



Museums for America

Sample Application MA-10-14-0431-14
Project Category: Learning Experiences
Funding Level: \$25,001-\$150,000

City of Palo Alto Palo Alto Art Center

Amount awarded by IMLS:	\$88,010
Amount of cost share:	\$90,627

Attached are the following components excerpted from the original application.

- Abstract
- Narrative
- Schedule of Completion

The Palo Alto Art Center requests a Museums for America grant in support of its *Creative Ecology: Exploring Our Environment with Art, Science, and the Community* project, an eighteen-month collaboration between the Palo Alto Art Center and the Palo Alto Junior Museum and Zoo. Both museums are owned by the City of Palo Alto and operate as distinct agencies within the City's Community Services Department. The Art Center is the organizing partner for this project.

Creative Ecology addresses the challenge of successfully integrating art and science to enhance learning in museum contexts. The Art Center (PAAC) and the Junior Museum and Zoo (JMZ) believe that learning experiences can be enhanced when art is augmented by science and science by art. By inserting the visual arts into STEM education, this STEAM project addresses a need for real-world opportunities where children and adults can apply artistic and scientific concepts, providing a chance for individuals to adopt habits of mind that will benefit them in learning for a lifetime. This project also addresses the need for greater public understanding and awareness of the environment, and especially the need for community-based stewardship of local open-space environments. Children and families hold a particularly important role in this process since the conservation of our environment rests with today's children. Finally, the museum field itself has a need for viable and replicable models that partner art and science programs and institutions to break down silos between the disciplines, promote STEAM learning in children and adults, and enhance the impact of art and science museums.

The *Creative Ecology* project will comprise a series of four artist residencies, each involving an artist who explores the natural world in his or her artwork, and four exhibitions in the PAAC galleries of artwork created during the residency. The project begins in October 2014, with the final exhibition concluding in June 2016.

In the first phase of each residency, the artist will engage a group of community participants to explore the natural world, either within Palo Alto or in surrounding natural areas and marshlands. JMZ naturalists will provide scientific expertise supporting these explorations. In the second phase, PAAC will provide studio space where the artist will create works of art for exhibition. Art Center visitors will be able to interact with the artist in the studio to learn about the project and his or her creative process and materials. PAAC and JMZ staff will incorporate related art-making ideas into concurrent programming.

During each exhibition, public programming will focus on the artist's work and its scientific context. School groups visiting through PAAC's Project LOOK! program will take a docent-facilitated tour of the exhibition, followed by hands-on activities integrating art and science in the Project LOOK! Studio. An enhanced Project LOOK! tour once a week will enable classes to also take part in environmental education activities at JMZ. PAAC will host a Friday Night community event during each exhibition, as well as two Family Days during the project that will offer learning experiences at both PAAC and JMZ.

This project will result in a series of four exhibitions at the Palo Alto Art Center that continue the museum's well-established tradition of featuring objects of high aesthetic quality and craftsmanship produced in a wide range of media. The success of *Creating Ecology* will be measured through an evaluation process facilitated by a professional museum evaluator. The cyclical nature of the project lends itself to an iterative process of formative evaluation in which findings from earlier residencies and exhibitions inform subsequent cycles. Summative evaluation will also be done to assess program impacts.

Creative Ecology will benefit the public by engaging a broad audience in STEAM-based activities that demonstrate the capacity of art and science presented together to promote a more complete educational experience. Children will learn scientific and artistic literacy skills and develop ways of thinking that they can use in their continued education. Adults and children will gain a greater appreciation of their local open-space environments and develop a personal connection to the environment. The project will have additional public benefit as a model demonstrating the success of STEAM education through effective collaboration between an art museum and a science museum.

1. Project Justification. The Palo Alto Art Center requests a \$88,010 Museums for America grant in support of its *Creative Ecology: Exploring Our Environment with Art, Science, and the Community* project, an eighteen-month collaboration between the Palo Alto Art Center and the Palo Alto Junior Museum and Zoo that will reinforce the mission and programming strategies of each organization and promote learning experiences for project participants as well as for the general public. The Art Center (PAAC) is the organizing partner for this project, however staff of both institutions have taken an active role in its planning.

