

ESSAY

Land Art of the 21st Century

Robert Ferry and Elizabeth Monoian
Founding Directors,
Land Art Generator Initiative

The Challenge

There has never been a time in human history when we stood at a crossroads the likes of which we confront today. The actions that we take in the next few years will reverberate across centuries.

Scientists have defined our global “carbon budget” as the total amount of CO₂ (and CO₂ equivalent greenhouse gases) that can be emitted into the atmosphere while avoiding the most catastrophic impacts of climate change. The prognosis given by climate scientists is that if we continue to pollute the atmosphere at current rates we will exhaust our carbon budget by 2030. Since the dawn of the coal era, we have emitted more than three-quarters of the CO₂ that we can afford to emit while remaining below 1.5 degrees Celsius of global warming.¹ The conclusion is that we must see emissions peak immediately and achieve net-zero emissions globally by the year 2050.

This will require that we convert one-hundred percent of our electricity generation to renewable sources of energy by 2035 and then rapidly begin to replace the use of fossil fuels for heating, transportation, and industry.

Simultaneous to the climate crisis, we are confronted with the reality of unsustainable human consumption of finite natural resources driven by a global economic system that measures its own success against “fairy tales of eternal economic growth,” to quote Greta Thunberg speaking at the 2019 United Nations Climate Action Summit.²

The expansion of our carbon footprint is matched only by the expansion of our waste streams, including our disposal of single-use plastics that now permeate the farthest reaches of the earth. Desertification is ravaging land around the world, reducing local rainfall as our soils are depleted and poisoned by the practices of over-tilling and chemical poisoning common in industrial agriculture.

We know the stakes are high and that nature is reaching irreparable tipping points. The good news is that there are many workable solutions out there just waiting to be implemented. If we were magically given the opportunity to start over again with a planet that had not yet been ravaged by industrialization, how would we plan our settlements and cities using the full range of human technologies—from the local wisdom passed down through Indigenous cultures to the

latest advances in contemporary science? What if a dedicated community could bring forward a demonstration project, a proof of concept, for how to bring all of these technologies together to support thriving human societies in partnership with nature?

Technology does not live in a vacuum. It is born from human culture. If we are going to meet the ambitious goals required to address the climate crisis, the solutions—for carbon-neutral energy generation, water conservation, regenerative agriculture, sustainable buildings, and zero-waste—cannot be shrouded in mystery, unpleasant to be around, or unfamiliar to people. They must instead be commonplace, woven into our lived experiences and interactions. Strong social and cultural connections to the design and deployment of new sustainable infrastructures can increase the number of people who advocate for their implementation, and who support their long-term stewardship and maintenance.

The renewable energy power plants and other sustainable systems required to meet our environmental objectives will have a significant visual impact on our cities and our landscapes. Therefore, it is essential that we plan these new installations with intention, being mindful of their relationship to nature, places, and people. The legacy of these new infrastructures must demonstrate that local communities were engaged in their design and decision-making process. The multifaceted benefits that accrue from these infrastructures must be shared equitably across society, with policy that takes the opportunity of this once-in-a-generation sociotechnical transition to right some of the long-reaching injustices that have historically been inflicted upon BIPOC communities (Black, Indigenous, and People of Color).

Landscapes are already being transformed the world over by climate technologies. Dark blue solar modules blanket previously green fields. Mountains are sprouting wind turbines along their ridges. Walls of direct air carbon capture devices may soon dot our horizons. Will these infrastructures look the same everywhere—machines of pure utility designed without consideration of art and culture? Or can some reflect the unique nature of their surroundings, provide habitat for local species, and lift up the lives of the people who live nearby?



In *The Nature of Economies*, Jane Jacobs writes that we can learn from the way an old-growth forest ecosystem uses the sun's energy: "[once] captured in the conduit, it's not only converted but repeatedly reconverted, combined and recombined, cycled and recycled, as energy/matter is passed around from organism to organism"³—or system to system.

Inspired by this kind of biomimetic, systems thinking, Fly Ranch provides the perfect context within which to tackle the hard problem of net-zero sustainable infrastructure. The design teams who participated in LAGI 2020 Fly Ranch have set forth a vision of a landscape that can serve as fertile ground for exchanging ideas, innovating, experimenting, art making, and healing—a place that sets the highest standards of regenerative and circular design, providing for its own sustainable operations, and generously giving back to help other places draw down carbon.

