CULTURAL PROGRAMS OF THE NATIONAL ACADEMY OF SCIENCES

Sagehen
A Sierra Proving Ground
Introduction

This catalogue presents work created by artists participating in the ArtSciConverge residency program at the University of California, Berkeley’s Sagehen Creek Field Station in the Sierra Nevada Mountains near Truckee, California. Established in 1951 by zoologist and National Academy of Sciences member A. Starker Leopold and aquatic insect specialist Paul “Doc” Needham as part of the University of California’s first wildlife and fisheries program, the station’s scientific research includes the study of streams and how they shape land. The station’s ArtSciConverge program, founded in 2011, has hosted dozens of projects that combine art and science in pursuit of basic discovery, community connection, and social transformation.

The artists’ residencies are place-based, meaning that they are concerned not only with art itself as a way of exploring intellectual, philosophical, and aesthetic issues, but also with how art functions and is understood in relationship to a specific location and time. Many of the works are artifacts from performance pieces at the field station. The ArtSciConverge program is shaped in part by the findings of a 2014 report from the National Academies of Sciences, Engineering, and Medicine about the social effectiveness of field stations. The report noted that although the stations produced good science, they were nonetheless losing funding because they were not connected robustly to the public. Just as the science at the Sagehen station has broadened to include research about the existential threats to the future of the planet, so the ArtSciConverge program has grown to include regional exhibitions and public programs. It has successfully forged an internationally admired link from scientific data and information to public awareness, action, and policy.

Although it was scheduled for April 1 – October 30, 2020, the physical exhibition was never actually installed at the National Academy of Sciences Building. Along with other institutions and public spaces around the world, the NAS Building closed to the public due to the COVID pandemic on March 16, 2020, a week before the scheduled installation date. The research and work for the exhibition has been documented in this catalogue and discussed at the August 20, 2020 DC Art Science Evening Rendezvous. A recording of the conversation will be available on YouTube at Youtube.com/CPNAS.

The works in this catalogue were curated by William L. Fox, director of the Center for Art + Environment at the Nevada Museum of Art in Reno.

@CPNAS I #nasSagehen
I don’t think anyone really knows how many artist residency programs exist in the United States, much less internationally. The National Endowment for the Arts thinks that there are at least 500 “artists’ communities” in the country, organizations devoted to providing work and living spaces for visiting artists, but that’s a small subset of residencies when you include those that exist in other institutions, such as universities. Residencies at science facilities are far rarer, however, and range from the highly organized international residency program at CERN in Switzerland to the very informal ArtSciConverge program at UC Berkeley’s Sagehen Creek Field Station. But by far the majority of residencies, whether at an artist community or a field station, have one thing in common: they are place-based.

A place-based art practice means that you are not only concerned with art itself as a way of exploring intellectual, philosophical, and aesthetic issues, but also how art functions and is understood in relationship to a specific space and time, a location. Within science contexts, that can range from Linda Connor printing fine art photographs from early 20th-century glass photographic plates at the Lick Observatory near San Jose, CA to a sculptor working on the Ross Ice Shelf as part of the National Science Foundation’s Antarctic Artists and Writers Program.

By definition, place-based programs are unique. Sagehen’s is no exception. The progenitive figures for place-making through art at Sagehen were Helen Mayer Harrison (1927-2018) and Newton Harrison (1932-), the world-renowned couple who are often credited with the rise of eco-art in North America. The Nevada Museum of Art in Reno commissioned them to do a conceptual piece about the Sierra Nevada in 1998 for an exhibition about the 400-mile-long mountain range. Typical of their practice, they first made a series of maps about the nature of the range and then met with numerous stakeholders to learn about the environmental health of the range. What they discovered was the importance of clean snowmelt runoff from the mountains to the agricultural industry of California’s Central Valley. The maps, their discoveries, and their proposals written out as a long poem formed the artwork titled “Sierra Nevada: A Modest Proposal.”

