The BETA Project
Biophilia Enhanced Through Art
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| f        | Changing Exhibit Space                           |      |
| x        | Interactive Wall                                 |      |
An Introduction
by Richard V. Piacentini, Executive Director

Beauty inspires us, and celebrating the beauty of the natural world has been a tradition at Phipps Conservatory and Botanical Gardens since 1893. In recent years, we have taken on a leadership role in exploring the harmony that needs to exist between the built and natural environments. Creating connections to nature is important. In the built environment, this is often accomplished through the use of biophilic design strategies, such as providing views of nature, as well as natural ventilation and light, and by using natural materials. These strategies have been shown to bolster human performance and foster an appreciation for the earth. However, in order to truly reap its rewards we must go beyond a typical approach and enter a deeper realm of exploration to create truly transformative experiences; only then can we begin to immerse ourselves and others in, and restore our innate bonds to, nature. The BETA Project at Phipps was designed to address these issues by using art to awaken the true Spirit of the Center for Sustainable Landscapes (CSL) and to create spaces that both remind us of the incredible beauty of nature, and demonstrate and celebrate the interconnectedness of all human and natural processes.

Please join us as we celebrate the beauty of humanity living in harmony with nature.

A special thank you to Sonja Bochart of SmithGroupJJR, Nicole Capozzi and Joshua Hogan of MoxBox, as well as Kate Borger, Natalie Bowman, Sara Englert, AJ Ewing, Adam Haas, Jordyn Melino, Margie Radebaugh, Joe Reed, Jason Wirick and the horticulture, facilities and other staff at Phipps who collaborated to put this exhibit together.

The Meaning of BETA

As the second letter of the Greek alphabet and a representation of numeral 2, beta identifies a second phase. For Phipps, the BETA Project represents a second phase of interconnection between the CSL and its visitors, a new level of sensory engagement, and a new way to rekindle the innate bonds between people and nature.

In computer programming, some software is kept in perpetual beta, a state of continuous evolution in which functionalities and features are added without an established end-point. This development mode is a critical feature of the CSL’s role as a “living laboratory,” a space that will grow in value and depth as it yields new research and discoveries in fields such as sustainable landscaping, green building technology and strategy, environmental education and ecopsychology.

BETA Themes
Each installation in the BETA project exhibits one or more of the following ten themes of enhanced biophilic design practice: scale, intrinsic connection, subtlety, sensory rich, beauty, mindfulness, rethinking possible, cycles and seasons, symbolic geometry, and interactive.
To learn more about these themes, scan the QR code or visit http://bit.ly/betathemes.
Of Earth and Sun
Local field recordings, building automation system data

“Of Earth and Sun,” a sound art installation created specifically for the Center for Sustainable Landscapes (CSL), is a dynamic piece composed from sounds recorded locally by Abby Aresty that evolves with the seasons, the weather and the time of day. An early prototype installed in the CSL represents Aresty’s rendering of a day in the life of Pittsburgh’s vibrant natural soundscape.

Prominent BETA Themes
Sensory rich, cycles and seasons

About the Artist
Composer and sound artist Abby Aresty investigates the world through its sounds, creating powerful sonic explorations from even the most mundane objects. Her work crosses paths with diverse disciplines, from collaborations in dance, film and music to continuing explorations of manmade and natural sounds in urban environments. Abby is an artist in residence at the Carnegie Mellon University STUDIO for Creative Inquiry.

Scan this QR code or visit phipps.conservatory.org/ofearthandsun.aspx to hear a sample of Abby’s work.
Jason Boone

Tables, Bench, Shelves
Reclaimed wood

Jason Boone strives to see and acknowledge the energies embodied by an object from growth and production to refinement or manipulation. He has a particular affinity for materials that contain such energies, such as pieces of wood with fine grain lines that mark years in the lives of trees, and reveals them through his art, making interesting contrasts and connections between unique personalities.

Skywatcher Loom
Yarn, loom

The process of slowing down and taking notice of the natural world is relevant to biophilic design. The “Skywatcher Loom” was inspired by the Waldorf School of Pittsburgh. Each morning, a different staff member in the Center for Sustainable Landscapes will take careful notice of the sky, select a color of yarn that represents his or her perspective, and weave the yarn on the loom. At the season’s end, the finished piece will represent the collective experience, and the cycle will begin again.

