



Big History Education in Korea

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The Institute of World and Global History at Ewha Womans University was established in 2008 as a 5-year-project sponsored by the World Class University (WCU) program of the National Research Foundations of Korea, and initiated by Professor Ji-Hyung Cho, who invited David Christian, a founder of Big History, to undertake joint researches on global history and Big History. When I was a doctoral candidate, I had read David Christian's articles and his book on Big History, and I thought that it would be interesting to expand the scope of history from the study of humanity to include the natural sciences.

I met David Christian in the summer of 2009 under the WCU project and we launched Big History summer course, "A History of Everything after the Big Bang." This course was the first Big History course in Korea and David taught it in English. I audited his full course and found that it offered interesting perspectives and approaches on history. Professor Cho and I thought that the perspective of Big History, which emphasized both consistency within the big picture or frame and also diversity, would be very helpful for students to help develop their intellectual creativity as they prepared for their futures. So we decided to open a Big History course in Korean every second semester, and I have taught Big History at Ewha since 2009.

It was a really good experience for me to teach Big History. As

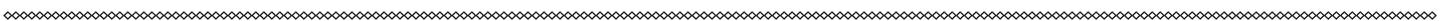
We are delighted to highlight the Big History program at the Institute of World and Global History, Ewha Womans University and its director, Seohyung Kim (pp. 1 - 2)

On page 3 is Melanie Aranka Dominique During's wonderful painting, "Eye Catcher."

Michael and D'Neil Duffy's piece on the IBHA for *Montessori Life* is on pages 5 - 7.

Craig Benjamin addressed award winning GVSU students and faculty - pages 7 - 8.

Authors' webinar on the forthcoming text from McGraw-Hill: *Big History: Between Nothing and Everything!* Information on how to sign up is on page 9.



David said, Big History is like a map, which provides the information we need to climb the mountain of modern knowledge. I agree with his idea that we need different perspectives to understand our world more deeply. The Big History perspective can show us many things that we cannot see otherwise, and this perspective can help us see our world from many different points of view. When I teach Big History, I always say that Big History shows both universality and the distinct characteristics of human history and our world. Students can learn how to combine these diverse perspectives and how to think about their future within the big picture. Many students liked Big History because it can suggest new opportunities by expanding our thinking and visions for global society. One of my students sent me a letter last semester, saying that she was very happy she had experienced the Big History course at Ewha, and it was useful in helping her prepare her future.

Nowadays, convergence education is one of the most important things in Korean education. The convergence education means that every subject in middle school and high school can be combined within larger frame or context. And it emphasizes the inter-connection between the natural sciences and humanities. In fact, there is a subject called convergence science in Korea, which combines physics, biology, chemistry and earth science. There is a textbook of convergence science, but it just enumerates scientific knowledge. So, many people have become interested in Big History, because it combines natural sciences and humanities within a single large framework, and therefore offers good model of convergence education.

As a result, I had a Big History class for middle school and high school students as a way of convergence education. In 2011, the Institute of World and Global History launched the first program in convergence education within the Big History perspective. This was offered for particularly talented students and

its goals are two: First, to help students understand today's global society through the convergence of many different scientific perspectives. Because linking diverse disciplines is essential in order to interpret and understand our world and modern global society. Second, Big History education, which focuses on diverse perspectives and viewpoints can help develop a sense of the unity of modern global society, and the importance of global citizenship. So, this program can be aligned with the Big History project in the United States and Australia by spreading science education among students and developing creativity through a convergence between the natural sciences and humanities. 33 Students were selected for the big history education program and they took 5 Big History classes at Ewha Womans University. And their various responses and the changes of values provide evidences of the necessity and value of Big History education in Korea.