When the Center for Art + Environment at the Nevada Museum of Art opened in January 2009, we decided to contact the Harrisons to see if they would like to pick up where that first proposal had ended, and to undertake a specific work in the mountains. That led to an invitation from Jeff Brown and Faerthen Felix, respectively the Director and Manager of Sagehen, for the Harrisons to place a series of five test plots at varying elevations in the valley. Each plot would consist of both a control sample of untouched existing vegetation and an adjacent ensemble of plants within the valley’s existing genome designed to be resilient to climate change. As the Sierra warms, species are moving progressively higher in elevation only to disappear entirely, and then to be replaced with new plants susceptible to fire and consequent soil degradation. The Harrisons' ensembles would test plant species beneficial to helping control erosion and preserve water quality while at the same time limit the spread of catastrophic fires.

Both the Museum in Reno and Ronald Feldman Gallery in New York City exhibited their Sagehen work, and it was reviewed widely and positively in the art world in late 2011. This new work was first titled “Sierra Nevada: An Adaptation” and as the project materialized on the ground it became “Sagehen: A Proving Ground.” The latter title acknowledged that Sagehen would inspire an entire series of new Harrison projects dealing...
with water in California and Nevada. But it is also useful as a rubric to mark the beginning of what would be a wide-ranging artist residency program.

As Felix notes in her essay in this catalogue, the Harrisons’ work was often mistaken for a science project, but in fact, their proposals have deep metaphorical resonance with regional Native American mythology, with the legends of settler culture, and contemporary politics, as well as with contemporary art practices. All of that arises from research steeped in place-making. Brown and Felix decided they would continue inviting artists to work at Sagehen, as well as with its collaboration with the Center for Art + Environment. Nowhere is the goal of the station’s art program formalized as a way to continually engage artists in place-based work, although that is the underlying goal. The exhibition Sagehen: A Sierra Proving Ground presents a selection of the resident artists’ work from 2011 through 2020.

The first project created after the Harrisons planted their plots was by the American and Korean firm of stpmj architectural who built a thought experiment at the station. *Invisible Barn* was conceived as a folly similar to the follies built by the Europeans in the 19th century—interventions in landscapes meant to provide places for reflection, places that were interactive and fun. But stmpj’s folly, *Invisible Barn*, was literally made of a reflective material stretched over a radically flattened wooden frame of a small building. Pierced by rectangular openings referencing windows, the sculpture was both meant to be seen through and not. You would see the forest in front of you through the openings, and then the forest beyond you as mirrored on the “building.” It was about the place and of the place at the same time, and it quickly became a place where people chose to meet, converse, and contemplate.

The Center for Art + Environment then recommended that nomadic artists Cedra Wood and Christopher Baldwin visit Sagehen for an extended visit. They are artists whose practices include—but are not limited to—making work about the places in which they find themselves in residence. Wood collected pine cone scales from Sagehen which she sewed together into a large cloak that she wore in the forest while walking amongst burning slash piles, a performance documented by her partner, the artist Christopher Baldwin. His photographs led to subsequent paintings and drawings by Wood. Her “forest spirit” works then inspired the creation by others of “fire sprites” (not included in the exhibition) that are part of an ongoing art project about fire.

Baldwin, an internationally prominent comics artist and writer, also collaborated with Wood to reinterpret Sagehen fieldwork and professional research papers as graphic narratives, and a comic strip that also poetically described life at the station itself. Their reflections, which capture the richness of science produced at Sagehen over decades, as well as life at the station, memorialize not just facts and figures
but also the reverence in which people hold both the field station and its landscape.

The relief prints by Barbara Foster, made by walking in the forest on locally-sourced white fir planks attached to her shoes, are also based on a performance, that of her walking. The planks were scored by the ground she walked on, making a plate from which the prints were pulled. They are literal impressions of place.