Prominent BETA Themes
Intrinsic connection, interactive

About the Artist
Jason Boone resides in Pittsburgh, where he owns and manages Urban Tree — a business that allows him to combine his passions for woodworking and design, while using responsibly and locally harvested materials. Urban Tree provides hand-crafted products made from the “trees next door.”
Dee Briggs

6|6|3 Rings
Carbon steel

Featuring highly ordered geometric forms, Dee Briggs’ ceiling mounted steel sculpture creates an unexpected rhythmic space containing limitless perceptual contradictions: three-dimensional patterns that are at once familiar and foreign, heavy forms that imply weightlessness, and delightful spatial experiences. In this piece, created in her studio in Pittsburgh, line teases out plane and plane carves out volume.

Prominent BETA Themes
Sensory rich, symbolic geometry

About the Artist
As a sculptor, Dee Briggs works primarily with carbon and Cor-ten steel, aluminum, bronze and concrete. Born in Pennsylvania, she holds a Masters of Architecture from Yale University and earned her undergraduate degree at the City College of New York. She began making art in 2002, exhibits nationally, and has taught at Carnegie Mellon University. She lives in both New York and Pittsburgh.
Robert Charon

Distant Horizon
Living Building Challenge compliant acrylic, resin

Drawing influence from eastern culture for inspiration as an artist, Robert Charon is passionate about depicting the brilliant subtleties of everyday life. His work can best be described as an all-embracing balance of converse yet connected imagery — an anecdote of light and dark, from translucent to opaque and abstract to realistic.

Prominent BETA Themes
Subtlety, mindfulness

About the Artist
Born in 1958, artist Robert Charon grew up and still resides in Phoenix. Evoking a feeling of peace and tranquility, his paintings invite viewers to take time to reflect, offering uninterrupted moments for inner thoughts and searches for deeper meanings. Charon’s work can be found in corporate and private collections around the world, and seen in galleries throughout the U.S.
Dale Chihuly

**Reeds Series**
*Acrylic on paper*

Dale Chihuly’s large-scale works on paper are from his series of drawings entitled “Reeds,” which capture the essence of this tall, grass-like plant as it bends and sways in the wind.

**Mottled Bronze Ikebana with Apricot and Chartreuse Stems**
*Glass*

Dale Chihuly’s “Ikebana Series,” inspired by his travels to Japan, draws on the traditional Japanese art of flower arrangement but interprets it in a way that is uniquely his own.

**Prominent BETA Themes**
Sensory rich, rethinking possible

**About the Artist**
Born in 1941 in Tacoma, Washington, Dale Chihuly graduated from the University of Washington in 1965. He went on to receive his master’s degree and a Fulbright Fellowship that brought him to the Venini glass factory in Venice. Since then, his work has been included in more than 200 hundred museum collections worldwide. Chihuly has also been the recipient of many awards, including 12 honorary doctorates and two fellowships from the National Endowment for the Arts.
Fairchild Challenge Students

Aashka Shah, Moon Area HS
Alisha Alexander,
    Pittsburgh Science and Technology Academy
Brendan Donovan, Shaler Area HS
Daela Munoz, Shaler Area HS
Jessica Peng, Moon Area HS
Kallin Eget-McGlynn, Bishop Carroll Catholic HS
Ken Wahrenberger and Christine Deandrea,
    Hampton HS
Lex Glickman and Aaron Sledge,
    Pittsburgh Science and Technology Academy
Lilian Sun, Gateway HS
Madison Vaughn, Shaler Area HS
Maggie Harteis, Bishop Carroll Catholic HS
Michael Rogers,
    Pittsburgh Science and Technology Academy
Sami Beining, North Allegheny Senior HS

Pencil, collage, oil paints

The Fairchild Challenge at Phipps is a multi-disciplinary, standards-based environmental education competition designed to raise awareness among middle- and high school students. As part of one of these challenges, local high school students were asked to create artistic representations of the word “biophilia.” These pieces express what the term means to each young artist.

Prominent BETA Theme
Rethinking possible
Phipps Horticulture

Phipps’ tradition of beauty and inspiration is showcased throughout the building. In the atrium and office spaces, colorful orchids are positioned alongside leafy plants that clean indoor air, reinforcing connections to nature while actively contributing to occupant well-being. The green roof, managed by our horticulturists, also flourishes with more than 50 varieties of native shrubs and perennials.