The Vision of Fly Ranch

Set in a remote corner of the Great Basin shrub steppe ecoregion of Northern Nevada, nestled between the rugged mountain ridges of the Granite Range and the barren Hualapai Flat lies a magical stretch of land in the Black Rock Desert that has come to be known as Fly Ranch. Replete with artesian hot springs, 100 native plant species, 90 types of birds, wild horses, deer, mountain lion, dozens of other animals, and pristine night skies, there is no other place like it on Earth. With abundant groundwater and expansive beauty just five miles from Black Rock City, Fly Ranch was sure to catch the attention of the Burning Man community. The essay by Harley K. Dubois (page 22) transports you to the 1997 event that was held at Fly Ranch, the year that Burning Man couldn't get a permit from the Bureau of Land Management (BLM) for the use of the Black Rock playa. It was at that event that Fly Ranch and the history and future of Burning Man converged.

In the years since 1997, there have been many visions put forward about what Fly Ranch could become. It is a unique place that calls for considered intentions and collective actions. That makes it difficult to develop a master plan in a conventional manner.

Much like the plan of Black Rock City, which did not take form until the event had surpassed 12,000 participants, Fly Ranch will likely take shape over time through the

collective actions of dedicated people. The LAGI 2020 Fly Ranch design challenge is an early and pivotal step in advancing that transformation.

When Fly Ranch was purchased by Burning Man in 2016, the decision was made to first study the ecology. Dr. Lisa Schile-Beers, a wetland ecologist, lived for a year on the property, documenting and recording everything she experienced. Her essay (page 34) paints a vivid picture of the history of the place and how it came to be tied to Burning Man Project. Since 2018, Fly Ranch has been guiding nature walks in collaboration with Friends of Black Rock High Rock, and holding volunteer training, research events, and themed campouts such as Burners without Borders' summits to engage with thought leaders around important cultural and environmental topics. One event held in 2019 was a four-day "Writers Emerging" retreat for BIPOC women and non-binary writers. Yodassa Williams, who organized that event, is the author of "Future Nostalgia at Fly," a short story (page 46), that provides a futuristic vision of Fly Ranch. Her words remind us of the irreplaceability of life on this fragile planet.

With no access to the electrical grid or other public utilities, and under the stewardship of Burning Man Project, Fly Ranch provides a unique opportunity to reinvent what equitable human settlement can be in a world that has awakened to the impacts of anthropogenic climate change, colonialism, natural resource overconsumption, and biodiversity collapse, seeking to design thoughtful and regenerative solutions that right the wrongs of our exploitations. In this inspiring landscape we can begin to think creatively about how infrastructures, such as solar arrays, wind farms, greenhouses, regenerative agriculture, water treatment plants, and sustainable habitations can come together in symbiotic ways, while merging visually and conceptually with the landscape and human culture.

Fly Ranch has already become home to a collection of large-scale artworks, most of which first made their appearance on the Black Rock playa, including *The Pier* by Matt Schultz and The Pier Group, *Baba Yaga's House* by Jessi "Sprocket" Janusec and the Cauldron team, *Narwhal* by Pepe Ozan, and *Bone Tree* by Dana Albany. A more recent site-specific addition is *The Labyrinth at Fly Ranch* by Crimson Rose and Will Roger.

¹ Rogelj, J., D. Shindell, K. Jiang, S. Fifita, P. Forster, V. Ginzburg, C. Handa, H. Khesghi, S. Kobayashi, E. Kriegler, L. Mundaca, R. Séférian, and M.V. Vilarinho, "2018: Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development." In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)], <https://www.ipcc.ch/sr15/chapter/chapter-2>.

² NPR Staff, "Transcript: Greta Thunberg's Speech At The U.N. Climate Action Summit," *NPR*, September 23, 2019, <https://www.npr.org/2019/09/23/763452863/transcript-greta-thunbergs-speech-at-the-u-n-climate-action-summit>.

³ Jane Jacobs, *The Nature of Economies* (New York: Random House, 2000).



Approaching Fly Geyser from the northeast with the Granite Range in the background.

The Role of Land Art in the Transition to a Just and Sustainable World

The seminal works of Land Art by artists such as Nancy Holt, Walter de Maria, Robert Smithson, Michael Heizer, Agnes Denes, and Alan Sonfist were conceived within a pre-climate-conscious culture. This is not a critique, but a simple fact of history. In 1960, it was not widely known that fossil-fueled industrialization was on track to cause the world's oceans to rise, how extreme weather and wildfires would result from the burning of carbon, nor how our linear economy would choke our oceans with plastic to the brink of collapse.