Nate Reifke hiked the Sagehen valley, selecting rocks to inscribe with tribal designs that he then tucked into the landscape. Their almost invisible locations were keyed on a map designed and produced by Reifke and posted at the station. Searching for the rocks becomes a collaborative performance among the artist and the audience. In essence, he made a navigational puzzle for his audience that brings people closer to the land.

A different kind of walking performance was directed in the winter of 2016 by the German artist Sonja Hinrichson. *Snowshoe Drawing*, which people from the nearby town of Truckee were invited to create, is one of a number of community participatory works she has directed around the world. Local people imprinted her design while walking on snowshoes and thus altering the landscape. The result was an ephemeral place-based drawing, an action that provided them a way to meditate and play with the environment without causing any damage.

British artist Stuart Ian Frost, another Center for Art + Environment recommendation, worked with local loggers to slice a length of pine tree trunk into “cookies.” He reassembled them into two trees, a metaphorical cloning of a tree standing in the midst of the Sagehen forest. The sculpture addresses how the replanting of trees in the valley following a fire inadvertently created a monoculture of vegetation that is now itself prone to an increased risk of fire. This is a widespread practice that Sagehen seeks to change.

Erika Osborne’s paintings re-imagine history and place through everything from seemingly traditional sublime landscape paintings to experimental cartography. Often there is an underlying contemporary environmental disaster present in the images. After her residency at Sagehen she had a lengthy residency within the forests of Mexico’s Sierra de la Laguna and Sierra de San Pedro Mártir National Park. These forests provided reference conditions for Sagehen forest science and management projects. Her two works here utilize small plastic viewfinders to focus the attention of viewers as if they were surveying the landscapes. She contrasts the highly managed, dense forests at Sagehen with the forest in the Sierra de la Laguna, which has been largely left alone, and is quite healthy. The titles of the works also reference the fact that the Sierra de la Laguna was once a small island and that the forests of the western U.S. are “vast … and even in their most remote places, not all that isolated.” Osborne thus connects Sagehen within a larger framework of place, that of sister forests around the world.

These selected projects represent the manifold ways in which the arts transform Sagehen as a space of science into a place we know and care about. The station’s art program shifts the perceptions of people visiting and working in Sagehen, but also attracts new audiences. The results are an increase in positive media attention, and deeper connections with nearby communities. These changes, in turn, increase the station’s ability to take information generated by scientists into the realms of public awareness and policy action.
A Proving Ground for Science and Art

By Faerthen Felix

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Jonathon Keats is one of Sagehen Creek Field Station’s artists-in-residence. Keats is an experimental philosopher and conceptual artist interested in deep time. In 2020, he is at work on a project for the Nevada Museum of Art in Reno: a clock based on the inexpressibly slow growth of the world’s oldest trees, bristlecone pine trees in one of Nevada’s remote mountain ranges. Keats has also worked with long-exposure photography. His pinhole cameras exploit the usually undesirable tendency of pigments to fade over time, producing in his cameras a photographic plate that renders an image over a hundred, or even a thousand years. Keats refers to these images as “single-frame movies,” as they capture ephemeral impressions of objects that appear within the frame, persist for a while, and then disappear to be overwritten by something else: buildings, farm fields, forests, lakes, bridges, or roads. Given a long enough exposure and sufficiently resistant pigment, his camera could even capture something as slow as the geological movement of cliffs, mountains, and valleys.

The Sagehen forest is a living version of one of Keats’ photographs. The first loggers to enter the forest left behind tall stumps that have persisted in the dry Sierra Nevada climate, providing a ghostly palimpsest of a lost forest still faintly visible within the denser, smaller regrowth. One hundred and fifty years ago, European-American settlers reached the western US and began altering the landscape that had been established and maintained by Native Americans for 13,000 years. As the ice sheet retreated, trees and people arrived together: North American forests never knew a time when they were not managed by humans. The tool these original people used most was regular, low-intensity fire. Research suggests that prior to European contact, the North American continent held a population of over 50 million Native Americans. Tragically, these people proved extremely susceptible to European diseases, which spread faster than the main wave of the immigrant hosts did. By the time the pulse of new settlers reached the west, the original inhabitants were long dead, leaving behind just a few traumatized and powerless survivors. The death of so many people actually triggered the Little Ice Age of the early 1800s as spreading trees gobbled up atmospheric carbon, colonizing areas previously kept open by the Native Americans to encourage food plants and animals.