A separate Organizational Profile of the Junior Museum and Zoo (JMZ) is provided as Supporting Document 1. Briefly, JMZ was founded in 1934. Its mission is to engage children in science and nature. Currently housed in a facility with 10,000 square feet of indoor public space and a quarter-acre outdoor zoo, JMZ is in the planning stages for a renovation and expansion. It welcomes some 150,000 visitors each year. In addition to some 200 living specimens, the JMZ non-living collections are American Indian & Ethnographic Art, which includes more than 600 pieces, and Natural History, over 2,000 specimens grouped into vertebrate zoology, invertebrate zoology, geology, and paleontology.

THE PROPOSED *CREATIVE ECOLOGY* PROJECT will comprise a series of four artist residencies, each involving an artist who explores the natural world in his or her artwork. The work produced in each residency will be exhibited at the Palo Alto Art Center as a part of its regular exhibition program. Each artist will work with PAAC and JMZ to develop a residency project that, in the first phase, engages a group of community participants to explore the natural world, either within Palo Alto, in the extensive natural areas in the hills west of the city, or in the marshlands along the Bay to the east. JMZ naturalists will provide scientific expertise supporting these explorations, which will take place over a period of approximately one month.

In the second phase of each residency, PAAC will provide studio space where the artist will create the works of art for the exhibition, involving the community participants in the art-making process as appropriate to the artist's approach and the creative media involved. Art Center visitors will be able to interact with the artist in the studio to learn about the project and his or her creative process and materials. As a part of the residency, each artist will also present a lecture and be involved in additional public programming. The artist will work with PAAC staff to integrate residency ideas into the content of ongoing studio art-making programs, and with JMZ staff to incorporate related art-making ideas into concurrent programming at the Junior Museum and Zoo.

Once the artwork is installed, in the 600-square-foot Artist-in-Residence Gallery or, as appropriate, elsewhere in or around the Art Center facility, the exhibition will become the focus of public programming as well as tours for school groups visiting both PAAC and JMZ. Two Family Days and four Friday Night evening events held at both venues during the grant period will bring increased public attention to the residency project.

THIS PROJECT ADDRESSES THE CHALLENGE OF SUCCESSFULLY INTEGRATING ART AND SCIENCE TO ENHANCE LEARNING IN MUSEUM CONTEXTS. Art and science both engage people's skills of observation, promote inquiry-based learning, foster investigation and analysis, incorporate nonlinear and critical thinking, and encourage documentation and ownership of discoveries. Through collaborative programming, the two museums will leverage their areas of success—PAAC as a center for the exhibition (seeing) and production (making) of art for all ages, and JMZ as a center for informal science learning for children and families. Through the collaboration, this project will break down disciplinary silos and promote new opportunities for joint ventures that increase the impact of their work in the community. At the same time—through the exhibitions and related programming—the project will encourage museum visitors to draw their own connections between the two disciplines.

Although IMLS has invited projects “to advance learning and support the acquisition of STEM knowledge at all ages,” PAAC and JMZ believe that learning experiences can be enhanced when art is augmented by science and science by art. In their book *21st Century Skills, Learning for Life in Our Times*, Bernie Trilling and Charles Fadel wrote, “Integrating the arts into STEM (making it STEAM . . .) will be an important educational goal as we move through our century.” Pioneered at the Rhode Island School of Design, STEAM and has found

champions throughout the country. Art holds particular value in its ability to help people visualize, create form for, represent, and model complex and abstract scientific ideas. Art also holds significant value for fostering and promoting the four Cs of 21st-century education—collaboration, creativity, critical thinking, communication—that children especially need to master in order to thrive. While the community at large will be invited to participate in the residencies, two will be targeted specifically to children and families to address this need.