Land Art emerged from conceptualism and minimalism and bore a circumstantial relationship to the monumental earthworks of the great ancient civilizations. From an ecological perspective, most of the founding Land artists from the 1960s and 70s did not intend as a first principle that their installations be regenerative or healing for the planet. Some of the larger earthworks were incompatible with local ecologies. Notable exceptions were Agnes Denes, Joseph Beuys, Alan Sonfist, Helen Mayer Harrison and Newton Harrison, and a handful of others whose work was a bridge to the ecological art movement.

Today we live in a post-climate-conscious world. We can model the impact that we have had on natural systems. We know we need to stay below an increase of 1.5 degrees Celsius to avoid the more catastrophic impacts of climate change.

Today we also live in a world that is awakening to issues of social justice, universal access, equity, and the long shadow of colonialism and slavery. After hundreds of years of exploitation of disenfranchised peoples, and after decades of half-measures to address strategic and structural social inequities, there is renewed hope in the possibility that we can design and implement regenerative systems of economic justice. What role is there for art (and its relationship to land) to advance these new systems of equity?

In this context it makes sense to open the genre of Land Art to include regenerative installations that center on providing benefits for local communities while remediating humanity's impact on the planet. We can appreciate the curved wall of rammed earth that defines *Source* (page 72) as a sculptural and conceptual element in the landscape and also as a passive solar heating system for growing fruit trees in a difficult climate—

an artwork that collects water and generates solar electricity to equitably support the local circular economy.

We have so much infrastructure to build. So much injustice to address. We have the opportunity to usher in a new era of human achievement and social justice powered by an abundance of renewable energy. It is all technically possible, but only if our culture demands that politicians support these efforts.

The task before us is as monumental as the solutions. We build monuments to the values we hold most dear and the achievements we feel most passionate about. The monuments that we decide to build in the coming decade should, at least in part, reflect the challenges we face today, and perhaps contribute to solving them.

But what exactly does a solution-based Land Art practice look like for ecological and social regeneration? No one person can know the answer to that question. The possibilities are as endless as human creativity.

We can learn from the inherent beauty in natural systems that reflects their steady-state—established over eons of coevolution—where the life cycles of living things are set in harmony with the energy and the material resources that naturally flow through them. Nothing is wasted and all that is required to thrive, to defy entropy, comes from the sun, the wind, and the weather. Could it be that when humans are capable of designing such systems we will find inherent beauty emerging from them as well?

This book is an exploration of how human culture and creativity can contribute to the design of our sustainable infrastructures for energy, water, food, shelter, and regeneration of waste. It is a blueprint for other regenerative development projects, a compendium of technologies and systems, and a catalogue of artworks.

The LAGI 2020 Fly Ranch design challenge invited creatives around the world to propose their regenerative designs for Fly Ranch—including interconnected and interweaving elements for dynamic and protected human habitation; places for learning and scientific discovery; venues of varying scales for self-expression, immersive events, and artworks in





The Labyrinth at Fly Ranch by Crimson Rose and Will Roger. The foundational stones were placed at the beginning of the pandemic in 2020. Photograph by Will Roger.

nature; permaculture systems for food and organic products; infrastructures for water harvesting and recycling; and sustainable energy generation from solar, wind, geothermal, biomass, and other means. Art and creativity are the connective tissue that weaves together all of these systems of survival and regeneration.

The artists who have contributed to this compendium explore the closed-loop regenerative cycles of energy flow, material reuse, and productivity the likes of which exist within flourishing natural systems. They bring together lo-tech and hi-tech solutions, paying respect to and learning from the pre-carbon societies of the past while looking toward the post-carbon societies of the future.

There will always be a place for Land Art that does not serve some regenerative function. We hope that those works will coexist with an expanding portfolio of emerging works that reflect a climate conscious and equity conscious world.

Walking the Ancient Seabed

Over the past few years we have had the good fortune of spending time in the unique landscapes of the Black Rock Desert, the valleys of which were once the seabed of the great ancient Lake Lahontan, and the home of the Numu (Northern Paiute), Nuwu (Southern Paiute), Newe (Western Shoshone), and Wa She Shu (Washoe) people who have lived together with the land for ages. Their ancestor's petroglyphs, carved more than ten thousand years ago, can be seen in the lake beds of Lake Winnemucca, once an important watershed for migratory birds and a National Wildlife Refuge, before it was drained in the early twentieth century to provide irrigation water for agriculture upstream on the Truckee River.⁵

The lake was originally known as Muddy Lake, but was renamed in honor of Sarah Winnemucca, whose autobiographical history *Life Among the Piutes: Their Wrongs and Claims*, provides an accounting of the atrocities committed by colonial settlers against the Northern Paiute people.⁶

The expansive landscape is monumental as you drive north from Reno on Route 447 following the western bank of what used to be Lake Winnemucca. Sixty miles north of the

Muddy Lake Massacre historic marker near Nixon, you drive quickly through Empire, the old gypsum mining company town, then across a wide salt flat and into Gerlach.