Encountering a depopulated landscape, the new settlers assumed they had received a land untouched by human hands, created by God and transferred directly to them just for their use. And use it they did. The large-tree forests of the Sierra Nevada fell quickly, converted to capital and raw material that fired steam locomotives, and shored up the Comstock-strike silver mines of Virginia City. Thirteen thousand years of forest time stopped: a moment captured and frozen in the 150-year-old stumps still resting quietly in the Sagehen forest of 2020. Sagehen artist Shannon O’Hare visualizes the forest’s stumps and other persistent woody debris as “fire sprites”: spirits trapped in the dead wood, waiting watchfully for fire to return and release them.

Formed in the early 1900s to provide sustainable yields of water and wood, the US Forest Service adopted a Conservationist mindset: harvesting the largest logs in clear-cuts, trashing the rest, and replanting small, often non-native saplings in dense rows. They treated wildlands like tree farms, raining herbicide from above to suppress brush, insects and
rodents, and quenching even small fires to maximize profit and yield. This is still happening.

But these dry western forests need regular small fire: they evolved with it. Without cool fire, nutrients can’t cycle; young trees grow so thick they compete for water. Large, fire-resistant trees are stressed. Disease and insects jump easily from tree to tree through uninterrupted, unhealthy forests. Fuel loads increase as woody debris, both natural and due to logging waste, piles up on the forest floor. When things finally do catch fire, the results are explosive and devastating, far from the cool creeping fire of the Native Americans. Today’s catastrophic fires consume entire communities like the ill-fated and ironically-named Paradise, California, subsumed by hellish flame in 2018. Core samples taken from those Comstock stumps at Sagehen whisper information from as far back as the 1600s (much older than the living trees) revealing that, prior to European contact, there was a small fire somewhere in the basin every 2.4 years. Post-contact, that interval rose to one large, high-intensity fire every 24 years. Most strikingly, the 1960 Donner Ridge Fire consumed a third of the 9,000-acre Sagehen basin, following mapped piles of desiccated Comstock-era logging slash and raging until it reached the Great Basin and simply ran out of things to burn, like our modern mega-fires.

UC Berkeley’s Sagehen Creek Field Station began in 1951 when the state legislature came to the University of California with funding to start a new wildlife and fisheries program. For decades, the station plugged along productively until the mid-1990s when the first California budget crisis put the operation into limbo: inactive but protected from complete abandonment by a small group of ardent campus supporters and a potentially huge expense to remove the facility. In 2001, a new Berkeley Vice Chancellor of Research came on board. Recognizing the immense value of a dedicated field research site with a rare long-term dataset, Beth Burnside provided a small operating budget and hired us—Jeff Brown and Faerthen Felix—as the station’s first managers in five years.

When we arrived at Sagehen, we understood that the university mission is research, education, and public service. We had no idea what we should actually be doing to achieve these goals. In our first summer while we worked to repair the crumbling buildings, inspiration arrived in the form of three large fires in the region that kept the Sagehen basin full of acrid smoke until winter came. In a desperate move to do something to change the trajectory, The US Forest Service Region 5 (through their Sierra Nevada II Framework forest planning document) had recently adopted a strategy for interrupting wildfire behavior. This involved thinning 150-acre patches in a waffle pattern over the landscape. However, there was no evidence that this hypothetical grassland tactic would work to moderate wildfire in forested, mountainous terrain. We realized that this was an opportunity for Sagehen to help our land managers get better science to inform their consequential, real-life decisions.