Within the STEAM framework, this project will offer real-world opportunities for children and adults to apply artistic and scientific concepts, providing a chance for individuals to adopt habits of mind that will benefit them in learning for a lifetime. The importance of scientific education in building important skills and attitudes for learning and in promoting lifelong science literacy is well documented. The value of art education in developing long-term learning skills in children is finding increasing acceptance. Extensive research documented in *Studio Thinking: The Real Benefits of Visual Arts Education*, by Lois Hetland and Ellen Winner, demonstrates how art education instills habits of mind and action—such as *develop craft, engage and persist, envision, express, observe, reflect, evaluate, stretch and explore, community*—that have meaningful educational value.

This project also addresses the need for greater public understanding and awareness of the environment, and especially the need for community-based stewardship of local open-space environments. Children and families hold a particularly important role in this process since the conservation of our environment rests with today's children. The exhibitions and educational activities in this project will connect children to local open-space environments and help them develop the attitude of stewardship that has been advocated by authors ranging from Rachel Carson in 1965, in *The Sense of Wonder*, to Richard Louv, in 2005, in *Last Child in the Woods; Saving Our Children from Nature-Deficit Disorder*. In order to promote community participation, the project team will establish and leverage existing relationships with members of local community and/or environmental organizations whose purview relates to the focus of each artist's project.

In recent audience research, the Art Center has identified the need for both seasoned and young professional audiences to have access to practicing artists to learn about their methods and process, as well as the need for families to experience meaningful educational opportunities together. This project will meet these two community needs by providing community members access to practicing artists through the residencies, exhibitions, and public programming.

The museum field itself has a need for viable and replicable models that partner art and science programs and institutions to break down silos between the disciplines, promote STEAM learning in children and adults, and enhance the impact of art and science museums. This project also addresses the need many museums have today to grow new audiences and deepen the visitor experience. By bringing art lovers to JMZ and drawing science lovers to PAAC, this project will create new opportunities for informal learning and leisure for both groups.

THIS PROJECT WILL PRIMARILY BENEFIT A BROAD AUDIENCE IN THE MID-SAN FRANCISCO PENINSULA, although the exhibition program at PAAC typically draws additional visitors from throughout the Bay Area. Each of the four artist residencies will first benefit the community members who take an active role in the artist's exploration of outdoor spaces in Palo Alto and the surrounding area. A second audience group that will benefit comprises those who observe the artist working in the PAAC studio space, attend lectures and other public programming, or participate in studio classes or workshops that incorporate the science and art ideas the artist is exploring. A third audience group includes those who visit the exhibition or public programming offered during the period it is displayed—the general public and Friday Night audience, as well as school groups taking part in the museum-tour programs that both PAAC and JMZ offer. A final group benefitting from the project will be the children and parents or caregivers who take part in the two Family Days with hands-on science and art activities at both museums.

The audience for this project is diverse ethnically, economically, and culturally. Palo Alto itself is a mid- to upper-income city closely tied to Stanford University and Silicon Valley. By contrast, in neighboring East Palo Alto, about 80% of families are considered low income, and 89% of the children qualify for free or reduced-cost school lunches. PAAC also serves other nearby towns, which have similar, but less extreme demographics, that lack municipal resources for an art center.

Recent audience research PAAC conducted focusing on the needs and interests of culturally diverse audiences, particularly Latinos, has given impetus to creating new programs such as *Creative Ecology*. The 2013 report from Contemporanea, *Palo Alto Art Center: Diversifying Participation*, emphasized the importance of participatory art opportunities as well as programs promoting family bonding as effective means of reaching Latino audiences.

THE ART CENTER'S RATIONALE FOR THIS ARTIST RESIDENCY PROGRAM emerged from the strategic-planning process that Art Center and the Art Center Foundation undertook in 2012. The resulting Joint Strategy Framework identified *program integration* as one of three primary strategies for the institution. PAAC has always voiced a philosophy, confirmed in the Joint Framework, that understanding of the visual arts is best achieved by *blending seeing art and making art*. Historically, however, distinct and separate program areas yielded limited opportunities for collaboration between program staff. Program audiences were also distinct, with gallery visitors infrequently taking classes and studio participants not viewing exhibitions. By having a resident artist in place to interact with studio participants, then exhibiting the artwork in the centrally located Glass Gallery or elsewhere in the facility, and offering a range of related public programming, these residencies will help PAAC forge a stronger connection between the two program areas for artists, visitors, participants, and staff. The third strategy of the Joint Framework is to *extend the experience* of the Art Center beyond its walls by building partnerships with other organizations. This project not only cements the municipal partnership with JMZ, but also establishes new relationships with environmental groups and community organizations. This aspect of *Creative Ecology* builds from the success of PAAC's On the Road program, funded by a previous Museums for America grant, which helped the Center to maintain and grow its audiences during its facility renovation. During its On the Road project, PAAC forged connections with more than thirty institutional partners, showcasing a spirit of collaboration that continues now that it has returned to its renovated building.