The sign as you enter Gerlach reads, "Population: Wanted." It also reads, "Center of the known universe" and "Attitude: Good." This old railroad town has many stories to tell, and the people of Gerlach might share them with you over drinks at Bruno's or The Miner's Club. Early in the process of writing the Design Guidelines document for LAGI 2020 Fly Ranch, we met with a dozen locals to talk about the design challenge. We attended a Gerlach General Improvement District (GGID) meeting on the invitation of Lisa Nash. We heard about the importance of engaging locals in projects and respecting the "authenticity of place" through an awareness of the history of the region and the ways in which humans have lived there for centuries.

When you visit Gerlach outside of the summer months when it becomes a suburb of Black Rock City, you can almost forget how much the Burning Man Project organization and culture has come to influence the town. That may change over the decade of the 2020s as the projects in and around Gerlach, which Burning Man Project is developing, begin to attract visitors across all seasons. Guests arriving for Burning Man cultural experiences will witness the building of new, sustainable civic infrastructure, like solar-shaded boardwalks, microgrids, and city-wide geothermal heating loops.

We had never been to Burning Man when we arrived for a weekend at Fly Ranch in the spring of 2018. Someone had seen an article about LAGI 2016 Santa Monica, which led to an invitation to what was to be a transformational experience for us. Discovering Fly Ranch for the first time is like a waking dream. Days of helping around camp and workshopping ideas were followed by an afternoon soak in the Fly Geyser hot springs under the curious gaze of wild horses. Later we gathered for storytelling around a fire. Larry Harvey had passed away less than two months prior to our first weekend event at Fly Ranch. We did not understand the gravity of his earthly departure that weekend, but looking back we can only hope that he would have been pleased with the outcomes of LAGI 2020 Fly Ranch.



One of the artesian wells that can be found flowing at Fly Ranch is a remnant of the agricultural history of the site.



Historic marker along Route 447



The Pier, by Matthew Schultz and The Pier Group. The artwork appeared twice on the playa at Black Rock City (2011 and 2012). It was installed at Fly Ranch in 2017 a short walk south from Fly Geysers.

An Ambitious Plan

The idea of “greening” Burning Man has been a glowing ember for quite some time. Burners like David Shearer, Katrina Zavalney, Rina Schumer, Ryan Wartena, Matthew Forkin, Marnee Benson, and many others have been publicly tracking the carbon footprint of Black Rock City and of Burning Man’s global presence for decades. Many Burning Man theme camps, including Alternative Energy Zone (AZE), It’s All Made Up (IMU), Hotel California, Earth Guardians, and Milk + Honey have been composting, recycling, and running 100% solar-powered camps—lighting the night, cooling the air, and even making ice from the power of the sun and wind—since at least 2000. These camps have begun sharing knowledge through the Green Theme Camp Community.⁷ Many playa artworks have been solar powered for years. Annie Hallatt’s 1997 artwork at Fly Ranch, *Under The Burning Bra, Nipples Flow; Lady Dies*, incorporated a solar-powered water fountain.⁸

The “leave no trace” principle of Burning Man has weaved an important thread of ecological stewardship through the culture, living in healthy creative tension with its more Dadaist roots. A carbon survey of the event was performed in 2006 and has been updated ever since, most recently in 2021 with the release of a comprehensive emissions inventory. The overall theme of the 2007 Burning Man event was “The Green Man.” Black Rock Solar, later Black Rock Labs, was founded by members of the Burning Man community to bring forward climate-positive projects. You can see their solar installations all around Northern Nevada, including an installation in the shape of an arrowhead at the Pyramid Lake Museum. On display at the Museum is a comprehensive archive of Northern Paiute history. The Museum’s Director, Billie Jean Guerrero, is an expert guide for the social and natural history of the area.