Also, we began pilot program with the help of bgC3 in last semester. There were 5 schools including 2 middle schools, 2 high schools and one stronghold at Ewha Womans University. This is the first pilot program in non-English speaking country and Professor Cho, David and I prepared for teachers workshop during the summer vacation. Because Big History is not regular course in middle school or high school in Korea, so we opened the pilot program as an extra-curriculum. So, we provided 10 times

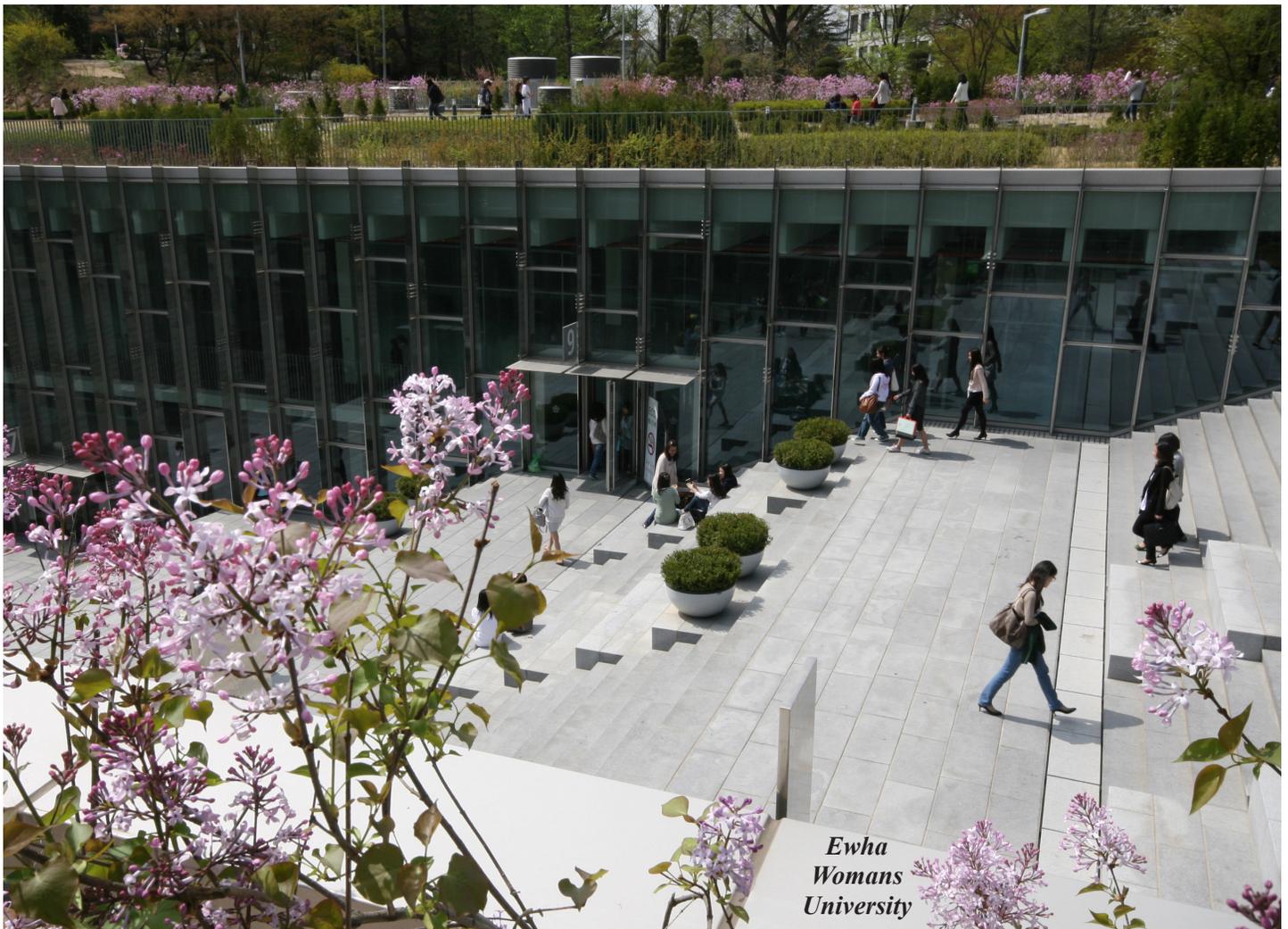


of lectures on Big History and planned activities for students to experience big history. Of course, I taught Big History to 30 students, who had been selected from 30 different high schools in Seoul. They liked Big History very much and one of my students said that if big history can be adopted as a regular course in Korea, she would like to be a Big History teacher.