Over the next several years, Strategically Placed Land Area Treatments (SPLATs) research unrolled at Sagehen as a modeling exercise, science project, and Ph.D. thesis. The project attracted millions of dollars in scarce research funding, created the best forest
metrics dataset in the western US, helped ground-truth the new LiDAR airborne mapping technology, and resulted in the designation of the Sagehen basin as the first new US Forest Service Experimental Forest in over 40 years. We were ecstatic.

However, we were astounded to realize that our scientific work at Sagehen just did not resonate with much of the local public. People were sometimes even openly hostile: trespassing, vandalizing, and questioning what value our science held for them. With wildfire burning on our community’s doorstep, we thought that value was self-evident; but we were unsure how to answer those who disagreed with us. We took a step back to reconsider our approach. If the community didn’t care about research, we could focus on education and public service.

Working with the school district, we started successful, science-heavy outreach programs at Sagehen for local 5th and 9th graders. The parents had to drive the kids out and stay to cook and supervise overnight. That contact—and Jeff’s orientation talks—helped them understand and connect to Sagehen’s forest and our work. We led a large community collaboration, The Sagehen Forest Project, that brought opposing stakeholders to the table to figure out what to do to save our forests from wildfire. Over 18 months and starting from the theoretical SPLATs of our science program, we evolved a more responsive prescription that honored everyone’s values. The new strategy brought out more wood, restored more wildlife habitat, and did no less fuel reduction than traditional Forest Service timber harvests. From environmentalists to loggers, everyone got what they wanted. The plan worked by considering the highest value for each patch of land based on topographic characteristics, rather than treating every acre the same and fighting everyone else to a bloody standstill. The reintroduction of regular, low-intensity fire was also key.

To expand this prescription to the regional scale required to get ahead of the wildfires, we needed deep social change. From land management to business to policy, we need to change our society’s entire approach to the style of forestry that created and continues to perpetuate the wildfire problem. A UC Davis class led by David Robertson visited Sagehen for several years in the early 2000s. Called “Nature and Culture,” it was quirky and got us thinking about different ways of seeing a forest. Human perception is not static. What we see is not a pure image of some objective reality, but a product of our past experiences and the expectations they create. Bringing people with very different backgrounds into place-based conversation held the potential of not only creating consensus, but actually making deeper fundamental discovery than science alone. In fact, many significant scientific discoveries are the result of observations made by artists, who are quite literally trained to see beyond the fog of their own natural human perception and symbolic thinking.

About that time, the nearby Nevada Museum of Art in Reno contacted us with a proposal. They had funded the world’s premiere environmental artists—Helen and Newton Harrison, of The Center for the Study of the Force Majeure—to create a 50-year artwork themed on the effects of climate change on the Sierra Nevada. The project had lost its original field site. Would we be willing to host the work? We said yes, and in 2011 the Sagehen art program really began. The Harrison’s work is conceptual and looks a lot like a science project. The actual art emerges in maps, poetry, multimedia, books, and gallery exhibits. The public did not understand why the study plots at Sagehen constituted art. So, we went looking for (and found) more projects and artists with approachable work to lead people more gently into these discussions. You can see some of that work in this exhibit. We often encountered pushback. People expressed confusion about why a scientific field station should even get involved with the arts and humanities. They would sometimes suggest that we should not.

Sagehen Creek Field Station is not a unique phenomenon. Though generally low profile, there are research reserves all over the US and the world.
Sagehen belongs to a professional association of these facilities, the Organization of Biological Field Stations (OBFS). Reserves share many common issues and finding a way to remain relevant is a big one. Peter McCartney is Program Director of a very small pool of funding for field stations provided by the National Science Foundation (NSF). McCartney perceptively saw and understood this need. He commissioned the 2014 report from the National Academies of Sciences, Engineering, and Medicine on *Enhancing the Value and Sustainability of Field Stations and Marine Laboratories (FSMLs) in the 21st Century*.