Prominent BETA Themes
Beauty, cycles and seasons

Fossil Replicas

Fossils are valuable tools for understanding life, both past and present. These replicas – sourced from the Green River Formation in southwest Wyoming and the Messel Pit located near Darmstadt, Germany – provide an authentic, tactile experience for children. The fossils date back to around 48 mya, but cover several million years, including the transition between the moist early Eocene climate and the drier mid-Eocene. Replicas are created by molding and casting original fossils so that all their detail is preserved.

Prominent BETA Themes
Cycles and seasons, interactive
Hans Godo Fräbel

Blue Lizards, Brown Lizards
Wavy Bowl Series
Nelumbo Lutea
Glass Tree
Glass

An avid gardener, Hans Godo Fräbel is continuously inspired by nature and the world around him, designing glass botanicals and interpreting the essence of plant life through the magic and irresistible beauty of glass. Fräbel’s wavy bowls are made from strings of borosilicate glass that play with sunlight. “Glass Tree” is the artist’s proof of a limited edition of 34 sculptures commissioned by President Obama and presented to the G-20 world leaders at the Pittsburgh Summit in 2009.

Prominent BETA Themes
Beauty, mindfulness

About the Artist
German-born artist Hans Godo Fräbel, a founding father of modern glass sculpture, is a pioneer of the lampwork technique for which a gas-fueled torch is used to melt rods and tubes of glass. Fräbel mastered the craft of such scientific glass blowing during his youth and later moved to the U.S. to work at the Georgia Institute of Technology in Atlanta. Today, he is considered to be one of the best in his field and his unique sculptures can be found in public and private collections in more than 80 countries.
Drew Hine, Vessel Studio

Held in Waves of Suspension
Glass with recycled content

Through a wall of mounted glass sculpture referencing blooming flowers, Drew Hine accentuates the feeling of energy and growth.

Prominent BETA Themes
Beauty, scale

About the Artist
Drew Hine maintains Vessel Studio in the South Side with his wife Jeannine. In 2001, he graduated from the College for Creative Studies in Detroit and moved to Pittsburgh, where he became one of the first Pittsburgh Glass Center employees. Hine continues to make a living blowing glass, traveling across the country to fine art shows and making custom work for private customers, designers and architects.
Luke Jacomb and Katherine Rutecki

Feathered Fellows
Cast glass

Luke Jacomb and Katherine Rutecki created their cast glass birds using the lost wax technique. As part of this process, Aotearoa raw materials and recycled glass are placed into a mold and melted. When cooled, the mold is broken to reveal the glass. This technique allows each bird to have beautifully detailed feathers and wings, while varied tail and head angles lend every piece grace and personality.

Prominent BETA Themes
Subtlety, intrinsic connection

About the Artists
Born in Auckland, New Zealand, Luke Jacomb is a second-generation artist who learned his craft from his father John Croucher, a pioneer in photosensitive glass art techniques. Jacomb collaborates with his partner Katherine Rutecki, who graduated from Alfred University in New York with a BFA in sculpture.
Peter Johnson

The Living Building Challenge
Campaign Donor Wall
Salvaged wood, sandblasted and painted lettering, fused glass

Using a combination of fused glass and salvaged wood, Peter Johnson created this donor wall to compliment the minimalist design of the Center for Sustainable Landscapes (CSL), while also referencing the organic lines and shapes found in nature. The sculpture is intended to convey the ebb and flow of support provided by a solid foundation, celebrating capital contributions to the CSL project.

Prominent BETA Theme
Subtlety

About the Artist
Peter Johnson, a fine art sculptor and furniture designer, trained with renowned fine wood and stone sculptors in Vermont and Hawaii. He returned to Pittsburgh in 2004 and works designing, fabricating, and installing custom furniture and sculpture. He lives in Lawrenceville and has a studio in the East End.
Seijaku 30
Mineral pigments mica, tree resin, 24k gold leaf, silver leaf, shell white, rain water on handmade hemp paper, wood panels

“Seijaku” translates as the attainment of stillness, quiet and tranquility while being in the midst of activity. This aesthetical term, often used to convey the serenity of Japanese gardens, is the basis for a body of minimalistic work employing natural matter as paint.

