachers and students are competent rebels who, boldly yet responsibly, choose their own paths and set trends.”

Partly because of its history and identity, the University of Amsterdam was one of the first in the world to adopt the groundbreaking and unconventional approach to history that was being pioneered by David Christian at Macquarie University in Sydney in the early 1990s. After visiting David in 1992, University of Amsterdam professor Johan Goudsblom brought the syllabus of the big history course that was being taught in Sydney home and decided to set up a similar course at his own university. He did so together with his former Ph.D. student Fred Spier, who after Goudsblom’s retirement in 1997 became the course’s main organizer.

The new course proved to be a big success. About 200 students attended its first run and hundreds of students have registered for the course each year ever since. Within the university, the course’s success occasionally led to some resistance, mainly from faculty members who deemed the big history approach to be too broad. But thanks to student engagement and the strong support of a number of the university’s most prominent scientists a semi-permanent position in big history was created for Fred Spier in 1997 and was turned into a permanent position in 2006.

Meanwhile, new big history courses, aimed at slightly different student populations, were established both within the University of Amsterdam and outside the university. The university started to function as a kind of big history course contractor, which in turn made it possible for the university to develop into a regional big history hub. The university’s latest efforts to create a big history MOOC that will be published on Coursera in early 2016 (alongside Macquarie’s big history MOOC that will be published on the same platform in the upcoming months) neatly fits into this pattern.

All of these developments have led to the creation of another permanent position in big history in August 2015, which will be filled by Esther Quaedackers. These developments have also enabled the University of Amsterdam offer to host the 2016 IBHA conference. This offer has been accepted by the IBHA, which, given the university’s dedication to big history, deemed it to be a suitable place to hold its first conference outside of the US.

For more information on the history of big history at the UvA, you can also read Fred Spier’s The Small History of the Big History Course at the University of Amsterdam that appeared in World History Connected in May 2005.
Location of Conference: Oudemanhuispoort 4-6, 1012 EZ Amsterdam

Hotel ibis Amsterdam Centre Stopera, Valkenburgerstraat
Mogli e Buoi... (Wives and Oxen)

By Monica Manfedi

Curator of a show at the Museo della Civiltà Contadina in Bologna by Dona Jalufka and Paula Metallo, called “Tradition and Integration,” which opened Oct. 10, 2015

(Translation by Paula Metallo)

“The importance lies in your gaze, more than in what you are looking at.”
André Gide

This show of the art of two women unfolds in a series of ever-closer studies of the compelling subject of cultural integration. Past/present, man/woman, male/female, aggregation/disintegration, remoteness/vicinity, and other endless variants like public/private, traditional/modern are analyzed, sometimes with levity, other times with intrusive determination to break through boundaries and eliminate borders.

Dona Jalufka and Paula Metallo combine their views in an attempt to describe the world around us. As in Fruits of the Earth (1897) in which André Gide livened up the ever contemporary debate between history and humans, encouraging us to abandon preconceived ideas in order to regain life in its natural flow and to rebel against any form of “forced” tradition, ideological or religious blindness, so does the site-specific work of these two artists advise us to reflect and heighten our awareness.

The viewpoints of Jalufka and Metallo are those of someone who is subjected to attention, sometimes obsessive, from people who cannot understand the desire to blend into places that were observed and admired from far away. It matters little whether they came to those places for work or love.

The exhibition's starting point is an Italian proverb, “Mogli e buoi dei paesi tuo” (“Choose wives and oxen from your own towns”), which restates the patriarchal commandment of creating work and family in one's birthplace. It is similar to other proverbs, such as “Get to know the birds in your own backyard,” in the English language, or in French “Marie-toi devant ta porte avec qucl'un de ta sorte” (Marry someone who lives nearby and is of your status”), or better “Prende ta femme dans ton village et le boeuf dans le voisinage” (“Get your wife from your

Paula Metallo and Alesandro Montanari manage the Geological Observatory of Coldigioco, where the IBHA was founded in 2010. In her art, Paula searches for the underlying symmetry, harmony, and natural beauty in local things.
village and the oxen from the surroundings"), or in German “Bleibe im Lande und nahre dich redlich” ("Stay in your town with genuine neighbors"). In the German version, the final adjective adds to the concept that being near people in the place of origin brings sincerity to the relationship.