The report committee consisted largely of scientists appointed by the National Academies of Sciences, Engineering, and Medicine, and was led by the brilliant Jerry Schubel, Executive Director of the Aquarium of the Pacific. Schubel used a compelling graphic, cribbed from business theory, to explain how society changes. First, you collect data. Then you turn that data into knowledge. The document the team produced congratulated FSMLs on their rousing success at these first two steps, especially given universally limited resources. The team then said we were falling short for the rest of the curve. From knowledge you have to create some kind of empathy with the public, make them care, so that you can get to policy and then actual social action. FSMLs simply were not making that empathic connection. But science itself is designed to strip emotion away. That is how it works: the findings you get shouldn't depend on how you feel about your results. FSMLs needed to find a way out of this conundrum in order to remain relevant in the future. Follow up publications by Schubel specifically identified the arts as a possible way of bridging the empathy gap.

These documents galvanized Sagehen. It provided us with the higher justification we needed for the intuitive work we had been doing in connecting the arts and humanities to our science program and the issues being addressed. We expanded our artists-in-residency program. Partnering with the University of Alaska Fairbanks and the Nevada Museum of Art’s Center for Art + Environment, we received an NSF Planning Grant to hold a convening of artists, scientists, public and private arts funders, field station managers, cognitive scientists and others working at the interface of art and science. This workshop, held at the Nevada Museum of Art, created a program called ArtSciConverge.

We expanded our efforts to encourage and support the arts at other scientific field stations through a new committee within OBFS. We connected to the Alliance of Artist Residencies to promote science at these sites. We partnered with Sierra Nevada College to host their new low-residency MFA program at Sagehen. Jeff convinced the Lake Tahoe West collaboration (an expansion of the Sagehen Forest Project ideas to a larger landscape) to embed an artist in their planning process. Beginning in 2017, artist Todd Gilens now helps the Lake Tahoe West group to consider the social effects of their propositions. Also beginning in 2017, we worked with the Center for the Study of the Force Majeure to create a bi-state Wood Utilization Team to encourage new, ecologically-consistent small wood businesses. In 2018, we connected with four regional arts councils, dozens of artists, and other interested citizens to coordinate an artistic response to forest issues at the scale of the management, policy, business, and science responses required to change our forest trajectory. One outcome of that effort is Michael and Heather Llewellyn’s FOREST – FIRE, a Nevada County Arts program that won California Arts Council matching funds for a 2021 exhibit that tells the story of past, present, and future Sierra Nevada forests and fire through important artworks, including contributions by Native American artists. The project also features community outreach programs.

Moving forward, the arts and humanities are critical to everything we do at Sagehen, and our agency and other partners are responding to the idea that the arts can draw in more minds to help address the increasingly complex and unavoidable socio-ecological challenges that we face as both a society and a species.

Join us!
Sagehen Forest Project research infrastructure and management prescription map of the Sagehen Experimental Forest.
The influential figures for place-making through art at Sagehen were Helen Mayer Harrison (1927-2018) and Newton Harrison (1932), the world-renowned couple who are often credited with the rise of eco-art in North America. The Harrisons’ work is often mistaken, at first glance, as a science project. But, in fact, their proposals have deep metaphorical resonance with regional Native American mythology, with the legends of settler culture, and contemporary politics, as well as with contemporary art practices.

The Nevada Museum of Art commissioned the Harrison’s Sagehen work as a 50-year project in response to the following questions: Can we interrogate the botanical history in the Sagehen watershed, discovering species that survive rapid global warming and intermittent rainfall? Can they be propagated and can they form the basis for generating a rapid ecological response to species shock and death from rapid temperature rise in the High Sierra?

This photo collage is meant to be a guide for visitors to Sagehen and was produced specifically for the museum as part of its permanent collection. It shows how, in the summer of 2015, the Harrisons planted large groupings of 16 species of seedlings from the Sagehen watershed in plots of land at five different altitudes. Over time, scientists will be able to see which species are able to survive at which altitudes under extreme climate stress. The museum is committed to presenting results of growth within the plots over the length of the project period, 2015-2065, and is working with Sagehen to memorialize the locations and boundaries of each plot both physically and digitally.