For the Junior Museum & Zoo, this project addresses several goals of the new strategic plan it finalized in 2013. The plan's first goal was to strengthen the JMZ's role as a model for science and nature education; this project will serve as a vehicle toward that goal by introducing STEAM education and the integration of the arts in science learning. Another goal of the plan is to build awareness and visibility of the JMZ. The museum has a reputation as being a place for early childhood education, and this project will give it broader exposure in the community as an educational resource for all ages. The strategic plan is intended to guide JMZ through a capital renovation and expansion project to be realized in 2019; this project will enable the museum to gain experience working with artists and to discover ways that artists might contribute to the development of renovated exhibits and to long-term public art created for the new facility.

2. Project Work Plan. A KEY TO THE SUCCESS OF THIS PROJECT is the four artists, below, who will be in residence. Their resumes are provided; letters of commitment are included in Supporting Document 2.

- Mari Andrews (Emeryville, California) makes sculptural work that has evolved from years of drawing and collecting natural materials and specimens—molted snakeskin, seedpods, tufts of moss, sticks, stones—gathered on walks. She uses linear materials like wire and branches to mimic the look of hand-drawn lines in her sculptures, combining man-made and natural materials.
- Misako Inaoka (born, Kyoto; lives in San Francisco) explores the complex relationships between the natural world and the encroaching constructed environment; she is influenced by the adaptability of plants and animals. Her die-cast plastic and resin sculptures of hybrid animals with elongated, mechanized, and artificial limbs reference this adaptive capacity, inviting us to consider what it may hold for nature's inhabitants.
- David Tomb (San Francisco) spends time in the field, finds and studies birds in their natural habitats, and then researches ornithological data as the foundation for making his life-size graphite, ink, colored pencil drawings, and gouache and watercolor paintings of birds on paper. Tomb seeks to expand public awareness about endangered birds through art.
- The fourth artist is still to be confirmed.

THE *CREATIVE ECOLOGY* PROJECT WILL COMPRISE THESE ACTIVITIES FOR EACH OF THE FOUR RESIDENCIES:

Activity #1—Residency Planning. Prior to the beginning of each artist residency, the project team, consisting of staff of both PAAC and JMZ, will initiate contact with the community organizations whose constituents would be recruited to participate in the residency project and, in consultation with the artist, identify outdoor locations appropriate to the residency project. For David Tomb’s residency, for example, the bird-watching community at Palo Alto’s Baylands Nature Preserve might be a targeted group and location.

Activity #2—Artist Residency. Each residency will begin with about one month of activities in the field with the artist, community members, science educators, and art educators. The artist and the two educators will meet at the beginning of the residency to plan the investigative activities. In regularly scheduled outdoor sessions, the educators will provide instructional support about art and science, and JMZ staff and rangers from the open spaces will offer information about the specific habitats and wildlife present. The artist will guide activities that will inform the content of his or her artwork and, as appropriate, collect raw materials for its creation.

Following the month in the field, the artist will spend approximately two months working in a studio space provided by PAAC to create the works of art that will be exhibited. Artists will commit to a minimum of 40 hours of work in the studio. The art educator will provide additional artmaking support as needed. Each artist will determine how, and to what extent, the community participants from the fieldwork phase will take part in the creation of the artwork.

Activity #3: Residency—Related Programming. During the studio residency, the artist will be featured in PAAC programming.