Prominent BETA Themes
Subtlety, mindfulness

About the Artist
Pittsburgh native Judith Kruger is an internationally exhibiting American abstract painter. Her studio is located in an old hosiery mill, 25 miles north of New York City at the foothills of the Berkshire Mountains.
Peter Lambert, Red Star Ironworks

**Untitled**

*Cor-ten steel*

Located along the stone wall leading to the ground floor entrance, the free-flowing Cor-ten line of this exterior sculpture captures the connection between the building and the Earth. The Cor-ten is also a nod to the industrial heritage of Pittsburgh.

**Prominent BETA Themes**

Rethinking possible, intrinsic connection

**About the Artist**

Peter Michael Lambert left high school at 15 years of age to pursue metalwork. After working as a welder and apprenticing with various fabrication shops in and around Pittsburgh, Lambert founded Red Star Ironworks in 2001. Self-taught with a background in graffiti art, Lambert attempts to capture the ephemeral gestural moment with his pieces and make it permanent. He lives and works in West Virginia.
Ellen Little

Magnolia
Clematis Montana
Watercolor, Arches paper

Ellen Little’s watercolors on Arches paper capture the beautiful essence of the flowering magnolia and the budding clematis Montana as they grow in her backyard. She is fascinated by urban green spaces; how they fit into and change the cities around them; and how they sustain native birds and bugs.

Prominent BETA Themes
Beauty, intrinsic connection

About the Artist
Ellen Little is a San Francisco-based artist working mostly in large format watercolors. Her art draws from nature to explore the impermanence and beauty of life, where birth, aging and death are intertwined and nothing remains constant.
“Dancing Triangles” and “Flute Dance” are monumental exterior sculptures created by extracting shapes from stainless steel to bring life and energy to the spaces they occupy. They are gifts from Beverlyn and Steven G. Elliott.

Prominent BETA Theme
Rethinking possible

About the Artist
Kevin Robb is a Colorado contemporary metal sculptor with a unique style and consummate welding quality that defines and exemplifies his work. His wife Diane describes the work Robb has been creating for the past 35 years as “beautiful and timeless snapshots of individual moments suspended in time.”
Prominent BETA Themes
Beauty, cycles and seasons

About the Artist
Donald M. Robinson explores the world with a love and respect for both its wildlife and varied cultures that permeates his many photographs. He has been taking photographs for 50 years, documenting people, landscapes, animals and plant life. His photography is a testimony to the artist’s lifelong conviction that the world is essentially a beautiful place and the environment is its greatest treasure.
Friendship Rose
Orchid
Eastern Swallowtail Butterfly
*Watercolor on man-made vellum, genuine vellum, Artistico hot pressed paper*

While the rose was Carol Saunders’ first foray into painting watercolor on man-made vellum, the orchid was her premier watercolor on genuine vellum. Her eastern swallowtail butterfly features a delightful creature the artist found in a field near her home and then immortalized on Artistico hot pressed paper. The three pieces in the Center for Sustainable Landscapes are gifts from the artist.

Prominent BETA Themes
Scale, intrinsic connection

About the Artist
After attending the Western Technical School in Toronto, Canadian-born Carol Saunders married a Pittsburgher and moved to the city in 1955. Here, she studied drawing and calligraphy at Carnegie Mellon University and taught botanical art at Phipps Conservatory and Botanical Gardens for 10 years.
Paolo Soleri

Windbell
Bronze

“Windbell” offers the multisensory experience of sound vibration as visitors enter or leave the third floor rooftop garden. The bell and its rich natural beauty are gentle reminders of the transition of movement, allowing for an awakening of the senses and awareness of physical space. The bell and its bronze components are steel brushed for a lustrous finish and burnished with a torch in order to bring out metallic bronze highlights, varying from colors of gold to iridescent shimmers of blues and greens.

Prominent BETA Themes
Mindfulness, sensory rich

About the Artist
Through his work as an architect, urban designer, artist, craftsman and philosopher, Paolo Soleri (1919 – 2013) explored the countless possibilities of human aspiration. Rooted in the philosophy of “arcology” (architecture and ecology), his work forges a path toward a state of aesthetic, equity and compassion.
Michael M. Strueber is both a gardener and a painter, and, in his highly textural and colorful works, the disciplines converge — twin acts of creation in collaboration with nature. With each brushstroke, his paintings tell a story not only of plants but also of their deep meaning and relationship to people. The role of place in defining self, and its connection to the greater cosmos, is also a key element to his work.

