

Origins

Volume V Number 7



International
Big History
Association

Table of Contents

Big Art History: The Beginning of a Personal Voyage <i>Joshua Fisher</i> <i>Arkansas Tech University</i>	3
---	---

Perspective, Gratitude, and Wonder: Revelations in Big History <i>Kyle Herman</i> <i>Community Montessori, New Albany, Indiana</i>	10
---	----

New and Returning IBHA Members	14
Board Election	15
2016 IBHA Conference Call for Papers	17
New Discoveries	22

Cover picture: “Cueva de las Manos” (“the Cave of Hands”) is located in Río Pinturas, in the province of Santa Cruz, Argentina, 163 km south of the town of Perito Moreno. These rock paintings were made by hunter-gatherer communities estimated to have lived between 13,000 and 9,500 years ago.



Origins Editor: Lowell Gustafson, Villanova University, Pennsylvania (USA)
Associate Editor: Cynthia Brown, Dominican University of California (USA)
Assistant Editor: Esther Quaedackers, University of Amsterdam (Netherlands)

Editorial Board
Mojgan Behmand, Dominican University of California, San Rafael (USA)
Craig Benjamin, Grand Valley State University, Michigan (USA)
David Christian, Macquarie University, Sydney (Australia)
Andrey Korotayev, Moscow State University (Russia)
Johnathan Markley, University of California, Fullerton (USA)
Barry Rodrigue, Eurasian Center for Macrohistory, Russian Academy of Sciences, Moscow (Russia)
Fred Spier, University of Amsterdam (Netherlands)
Joseph Voros, Swinburne University of Technology (Australia)
Sun Yue, Capital Normal University, Beijing (China)

Origins. ISSN 2377-7729

Please submit articles and other material to *Origins*, Editor, ibhanet@gmail.com

The views and opinions expressed in *Origins* are not necessarily those of the IBHA Board. *Origins* reserves the right to accept, reject or edit any material submitted for publication.

International Big History Association
Brooks College of Interdisciplinary Studies
Grand Valley State University
1 Campus Drive
Allendale MI 49401-9403
<http://ibhanet.org/>
616-331-8035

Thank you for your membership in the IBHA. Your membership dues all go towards the administration of the association, but do not by themselves cover our costs. The only paid position is a part time administrative assistant. Other costs are for our website, for example. [Please consider a tax deductible \(in the US\) gift](#) to our 501(C)3 and please consider remembering the IBHA in your will.



Big Art History: The Beginning of a Personal Voyage

Joshua Fisher
Assistant Professor of Art
Arkansas Tech University

Merely by disregarding the old hierarchy of the arts, the art historian can take a dramatic step toward expanding the scope of the field, even if his or her research is temporally and spatially confined.

When David Christian began his opening lecture at the 2014 IBHA Conference (“Big History: A Personal Voyage”) with a disquisition on a work of art, Vincent van Gogh’s *Starry Night over the Rhone* (1888), I took careful notice. The painting, Christian explained, contains all the elements of big history: stars; the earth; the water, where life formed; and human civilization. I wondered if he might have been more right than he knew; maybe van Gogh really wanted to look beyond his immediate surroundings. He did specify, in a letter to his brother, that this painting included the Great Bear – not just generic stars as a picturesque feature, but a particular constellation – “whose discreet paleness contrasts with the harsh gold of the gaslight.”¹ By this account, the painting contrasts the works of man with the works of nature, revealing the disruptive presence of the former, whose bright lights obscure our view of distant time and space. Perhaps we might further interpret this message as an allegory of the work of the artist, with his own garish imitations of nature.

But as the lecture went on, my revelatory thrill faded, as other works of art appeared seemingly gratuitously, merely to give the audience something more aesthetically pleasing to look at than just a list of bullet points. Michelangelo’s *Creation of Adam*, from the Sistine Chapel ceiling, appeared as an example of the old origin stories that big history hopes to replace. Ilya Repin’s *Barge Haulers on the Volga* appeared to illustrate a point about elites appropriating energy in the form of human labor. I wondered, is this all? Does

the emergence of big history offer nothing more for art than that it will now be mere illustrations for *big* history textbooks, instead of mere illustrations for *traditional* history textbooks? That would hardly be an improvement. I want to propose that big history has greater implications for my field, that big art history is a two-fold inquiry, concerning not only how artists are chroniclers of history – and occasionally, of big history – but also how artists are agents of history.

I write these paragraphs for a newsletter rather than a journal for two reasons. First, I have noticed that the pages of *Origins* have provided opportunities for dialogue rather than just one-way communication, and I see this essay as part of that dialogue. I will make frequent references to other recent articles from *Origins*, as they have helped shape my opinion about what big history is and can be. Second, and more important, I publish my remarks here because my research into the big history of art is still mostly speculative, and I have encountered few other scholars in my field who are similarly engaged. I wish here to articulate some of the problems with tailoring the study of art history to the method of big history (and vice versa), but in so doing, to suggest what art historians and big historians may be able to learn from one another.

Individualism and Scope

The most obvious potential problem with incorporating art history into big history is that by putting the word “art” before “history,” we necessarily limit the scope of our inquiry. But the problem is

actually much more complex. It is not that art history focuses on one facet of human activity; it is that it usually focuses on the activity of one human. The myth of the creative genius dies harder in my field than in the field of history. Certainly, the study of history still has its “great man” school, but art historians’ attachment to this theory is a bit more understandable; works of art, unlike historical events, are tangible things, clearly fashioned by a single pair of hands, or in some cases, by a small group of hands. The same can rarely be said of historical events, even by the most old-fashioned historians.

Events lead to other events, while things seem like reified, conclusive results. The history of art at times seems like a Greek play, in which the action has already taken place off stage, and the characters only come on stage to tell us how they feel about it. If art were just one person’s forlorn reaction to forces larger than himself, it would not be much of a candidate for big history (except as illustrations for slide shows). By applying the traditional, linear model of history to the history of art, what we get is a series of dead ends. Something happens, then an artist produces a work of art in reaction; as far as the art historian is usually concerned, this marks the end of the process. Then, something else happens over in another country, and another artist gets to work. Art historians have never had trouble connecting other humanities and social science fields to art, but they have been largely unsuccessful in making connections in the opposite direction, even more so in making connections with natural and cosmic history. A “big art history,” by making these connections, can make works of art part of the stuff of history rather than just illustrations of history.

The institutional barriers to such an expanded art-

historical discourse can be traced at least as far back as the seventeenth century. This time was marked not only by the rise of nation states, which created distinct national artistic traditions, but also by the separation of the arts from one another. Since the establishment of the Royal Academy of Painting and Sculpture in Paris in 1648, painting, sculpture, and occasionally architecture have been classified as “fine arts,” at the top of a hierarchy the lower tiers of which are occupied by other arts relegated to the status of “applied arts.” Even though the old academies (and the French kings) are no longer with us, the hierarchy still is; the art department at my school, for example, offers a graphic design major separate from the “fine art” major. The Western hierarchy carries an ethnic bias, as the more utilitarian art objects of non-Western cultures, such as African masks, Native American pottery, and Chinese calligraphy are assigned to lower categories, even if, particularly in the last of these cases, these art forms were more highly regarded by their societies than painting and sculpture. It is also gender biased, with the art forms traditionally dominated by men at the top of the hierarchy, and “women’s” media, such as textiles, deemed mere craft. Finally, it is biased toward the ruling class, with one-of-a-kind artworks privileged over reproducible works for mass communication, such as photography and graphic design. By placing works that are merely for aesthetic contemplation above utilitarian objects, the hierarchy effects the final break between works of art and tools, two classes of object that had begun to separate back in the Paleolithic Era. Equally important, it constructs a historical model centered on the individual; the artifacts of this history were created by one person, for one person.

Big art history need not eliminate the concept of the canon, but it must at least adjust the canon to place less

We need not apologize for the anthropocentrism of big history, but we must acknowledge it. Any creative act, whether it be a work of art or a scientific theory, presupposes a point of view.

emphasis on the individual creator. While the most significant works of traditional art history are made by heroic individuals who rise above the mundane concerns of worldly society, the most significant works of big art history are unapologetically worldly. Traditional art history deals with the products of single minds with their limited scope, responding to a limited set of concerns; big art history treats art as the product of a complex interregional, international, or intercontinental system beyond the single artist's comprehension. Traditional art history values individualism; big art history celebrates the collective. Traditional art history privileges the singular work of art; big art history shifts the focus to the multiple, to the art of mass communication.

