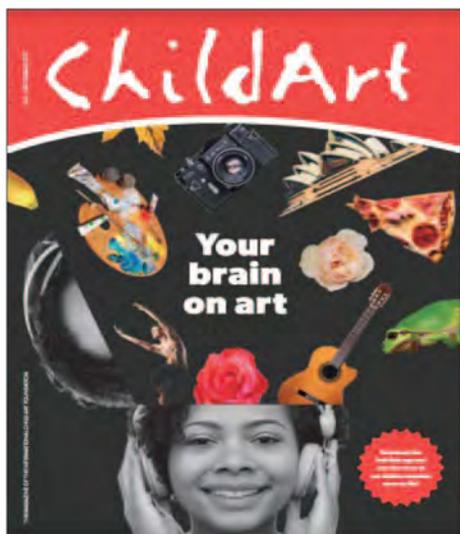


**CHILDART MAGAZINE:
ARTS AND MIND—THE BRAIN
SCIENCE OF HUMAN EXPERIENCE
(JULY–SEPTEMBER 2017)**

Guest Editor: Susan Magsamen; Editor: Ashfaq Ishaq. Designer: Tanya Heidrich. Illustrated, 44 pp. <www.icaaf.org/childart/>.

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I sat down to read this *ChildArt* issue about art and the brain a few days after I learned of Marian Diamond's (1926–2017) death [1]. Perhaps best known for her studies of Einstein's brain, which noted that he had more support cells in the brain than average, she was also a distinguished educator and a pioneer in brain plasticity research. The two products of her legacy that influenced me directly came to mind as I absorbed the essays. First, I recalled how Diamond's skill as an educator came through in an interactive videotaped lesson on the brain she did during her tenure as Director of the Lawrence Hall of Science (recorded in 1990).

While explaining the brain's functions and dissecting an actual brain she also sensitively responded to questions posed by a group composed of two elementary school students and two graduate students. The composite demonstrated how a talented instructor is able to stimulate learning [2]. In addition, and similarly, when I was a docent at the Hall, one of the most popular installations was an interactive installation about the brain, designed by Diamond, that engaged visitors of all ages and backgrounds.

ChildArt's "Your Brain on Art" likewise captures the importance of engagement in education and human development, introducing projects that highlight children in schools as well as cross-cultural and community outreach. Divided into three sections, the issue also reminds us that children learn and experience life in more than one way. The first section, "Health: The Arts Heal Us," introduces neuroaesthetics and how art and the brain work developmentally. The second section, "Wellbeing: The Arts Keep Us Healthy," expands on the idea of health by bringing more information about practices into the mix. The final section, "Learning: The Arts Teach Us," conveys that educators stimulate the brain and aid its development. While the target audience for *ChildArt* is 10-to-14-year-olds, the substance of this project will appeal to people of all ages. Of particular value are the various activities, citations and summaries in the sidebars. These offer a means for those attracted to any particular topic to investigate further. There are also informative illustrations.

As a whole this publication underscores that education is not a one-size-fits-all proposition, even within particular approaches. In terms of art therapy programs, for example, several cohorts are mentioned. Save the Children's HEART program provides support for children ages 4–18 who are faced with daily uncertainty in all areas of their lives. (HEART stands for Healing and Education through the Arts.) Generally the issues HEART addresses range from a lack

of food and healthcare to war and poverty. By contrast, Creative Forces has a program that uses art and music therapy to heal post-traumatic stress patients. This program is a collaboration of the NEA Military Healing Arts Network partnership of the National Endowment for the Arts, the Department of Defense and the Department of Veterans Affairs. In addition, John Krakauer talks about brain plasticity in an article about virtual reality therapy, which has been shown to evoke changes in the limbic and visceral brain circuitry. As he explains, animated video games improve a patient's ability to take on more tasks by increasing attention and focus through the game.

In terms of keeping us healthy, as Richard Louv points out, the sensory stimulation nature provides elevates our sense of aliveness, thoughtfulness and peace. Fred Marks's article on architecture adds another vantage point through an analysis of architecture's aesthetic and practical purposes. Indeed, how we design and build our environment influences our well-being because our brains do not work in isolation. Not only do architectural contributions impact our brains, architectural projects require some measure of collaboration and community involvement since implementation necessitates designers work with engineers, public officials, private citizens and others.

Collaboration and community are also a part of the architecture of learning in both formal and informal learning environments. The two themes overlap in many of the example programs that aid in child development. One is at the Center for Social Design at the Maryland Institute College of Art (MICA), funded by the Behavioral Health System of Baltimore. The initiative introduces seventh- and eighth-grade students to the social design process. Given the tools to think critically about complex social problems, participants are encouraged to conceptualize imaginatively and creatively about possible inclusive solutions for social change. The Baltimore Symphony Orchestra—

created OrchKids, by contrast, gives students opportunities to connect with music and instruments. These students get a chance to play side-by-side with professional musicians and both write and perform their own compositions with friends. Building confidence through music aids them academically as well.

Formal and informal environments additionally come into play in Tulsa Educare's "Talking Is Teaching" campaign and in Urban Thinkscape, a Brookings Institution initiative. Both demonstrate that we can take advantage of a child's natural ability when exploration and action are encouraged in everyday environments. One author, pointing out the value of informal settings, said that children only spend about 20% of their time in formal learning settings. While I think he makes a valid point, it seems that sleep would account for a large percentage of the time spent outside of formal settings so I am inclined to think that 20% is a misleading number.