The decision to partner with the Land Art Generator Initiative (LAGI) to help advance the vision of Fly Ranch took place around the same time that Burning Man Project redoubled its organizational efforts to become sustainable. The 2030 Environmental Sustainability Roadmap was published in July of 2019.⁹ The document was crafted by Matt Sundquist, the Director of Fly Ranch, with the input of many environmentally-minded Burners. Three goals provide

a path to sustainably manage waste, be regenerative, and be carbon-negative. The plan is to be able to say by the year 2030 that it is “better for the ecology of Earth for Burning Man to exist than to not exist.” This means that the organization and the events it produces will achieve functional net-zero carbon emissions, eliminate the externalization of waste, and that the historical environmental footprint of every Burning Man event since the Baker Beach burn of 1986 will be offset over time. While a fraction of the plan does involve investment in off-site carbon sequestration projects, the strategy is primarily to accomplish goals locally through cultural transformation and regenerative Burning Man projects.

The partnership between Burning Man Project and LAGI makes perfect sense in this context. Both cultural organizations are centered on the power of art to create lasting social change.

When we founded the Land Art Generator Initiative in 2008, we imagined large works of art in the landscape that were designed as cultural destinations and incorporated regenerative technologies as the media for creative expression. We imagined power plants as massive public artworks, feeding energy to the city through gigawatt-hours of clean electricity and also through transformational human experiences. These artworks would not only be functional solutions to the existential threat of climate change, but they would also be cultural drivers—inspiring reminders of the beauty and promise of a world that has moved beyond carbon. After years of science communications focused on the gloom and doom of rising sea levels, mass migrations, extinctions, wildfires, droughts, and super storms, we felt that it was time to start giving people something desirable to run toward, rather than something frightful to run away from. Our conviction has been that by persistently painting an inspiring picture of a net-zero world, we can help to build the political will to bring about its rapid implementation. Before change can occur, it must be imagined,¹⁰ and before new technologies can be deployed at scale, they must become universally popular.

The model of the design challenge has formed the core of our work because it brings tens of thousands of creative minds together while forming a global community. We’re incredibly grateful to all those who have continued to participate in the LAGI design challenges over the years, some bringing fresh ideas to nearly every competition. Over the past decade, we



Fly Ranch LAGI Summer Camp welcome sign by Joe Childs (2021). Behind is *Narwhal* by Pepe Ozan, which served as the roaming stage set for *The Ark of Nereids* (2002).

have held design challenges for a variety of site typologies: urban gateways (LAGI 2010 Dubai and Abu Dhabi with Masdar), landfills (LAGI 2012 NYC with New York City's Freshkills Park), brownfields (LAGI 2014 Copenhagen with the Capital Region of Denmark, ITU, the City of Copenhagen, and Refshaleøen), ocean coastline (LAGI 2016 Santa Monica with the City of Santa Monica), urban overlays (LAGI 2018 Melbourne with the State of Victoria, Australia), and city portals (LAGI 2019 Abu Dhabi with Masdar City and the 24th World Energy Congress). LAGI 2020 Fly Ranch offered the opportunity to imagine at a new scale.

Community, Collaboration, and Looking to the Future

LAGI 2020 Fly Ranch was an opportunity for us to get to know many wonderful people who are passionate about spending what precious time they have on Earth to make the world a better place while providing an experience of joy and wonder to those around them.

Our first Burning Man was in 2018. We joined The Outback, the walk-in camp of Dusty and Danger Ranger, who shared their waste and greywater infrastructure with us, along with the benefits of the power from a trailer-size solar array with two Tesla Powerwall batteries that kept the lights on, the margaritas frozen, and a microwave running. We pulled in late at night in our Prius packed to the brim with supplies and with two cruiser bikes on the back. As we began to set up our tent in the dark with the door flap facing into the prevailing winds, we were saved by Jane Maru who, along with Dusty Mikel and Anna Meloyan, is one of the designers of *Coyote Mountain* (page 86). Jane got us oriented in a less dusty direction and helped us as we pounded our lag bolt stakes into the ground. Along with our other Outback campmates, we had the good fortune to spend time with Sara Frantz, Archivist and Librarian at the Nevada Museum of Art and William Fox, the Director of the Center for Art + Environment at the Nevada Museum of Art.¹¹ His essay, "Art Marking Land, Land Making Art," (page 40) places the LAGI 2020 Fly Ranch project within the context of the twentieth century Land Art movement and provides an introduction to the allure of the desert as a setting for contemporary artmaking.

The summer of 2019 was our second year as citizens of Black Rock City. No one could have suspected that it would be the last sanctioned event before the two-year pandemic pause. In 2019, we joined the Burners without Borders (BwB) camp right on the Esplanade and met more amazing people, many of whom contributed their time to the LAGI 2020 Fly Ranch technical review process. The panel discussions that took place at the BwB Camp in 2018 and 2019 helped to inform the LAGI 2020 Fly Ranch process and spread the word about the challenge. We have many others to thank for making LAGI 2020 Fly Ranch possible and we hope that you will take a moment to read through the Acknowledgments (page 234).