In the past few decades, art historians have already begun making moves in this direction, even though the study of art history is arguably more specialized than ever. Merely by disregarding the old hierarchy of the arts, the art historian can take a dramatic step toward expanding the scope of the field, even if his or her research is temporally and spatially confined. I will cite but one example, one that is germane to the setting of the next IBHA conference. Elizabeth Sutton's book *Early Modern Dutch Prints of Africa* (2012) is actually more focused than the title indicates; much of it is devoted to a discussion of a single collaborative project: a 1602 book entitled *Description and Historical Account of the Gold Kingdom of Guinea*, with text by one man (Pieter de Marees), illustrations by one or more other men (name(s) unknown), and published by still another man (Cornelis Claesz). Highlighting such collaborative, reproducible works provides an introduction to the idea of art as the product of a society rather than of an individual mind. Sutton notes how prints depicting people from a different continent helped establish a national identity for the newly

independent Netherlands in the seventeenth century. While the Classical contrapposto stance in which the African subjects are posed, and the surprisingly light color of their skin in the prints, may seem to express a kinship between Europeans and Africans, all they really do, according to Sutton, is utilize normative European conventions to proclaim the authenticity of the depictions, saving the differentiating stereotypes for “accoutrements transposed onto fairly generic bodies.”² To the seventeenth-century Dutch, what distinguished races was not so much skin color as customs; people were grouped together when activities became habitual or ritualized.³ This perception can be tested by scholars of big history, as can Sutton's idea that cultures form not on their own, but in distinction to other cultures. In making this argument, she sheds light on a paradox of modern history: cultures forge distinct identities even as improved communication and transportation technology allows for the breakdown of cultural difference. De Marees's book – or is it Claesz's book? – is not only an index of this historical metanarrative, it is a shaper of it.

I must confess, however, that I did not expect to find mention of such an overarching theme when I picked up the book, and were it not for my interest in big history, I may never have considered the applicability of the theme beyond the book's topic. Looking for big history in art history texts is like searching for a needle in a haystack; one never knows where one will find a small fragment of “the big picture.”

Spirituality and Metaphor

In their open letter in response to the IBHA Conference, Laura Rahm and her colleagues noted that “Viewers seemed to silently split into two camps: scientists and spiritualists (with sympathizers on each

side).”⁴ At first, this comment troubled me. Was I a spiritualist by default, since I am not a scientist? And if so, would that make my research insufficiently rigorous for big history?

Then I recalled that Robert Smithson, the artist on whom my research is currently focused, referred to spirituality in a similar way. Smithson was a pioneer of “earthworks” in the late 1960s and early 1970s, sculptures usually made of natural materials, in a natural landscape, often by altering the land, a mode of working that led to accusations of environmental irresponsibility. Smithson not only denied this charge, but threw it back in the faces of his critics. In his last published essay before his untimely death in 1973, he responded to the criticism of a landscape painter who suggested that what the earth needed was “lyric poets to celebrate it,” not earthworks artists who “cut and gouge the land like Army engineers.” This painter, Smithson countered, was “not being an ecologist of the real, but rather, a spiritual snob.” To be “an ecologist of the real” means to realize that human manipulation of the land is something that takes place every day, and that not all such manipulation is equally destructive, but can be part of a symbiosis. “Spiritualism widens the split between man and nature,” Smithson writes. “The farmer's, miner's, or artist's treatment of the land depends on how aware he is of himself as nature... The farmer or engineer who cuts into the land can either cultivate it or devastate it. Representing nature once removed in lyric poetry or landscape painting is not the same as direct cultivation of the land.”⁵ Celebrating the earth will not save it. More than forty years ago, Robert Smithson realized the salient point of big history as applied to art: that art need not be an isolated reaction to an isolated phenomenon, but can play an active role in shaping humankind's relationship with the earth.

My role as a “big art historian” is to articulate this heretofore underappreciated aspect of art, but in doing so, I face the challenge of addressing an audience that speaks a different interpretative language, centered around metaphor. Smithson’s frequent reference to entropy in his artworks and writings is often interpreted as a metaphor for some purely art-related concern. For example, in 1996, art critic Rosalind Krauss compared entropy, with its ability to break down boundaries by erasing energy gradients, to the contemporary concern with the elimination of the figure-ground relationship in painting, and the breakdown of the boundary between art and life.⁶ Big history, on the other hand, has inspired me to keep my analysis rooted in physical realities. Smithson was not just using entropy as a metaphor, nor was he even simply referring to it, but because he “directly cultivated” the land, his earthworks embody it. By speaking literally about a scientific (non-artistic) concept, I have sometimes found myself at cross purposes with my peers in the humanities. Recently, a reviewer of a paper on Smithson that I had submitted for publication called my discussion of entropy “cultish.” Is gravity a cult too? I wondered. It appeared to me that the lessons of the Sokal Affair had not yet been learned. Humanities scholars may be in the business of opinion making, but that does not give us the right to create an alternate reality for ourselves.

But I would be a poor scholar indeed if I did not accept some responsibility for my failures. Re-reading my paper, I found that I did not make it clear enough that I was not referring to entropy metaphorically. I realized that I do not ever have to use entropy as a metaphor, since everything we do – even writing or painting – involves the transfer of energy. Richard Simon comes to a similar conclusion in his article for the August 2014 issue of *Origins*. He discusses the

formation of stars and galaxies out of the small initial differences in the energy density of the early universe as a metaphor for today’s income inequality, and then quickly reconsiders. “The more I thought about it, I realized that it wasn’t a metaphor at all. What is wealth but an accumulation of money, which itself represents energy? Money, ultimately, is a stand-in for food, humans’ prime source of energy.”⁷ This statement encapsulates big history’s greatest strength: its ability to bring our discussion of any subject, even of the intangible, back to physical realities and essential laws of nature.

But while big history inevitably deposits us in the physical world, it often picks us up in a metaphorical or spiritual realm. David Christian states that big history was born out of a need for a modern creation myth, or a modern origin story, to “speak to our deep spiritual, psychic, and social need for a sense of place and a sense of belonging,” and to keep us from falling into a state of *anomie*.⁸ Metaphor is key to big history because it broadens our sense of place. Metaphor works by comparing two things that fulfill the same role, or occupy the same position, in different realms. The term “greenhouse effect” is a common scientific metaphor that tells us that carbon dioxide in the atmosphere does for life on the earth below what a greenhouse does for the plants under its roof. This metaphor brings the earth and its atmosphere down to a scale we can comprehend, and helps us understand our common destiny by locating all of humanity, as it were, under one roof.

Durkheim identified the concept of *anomie* at a time when there was as yet no historical model along the lines of big history to rationalize increasing global interconnectivity – Fred Spier attributes this lack to the rise of nation states and the consequent desire

for patriotic, exceptionalist histories – so it was easy to feel lost in an ever-expanding, ever-more-foreign human community.⁹ It is small wonder, then, that early twentieth-century artists turned away from metaphor and toward the metonym, which is based on much more local relationships of contiguity. One thinks in particular of the Cubist paintings of Pablo Picasso and Georges Braque from the years leading up to World War I, in which a meager sound hole and strings stand for a whole guitar in a shattered world in which forms are fractured to the point of illegibility, with little to no illusion of depth, in which nothing has a fixed place or identity.

Only after two world wars, when the dangers of provincial, jingoistic thinking were revealed, did artists such as the American Abstract Expressionists rediscover the power of the metaphor, in their search for universal human qualities that transcend temporal and political boundaries. To these artists, Ann Gibson writes, “Allegory, narrative, and metonymy were linked to mimesis and emblematic portrayal – to the connection of events in time – whereas symbol and metaphor informed the eternal realm of poetry, where reference is made through ‘real’ similarities rather than by the accident of contiguity.”¹⁰ Many of these artists took a broad view of the history of art and expressed a kinship with their prehistoric forebears. Barnett Newman, for example, wrote in 1947 that “the first man was an artist,” that “the aesthetic act always precedes the social one,” and that “speech was a poetic outcry rather than a demand for communication.”¹¹ The following year, he introduced his signature motif, the “zip,” a vertical stripe extending all the way from the top to the bottom of the canvas, set against a field of uniform color. The zip, to Newman, represented man’s first creative act – the tracing of a line in the dirt – or perhaps even the first act of creation in cosmic history,

the first shaft of light piercing the void. Thus, the re-emergence of metaphor as a tool of the artist coincided with a renewed desire to paint “origin stories.”