Nate Reifke hiked the Sagehen Valley, selecting rocks to inscribe with tribal designs that he then tucked into the landscape.
Nate Reifke, *Artwork Location Map*, 2016.

Artist Nate Reifke created this map of key locations of his almost invisible installations of rocks and it was posted at the Sagehen field station. Searching for the rocks became a collaborative performance among the artist and the audience. In essence, he made a navigational puzzle for his audience that brought people closer to the land.
Sagehen
A Sierra Proving Ground

British artist Stuart Ian Frost worked with local loggers to slice a pine tree trunk into "cookies." He reassembled them into two trees, a metaphorical cloning of a tree standing in the midst of the Sagehen forest. The sculpture addresses how the replanting of trees in the valley following a fire inadvertently created a monoculture of vegetation that is now itself prone to an increased risk of fire. This is a widespread practice that scientists at Sagehen seek to change.

Stuart Ian Frost creating the sculpture at Sagehen.
Sagehen
A Sierra Proving Ground

Barbara Foster, *Shoes*, 2017, sandals with attached white fir wood blocks, 13.5 x 7.5 x 8 inches each.


Barbara Foster made this print by walking in the forest on locally-sourced white fir planks attached to her sandals (pictured above). The planks were scored by the ground she walked on, making a plate from which the prints were pulled. They are literal impressions of place.
Snowshoe Drawing by German artist Sonja Hinrichsen is one of several community participatory works she has directed around the world. People from the town of Truckee near the field station imprinted her design while walking on snowshoes, thus temporarily altering the landscape. The result was an ephemeral place-based drawing, an action that provided the participants with a way to meditate and play with the environment without causing any damage.
BUT, DON'T FORGET
THIS FOREST

THERE IS SO MUCH MORE TO TALK ABOUT
SO MUCH MORE TO UNDERSTAND

WE WILL TALK MORE

IT WILL STILL BE LISTENING

Christopher Baldwin. Sagehen Creek Field Station, 2017, pen and ink on paper, 9 x 12 inches.
Christopher Baldwin, *Sagehen Creek Field Station*, 2017, pen and ink on paper, six pages, 9 x 12 inches.
Christopher Baldwin

A detail of works by comic illustrator and author Christopher Baldwin.
Christopher Baldwin and Cedra Wood, Sagehen Science Reports, 2019, pen and ink on paper, 9 x 12 inches.

Christopher Baldwin, an internationally prominent comic illustrator and author, collaborated with artist Cedra Wood to reinterpret Sagehen fieldwork and professional research papers as graphic narratives and a comic strip that also poetically describes life at the field station. Their reflections capture the richness of science produced at Sagehen over the decades.
Christopher Baldwin and Cedra Wood, Sagehen Science Reports, 2019, pen and ink on paper, 9 x 12 inches each.
Invisible Barn was built at Sagehen Creek by the American and Korean firm of stpmj Architects. It was conceived as a folly similar to those constructed by Europeans in the 19th century, built interventions in landscapes meant to provide places for reflection that were interactive and fun. But stmpj’s folly, Invisible Barn, was literally made of a reflective material stretched over a radically flattened wooden frame of a small building. Pierced by rectangular openings referencing windows, the sculpture was both meant to be seen through and not. You would see the forest in front of you through the openings, and then the forest beyond you as mirrored on the “building.” It was about the place and of the place at the same time, and it quickly became a place where people chose to meet, converse, and contemplate.
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Right: **Seung Teak Lee**, co-founder of stpmj Architects, at work on Invisible Barn at Sagehen, 2015.
WHAT’S GOING ON HERE?

Many people are confused by or concerned about Invisible Barn. Here’s a typical comment we received from a worried citizen in response to a recent article about Invisible Barn:

I wish you had interviewed someone involved with the “folly” to get a comment on how many birds will fly into the walls and die, or maybe it’ll be deer that break their necks, before the folly of this project becomes clear.