- At least 10 of the studio hours will be “open hours” when members of the public can observe and engage the artist in discussion about the artwork and processes involved. A special guide will be created for children and families to help them engage with the artists and their techniques.
- The artist will give a lecture or other public presentation about his or her artwork and creative process.
- The artist will attend a PAAC staff meeting to help plan ways for programming related to the artwork and the environmental focus of the residency can be incorporated into concurrent education programs. For example, adult studio classes might undertake projects on bird photography, botanical illustration, or animal sculpture. Studio instructors will be able to “check out” items from the JMZ Natural History Collection for observation, still lives, and drawing workshops, enhancing art and science learning experiences for adults.

Activity #4—Exhibition. Near the end of the active residency period, the PAAC curator will consult with the artist about the installation of the artwork and develop the appropriate interpretive materials and labels. The PAAC installation crew will install the artwork in consultation with the artist and curator; if the artist conceives his or her presentation as an artist-generated installation, the crew will provide whatever installation support is required. The residency exhibition will open with a public reception concurrent with the opening of the exhibitions in the main PAAC gallery. The exhibition will be on view for approximately three months. The PAAC galleries are open six days a week; admission is free.

One criteria of the selection of artists for this project has been the potential for the resident-artist exhibition to complement the other exhibitions planned for the same timeframe; PAAC has typically presented two or three exhibitions concurrently that have a unifying thread through content, creative media, or context. To complement the David Tomb exhibition, for example, PAAC plans to present an exhibition exploring the subject of birds in contemporary art in a wide range of media.

Activity #5—Exhibition-Related Programming. During the period the exhibition is on view, PAAC and JMZ will present the following programs.

- The artist will lead at least one public walk-through of the exhibition to discuss his or her residency project.
- PAAC’s Project LOOK! school tours, which serve classrooms visiting from schools between San Jose and Redwood City, take a docent-facilitated tour the exhibition, followed by hands-on activities integrating art and science in the Project LOOK! Studio.

- One Project LOOK! tour a week will be an enhanced two-hour tour that builds on the regular 90-minute tour with additional environmental education activities at JMZ and in Rinconada Park, which lies between the two facilities. Offered to all schools who participate in Project LOOK!, this program is being developed in response to elementary-school teachers in Palo Alto who have specifically expressed interest in STEAM learning experiences for their students.
- PAAC will host a Friday Night program during each exhibition. This program was developed in 2012 in response to an expressed community interest in experiencing the Art Center in a fun and social event, with refreshments and art activities for all ages. During this project, PAAC and JMZ staff will develop art and science learning and recreation activities related to the exhibitions. Items from the JMZ Natural History Collection—or even live animals from the zoo—could be used as subjects for drawing activities.
- PAAC, in conjunction with JMZ staff, will create interactive gallery guides for children and families in conjunction with the residency and the exhibition.

Activity #6—Family Days. In addition to the activities above that will be repeated for each of the four artist residencies, PAAC and JMZ will host a collaborative Family Day twice during the grant period. These free four-hour events will feature hands-on art and science learning opportunities at both facilities.

Activity #7—Evaluation. Please see detailed discussion below.

PLANNING FOR THIS PROJECT HAS BEEN DONE COLLABORATIVELY between a group of PAAC and JMZ staff, and these individuals will form the core Project Team that will plan project activities and supervise their implementation. Resumes for these key staff members are provided:

- Karen Kienzle: Project Manager and Director, Palo Alto Art Center. Prior to her PAAC position in 2009, Kienzle was the Curator, then Assistant Director for Exhibitions, Education, and Community Outreach at the deSaisset Museum, University of Santa Clara. As Project Manager, she will ensure that the disparate parts of *Creative Ecology* achieve a consistent standard of excellence expected of programming at PAAC and JMZ.
- John Aiken, Executive Director, Junior Museum and Zoo. Aiken has held his JMZ position since 2008. In the more than twenty years prior to coming to JMZ, he held a series of curatorial and administrative positions at the San Francisco Zoological Society.
- Lisa Ellsworth, Curator, PAAC. Ellsworth joined the PAAC staff in 2013. She previously worked at the Children’s Discovery Museum of San Jose, where she designed interdisciplinary arts experiences and environments and curated, conceptualized, and provided educational content for interactive exhibitions.
- Tina Keegan, Exhibits Director, JMZ. Prior to this position at JMZ in 2007, Keegan was an exhibit designer and developer at the Children’s Discovery Museum and the Tech Museum of Innovation, both in San Jose.
- Ariel Feinberg Berson, Director of Education, PAAC. Berson previously held museum-education positions at the Contemporary Jewish Museum, San Francisco, and the Jewish Museum, New York, before joining the PAAC staff in 2007.
- Alexandra Hamilton, Education Director, JMZ. Hamilton has held this position since 2009. She previously served in museum education and development positions at the Children’s Discovery Museum of San Jose; the Bay Area Discovery Museum, Sausalito; and the California Academy of Sciences.