Eric Chaisson, in the November 2014 issue of *Origins*, criticizes the use of metaphor in big history, characterizing Fred Spier’s now institutionalized term “Goldilocks conditions” as a “literary annoyance,” to which Spier responds, what about the “big bang”?¹² As this exchange demonstrates, scientists are not immune from metaphor. James Geary writes that the scientific method is itself metaphorical; it reveals unknown phenomena by comparing them to known phenomena.¹³ The potency of a new experimental drug, for example, is tested by comparing it against a placebo with a more predictable effect. Nor is art devoid of literalism. Newman writes, “the artist today is striving for a closer approach to the truth concerning original man than can be claimed by the paleontologist.” He states that science has become bogged down in the scientific method as an end in itself, while artists, with their sense of metaphysical wonder, alone continue to ask the question that science originally addressed: “what?” “What is the rainbow, what is an atom, what a star?”¹⁴

Scholars in the humanities and natural sciences all operate somewhere between metaphor and literalism. Big history can help bridge the gap between the two, to the point at which, as in Simon’s and my cases, it becomes difficult to distinguish between them. In chapter eight of *Maps of Time*, David Christian states that the sedentary, agrarian lifestyle was a trap, rather than a triumphant innovation, likening it to the story told in Genesis in that “it describes a temptation, a fall, and an expulsion.”¹⁵ Is this reference to Genesis purely a metaphor, or is the Biblical story of the Fall of Man, for all that it departs from scientific reality, true

at a philosophical level? Is the volcano a metaphor for the factory, or is the factory an actual volcano? After all, the factory has the same effect on the atmosphere that a volcano does. By breaking down the arbitrary boundaries between the natural and human realms, by treating the greenhouse as part of the same system as the earth, big history allows metaphor to become reality. And perhaps it allows its practitioners to be both scientists and spiritualists.

Anthropocentrism and Agency

Beyond the question of metaphor-versus-literalism, there is an additional danger in referring to big history as an origin “story,” namely, that it implies that we are the climax. And yet, there does seem to be something outstanding about our existence, with its unprecedented energy flow density. We have conquered the boundaries thrown up by the separation of the continents. We have tapped sources of energy that were converted from sunlight hundreds of millions of years ago. And we are currently pumping greenhouse gases into the atmosphere at a faster rate than any save the most catastrophic natural processes.

Does cosmic history have meaning? The simplest answer is that it does, at least for us, and ours is the only point of view from which we can see it. We need not apologize for the anthropocentrism of big history, but we must acknowledge it. Any creative act, whether it be a work of art or a scientific theory, presupposes a point of view. One of the most valuable contributions of art history in the past few decades is its debunking of the myth of the “innocent eye.” As long ago as 1972, John Berger stated that we can never see things objectively, because the simple act of looking is an act of choice. And with the act of seeing, Berger continues, comes self-awareness. Seeing

involves an acknowledgment that we can be seen.¹⁶ If we can understand what the universe was like millions or billions of years ago, and thus expose the error of previous generations of scientists with their less complete view, we acknowledge that scientists of the future will be able, at the very least, to hold up our view of the universe for critical scrutiny generations hence. These scientists will see our view of nature the way we see works of art – as the product of belief, rather than objective fact.

This is the gist of Alexander Mirkovic’s argument in the January 2015 issue of *Origins*. The test of big history, he writes, will be whether it concedes that the recent trend of globalization is “an inevitable, natural state of affairs,” or exposes it as an ideological model that is used to justify ethically questionable actions, such as “the dumbing-down of our culture by the consumer-centered free market ideology,” exemplified by the marginalization of opera.¹⁷

Why should other ongoing processes in the universe – like cosmic expansion and biological evolution – be regarded as all but certain, while globalization is just an ideological assumption? If anything, should it not be the other way around, since globalization is taking place on a smaller spatiotemporal scale than those other phenomena, and is thus more observable? The answer is, in part, that globalization is a more recent phenomenon, and has not left behind millions and billions of years’ worth of evidence, like evolution or the expansion of the universe. But I do not think that is all. What also distinguishes these phenomena is the matter of agency. Unlike evolution or cosmic expansion, globalization is something we have created, and over which we exert control.

Agency is the factor that distinguishes humans

from other forms of complexity. A star cannot decide to conserve its hydrogen fuel. But we can recognize an unsustainable energy regime and set off on a less profligate path. Or can we? Will globalization be, like sedentism, a trap of our own making, irresistible to the great mass of humanity even though a few enlightened voices call for a halt? I wonder if there was an individual in the early agrarian era – an artist perhaps – who recognized the unsustainability of intensification and population growth. And if such a person existed, I wonder why he failed. Was it because scientific knowledge was not sufficiently advanced to allow the general population to comprehend his message? Was it because he was silenced by a tyrannical ruling class? Or was it because his medium of communication was not powerful enough?

In any case, we have some reason to hope that our quest for a sustainable future will turn out better than that of our poor hypothetical Neolithic voice crying out in the overfarmed wilderness. We possess greater scientific knowledge, we live in a society that values democracy and free speech, and communication is easier. It is quite possible that some of these advantages are just illusions, but even if they are not, it must be said that we face challenges that an early agrarian Cassandra would not have had, chief among which is that change is happening much faster now. I sometimes ask my students – the vast majority of whom are aspiring artists – whether they can help protect the environment through their work. The most common answer is, “Yes, I can, because I can call people’s attention to environmental issues,” to which the obvious follow-up question is, “What people?” The people most likely to patronize art today are those affluent intellectuals who are most likely predisposed to sympathize with an environmentalist message. They would not need a work of art to inspire them to

There is little in art that is more old - fashioned than the idea that art must be new.... Perhaps art needs to develop a new means of communication.

take action to protect the environment. Recently, one of my students gave a more considered answer: “We may not be able to bring about meaningful change directly through our work, but we can at least start the conversation that leads to change.” I say it is a more considered answer, but not necessarily a more effectual solution. It gives art a purpose beyond preaching to the converted, but it is a purpose that requires a lot of time.

And here we reach the crux of the problem. Art is a tool of cultural evolution, which harnesses the power of collective learning to help us adapt to our environment faster than genetic evolution allows. Or perhaps it would be more accurate to say that cultural evolution works by adapting our environment to us – through artificial selection of domesticates, for example – and thus speeding up the processes of natural change. Cultural evolution is a fast way to adapt to fast change, but as it solves that problem, it creates another. By making change happen even faster, it will eventually require us to develop a yet faster method of adaptation, and so on *ad infinitum*. Art, and other forms of cultural evolution, may not work quickly enough anymore.

Mirkovic suggests that art can help us avoid the unsustainable trend of globalization if we rediscover our creative potential and make art once again, instead of mindlessly consuming it.¹⁸ I would add to this pronouncement that *what* we create is at least as important as the simple fact *that* we create. While the revival of old, venerable art forms like opera, painting, and sculpture is a goal worth striving for, I believe the attempt will fail if it is undertaken for purely nostalgic reasons. Christopher Lasch has written that nostalgia, while seemingly opposed to progress, is actually the partner of progressivist ideologies like globalization,

because it objectifies the past.¹⁹ Big history can be an antidote to such an oversimplified view of the past; by treating time as a continuum, it helps us understand that even the distant past shapes the present and future, and that we can never isolate the past and look only forward. If art is made out of a desire to keep old traditions alive, it cannot do more than serve the currently operative historical paradigm, no matter how critical the message of the work. The most effective way to prevent art from becoming a threat to the prevailing social order is to seal off artists and their audience in a remote, inaccessible past.

The burden of creating a new purpose for art lies not just with artists, but with art critics and art historians as well. Standards of artistic quality must change. There is little in art that is more old-fashioned than the idea that art must be new: new styles, new media, new humanist philosophies, new dogma. What if that is all just re-arranging deck chairs on a sinking ship? Perhaps art needs to develop a new means of communication. One might say that artists, like big historians, will have to think hard about the balance of science and spirituality in their work. The change we are bringing to our environment is now so fast and beyond our present means of control that for art to simply call people's attention to an issue cannot be a sufficient guarantee of its success. Art must do more than give meaning to history and science. The role that an art historian with a grounding in big history can play is to give aspiring artists a new historical perspective that invites them to look beyond the usual provincial concerns of artists and their audience: self-expression, personal life, current events, partisan politics, religion, regional traditions, national traditions, world traditions. The meaning that humans alone perceive in history may spark our likewise unique drive to create, but creativity and the quest

for meaning need not be ends in themselves. What if artists used their gift for creative problem solving to directly confront environmental problems, rather than simply referring to them?