One of the great powers of art is that it can act as a magnifying glass for thought. Bird-glass collisions are a serious problem: the leading cause of migratory bird death behind habitat loss. Yet, we build structures with glass windows or even complete glass exteriors in bird habitat and flyways every single day without thought or comment.

Because Invisible Barn is art rather than a real building, it makes us think differently and ask the questions we should really be asking about everything we do: why are we doing this? Is there a better way? I have heard questions about bird strikes on IB at least a dozen times since the installation was announced in spring 2015. Yet, after over a dozen years at Sagehen, no one has ever asked about the effect on wildlife of a new or pre-existing building. In fact, people seldom ask this question about buildings anywhere. I wonder if those expressing concern about IB have ever written an impassioned note about bird strikes to an urban construction company?

The fact that Invisible Barn triggers this kind of interest is one of the main reasons we built it: we want people to think more deeply about their relationship to—and feelings about—their environment.

In the face of changing climate and growing population, how should we be managing our wild places and built areas?

Since we are completely transparent in our operations at Sagehen, we were able to think about and respond to this issue in the planning stages of the project. We mist-netted during breeding season last year to be sure the site was not a flyway (it’s not: we only caught—and released—one woodpecker). We also prepared a whitepaper on bird-glass collision mitigations and discovered that, unlike window glass, aluminum reflects UV light in the range that birds can see. Knowing this, we selected aluminized mylar as the surface material. For this reason, the structure should be highly visible to birds. To them, it likely appears similar to a big flower.

You can learn more about the bird-glass collision issue at FLAP.org. Read more about Invisible Barn in media outlets like the Daily Mail, Arch Daily, Psychology Today, New Scientist, UC Natural Reserve System News, and other links available on our Facebook page (under the hashtag #InvisibleBarn).

Thanks for your engagement and interest in our project!

Sagehen Creek Field Station
July 27, 2015
Erika Osborne. *I am the Sea*, 2019, charcoal and acrylic on paper, 30 x 22 inches.
Erika Osborne’s paintings reimagine history and place through everything from seemingly traditional sublime landscape paintings to experimental cartography. Often there is an underlying contemporary environmental disaster present in the images. Since her residency at Sagehen she has been an artist in residence in the Sierra de la Laguna forest of Mexico. Her two works here use small viewfinders to focus viewers’ attention as if they were surveying the landscape. She contrasts the highly managed, dense forests at Sagehen with the forest in the Sierra de la Laguna, which is has been largely left alone, and is quite healthy. The titles of the works also reference the fact that the Sierra de la Laguna was once a small island and that the forests of the western U.S. are “vast … and even in their most remote places, not all that isolated.” Osborne thus connects Sagehen within a larger framework of forests around the world.
Erika Osborne’s paintings, *I am the Sea* and *I am an Island*, are accompanied by six viewfinders that visitors can hold up to the corresponding perforated holes in the works revealing moments of environmental disaster.
Cedra Wood. *Pine Cone Cloak at Sagehen*, 2019, acrylic on board, 8 x 10 inches.

Cedra Wood is an artist whose practice includes—but is not limited to—making work about the place where she is an artist in residence. Wood collected pine scales she sewed together into a large cloak that she wore in the forest while walking amongst burning piles of natural debris, a performance documented by her partner, the artist Christopher Baldwin. Wood later referenced his photographs to create this painting.
Cedra Wood, with Pine Cone Cloak she made of pine cone seed scales, 2018, photographed by Michael Llewellyn.

Cedra Wood, wearing Pine Cone Cloak at Sagehen, 2018.

Cedra Wood, sewing Pine Cone Cloak at Sagehen, 2018.

Cedra Woods’s partner, artist Christopher Baldwin, documented her performance. The photographs inspired Wood to create a series of paintings and drawings, including the one displayed here.