According to these experiences, the Big History perspective, which provides a larger framework to understand interconnections of everything more easily is very useful for students to help develop their aptitudes and careers. I think that Big History perspective is very important for students and only Big History can suggest ways of exploring the consilience of different subjects and develop new types of intellectual creativity for our global society and a better future.



Seohyung Kim and Ji-Hyung Cho





Eye Catcher

by *Melanie Aranka Dominique During*

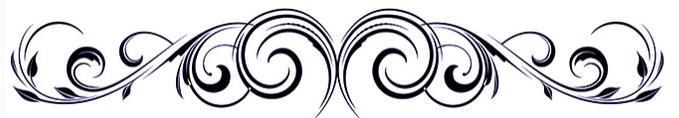
120 cm broad and 90 cm tall acrylic on canvas, exhibited at the Science Park in Amsterdam

The iris and pupil of the eye represent a cross-section of the Earth with from top left clockwise show Greenland, Canada, The Caribbean Islands, South America, Antarctica, Australia, Indonesia and Asia/Russia. Some active mantle convection zones have been shown, two mid oceanic ridges and two subduction zones (including an active volcano in Indonesia).

The sun is not visible in the painting but its light comes from the right end, hence the right side of the Earth is in Day-time and the left side is in night time, with Aurora Borealis over Greenland (the northern

magnetic pole where solar flares can just reach our atmosphere). In the tear-corner of the eye we have the moon, lit by sun light and in the background we see the Milky Way.

On the outside of the eye, beyond the lashes, we see what makes our Earth special, though it is quite common to ourselves. The corners of the painting are filled with common ivy with some raindrops.



The International Big History Association

By Michael Duffy, MEd, STL, and D'Neil Duffy, MEd

IBHA, the International Big History Association, was organized in 2010 and “promotes the unified, interdisciplinary study and teaching of history of the Cosmos, Earth, Life, and Humanity” (IBHAnet.org). This is the vision that Montessori embraced long before the discoveries of modern science fleshed out the story of the evolving universe.

“Big History” is a university curriculum that gives a comprehensive overview of everything from the birth of the universe to modern societies and visions of the future. In essence, it is a college-level version of Montessori’s Cosmic Education. The IBHA held its first conference in August 2012 at Grand Valley State University in Grand Rapids, MI.