The works presented by Paula Metallo are syntactically connected to each other in a complex language, yet totally coherent, while using expressive means apparently distant from each other. Her style reveals, in fact, a prolific lineage to the art of Robert Rauschenberg in the 1980s-1990s, which, in turn, drew inspiration from American real life. Here the found objects fuse the expressive means to narrate the landscape of the Marche region. It is a territory immersed in rural culture, but also rich in historically rooted artistic experiences, which lead Paula Metallo to analyze Piero della Francesca's viewpoint from the hills of Urbino through the eyes of the Duke and Duchess of Montefeltro, and bring back to us her considerations.

Rauschenberg, in an interview with Alain Sayag in 1981, commented that his most important experiences in a foreign country were when he found himself lost … “Because it's when you get lost that you look more intensely.” Perhaps Metallo and Jalufka look more intensely because they are not in their homeland.

Dona Jalufka is originally from Texas. Her work often combines photography, painting, and installation, which harness a sort of cultural molting underlying her ability to re-interpret her surroundings metaphorically. She investigates various moments of rural living: work, worship, holidays and death. We are enchanted by the lights captured in a snow field; we walk through the skyline of the hills and, suddenly as through a magnifying lens, we find ourselves very close to the heads of the animals, to which Jalufka gives a disorienting yet devoted interpretation. We imagine that, putting away the camera for a minute, her hand caresses the big head of the animals and her fingers probe their wiry bristles. In any case, it is this that our eye is invited to see, oxen not as a mere instrument, a commodity, or a dowry, but as a gentle domesticated companion to laborious work in the fields.

With a change of pace, Jalufka brings us to the theme of another type of relationship; the one between locality and the “woman of a lifetime”, that is, the wife chosen to carry on the line. Women, in a not-so-remote past, were the center of the family, the pillars of rural economy, but almost always they were invisible workers, busy with all sorts of jobs, from the care of the livestock to the work in the fields and the raising of children. These women were constrained by the norms of tradition, and also by the fear of entering in conflict with the original way of life. A woman today, unlike in the past, in a world where women's rights are recognized, can claim her own identity and her own space. She no longer fears being banished or criticized in public for her independent choices.

With an effective yet bewildering overturning, Jalufka draws the female body into a takeover of locale by identifying it with the profile of the hills, or the lines in the fields. The female is referred to as an ordinary woman, not as a goddess, or a nymph, or a legendary witch, as she was in the past among the Marche's mountains par excellence, the Monti Sibillini. Women today who proclaim their “femininity” are not content, as in the last century, with being distinguished only as a “pupa del biroccio” (pupa of the wedding wagon), accepting in this way the strong colors of popular painters and the equally intense mockery from those who, seeing her pass by at the reins of a biroccio, belittle her capabilities and independent initiatives.

Most women in the last century were wed by way of some middleman's intermediation. Today women are free to choose, share spaces, places, thoughts, decisions, and projects with their partners. Paula Metallo, with admirable fabrication, almost in a world of make-believe, transforms with extreme lightness exactly that wagon, the wedding biroccio, ready for the introductory journey towards the house of the groom, the bride in a delicate, painted veil. The two artists are as involved in their work as they are in their life. For them, marrying another culture was a choice, not a destiny.
Piece by Dona Jalufka in the show, “Mogli e Buoi…” (Wives and Oxen)

The show’s opening, with Jan Smit, Walter Alvarez and Sandro Montanari

Pieces by Paula Metallo in the “Waiting for the Next One show” that spoke about Italians and earthquakes.
Nominations for IBHA Board of Directors

The members of the IBHA Board of Directors hold staggered three year terms. Each year, a few seats become open. This year, four seats become open. Since the IBHA was founded, there have been a number of Board members who have cycled off the Board, a number of new people who have joined it, and a number who have stayed on. In the interest of serving the purpose of the IBHA while fostering both continuity and change, the IBHA selects Board candidates in two ways:

1. The existing Board proposes a list of names; and
2. IBHA members may identify additional names.

We encourage you to participate by logging on to the IBHA website at http://ibhanet.org/. Click on “Forum,” “IBHA Discussions,” and “IBHA Board of Directors Nominations.” You may by April 15, 2016 post the names of any members you recommend for Board membership.