Another striking element of this project is that while contributions are slotted into specific sections, their details often spread out to include other categories, in effect conveying how multidimensional learning is. For example, the Mentoring Video Project (MVP) at Wide Angle Youth Media in Baltimore is an approach that encourages young high school students to craft videos to tell their stories about violence and depression. These documentaries help them psychologically as individuals and aid them in learning new skills that will give them more room to grow their potential as they mature. These include interviewing techniques, researching topics, how to use a camera, sound equipment, digital editing and so forth. It would be fascinating to see if any of them follow this path professionally.

Collaboration is not only a topic evident throughout the issue, the project itself is a collaborative effort of two groups, The International Arts + Mind Lab and International Child Art Foundation (ICAF). Their shared goal is to provide a neuroaesthetics

approach, which they define as "an emerging discipline focused on exploring the neural processes underlying our appreciation and production of beautiful objects and artwork, and the experiences that include perception, interpretation, emotion and action" (p. 2). The International Arts + Mind Lab launched in 2016 and is a part of the Brain Institute at John Hopkins School of Medicine. The International Child Art Foundation (ICAF) has been involved with children's art and educational development for two decades. Indeed, this group spearheaded the children's creativity revolution in the U.S. and worldwide since its founding in 1997, most notably through the World Children's Festival (WCF), held in Washington, DC, on the National Mall every four years.

Festival participants are chosen through the Arts Olympiad, a global program that celebrates the children as it fosters creativity and imagination. Ashfaq Ishaq, ICAF's Director, speaks about how World Children's Festival empowers attendees to develop cross-cultural empathy in his "Developing Empathy" article, which responds to the question: "How do you develop empathy among 9 to 12 year olds from more than 70 countries in just three days?" He explains that the first day of the event centers on bringing the youngsters together through using artmaking as a universal language. Seeing they often share similar concerns in effect disrupts their biases. On the second they come to understand the power of their creativity and develop trust. The final day of the workshop includes activities that equip the children to feel they can bring about positive social change in their respective communities. Now that the event is in its 20th year, I wondered if past attendees come back to share how their experiences have shaped them. The next scheduled event is in 2019 [3].

Finally, this collection demonstrates that many trends recur generationally. For example, the idea of architecture as medicine is the subject of an article introducing how the

Johns Hopkins University Hospital is combining art and architecture as a part of their mission to take care of the mind, body and spirit of their patients. As Richard Cork has documented in his elegant book on *The Healing Presence of Art* [4], many noteworthy works were composed for (and in) hospitals historically. A few that come to mind are Hans Memling's work in the Hospital of St. John (Bruges), Matthias Grünewald's Isenheim Altarpiece (painted for the Monastery of St. Anthony in Isenheim near Colmar, which specialized in hospital work) and William Hogarth's murals at St Bartholomew's Hospital.

Educational methodology debates similarly are ongoing. For example, the article that discusses Destination Imagination celebrates the STEM to STEAM movement. Their program challenges more than 150,000 students in 48 states and 30 countries to combine drama, storytelling and 21st-century skills with science, technology, engineering, art and mathematics to solve a problem. Teams showcase their solutions at local tournaments, and the winners eventually go to a Global Final.

Looking at this group's website to see if they mentioned the fate of all those who compete and do not win, I found that it highlights STEM, not STEAM. Exploring the various pages that compose the site, I did find the claim they have been "Putting the 'A' in STEM for more than 30 years" [5]. I wasn't particularly surprised. I worked in STEM educational environments as far back as the 1980s, when the acronym STEM came into use (replacing the emphasis on METS). Even then STEM activities in various venues included and often emphasized modalities that are now said to represent a STEAM approach. Since the contemporary discussions seem more about adding something that is missing rather than encouraging educators not to take something away, I have come to find the STEM to STEAM push perplexing. Since STEM environments have included STEAM characteristics since the

introduction of STEM education, I think those on the STEAM bandwagon need to address what they think they are adding operationally. Perhaps a study that includes data precisely detailing what advocates believe STEAM is adding—or what STEM is missing other than the “A”—would help since so many STEM programs have used projects with arts modalities all along.

As I closed this issue I thought about how the idea that children are our future is a truism and is used with such regularity that sometimes it begins to sound like a cliché. This *ChildArt* project conveys that the idea’s power stems from the fact that it is connected to how we live inter-generationally, who we are and who we become. The articles also convey that the relationship between art and the brain is a complex one and, by bringing brain plasticity into the discussions, the issue underscores that new research allows us to fruitfully reconceptualize how we best address the varying needs of children. The well-chosen case studies demonstrate that talented educators, perhaps instinctively, know that while healing is needed in some cases, our children also invent and solve problems on their own terms. Ultimately, the collection reminds us that a child’s younger years form the foundation for how they will live, contribute and thrive as adults.

References

- 1 Marian Diamond’s obituary in the Berkeley News offers a robust summary of her contributions: <www.news.berkeley.edu/2017/07/28/marian-diamond-known-for-studies-of-einsteins-brain-dies-at-90/>.
- 2 The “Within the Human Brain: A Dissection by Marian C. Diamond” video is available at <www.youtube.com/watch?v=j3pvFeHAKG8&feature=youtu.be>.
- 3 See <www.icafe.org/whatwedo/wcf.php> for details about the upcoming festival.
- 4 Richard Cork, *The Healing Presence of Art: A History of Western Art in Hospitals* (New Haven, CT and London: Yale University Press, 2012).
- 5 See <www.destinationimagination.org/mission-vision>.

Childart Magazine: Arts and Mind—The Brain Science of Human Experience (July–September 2017) ed. by Ashfaq Ishaq (review)

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Leonardo, Volume 51, Number 5, 2018, pp. 546-548 (Review)

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