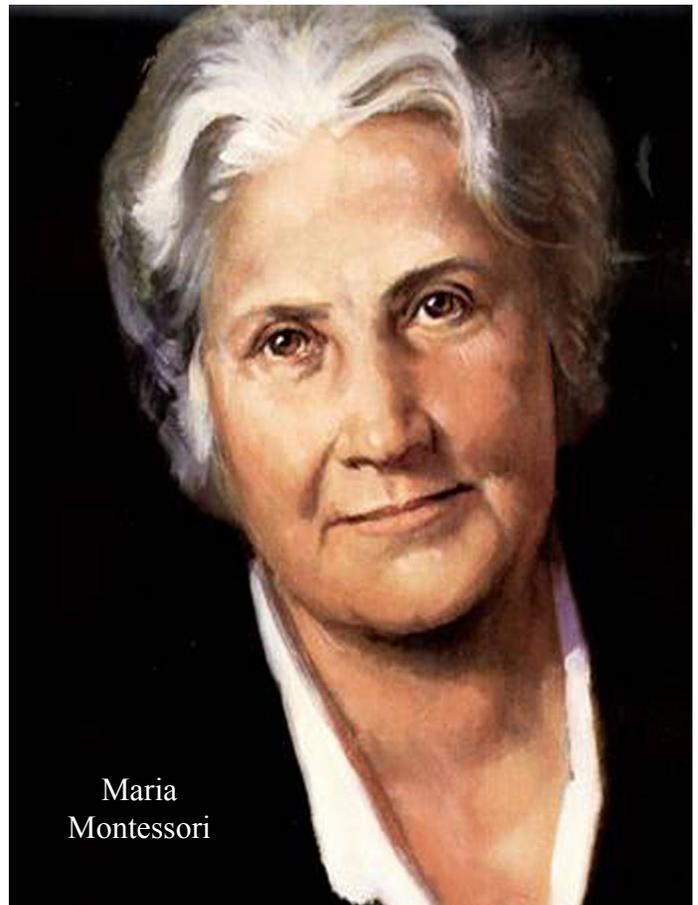
A panel of Montessorians gave presentations at the conference to inform the assembled group of our own elementary school version of Big History. D’Neil and I presented an overview of Cosmic Education, based on our book *Children of the Universe: Cosmic Education in the Montessori Elementary Classroom*. John Fowler, a veteran Montessori teacher from the Denver public school system, expanded on Montessori timelines, including the “Timeline of Light,” which he created to fill the gap between the Big Bang and the Timeline of Life. Jennifer Morgan demonstrated the storytelling aspect of Cosmic Education, using a passage in one of her trilogy of books. And Jos Werkhoven, a longtime Montessori teacher from Holland, talked about developing his own timelines to cover the full scope of Big History. The panel was well received and accomplished its goal of introducing Big History enthusiasts to our own version of this new field of university study.

We also learned a great deal from conference presentations, much of which will be useful to the Montessori community as we attempt to adapt Cosmic Education to the developments of science since Maria Montessori’s death in 1952. Two particularly interesting IBHA projects are a Bill

Gates– funded initiative to translate Big History into a version appropriate for high school and an interactive, universal timeline called ChronoZoom, developed with the support of Microsoft.

The high school program, called the Big History Project, was piloted in five schools last year and is being expanded in its pilot form to 45 U.S. schools, serving over 2,000 students in the coming school year. The following year it will be an open-source, no-cost, online course, available to everyone in the world, with continuing updates to encompass new scientific discoveries.

Montessori teachers of upper elementary students, already familiar with many of the concepts of Big History through Cosmic Education, can access the



Maria
Montessori

website, www.bighistoryproject.com/Pilot-Program, for valuable resources with good science, striking visuals, and innovative teaching techniques. This source could provide a complete Cosmic Education curriculum for Montessori middle and high schools. There is even an opportunity, detailed on the website, for schools to volunteer for the program, with teacher education provided.

ChronoZoom, another open-source project dedicated to visualizing the history of everything, is under development by the University of California at Berkeley. According to its website: ChronoZoom is an intuitive on-line tool used to visualize all of time, from the Big Bang to today, using the concept of zooming along the timeline to express distance to highlight the scope of time.... You can browse through history on ChronoZoom to find data in the form of articles, images, video, sound, and other multimedia. (chronozoom2.cloudapp.net)

ChronoZoom links information from five major scales of historical information: Cosmos, Earth, Life, Human Pre-History, and Human History. As such, it covers the entire range of Cosmic Education and provides a valuable resource for research, particularly at the upper elementary and secondary levels of Montessori classrooms. Still in the development stage—though it may never be “completed” as long as students and teachers interact with it—the site will be available to all as a free classroom asset.

David Christian, an Australian-based professor of history at Macquarie University in Sydney, is generally credited with originating the Big History course. He is the author of *Maps of Time: An Introduction to Big History*, a 642-page book that expands the scope of history to include biological, geological, and cosmological evolution. He also gave a series of 48 lectures, available on DVD through the Teaching Company, a course that Bill Gates calls his “favorite course of all time.” An even shorter version of Christian’s Big History is contained in a TED talk.