Cosmic history began with differentiation, with small differences in energy density in the early universe. It will end with homogeneity. Will the same be true for art history? Around the middle of the twentieth century, the art historian Max Raphael speculated that the Paleolithic cave paintings of Europe were a product of man's realization that he was different from other animals.²⁰ While this hypothesis cannot be proven, much art does seem to be a product of the perception of difference – the difference between races or nations; the difference between social, political, and economic classes; the difference between man and nature. Will art someday serve to reintegrate humanity with nature? Such a purpose for art may seem to be self-defeating, because art exists to proclaim a special status, whether it be the special nature of one's emotions and life history, or the special nature of human existence in general. But such is the paradox of big history, and it is no less true for being so. Through the anthropocentric act of finding meaning in cosmic history, we can reincorporate ourselves into the rhythm of nature. Artists face the future with the same question that occupies big historians – can human agency make a difference?

Endnotes

- 1 “691: To Theo van Gogh. Arles, on or about Saturday, 29 September 1888,” accessed April 17, 2015, <http://vangoghletters.org/vg/letters/let691/letter.html>.
- 2 Elizabeth A. Sutton, *Early Modern Dutch Prints of Africa* (Surrey, England: Ashgate, 2012), 88, 92.
- 3 Ibid., 90.
- 4 Laura Rahm, Gus Lyn-Piluso, Steve Sisney, and J. Daniel May, “Is

- the IBHA at a Crossroads?” *Origins* 4 (October 2014): 20.
- 5 Robert Smithson, “Frederick Law Olmsted and the Dialectical Landscape,” in *Robert Smithson: The Collected Writings*, ed. Jack Flam (Berkeley, Los Angeles, and London: University of California Press, 1996), 163-64.
- 6 Yve-Alain Bois and Rosalind Krauss, “A User's Guide to Entropy,” *October* 78 (Autumn 1996): 40.
- 7 Richard B. Simon, “On Power: George Lucas, Jerry Garcia, and Barack Obama's Big Black Helicopters,” *Origins* 4 (August 2014): 9.
- 8 David Christian, *Maps of Time: An Introduction to Big History* (Berkeley, Los Angeles, and London: University of California Press, 2004), 2.
- 9 Fred Spier, *Big History and the Future of Humanity* (Malden, Mass.: Wiley-Blackwell, 2011), 14.
- 10 Ann Gibson, “The Rhetoric of Abstract Expressionism,” in *Reading Abstract Expressionism: Context and Critique*, ed. Ellen G. Landau (New Haven and London: Yale University Press, 2005), 445.
- 11 Barnett Newman, “The First Man Was an Artist,” in *Art in Theory, 1900-2000: An Anthology of Changing Ideas*, ed. Charles Harrison and Paul Wood (Malden, Mass.: Blackwell, 2003), 576.
- 12 Eric J. Chaisson, “Big History's Risk and Challenge,” *Origins* 4 (November 2014): 9, and Fred Spier, “Response to Eric Chaisson's *Big History's Risk and Challenge*,” *Origins* 4 (November 2014): 19.
- 13 James Geary, *I Is an Other: The Secret Life of Metaphor and How It Shapes the Way We See the World* (New York: Harper Perennial, 2011), 12.
- 14 Newman, 575-77.
- 15 Christian, 225.
- 16 John Berger, *Ways of Seeing* (London: Penguin, 1972), 8-9.
- 17 Alexander Mirkovic, “Big History, World History, and Opera: Is There a Connection?” *Origins* 5 (January 2015): 8, 11.
- 18 Ibid., 11.
- 19 Christopher Lasch, *The True and Only Heaven: Progress and Its Critics* (New York and London: Norton, 1991), 117-19.
- 20 Gregory Curtis, *The Cave Painters: Probing the Mysteries of the World's First Artists* (New York: Anchor Books, 2006), 133.



Perspective, Gratitude, and Wonder: Revelations in Big History

Kyle Herman

Community Montessori, New Albany, Indiana

For many traditional high school students, learning feels like a chore. Worse, it's a chore that doesn't make much sense or have any clear purpose. The only obvious one seems to be getting high marks, which is an unreachable goal for those with learning differences and a nonsensical one for those who see through the superficiality of such a pursuit. The delivery of a fragmented curriculum in 7 isolated periods is just one piece of the problem, but it is a big piece. A typical school day involves rushing from one class to the next, and though students quickly memorize the physical routes between classrooms, they see few if any intellectual junctions between the subjects they study.

We shouldn't be surprised, then, when students find so little joy in formal education, but we also shouldn't make the mistake of thinking it has to be that way. On the contrary, the emotional and psychological sensitivities of adolescence can be advantageous traits in a well prepared environment. So, we ought not blame the adolescent for his academic malaise; we ought to blame an institution in which "study becomes a heavy and crushing load that burdens the young life instead of being felt as the privilege of initiation to the knowledge that is the pride of our civilization" (From *Childhood to Adolescence* 62).

Here, Maria Montessori articulates the true essence of education, particularly for the adolescent. It is a rite of passage into one's culture. The integration of knowledge orients the young adult to the world he

is poised to enter and ultimately shape. From this perspective, education is a social gift, an intangible inheritance bestowed upon the next generation by all those who came before it. The inheritance increases with each generation because the passing on of knowledge is a cumulative process that gains momentum every step of the way. This is the message that formal education should communicate to adolescents. Of course, that's easier said than done, but it is being done in Montessori schools all over world.

Those of us in Montessori education remain baffled that a viable solution to this problem is readily available but not being used in standard practice.

Those of us in Montessori education remain baffled that a viable solution to this problem is readily available but not being used in standard practice. Nevertheless, there are more and more contemporary scholars across disciplines calling for educational reform and endorsing the precepts that Montessori promulgated throughout the first half of the 20th century. One of the most exciting examples is David Christian, a historian who developed a cohesive curriculum he calls Big History. Though it is not intentionally designed for Montessori schools, Big History aligns philosophically and pedagogically with Montessori's Cosmic Education, which makes it well suited for use in Montessori secondary programs.

Cosmic Education informs the elementary curriculum, and it is based on what Montessori calls "cosmic theory," which "recognizes in all creation a unifying plan upon which depend not only the different forms of living beings, but also the evolution of the earth itself" (Basic Ideas of Montessori's Educational Theory 128). The objective of helping the child begin to recognize this unifying plan is twofold. On the one hand, it excites enthusiasm and provides context for learning by connecting "all the items of culture...as different aspects of the knowledge of the world and the cosmos. Astronomy, geography, geology, biology, physics, chemistry are but details of one whole. It is their relation to one another that urges interest from a centre towards its ramifications" (Ibid. 131). Here we have a way to reach the child and offer him a reason to care about what he learns. We might say this is the practical effect of Cosmic Education. On the other hand, we have the philosophical effect of "the directing of consciousness toward humanity" (Ibid. 131). When we place our own existence in the context of the cosmic plan, we see "Man...appear as a sacred being of creation and as the greatest marvel of nature" (Ibid. 132). This revelation produces "the sentiment of 'gratitude and love' for all the advantages that we enjoy in life" (Ibid. 132). While traditional education intends to promote economic growth by preparing graduates for the work force, Cosmic Education promotes moral progress by helping students appreciate "the fact that the whole of humanity is so intimately united that it forms but one organized energy" (Ibid. 130).

Big History shares the same lofty goals as Cosmic Education, and it approaches the achievement of those goals in much the same way. Christian defines Big History as "the attempt to understand, in a unified, interdisciplinary way, the history of Cosmos, Earth, Life, and Humanity" (What and Why of Big History 2008). The course's first threshold is the same as Montessori's First Great Lesson, namely, the origin of the universe. From there, it pulls from various fields of modern scholarship to piece together how we came to live in the astoundingly complex modern world in which we find ourselves. Christian invites us to think of Big History as a vast map of space and time, which provides the student a "sense of place, identity, and even purpose" (Ibid.). Our collective and individual purpose is what Montessori calls our cosmic task, and the realization of such purpose is paramount in both Cosmic Education and Big History. In both of these approaches, the learning of information is much less important than the edification that results from putting it all together. As Christian explains it, traditional education disorients students because it offers them no large scale map of space and time, and he calls this failure "calamitous" because it "leaves students stranded" philosophically and ethically (Ibid.). Big History allows students to trace the route that humanity has taken thus far, to locate our current position, and to see where we can and need to go from here.

Now, that all sounds good on paper, but does it actually work? Can we translate these grandiose ideals

into real and measurable results? Rather than answer that question myself, I'll let my students do it for me. This semester, my class explored Earth and Space Science through the lens of Big History, and as part of the final assessment, students wrote reflections on what they found "most exciting, surprising, inspiring, mind-blowing, eye-opening, world-shaking, thrilling, disturbing, shocking, controversial, preposterous, or otherwise noteworthy and remarkable about [their] learning experience these last 12 weeks."