As we write this essay, having recently returned from the first LAGI Summer Camp, we reflect on the two-week building and prototyping event in late June 2021 with many of the participating LAGI 2020 artist teams and volunteers. The experience was a master class in authentic leadership, research-based project management, systems thinking, local knowledge, dedication, hard work, companionship, and festivity. Burning Man has a way of merging thinking with doing, and we are excited to see how the concepts in this book will manifest themselves over time at Fly Ranch, naturally evolving and adapting to new information, learning from conversations with local residents, and by listening to the land.

Many Burners are homegrown in Gerlach or have transplanted themselves to live there year-round. One of those, Stacey Black, is the Assistant Principal and teacher at Gerlach K-12 School. Stacey and the rest of the Gerlach K-12 staff were key supporters from the beginning of LAGI 2020 Fly Ranch planning. We had originally intended to spend the entire month of April 2020 co-designing and installing a Solar Mural artwork¹² that would help to power their building, while giving the students a chance to contribute to a permanent work of art and learn about renewable energy and systems design. The coronavirus pandemic unfortunately curtailed those plans. We changed course and dedicated the educational outreach component of LAGI 2020 Fly Ranch to the design and production of a new board game.

Together with the game developers at Tunnel Monster Collective, we produced *Regenerate!*—a collaborative resource-management game that challenges players to work together to build a community that balances growth with sustainability.

⁴ Internal corporate documents show that Exxon's scientists had communicated information about the warming effects of CO₂ to executive leadership, but the information was inaccessible to the general public at the time. Neela Banerjee, Lisa Song, and David Hasemyer, "Exxon's Own Research Confirmed Fossil Fuels' Role in Global Warming Decades Ago," *Inside Climate News*, September 16, 2015, <https://insideclimatenews.org/news/16092015/exxons-own-research-confirmed-fossil-fuels-role-in-global-warming>.

⁵ Rich Moreno, "Nevada's Lost Natural Wonders," *Backyard Traveler*, February 5, 2007, <https://backyardtraveler.blogspot.com/2007/02/nevadas-lost-natural-wonders.html>.

⁶ Sarah Winnemucca Hopkins, *Life Among the Piutes: Their Wrongs and Claims* (New York: G. P. Putnam's Sons, 1883).

⁷ "GTCC (Green Theme Camp Community)," *Notion*, <https://www.notion.so/GTCC-Green-Theme-Camp-Community-51c644cf37614905b89ac41e84b58744>.

⁸ Burning Man Project, *1997 Art Installations*, https://burningman.org/culture/history/brc-history/event-archives/1997-2/97_art.

⁹ Burning Man Project, "2030 Burning Man Roadmap," *Medium*, July 20, 2019, <https://burningman.medium.com/burning-man-project-2030-environmental-sustainability-roadmap-c79657e18146>.

¹⁰ The tagline of *Hot Spots*, a collaboration between Ann Rosenthal, Karin Bergdolt, and Elizabeth Monoian, <http://hot-spots.net>.

¹¹ In 2019 the Center for Art + Environment acquired the archives of the Land Art Generator Initiative.

¹² The Land Art Generator Solar Mural artwork program, <http://solarmural.org>.



In the spring the waters of Rock Creek flow onto the Hualapai Flat from the Granite Range beyond.

Playing *Regenerate!* reminds us how challenging it can be to develop land in a truly regenerative way. At the same time it demonstrates the value of interdisciplinary collaboration, and reminds us that we already have at our disposal the technological tools needed to design thriving human systems in symbiotic relationship with nature. Some of the most important steps we can take now are to popularize these new technologies by incorporating art and design in their implementation, and to educate the emerging generation of leaders and decision-makers about the imperative of massive change and the importance of culture and community collaboration to a just and equitable transition.

Let's seize this moment of climate awareness with intention, and come together to design beautiful, climate-conscious landscapes for those places we hold most sacred.



A view across Hualapai Flat from Fly Ranch. Set within the reflection of Steamboat Mountain's distinct profile are the remains of the stage set of *The Daughters of Ishtar*, Pepe Ozan's 1997 ritual performance art piece.





Regenerate! is a collaborative resource-management board game and free educational resource developed by Tunnel Monster Collective in partnership with the Land Art Generator Initiative and Fly Ranch Project.