Christian organizes his presentation of Big History around eight creation stories, matching major

thresholds of increasing complexity: the universe, stars, chemical elements, plants and Earth, life, our species, agriculture, and the modern revolution. Those subdivisions mirror our own expanded version of Montessori’s Great Lessons, as outlined in *Children of the Universe*.

Others who took part in the IBHA conference and have implemented similar Big History courses at their own universities include Walter Alvarez, geology professor at the University of California at Berkeley; Lowell Gustafson, political science professor at Villanova University; Russell Genet, professor of astronomy in residence at California Polytechnic State University; Nick Toth, paleoanthropologist at Indiana University; Joseph Voros, futurist lecturer at Swinburne University of Technology in Melbourne, Australia; and Barry Wood, English professor at the University of Houston.

What is striking about all of these individuals—and others among the more than 200 participants in the conference—is that they have all gone beyond their own disciplines to teach the trans-disciplinary story of Big History. Many conference attendees reported that it is a struggle to break through disciplinary boundaries to teach such a course in a university context—something that is happily not an issue for us as elementary level generalists.

Narrative was a common theme among the conference participants. Barry Wood, for example, spoke about “cosmic narratives” as the basis for his course, similar to what we are familiar with as Montessori “Great Lessons” or “Great Stories” (Mario Montessori used both terms, depending on whether he was stressing content or pedagogy). Again, this is a wonderful parallel with Montessori’s Cosmic Education.

Although Big History aims to reach a different audience than Cosmic Education, it offers the same universal context for understanding all reality, bringing to mind Montessori’s words in *To Educate the Human Potential*: “No matter what we touch, an atom, or a cell, we cannot explain it without

knowledge of the wide universe” (Montessori, 1973, pp. 8–9). As such, the IBHA is an organization that Montessori teachers and teacher educators should know about and perhaps consider joining for further professional development. If the Big History movement succeeds, it will bring the world of education that much closer to Montessori’s vision of transformation through our consciousness of the unity of all humans, all life forms, and all that we understand as our universe.

References

Chronozoom: chronozoom2.cloudapp.net. Retrieved November 7, 2012.

International Big History Association: www.IBHAnet.org. Retrieved November 7, 2012.

Montessori, M. (1973). *To educate the human potential*. Madras, India: Kalakshetra Publications.

Suggested Reading and Resources

Children of the Universe: Cosmic Education in the Montessori Elementary Classroom, by Michael and D’Neil Duffy.

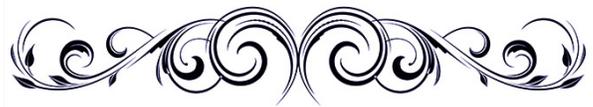
The Big History Project: www.bighistoryproject.com/Pilot-Program.

David Christian’s Big History TED talk: ted.com/talks/david_christian_big_history.html.

David Christian’s Teaching Company lectures: www.thegreatcourses.com.

Maps of Time: An Introduction to Big History, by David Christian.

MICHAEL DUFFY, MEd, STL, and D’NEIL DUFFY, MEd, are co-authors of *Children of the Universe: Cosmic Education in the Montessori Elementary Classroom*, *Math Works: Montessori Math and the Developing Brain*, and *Love of Learning: Supporting Intrinsic Motivation in Montessori Students*. D’Neil is a former head of school and is Montessori-credentialed (Early Childhood, Elementary I, Elementary II). Michael is Montessori-credentialed (Elementary I, Elementary II). Contact them at duffmont@aol.com. Reprinted with permission from Montessori Life.



Grand Valley awards students, faculty at annual banquet

By Lizzy Balboa

Using his standard Big History approach to conceptualize humanity’s place in the universe, Grand Valley State University professor Craig Benjamin put GVSU’s community into context at Monday’s annual award ceremony.