Their responses moved me. I knew Big History had the potential to elicit profound reactions, but I never imagined it would affect so many students so deeply. Shortly into the first set of essays, I saw patterns emerging. They were articulating common feelings and experiences and doing so with sincerity. Maybe the most powerful of all the responses came from the students who struggle with writing, some of whom may not have been able to pass the course in a traditional setting. Despite their challenges, they articulated concepts just as profound as those of their more academically

inclined peers (for the ease of reading, I have cleaned up any mechanical issues, though some important aspects of personality do get lost in that "cleaning"). I quickly realized I had to share these responses, in part to illustrate the edifying value of Big History, but mostly because insights like these can help us all gain perspective.

Christian invites us to think of Big History as a vast map of space and time, which provides the student a "sense of place, identity, and even purpose" (Ibid.). Our collective and individual purpose is what Montessori calls our cosmic task, and the realization of such purpose is paramount in both Cosmic Education and Big History.

One of the most potent effects of Big History is that it makes learning meaningful. Everyone knows the stock question posed by students who feel their valuable time being wasted by trivial academic pursuits: "When am I ever going to use this?" It's a valid question, and one that teachers would do well to answer for themselves before writing a lesson plan or designing a curriculum. However, I have never had a student of Big History pose that stock question, despite the fact that very few of them, I imagine, aspire to be Earth and Space scientists one day. In fact, some of them who have already convinced themselves they don't like science realize they have to reconsider their opinion.

In this response, there's a hint of regret in the recognition that, "I never realized the things I had been missing out on without even knowing it...I have never really been one with much interest in science or subjects that related to science, but Earth and Space was by far one of my favorite classes ever taken." Another student candidly admits, "It takes a lot to get me interested in a seminar as much as I was interested in Earth and Space Science. This seminar managed to keep me interested for the whole 12 weeks."

Stoking the fire of an adolescent's imagination is difficult when the courses they study seem to have no relevance to one another or any apparent meaning beyond passing a test. Big History mitigates that difficulty by providing what Christian calls the "connective tissue" that joins every subject into one body of knowledge. In our seminar, we invoked cosmology, theology, astronomy, chemistry, physics, geology, biology, archaeology, anthropology, and history. Once students start seeing all of the parts fit together, they feel an intrinsic motivation to keep searching for more and more details to add to the

emerging story. This is how Big History ignites the imagination of adolescents and sparks that fascination with the natural world that comes so easily to children.

As one student explains it, “In first grade we watch caterpillars turn into butterflies; we gather snow into our hands to watch it disappear again. We are fascinated by these things. We get into high school and the small things fail to fascinate us anymore. We understand that the moon affects the tides and that dinosaurs once roamed the earth, but it doesn’t seem to matter. In growing up, we fail to realize how these things relate to us as we think about driving, or getting a job. That’s what has fascinated me the most. The real eye-opening that I have received. It was more than a required class...It’s not just rocks and their luster or theories on Continental Drift. It’s the way each of these things, no matter how small, contributes to life on this earth. That’s what has stood out the most.”

Another student’s mind reels at the fact that, “There are so many parts to explore in Earth, let alone space. There are giant plates beneath the surface of the Earth...and they move! Not only do they move, but they can build mountains & demolish cities with their turtle-paced shifting.

I had a very limited knowledge of the formation of elements, but now I know they came from the stars... Even cooler, those star elements are in my body!”

The sheer magnitude of topics to study and new discoveries waiting to be made inspires the pursuit of knowledge for the sake of assembling a more expansive understanding of the world. One student captures this inspiration well when she notes that the “...universe is unfathomably large and there are still so many parts of it we have yet to discover. The impact it had on me was humbling and it also incited a thirst for more

knowledge...I’ve been encouraged to think beyond my microcosm in an enjoyable atmosphere.”

By looking at history at different scales, from the macrocosm to the microcosm, Big History reveals otherwise obscured details, patterns, and interdependencies. From these various vantage points, the relationships among features of the universe become plain to see, and with that clarity, there arises a deep appreciation for life and our connection with the cosmos. One student muses, “Without the stars we wouldn’t be here at all. If we were closer or farther away from the sun then life would be different, and if we only existed at the end of our sun’s life span we’d be gone! Without looking at our history from a different perspective, I don’t think I’d be as grateful for this existence.”

Another student marvels at “...the fact that everything is so big and we are so small. It truly gives you a new way to look at life. And it really gives you an appreciation when you look up at the stars at night and think about how far a star is and how hot and how big. I guess being a kid and looking up and wondering so many years, now I look up and am amazed by how much I know about the universe.”

The perspective Big History offers is both humbling and valorizing, typically in that order. First comes a feeling of an almost embarrassing smallness, a real blow to the ego...and yet, the next feeling rushing in behind it is just the opposite; the Self extends outward, expanding like the universe, and the identity becomes renewed, wider and bigger and all the more significant. As one student writes, “I’m bad at appreciating myself, and I’m not trying to make this some kind of sob story or anything, but knowing that I am, in a way, formed from/by stars makes me feel more important.” If there is one thing that we should

aim for in secondary education, it should be helping adolescents feel more important, or rather, helping them see how important they really are. Montessori calls this experience “valorization,” and though not a term explicitly used in Big History, it happens quite naturally when students realize their connection with the cosmos.

Beyond the elemental kinship of humans and stars, students are awestruck by the grand drama of their scientific origin story, in which they find themselves playing a leading role. They are amazed by how “...everything lined up in our favor. The fact that we even exist is a big mystery in itself, but looking at how if things were just slightly different we wouldn’t be here possibly is the most impactful thing I’ve learned. I am going to walk away from this seminar and be thankful that the universe lined everything up the way it did.”

By telling the whole story as we know it, from the birth of the universe to the present day, Big History allows students to unify fragments of knowledge into one cohesive narrative, to connect the otherwise scattered points between the starry firmament of deep space and our charmed little planet teeming with life. Many of them find poetry in this story. “In the darkness of space, a star lights up. That star consumes hydrogen for billions of years, eventually growing larger and larger until it begins to dies. Nearly half of the naturally made elements are created. The star collapses and explodes into a light that can outshine a galaxy. In that supernova, the remaining natural elements are created and scattered across the universe. Those elements combine to create planets and life. From that life, you and I are born. Our time is short compared to everything around us, yet we accomplish so much. Though we live our life and eventually die, we are lucky to have called such a

miraculous place our home."

That nothing in the universe lasts forever may sound like doom and gloom, but this conclusion actually leads us to feel we ought to enjoy life while it lasts. After all, the temporary nature of existence is what gives everything its value. This rule holds true at every scale: our individual lives, our relationships with one another, our species, our planet, the stars and galaxies, and possibly even the universe itself. All of these are special precisely because they won't last forever, which means we can't take any of it for granted. The "most mind-blowing thing" for one student "was the death of our star in the next billions of years. It kind of makes me wonder what humans will do (if we make it that long due to our current living state), but then I remember I won't have to deal with it, why worry. It just makes me thankful for the time I have here."

Again and again, students express gratitude for what modern scholarship reveals to them about the universe and their terrestrial share of it. Although our scientific origin story has its limitations and controversies, students know the point is to consider the possibilities, not to blindly accept the conclusions of modern science. Indeed, they

are encouraged to critically analyze everything they think they know in order to arrive at a more dynamic and personalized understanding of themselves and the world. Fortunately, adolescents enjoy a flexible mind that can open up to new ideas and bend to accommodate pre-existing ones, as evidenced by a

student who writes, "I want to know what is beyond the reach of my human eye and I want to hear the theories of how they came to be, no matter how crazy they seem." The willingness to consider all possible explanations is a virtue indispensable to lifelong learning. By admitting that it doesn't have all of the answers, Big History promotes such a mindset.

Operating with a critical yet flexible mentality, adolescents don't feel as uneasy about

controversial ideas as adults sometimes do; rather, they find them valuable to one extent or another, even if ultimately bogus in their estimation. One student captures this notion well when he writes, "Even though I don't believe in how the scientists came to portray our arrival to this planet where we call home,

it still opens my eyes to the wonderful planet that we inhabit." For him, the Truth of the matter is really of no consequence; a scientific origin story helps him see Earth as "wonderful" again, a place where the most ordinary things suddenly look extraordinary.

Another student speaks to this transformative experience, despite being aware that the story as we know it is bound to change over time. "I will carry the impression that I am one of the lucky few who get to enjoy life on our planet. I am a part of something that may have seemed dull and simple to me before I took this seminar. I will take away a sense of completion in knowing that not all estimates started out correct, and that there are indeed a minimum of two sides to every story. This is the beginning of this story, not the end."