Prominent BETA Themes
Beauty, mindfulness

About the Artist
A lifelong resident of western Pennsylvania, Michael M. Strueber has devoted his artistic mission to depicting regional flora. Evident in his many depictions of plants found in his own garden, as well as seasonal Allegheny Mountain vistas, a strong sense of locality permeates his canvas.
P.C. Turczyn

Infinite Creativity
Infinite Health
Infinite Surrender

Museum quality digital print

P.C. Turczyn’s circular mandalic format represents wholeness, interconnection and perfection. Her intent is to convey qualities essential to well-being: hope, vitality, compassion, unconditional love and creativity, among others. Turczyn overlays sacred geometry to reveal the underlying order and balance found in nature, a source of comfort and inspiration.

Prominent BETA Theme
Symbolic geometry

About the Artist
P.C. Turczyn, a New York City-based artist, has award-winning artwork featured in solo and group exhibitions in museums, galleries and cultural centers around the world. She also teaches at the Omega Institute in Rhinebeck, New York.
Chiz Turnross’ “1,000 Birds” series was created in honor of the finches that biologist Charles Darwin encountered on the Galapagos Islands. These particular paintings, part of the larger series, were exhibited to coincide with bicentennial celebrations of Darwin’s life and work.

Prominent BETA Theme
Intrinsic connection

About the Artist
Chiz Turnross works as a freelance artist/designer, musician, filmmaker and art tutor. From Liverpool, England, he has exhibited his artwork in various locations, including the Liverpool Biennial in 2008, Bradford 1 Gallery in 2009, and View Two Gallery in 2010.
Paul g. Wiegman

Cucumber Falls, Ohiopyle State Park
Great Allegheny Passage, Ohiopyle
Great Allegheny Passage, West Newton
Pinkerton Horn, Somerset County
Turkeyfoot Overlook, Confluence
Victoria Flats, Ohiopyle State Park
Weeping Japanese Cherry, Phipps
Cabbage, Wexford Farms
Farm Market, Yarnicks Farm
Fields, Harvest Valley Farm
Yellow Peppers, Harvest Valley Farm
Zucchini, Yarnicks Farm

Photography

As a naturalist and former vice president of science and stewardship for the Western Pennsylvania Conservancy, Paul g. Wiegman has spent his career exploring, learning and educating others about the marvelous natural history of western Pennsylvania. Using photography to share the region’s rich geology, botany and zoology, he hopes to inspire viewers to explore nature, experience its genius, and share his desire to protect and preserve it. The photographs are gifts from the artist and his wife Pamela.

Prominent BETA Themes
Beauty, mindfulness

About the Artist
Paul g. Wiegman’s images focus on the diverse natural history of western Pennsylvania, highlighting intricate natural forms and broad panoramic landscapes. He has been published in Time-Life, Readers Digest and other books, National Geographic and a wide range of periodicals and websites related to the environment and conservation.
The Significance of Place
Just as the Center for Sustainable Landscapes was designed and engineered by local talent as an innovation for the world, the BETA Project is designed to highlight the work of local artists. More than half of the project’s artists hail from the region, with many still living here today. Because the principles of biophilic design are universal, the BETA Project’s message is complemented and reinforced by the inclusion of work from national and international artists.

Photo Credits
Donald M. Robinson: pages 1, 20; Denmarsh Photography, Inc: page 5, 11 (top); Natalia Gomez: page 6, 9, 18 (inset), 24, 25; Phipps Conservatory and Botanical Gardens: pages 8, 10, 12, 18 (large), 22, 23; Drew Hine: page 13; Paul G. Wiegman: pages 6 (bottom inset), 7, 14, 26; Peter Johnson: page 14; Judith Kruger: page 16; Peter Lambert: page 17; Kevin Robb: page 19; Alexander Patho: page 21.
The term “biophilia,” which literally means “love of life,” was coined by social psychologist Erich Fromm and popularized by biologist E.O. Wilson, who defined it as “the innately emotional affiliation of human beings to other living organisms.”

The implications of biophilia extend across a vast array of disciplines including design and engineering, nutrition, psychology, public health, education, biology and the humanities. Biophilia is expressed all over the world every day, through complex collaborations such as the design and construction of buildings and landscapes; and intimate, personal encounters including nature hikes and home gardening.