Up to that time, please check the forum periodically for new postings and endorse all candidates of your choice. (Just follow the simple instructions at the website.) Moreover, if you become a candidate, please add a statement describing your interest in serving as a Director. Should you be recommended but unable to serve, please let us know. Candidates endorsed by at least 10% of IBHA membership before May 15, 2016 will become nominees.

An electronic election for new Board members will begin on June 1, 2016, and end on June 30, 2016.

The new Board will be announced in July.

We welcome your active engagement in this important process.

Please first log into http://www.ibhanet.org/... then go to Forums, IBHA Discussions to nominate an IBHA member as a candidate to become a Board member or to endorse a nomination.
Jump into world history and scientific discovery in Five European Countries

From First World War battlefields in Belgium and Paleolithic cave art in France to world-class wine vineyards in Germany and thematic lectures provided by leading historians, this tour has it all. Discover distinct style, substance and science in the cultural capital of Paris, among the magnificent *châteaux* in the Loire Valley and in the center of particle physics research at CERN. You’ll absorb the best of history and beauty on this fascinating tour through five European countries.
Overview

Let us handle the details

- Expert Tour Director
- Local cuisine
- Handpicked hotels
- Sightseeing with local guides
- Private transportation
- Personalized flight options

Your tour includes

- 9 nights in handpicked hotels
- Breakfast daily, 4 three-course dinners with beer or wine
- Multilingual Tour Director
- Private deluxe motor coach
- Guided sightseeing and select entrance fees

Your tour highlights

- World-class museums and beautiful gardens in Paris
- Magnificent architecture and rich history at Château de Chenonceau
- Stunning replicas of Paleolithic art in the Lascaux II Cave
- Sweeping, mountainous landscapes in Auvergne
- Impressive scientific technology at CERN, the European Organization for Nuclear Research
- Medieval castle views in the UNESCO-recognized Rhine River Valley
- Daily lectures by leading historians

Where you'll go

OVERNIGHT STAYS
2 nights • Paris
2 nights • Dordogne Region
1 night • Geneva
2 nights • Grindelwald
2 nights • Heidelberg

Price is on a sliding scale for 20-40 travelers - $3439-$3139.
**Paris | 2 nights**

**Day 1: Arrival in Paris**
Welcome to France! Say goodbye to some of your fellow conference-goers and hello to your Tour Director as you transfer from Amsterdam to Paris by deluxe coach. Stop en route in Ypres, Belgium, which was a site of heavy fighting during the 1916 Battle of the Somme.

- Tour the In Flanders Fields Museum, which focuses on the futility of war
- Visit the Menin Gate, a memorial to British and Commonwealth soldiers whose graves are unknown

Later, enjoy free time to explore and eat lunch in Ypres before continuing on to Paris. If time allows, additional stops will be made in Antwerp and Amiens.

**Day 2: Sightseeing tour of Paris & the Musee d’Orsay**

Included meals: breakfast, welcome dinner

Paris was central to the French Revolution in the late-eighteenth century and largely rebuilt under Napoleon III in the 1860s. A guided tour introduces you to the architecture and history of the City of Light’s neighborhoods, called arrondissements.

- Drive down the sycamore-lined Champs-Élysées to view the famous Arc de Triomphe, a tribute commissioned by Napoleon
- Pass Pont Neuf and the Notre-Dame Cathedral, located on the Seine River
- Make a photo stop at the Eiffel Tower viewpoint to see the wrought-iron landmark
- See the opulent Palais Garnier opera house, Hôtel des Invalides and Place de la Concorde, the city’s grandest square

Later, enjoy the Musee d’Orsay Museum’s rich collection.

- Enjoy free time for lunch in the afternoon and tonight, sit down with your group and your Tour Director at a welcome dinner.

**Dordogne Region | 2 nights**

**Day 3: Périgueux via the Loire Valley**

Included meals: breakfast, dinner

Transfer to Périgueux in the Dordogne Region today. Stop along the way in the Loire Valley, which produces world-class wines and was once known as France’s “Playground of the Kings.” You’ll learn more about the area’s royal past on a guided tour of the extravagant Château de Chenonceau.