The future holds immense possibilities for our planet and our species, some of them downright alarming and some positively promising. Mankind has arguably transformed himself and the world more in the past 250 years than in all of human history, building up a "supernature" in which we have taken evolution into our own hands. Our capacity for exploring deep space and time and understanding the physical forces that govern our planet gives us cause for sober optimism about where we might go from here and what we might discover next. Whether our modern scientific origin story proves to be accurate or fundamentally flawed, one thing remains certain: a cosmic perspective orients us and inspires us to see ourselves as part of something much bigger and more significant than we could otherwise imagine. If we learn nothing else from Big History, let us learn that, for with such a perspective, we lose sight of all the classifications dividing us, and what comes into vision at last is One Nation, a Single Organism, sharing One Planet for a fleeting moment in Time.

This semester, my class explored Earth and Space Science through the lens of Big History, and as part of the final assessment, students wrote reflections on what they found "most exciting, surprising, inspiring, mind-blowing, eye-opening, world-shaking, thrilling, disturbing, shocking, controversial, preposterous, or otherwise noteworthy and remarkable about [their] learning experience these last 12 weeks."

Their responses moved me.

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.



Eduard Berentzen

Bree Foth

Ronald Burke

Philip J. Hughes

Wendy Curtis

Heidi Hayes Jacobs

Imogene Drummond

Chris Oddy

Melanie During

Jeremy R. Lent

Robert Flanagan

Jingyu Rhine

Elizabeth Fraser

Evan Penn Serio

Karen Wager-Smith

Please Vote in the Elections for the IBHA Board of Directors

The members of the IBHA Board of Directors hold staggered three year terms. Each year, a few 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 fulfilling the mission of the IBHA through continuity, change, stability, and inclusivity, the IBHA selects Board candidates in two ways:

- (1) IBHA members identify names
- (2) and the existing Board proposes a list of names.

Between November 2014 and April 15, 2015, IBHA members could log on to the IBHA website at <http://ibhanet.org/>, click on "Forum," "IBHA Discussions," and "IBHA Board of Directors Nominations," and post the names of any members they recommended for Board membership. Nominees who were endorsed by at least 10% of IBHA membership before May 15, 2015 would become candidates. In April and May, the IBHA Board discussed and decided on its list of candidates.

Beginning and Ending of IBHA Board Members' Terms												
	2010	2011	2012	2013	2014	2015	2016	2017	2018			
Walter Alvarez	F			E								
Mojgan Behmand						E						
Craig Benjamin	F			E								
Cynthia Brown	F			E								
Eric Chaisson		A										
David Christian	F			E								
Lowell Gustafson	F			E		E						
Andrey Korotayev					E							
Jonathan Markley						A						
Esther Quaedackers			A	E		E						
Barry Rodrigue	F			E		E						
Kathy Schick				E								
Fred Spier	F			E		E						
Joseph Voros			A	E				E				
Sun Yue						E						

F = Founding Member E = Elected A = Appointed

As a result of this process, the candidates for the IBHA Board of Directors for three seats whose terms will run from August 1, 2015 through July 31, 2018 are:

- **Craig Benjamin**
- **David Christian**
- **Jonathan Markley**

An electronic election for new Board members will begin on July 1, 2015, and end on July 31, 2015. The new Board will be announced in August. IBHA members will receive an email from SimplyVoting explaining how to log in and vote during July.

Craig Benjamin Statement for IBHA Board Election 2015

I am honored to accept this nomination for re-election to the Board of the International Big History Association. As founding Treasurer of the IBHA I am proud of a number of achievements over the past five years, including:



- Helping the IBHA achieve official 501(c) 3 (Non-Profit Organization) status with the United States Inland Revenue Service
- With the assistance of my wife Pamela Benjamin, Chair of the IBHA Advisory Council, assisting in the recruitment of two exceptional Administrative Coordinators for the IBHA, Lesley Allen and Donna Tew, and acting as their direct supervisor and paymaster at Grand Valley State University
- Actively working with other members of the Board on a range of complex initiatives and procedures
- Working closely with Pamela, Leslye, Donna, and other Board members to organize and operate two very successful conferences, with planning for a third conference in Amsterdam in 2016 already well advanced
- And finally, working to ensure the long term financial stability of

the IBHA through careful management of our financial resources and commitments

I will be proud and honored to serve the members of the International Big History Association as a member of the Board for another three-year term. Thank you.

David Christian Statement for IBHA Board Election 2015

I am honored to stand again as a member of the Board of the IBHA. I take great pride in the achievements of the IBHA during its first four years and am proud to have been the organization's founding President since the organization was founded in August 2010 in Coldigiocco, Italy until 2014, when Fred Spier became the IBHA's second President.



In just 4 years the IBHA has held two very successful conferences and planning is under way for a third, it has created stable organizational and financial structures, it has

established a very successful newsletter, it has built an international network of supporters and members, and it has issued a number of publications in big history.

I am keen to keep serving on the IBHA board and to take part in planning for the 2016 conference in Amsterdam. I am currently based in Sydney, where Macquarie University is giving very strong backing to Big History and has created a Big History Institute, which will be holding a research conference on "The Idea of the Anthropocene" in December 2015. The Big History Institute, of which I am Director, will support the teaching of big history both in Australia and in the Asia-Pacific region. In the middle of 2015 Macquarie University will launch the first MOOC in big history. These are exciting times for all of us engaged in big history.

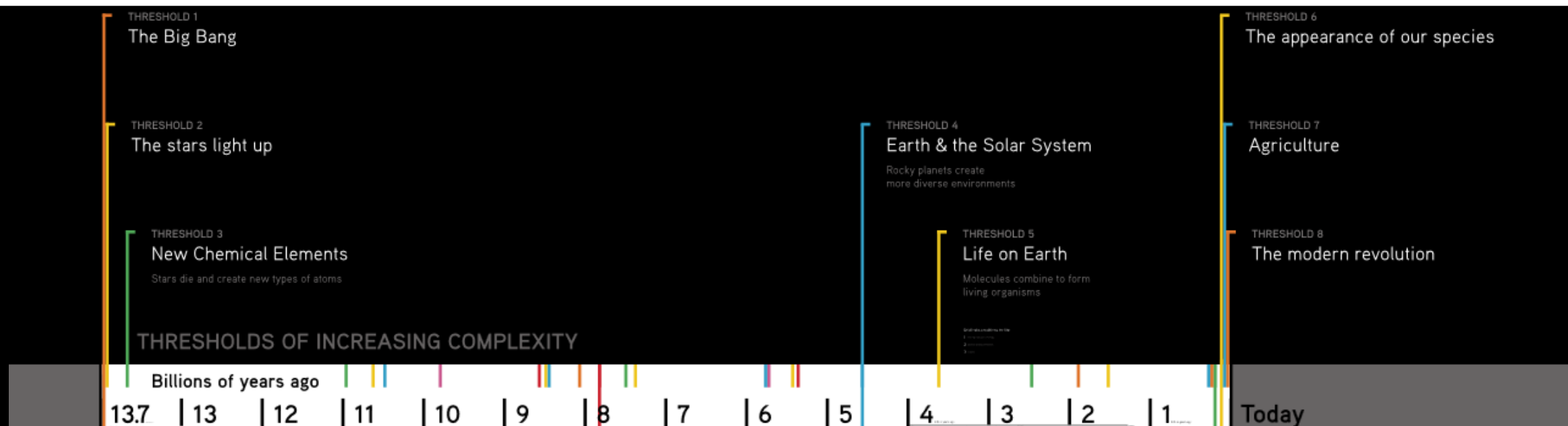
Jonathan Markley Statement for IBHA Board Election 2015

It is my pleasure and honor to accept the nomination for re-election to the Board of the International Big History Association.

I have served for the last year, having been appointed to fill the position that became vacant when Walter Alvarez resigned, and this is why I'm up for election now. During the last conference in 2014, members asked for the IBHA to become more active on social media, and I took over the IBHA's Facebook page, and have endeavored to keep this lively and interesting. We've seen the number of followers triple in the last year (and if you're not already following us, please do so!) I've also been working with Microsoft Research and my own university's IT department to develop Big History's ChronoZoom web platform, and to turn it into a full course management system.



I am also serving on the newly formed program committee for the next IBHA conference in Amsterdam in 2016, and I look forward to continuing to help make this event an outstanding success. It is my honor to serve the IBHA and its members, and I hope that you will give me your vote so I can serve for a full three year term. Many thanks.





Third IBHA Conference
July 15 - 17, 2016
Amsterdam

Call for Papers

INTERNATIONAL BIG HISTORY ASSOCIATION CONFERENCE

July 15-17, 2016

The University of Amsterdam

The Netherlands

Building Big History: Research and Teaching

DEADLINE FOR [PAPER](#) / [PANEL](#) SUBMISSIONS IS FEBRUARY 12th, 2016

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.