LAGI 2020 FLY RANCH DESIGN GUIDELINES

Projects Must

Consist of a three dimensional sculptural form that has the ability to excite the minds of Fly Ranch visitors. Your artwork should inspire wonder and awe in those who encounter and interact with it. It should aim to inspire people about the beauty of a world within which humanity achieves harmony with the natural world and environmental systems;

Provide a functional and replicable solution to one or more of the following five systems. Please note, you do not need to tackle all five systems with your design.

Energy

Capture energy from nature, convert it into electricity, and store and/or transform and transmit the electrical power to the site.

Water

Sustainably harvest surface, ground, stormwater, and/or atmospheric water and provide systems for the conservation, filtration, recycling, treatment, and/or distribution of water for a variety of uses, including but not limited to irrigation, drinking, cooling, heating, and providing ice and steam.

Food

Through organic and regenerative practices, provide on-site solutions for the sustainable cultivation of nutritious foods without degradation to soil nutrients, release of greenhouse gases, or pollution of the soil or groundwater.

Shelter

High performance dwelling and event space that exceeds the highest standards of environmental design and provides the greatest flexibility and adaptability of uses.

Regeneration/re-composition (zero-waste)

Identify paths for common waste streams to become feedstocks for new productive uses, including but not limited to composting, energy, light manufacturing processes, and biofuels, with the goal of reducing on-site waste to zero;

Be thoughtfully integrated into the context of Fly Ranch, the visual landscape, its microclimates and natural habitats, and the community and culture of Northern Nevada.

Achieve "authenticity of place" through an awareness of the deep history of the region and the ways in which humans have lived on the land for centuries;

Not generate greenhouse gas emissions or generate other forms of environmental pollution during its operational life. Provide a brief (approximately 500 words) environmental assessment describing the effects of your proposal on natural ecosystems and outlining a strategy to mitigate any foreseeable issues;

Be pragmatic and constructible, and employ technology that can be scalable and tested. There is no limit on the type of technology or the proprietary nature of the technology that is specified.

It is recommended that the design team make an effort to engage the owners of proprietary technology in preliminary dialogue as a part of their own research and development of the design entry;

Stay within the design site boundary areas as identified on the site boundary plan;

Be safe for people who use it, interact with it, and view it.

A Qualified Entry Might Also

(Optional Considerations)

Provide interpretation to engage people with an understanding of how your artwork functions to provide the sustainable service(s) referenced above;

Consider the full lifecycle of your design and its long-term impact. What will happen with your installation at some point in the distant future if it is decommissioned? Ideally the full lifecycle environmental footprint of your artwork from fabrication to decommissioning is zero or net-positive;

Consider ideas of portability and replicability as they relate to sustainable uses of Fly Ranch but also extending to support the sustainability of Black Rock City and/or other external places and events (refer to the work of Burners without Borders);

Your artwork may be designed to be permanently rooted in place or mobile. There are very good reasons to arrive at either solution or a combination of solutions;

Consider economic benefit to Gerlach and Northern Washoe County;

Consider how Gerlach residents can be involved;

Aspire to a seamless and easily navigable user experience so that the system is well maintained and utilized over its lifecycle.



The property owned by Burning Man Project encompasses three major parcel groups.