The Project LOOK! tours, the two Family Days, and the four Friday Night events will be implemented by PAAC staff members who regularly develop and present those programs. The Art Educator and a Science Educator, who will be contracted specifically for this project, will facilitate the artists’ field activities during the residency and provide support in the implementation of public programming.

THIS PROJECT WILL BEGIN IN OCTOBER 2014 with the first of the four artist residencies. Year 1 of the project will include three residencies, with associated programming, and two exhibitions with public programming. Year 2, which comprises the six months from October 2015 through March 2016, will include the final residency and two exhibitions, with public programs. The Family Days will be held in April 2015 and March 2016, the latter serving as a public celebration of the completion of this 18-month project.

A MUSEUMS FOR AMERICA GRANT OF \$88,010, WITH MATCHING FUNDS OF \$90,627, will enable PAAC and JMZ to plan and implement the *Creative Ecology* project as described above. Grant funds will support personnel specific to this project—fees for the four resident artist and the evaluation consultant, and wages for the Art Educator and Science Educator. Additional grant funds will provide art supplies for the resident artists and exhibition supplies. The exhibitions and public programming that will be presented are fully consistent with the established programming at PAAC and JMZ; except for supplies and materials specific to each residency project, additional resources will not be required.

THE RESOURCES PAAC AND JMZ WILL CONTRIBUTE TO THE PROJECT include staff members who are experienced and passionate about exhibitions and education and facilities appropriate for project activities. The PAAC staff has expertise in the visual arts and connections to regional artists whose artwork will achieve the project's artistic and educational goals. The Art Center has facilities for the creation of artwork in a variety of media and, with the 2012 opening of the renovated building, museum-standard galleries and mechanical operating systems. The JMZ staff has expertise in science and connections to scientists and to the public open spaces where the artists will initiate their residencies. The JMZ Natural History Collection will be a valuable resource for the artists and for public programming throughout the project. While the collaboration opens up new areas of potential programming, the project activities fall within the regular responsibilities of staff at both institutions.

TRACKING PROGRESS TOWARD ACHIEVING INTENDED RESULTS is inherent in the project's structure of four distinct, yet overlapping cycles of residency and exhibition. The experience of the first artist's month of field interactions with community participants will inform planning for subsequent residencies, for example; and the measured effectiveness of the Project LOOK! program's synthesis of art and science activities will impact programming during later exhibitions. PAAC is contracting with an evaluation consultant to assist with formative evaluation throughout the project. The Project Manager will monitor the overall progress of the project on a week-to-week basis.

THE RESULTS OF THIS PROJECT WILL BE SHARED IN A VARIETY OF WAYS. Most immediately, the results of the artist residencies will be shared through the exhibition of their artwork and the public programming surrounding it. PAAC will use its robust social media channels (including Facebook and Twitter), and its email list to share details about the projects. The partnership with JMZ will expand the social-media network.

The PAAC and JMZ envision this project not only as something to be built on in future collaborations, but also, because of its focus on STEAM education, as a model that can be replicated elsewhere. Staff of both institutions have a tradition of presenting at regional, state, and national conferences and look forward to disseminating the results of this project to members of organizations such as the American Alliance of Museums, Association of Children's Museums, Association of Science and Technology Centers, California Association of Museums, and Western Museums Association.