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 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

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->



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

[ibis-amsterdam-centre-stopera/index.shtml](http://www.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/>) . Planning for a walking tour and other pre-conference tours of the city is well underway, as is the organization of an exciting 10-day post-conference Big

History tour that will visit leading European scientific, geological, scenic and historical sites in several countries. A detailed itinerary and prices for this post-conference tour will be featured in next month's Origins. We will keep all members fully informed

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.iamsterdam.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.

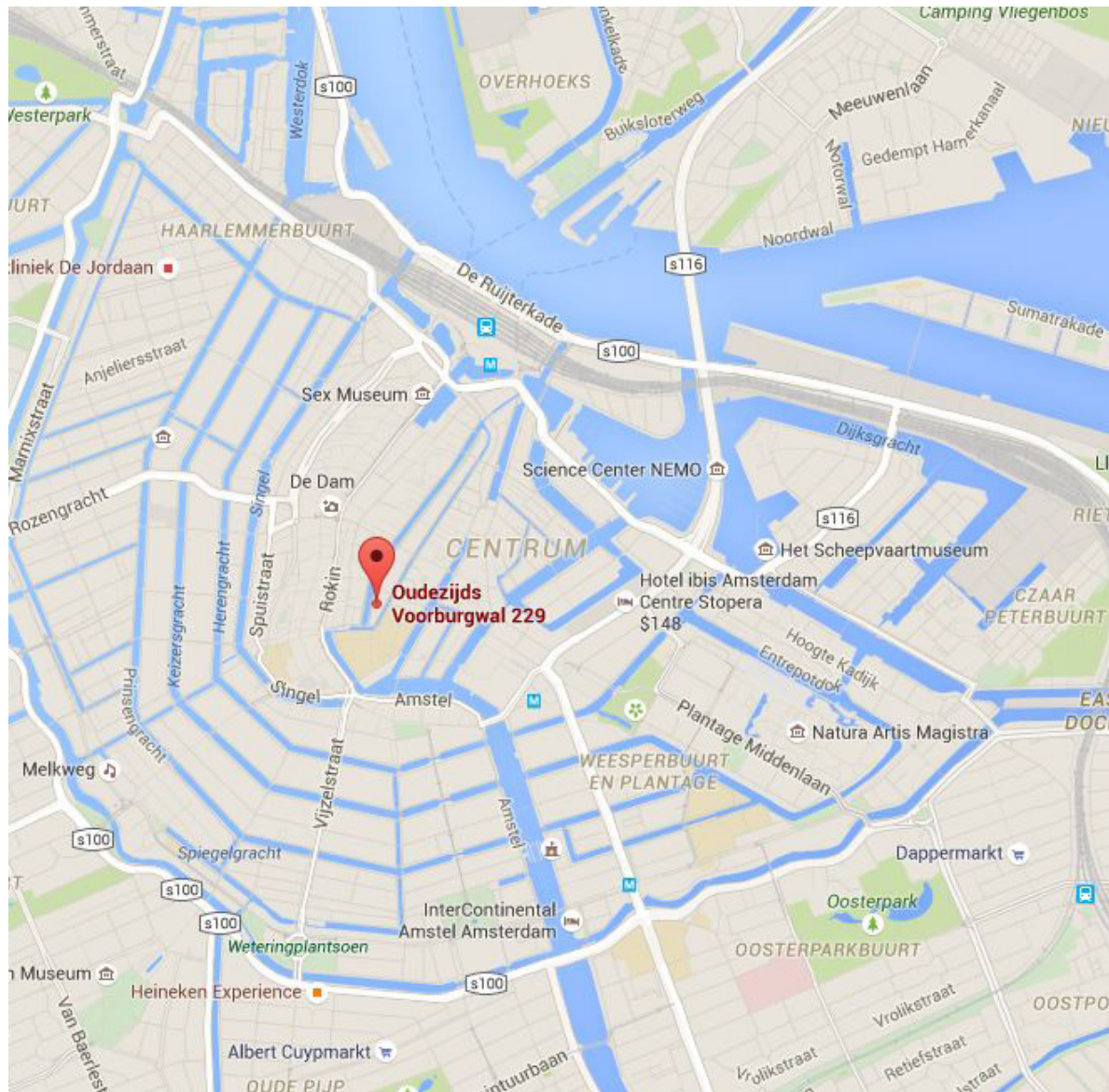
Program Committee: Jonathan Markley (chair), Cynthia Brown, David Christian, Lowell Gustafson, Andrey Korotayev, Esther Quaedackers, Fred Spier, Sun Yue,

as plans for the third IBHA conference evolve, but for now please mark the dates of July 15 - 17 (for the conference) and 18– 27 (for the tour) on your calendars, and start planning to join us in Amsterdam in July of 2016!

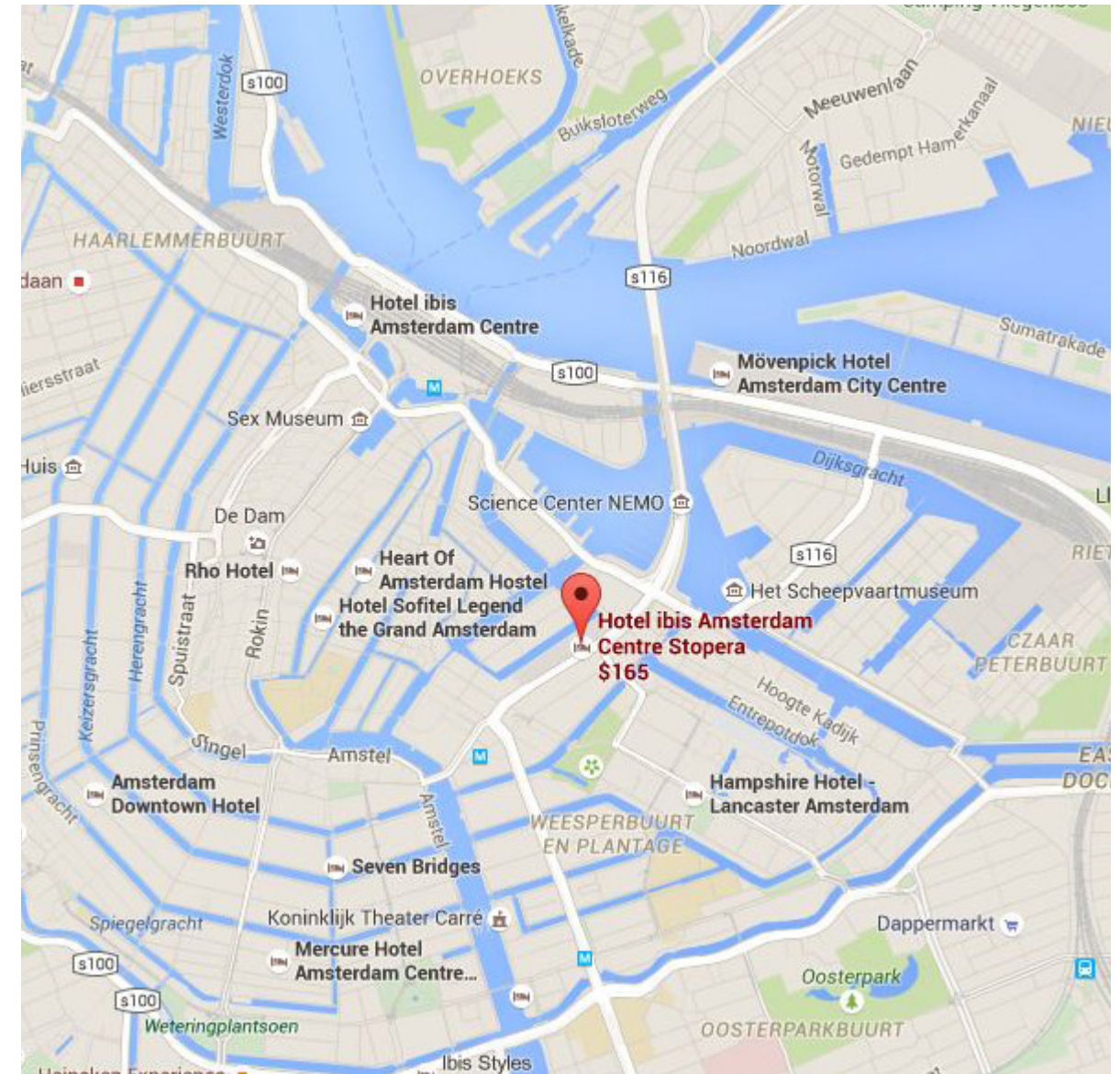
Questions? Just email Donna Tew, IBHA Office Coordinator @ tewd@gvsu.edu