Benjamin addressed a crowd of award-winning professors and students, who gathered to celebrate their achievements and be recognized by the professors and peers who nominated them.

After asking the crowd to consider how each member could contribute to the world, Benjamin used his Big History concept to position human existence against its impressive background and determine the place of humanity in time and space.

From the heart of Grand Rapids to the edges of the galaxy, from the Big Bang through the expected self-destruction of the entire universe,



Benjamin expounded the miniscule size but infinite importance of humanity—especially GVSU’s upcoming graduates.

“So what’s our role in all this?” he asked the crowd. “At first sight, you’re probably all thinking, ‘Well, probably not much.’ We seem pretty short-lived and insignificant, pretty small.”

But Benjamin posited another answer.

“Your place in the universe—the history of each of you—I think is actually incredibly important in this big history story,” he said. “The picture is not known, and it’s up to you to write the next chapter. You really matter in this story. You’re not insignificant. You really matter to the future of our species, our planet, and there’s even larger context in there. The future is right there in your hands. The future is not written. You have to write the next chapter.”

With these encouraging words resonating in the hall, GVSU recognized the significant contributions its faculty and students have already made as they’ve begun to write their stories.

The Glenn A. Niemeyer awards, which Provost Gayle Davis said are the most prestigious academic awards at GVSU, were awarded to two professors, two undergraduates, two full-time graduate and two part-time graduate students. The award was named in honor of Niemeyer, who served at GVSU for 38 years as a professor and provost and was in attendance at the ceremony to congratulate the winners.

“(This award) is a tribute to the high regard the university has for Dr. Niemeyer and the many contributions he made through his career,” Davis said, adding that recipients strive for excellence in a well-rounded academic experience.

The 2013 Niemeyer Award recipients were Edward Aboufadel, professor of mathematics; John Shinsky, professor of leadership and learning; Cody Husak, undergraduate nursing student; Sherri Slater, undergraduate liberal studies student; Todd Cates,

physical therapy graduate student; Jeffery Clark, business graduate student; John Gipson, higher education graduate student; and Meridell Gracias, nursing graduate student.

James Manser, a senior studying international relations, was nominated by students, faculty and staff to receive the Venderbush Award for significant leadership contributions to GVSU student life.

The Thomas M. Seykora Awards were given to nine students nominated by GVSU community members for significantly contributing to student life on campus.

The recipients were Marvis Herring, broadcasting; Jack Iott, finance and economics; Darius Jordan, public and nonprofit administration; Bridgette McGuire, math; Brendan Miller, communication studies; Shelby Schwarzkoff, advertising and public relations; Caitlin Stoltman, therapeutic recreation; Michael Williams, public and nonprofit administration; and Krystal Wilson, studio art.

Departmental awards were also distributed to undergraduate and graduate students.
news@lanthorn.com

<http://www.lanthorn.com/article/2013/04/gv-awards-students-faculty-at-annual-banquet>
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McGraw-Hill Education is proud to announce the highly anticipated first edition of *Big History: Between Nothing and Everything* by David Christian, Craig Benjamin, and Cynthia Brown, available August 30, 2013!

What is Big History? Big History incorporates findings from cosmology, earth and life sciences, and human history, and assembles them into a single, universal historical narrative of our universe and of our place within it. The first edition of *Big History: Between Nothing and Everything*, written by the pioneers of the field, presents a framework for learning about anything and everything. It encourages students to think critically about our cumulative history and the future of the world through a variety of lenses.

Sign up to hear the authors discuss the first edition of *Big History: Between Nothing and Everything!* The focus of this webinar will be on introducing the content and helping you to teach Big History in your classroom.

Big History:

A BIG Course for the 21st Century Student

Presenters: David Christian, Macquarie University
Craig Benjamin, Grand Valley State University
Cynthia Brown, Dominican University

Monday, May 13 at 4:30 PM EST

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