3. Project Results. THIS PROJECT WILL RESULT IN A SERIES OF FOUR EXHIBITIONS at the Palo Alto Art Center that continue the museum's well-established tradition of featuring objects of high aesthetic quality and craftsmanship produced in a wide range of media. At the same time, the project will engage a broad audience in activities that demonstrate the capacity of art and science presented together to promote a more complete educational experience. The project will create new audiences for PAAC and JMZ and greater audience crossover between the two museums, and it will develop public awareness of the museums as complementary institutions. By involving the public in the creation of the artwork and its scientific groundings, the project will develop greater understanding that artists and scientists are real people, and more alike than not. This project is also intended as a model that could lead to further collaborations between PAAC and JMZ that provide a stronger impact in the community.

PAAC and JMZ anticipate the this project will have the following qualitative results:

- Adults and children will discover connections between art and science and, in the exhibited artwork, see how they can be successfully employed together

- Children will begin to adopt 21st-century skills through STEAM-based learning projects
- Children and adults will gain a greater appreciation of their local open-space environments and develop a personal connection to the environment, which, in turn encourage community-based stewardship
- Children will learn scientific and artistic literacy skills and develop ways of thinking that they can use in their continued education
- Adults will gain exposure to working contemporary artists' perspective, materials, and process.
- Parents and children will experience meaningful opportunities for family fun and learning together.
- Art and science museums elsewhere will learn about, and possibly employ, a model for interdisciplinary education that incorporates both art and science

The activities comprising this project will have the following quantitative impact on the community:

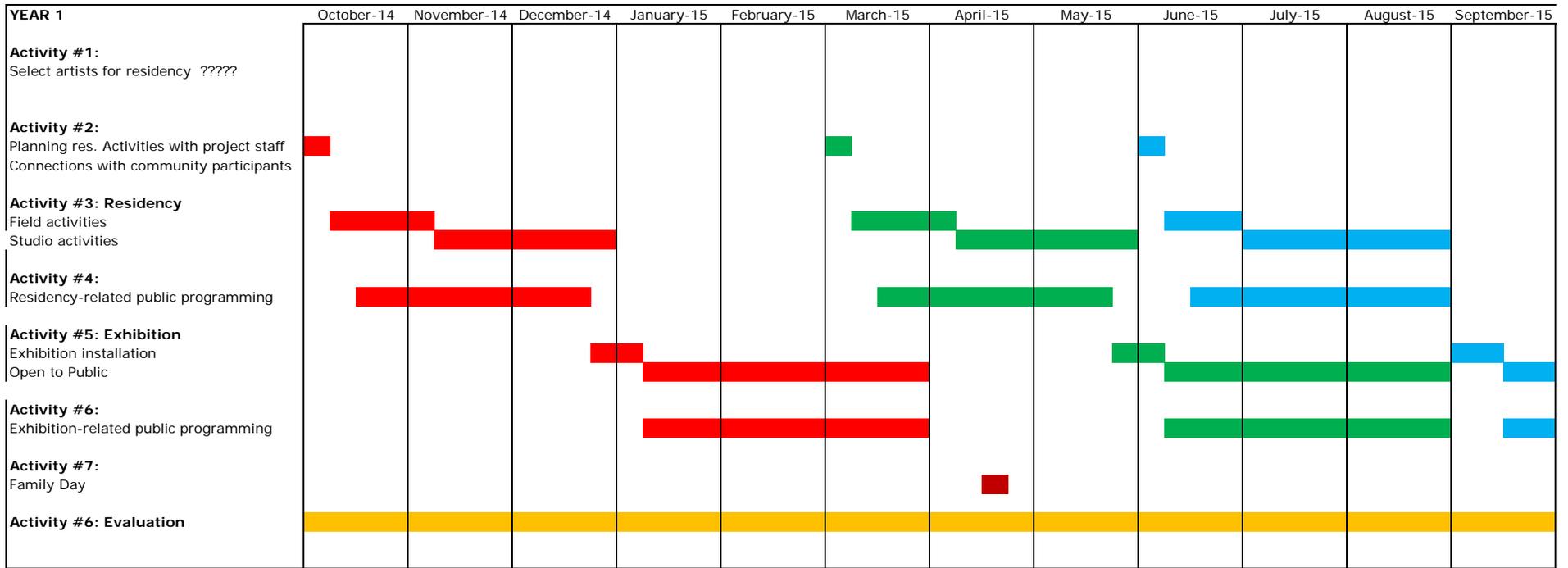
- A total of some 75 community members will take part in the four artists' field preparations for their studio residencies and exhibitions.
- Approximately 500 members of the public will attend artist lectures and open studio periods.
- 75 adult participants in PAAC Studio classes and workshops will pursue their own creative work in the context of the art and science content of the artist residencies.
- 4,000 members of the public will visit the four exhibitions at the Art Center.
- 5,000 K–8 schoolchildren will benefit from Project LOOK! tours of the exhibitions.
- 1,500 schoolchildren will take part in extended Project LOOK! sessions incorporating activities at both PAAC and JMZ.
- Some 600 children, parents, and caregivers will participate in each of the two Family Days.
- Approximately 600 people will participate in the Friday Night Programs