- Explore the interior and gardens of the castle, which sits on the River Cher and is a famous late-Gothic/early-Renaissance architectural gem
- Discover how it got the nickname “Château de Femmes”—some of its famous female residents included Diane de Poitiers and Catherine de’ Medici

Take free time for lunch at the chateau and then continue on to the Dordogne Region for an included dinner this evening.

**Day 4: Lascaux II Cave & Les Eyzies-de-Tayac-Sireuil**

Included meals: breakfast

Explore the Dordogne Region to discover prehistoric remnants, ancient history and spectacular Paleolithic art, and then eat lunch during free time.

- Follow a guide as you marvel at the reproductions of Paleolithic paintings in the Lascaux II Cave, a 39-meter replica of the original cave
- Transfer to the village of Les Eyzies-de-Tayac-Sireuil this afternoon, where you’ll enter the National Prehistoric Museum and see awe-inspiring archaeological finds from some of the most famous excavation sites in the Vézère Valley

**Geneva | 1 night**

**Day 5: Geneva via Auvergne**

Included meals: breakfast

Make your way to the historic city of Geneva, Switzerland today, stopping along the way in the mountainous region of Auvergne.

- Take in scenic surroundings as you drive through the Auvergne Volcanoes Regional Park, a well-preserved site that boasts stunning landscapes, beautiful villages and 10,000-year-old volcanic peaks
- As you drive through the park, stop for photo ops at the Puy de Dôme, a large lava dome, and the Puy de Sancy, the highest volcano in France
- Revel in the park’s beauty as you enjoy free time for lunch

**Grindelwald | 2 nights**

**Day 6: Grindelwald via CERN**

Included meals: breakfast, dinner

Today, explore the European Organization for Nuclear Research, known as CERN. Follow a CERN staff member on a guided tour of the laboratory, where scientists do groundbreaking research on particle physics.

- View the Large Hadron Collider, a massive particle accelerator that is responsible for some extraordinary discoveries, including the pentaquark
- Later, take free time to eat lunch and explore CERN’s permanent exhibitions before continuing on to Grindelwald for tonight’s included dinner.

**Day 7: The Bernese Oberland & Jungfraujoch**

Included meals: breakfast

Today, head into the Bernese Alps and discover the UNESCO World Heritage site of Jungfraujoch, a windswept mountain pass known as the “Top of Europe.”

- Ride a railway car to the Jungfrau plateau, where you can enjoy free time for lunch 11,617 feet above sea level
- Take a train to view the Sphinx Observatory and enter the Ice Palace
- Later, enjoy a spectacular hike on the trails below these formidable mountains.

**Heidelberg | 2 nights**

**Day 8: Heidelberg via Basel & Strasbourg**

Included meals: breakfast

Transfer to Germany today, making a brief stop for free time in Basel, Switzerland’s third-largest city. Then, continue on to Strasbourg, the capital of France’s Alsace region and the official seat of the European Parliament. Take a guided tour of the city’s Parliament building and eat lunch during free time. Then, make your way to Heidelberg, which has a history of human occupation dating back at least 200,000 years and is home to one of the most influential universities in the world.

**Day 9: Wine Tasting & Rhine River Cruise**

Included meals: breakfast, lunch, wine tasting, farewell dinner

Start your day with a guided tour of Bopparder Hamm, the largest wine vineyard in the Middle Rhine Valley.

- Tour the cellar and vineyards before sitting down to a lunch accompanied by a tasting of some signature vintages
- Enjoy magnificent views over the Rhine valley as you learn about the cultivation of wine in the region

Later, take in the spectacular sights of the UNESCO-recognized Rhine River Valley on a scenic cruise from Boppard to St. Goar.

- Marvel at breathtaking landscapes and fine architecture of the Middle Ages
- View medieval castles along the river, including Kartrierische Burg in Boppard
- After disembarking, say goodbye to your group at a farewell dinner.

**Day 10: Amsterdam via Cologne**

Included meals: breakfast (excluding early morning departures)

Make a brief stop in Cologne, home to a UNESCO-listed cathedral, before transferring back to Amsterdam with your group.