Next Month: details on Big History Tour, including:

- Amsterdam, NL (World War One sites) – Museum & graves sites @ Belgium/France border
- Paris, France – Welcome dinner
- Montignac, France (Lascaux Caves)
- Geneve, Switzerland (CERN) Geology (Volcanoes of Auvergne Nat'l Park)
- Grindelwald, Switzerland – (Matterhorn, Alps)
- Heidelberg, Germany – Geology along Rhine River
- (Farewell dinner)

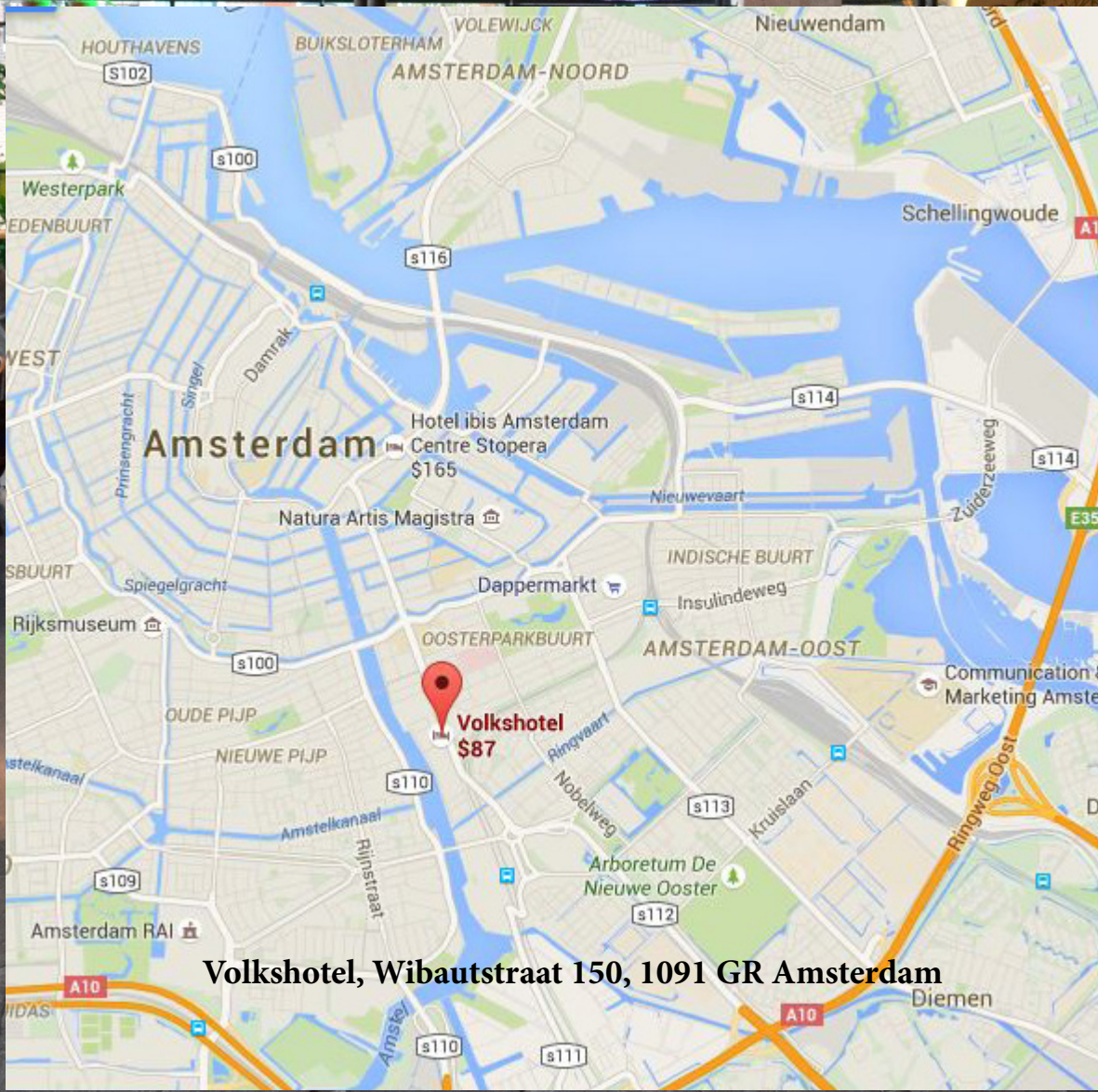


Location of Conference: Oudezijds Voorburgwal 229, 1012 EZ Amsterdam



Hotel ibis Amsterdam Centre Stopera, Valkenburgerstraat





Volkshotel, Wibautstraat 150, 1091 GR Amsterdam

Did you catch these **New Discoveries?**

From Fred Spier's Twitter

May 21 (retweeted from David Christian's Twitter): Dogs may have been domesticated about 30,000 years ago instead of about 15,000, as is currently believed. Swedish researchers have examined DNA from a wolf bone found in northern Siberia, dated at 35,000 years ago, that shows the DNA is half-way between that of a wolf and a dog. (<http://www.bbc.com/news/science-environment-32691843>)

June 3: In the evolution of life amino acids and the genetic code may have co-evolved, instead of RNA coming first. Two professors of biochemistry and biophysics at the University of North Carolina have shown close linkages among the physical properties of amino acids, the genetic code, and protein folding. Their findings suggest that an earlier genetic code enabled short proteins (peptides) to build RNA. Hence, they believe that a collaboration between RNA and peptides was likely necessary for the emergence of further complexity. (<http://www.sciencedaily.com/releases/2015/06/150601172834.htm>>)

June 8: Chimpanzees may know when they are right and move to prove it

Chimpanzees are capable of metacognition, or thinking about one's own thinking, and can adjust their behavior accordingly, researchers have discovered.

<http://www.sciencedaily.com/releases/2015/06/150608212743.htm>

June 9: Fibres and cellular structures preserved in 75-million-year-old dinosaur specimens

Exceptionally preserved organic remains are known throughout the vertebrate fossil record, and recently, evidence has emerged that such soft tissue might

contain original components. We examined samples from eight Cretaceous dinosaur bones using nano-analytical techniques; the bones are not exceptionally preserved and show no external indication of soft tissue. In one sample, we observe structures consistent with endogenous collagen fibre remains displaying ~67 nm banding, indicating the possible preservation of the original quaternary structure. Using ToF-SIMS, we identify amino-acid fragments typical of collagen fibrils. Furthermore, we observe structures consistent with putative erythrocyte remains that exhibit mass spectra similar to emu whole blood. Using advanced material characterization approaches, we find that these putative biological structures can be well preserved over geological timescales, and their preservation is more common than previously thought. The preservation of protein over geological timescales offers the opportunity to investigate relationships, physiology and behaviour of long extinct animals.

<http://www.nature.com/ncomms/2015/150609/ncomms8352/full/ncomms8352.html>

June 10: Dramatic ice sheet collapse 135 thousand years ago triggered strong global climate change

The climatic events that ended the ice age before last are surprisingly different to those of the last ice age, an international team of scientists has found. These findings will help scientists understand the processes that control Earth's dramatic climate changes at the end of an ice age. (<http://www.sciencedaily.com/releases/2015/06/150610131444.htm>)

June 12: Stone tools from Jordan point to dawn of division of labor

Rich array of artifacts shows mix of techniques dating to early Upper Paleolithic

Charcoal samples enable remarkably accurate estimates of 40,000 to 45,000 years ago for the earliest Upper

Paleolithic stone tools in the Near East. The toolmakers appear to have achieved a division of labor that may have been part of an emerging pattern of more organized social structures. (<http://www.sciencedaily.com/releases/2015/06/150612131628.htm>)

June 15: Mount Qomolangma has moved 40 centimeters to the northeast over the past ten years, with its height increasing by three centimeters, the National Administration of Surveying, Mapping and Geoinformation said Monday.

Monitoring data collected by the department from 2005 to 2015 shows that the mountain has been moving at a speed of four centimeters per year and has been growing by 0.3 centimeters annually.

The Mountain is located on the collision belt for the boundary between the Indian and the Eurasian Plates, where the crustal movements are active. Geographical changes in the area have great influence on the climate, environment and ecology of East and South Asia, experts said.

The administration set a satellite monitoring system on Qomolangma in 2005 and started to observe the movement of the mountain.

Observers with the department found that Mount Qomolangma shifted three centimeters southwestward after the devastating Nepal earthquake on April 25, while the height of the mountain was left unaffected. (http://www.chinadaily.com.cn/china/2015-06/15/content_21010735.htm)



**Follow Fred
Spier on
twitter**
@BigHistory