THE SUCCESS OF THIS PROJECT WILL BE MEASURED through an evaluation process facilitated by museum evaluator Wendy Meluch. Sensitive to best practices in evaluation, PAAC plans a multipronged approach using varied methods, including qualitative and quantitative tools, to triangulate on findings. The cyclical nature of the project lends itself to an iterative process of formative evaluation in which findings from earlier residencies and exhibitions inform subsequent cycles. Summative evaluation will also be done to assess program impacts. Interviews with stakeholders—staff, volunteers, and docents of both museums and community field participants—during the project and at its conclusion will assess the success of the collaboration and its value as a model for future institutional interaction. Evaluative techniques will include unobtrusive observation of select public and school programs and self-completed questionnaires for program participants and teacher who bring students. Short questionnaires for visitors to PAAC and JMZ will assess visit history and attempt to understand the impact of the project on visitation. Meluch's letter of commitment is included in Supporting Document 2.

THE VALUE THIS PROJECT IMPARTS TO THE MUSEUM FIELD will be the demonstration of the success of STEAM education—the interweaving of the arts with science, technology, engineering and math—as an effective tool that builds understanding and knowledge in audiences of all ages. This project will be a direct model of the effectiveness of collaboration between art museums and science museums, but the value of STEAM can be achieved by including artists in preparations for science exhibitions, and scientists for art exhibitions. A further result of value to the field will be the direct involvement members of the public in creating exhibitions in collaboration with artists, scientists, and museum personnel.

THE BENEFITS OF THIS PROJECT WILL BE SUSTAINED because Creative Ecology will provide a strong foundation for future collaborations between PAAC and JMZ. Since staff at all levels of the organizations will work closely together, the project will promote an understanding of the benefits of multidisciplinary art and science programming. By promoting greater exchanges between PAAC and JMZ staff, the project will establish greater respect, and forge stronger professional relationships, between staff that will facilitate future collaborations.

As the JMZ looks forward to its renovation effort, *Creative Ecology* will establish a model of how to work successfully in partnership with professional artists. During the museum's master-planning process, this project will inform discussion about how to incorporate art both into its new building and zoo facilities and as a part of its education and exhibition vision.



Note that the gap between the first and second exhibitions is due to PAAC's annual commitment to exhibit the Youth Art exhibition of Palo Alto Unified School District student work and final projects of the PAAC's Cultural Kaleidoscope program, which partners K-5 classrooms in Palo Alto and East Palo Alto to work with artists on collaborative projects.

YEAR 2	October-15	November-15	December-15	January-16	February-16	March-16
Activity #1: Select artists for residency						
Activity #2: Planning res. Activities with project staff Connections with community participants	■					
Activity #3: Residency Field activities Studio activities	■	■	■			
Activity #4: Residency-related public programming		■	■	■		
Activity #5: Exhibition Exhibition installation Open to Public	■	■	■	■	■	■
Activity #6: Exhibition-related public programming	■	■	■	■	■	■
Activity #7: Family Day						■
Activity #6: Evaluation	■	■	■	■	■	■

End of Project