Fly Ranch: 3,800 acres

Black Rock Station: 200 acres

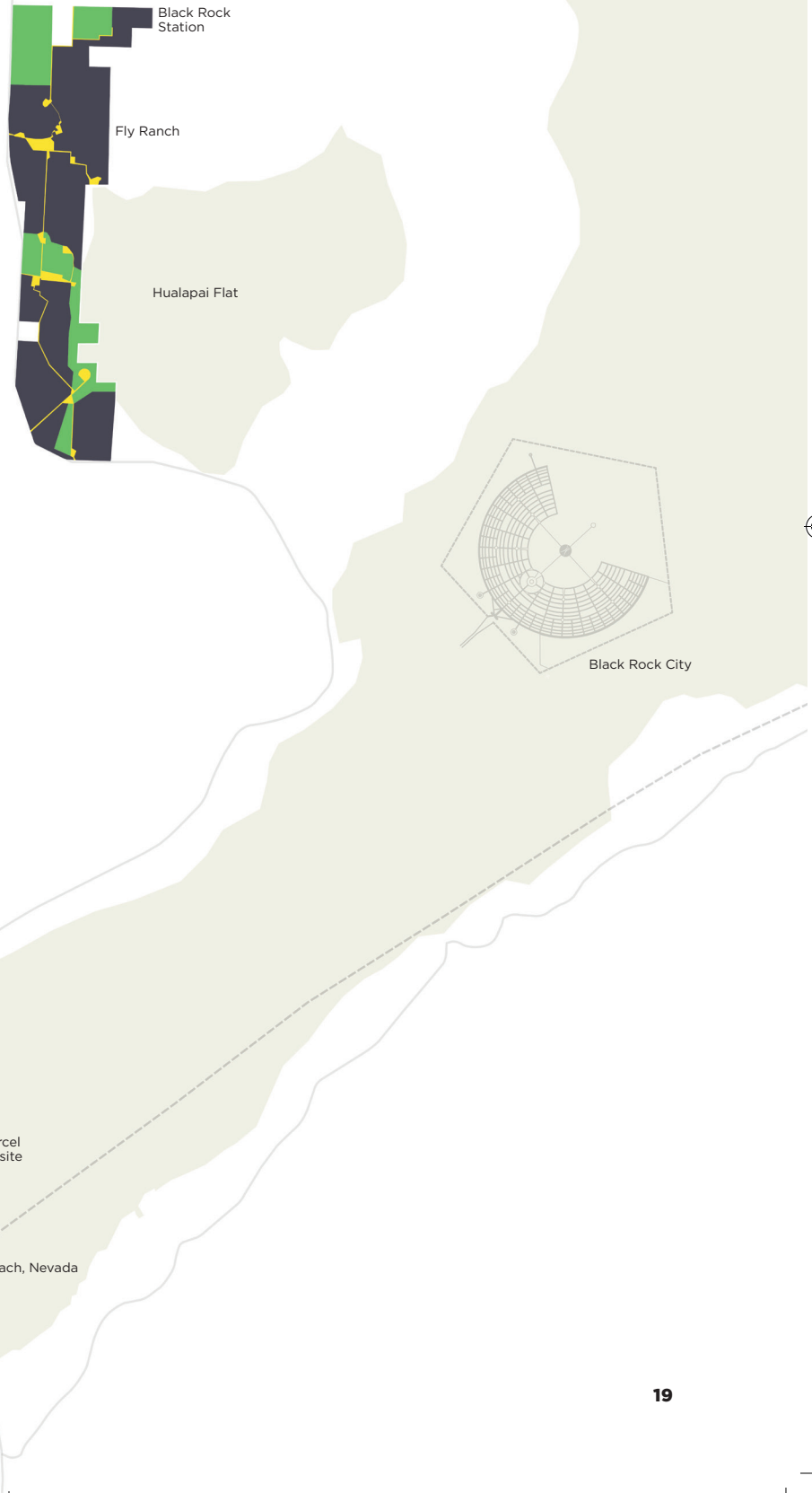
Lower parcel near Gerlach: 360 acres

Together it equals 4,360 acres (almost 7 square miles). If you superimposed Fly Ranch alone onto New York City, it would reach from lower Manhattan to Central Park North. Over San Francisco the site would stretch from Fisherman’s Wharf to the San Francisco Zoo.

Much of Fly Ranch has been disturbed by various land uses ranging from geothermal exploration (resulting in the formation known as Fly Geyser), to a landing strip for small planes, to alfalfa farming and cattle grazing. The LAGI 2020 Fly Ranch design site boundary limits new interventions to these previously disturbed areas and sets aside a vast majority of the site for conservation.

There are three distinct area types that define the LAGI 2020 Fly Ranch site boundary, each with its own restrictions under this design brief.

Site boundaries at Fly Ranch



Primary Site Boundary

185 acres

The area in yellow is where most of your design focus should be directed.

While taking aims to preserve the beauty of the existing landscape, you are permitted to propose any intervention, sculpture, building, foundation, infrastructure, or conveyance within this area.

The Primary Site Boundary is one contiguous area, intended to provide opportunities for connections and circulation between the upper, middle, and lower sections of the site.

Any use permitted by Washoe County may be proposed here.

Low-Impact Site Boundary

1,240 acres: 880 acres at Fly Ranch + 360 acres near Gerlach

You may propose interventions that have a light footprint in the green zones, provided they do not require deep foundations or excavation.

Permitted uses include renewable energy generation and transmission, agriculture, recreation, and water harvesting.

Conservation Area

2,935 acres

70% of the total land area is conserved in the gray zones.

No construction is to take place in these areas including any structures, pads, paths, landscaping, non-native plants, lighting, signage, or artwork.

The only interventions allowed in these areas are pure conservation activities related to supporting the habitat of local flora and fauna.