

2011 Benjamin

**MENSCHEL**

Fellowship

**EXHIBITION**

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THE COOPER UNION  
FOR THE ADVANCEMENT  
OF SCIENCE AND ART



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The Benjamin Menschel Fellowship Program to support creative inquiry was endowed by a grant given to The Cooper Union by the Horace W. Goldsmith Foundation in 1994 to support work in the fields of art, architecture, design, and engineering. This generous grant was intended to provide funding to exceptional students who propose scholarly, independent projects that will in some way provide a culmination to their educational endeavors at The Cooper Union. It is the hope of the Goldsmith Foundation that students designated as Benjamin Menschel Fellows will be encouraged by their awards to complete bodies of artwork, develop scientific protocols, or otherwise further their intellectual investigations in a manner that will provide inspiration and illumination to the community as a whole.

**Front Cover:** Mauricio Cortes and Laura Genes

**Right:** Julien Caubel

**Back:** Jessica Helen Russell



## THE INDIFFERENT HORIZON



“One is always crossing the horizon, yet it always remains distant. In this line where sky meets earth, objects cease to exist” “a horizon is something else other than a horizon; it is closedness in openness”

—Robert Smithson,  
*Incidents of Mirror Travel in the Yucatan*

The four corners, a place of both vastness and limits. A four square grid imposed on the land creating Colorado, Utah, Arizona and New Mexico. Within the confines of this grid, the surface of the earth is always in flux. It rises and falls, splits open and flows into an endless expanse. A liquid gradient of solids. We set out to this region of the world with a chosen location in each state; each location with a distinctly different typological condition—mountains, badlands, salt flats and canyons.

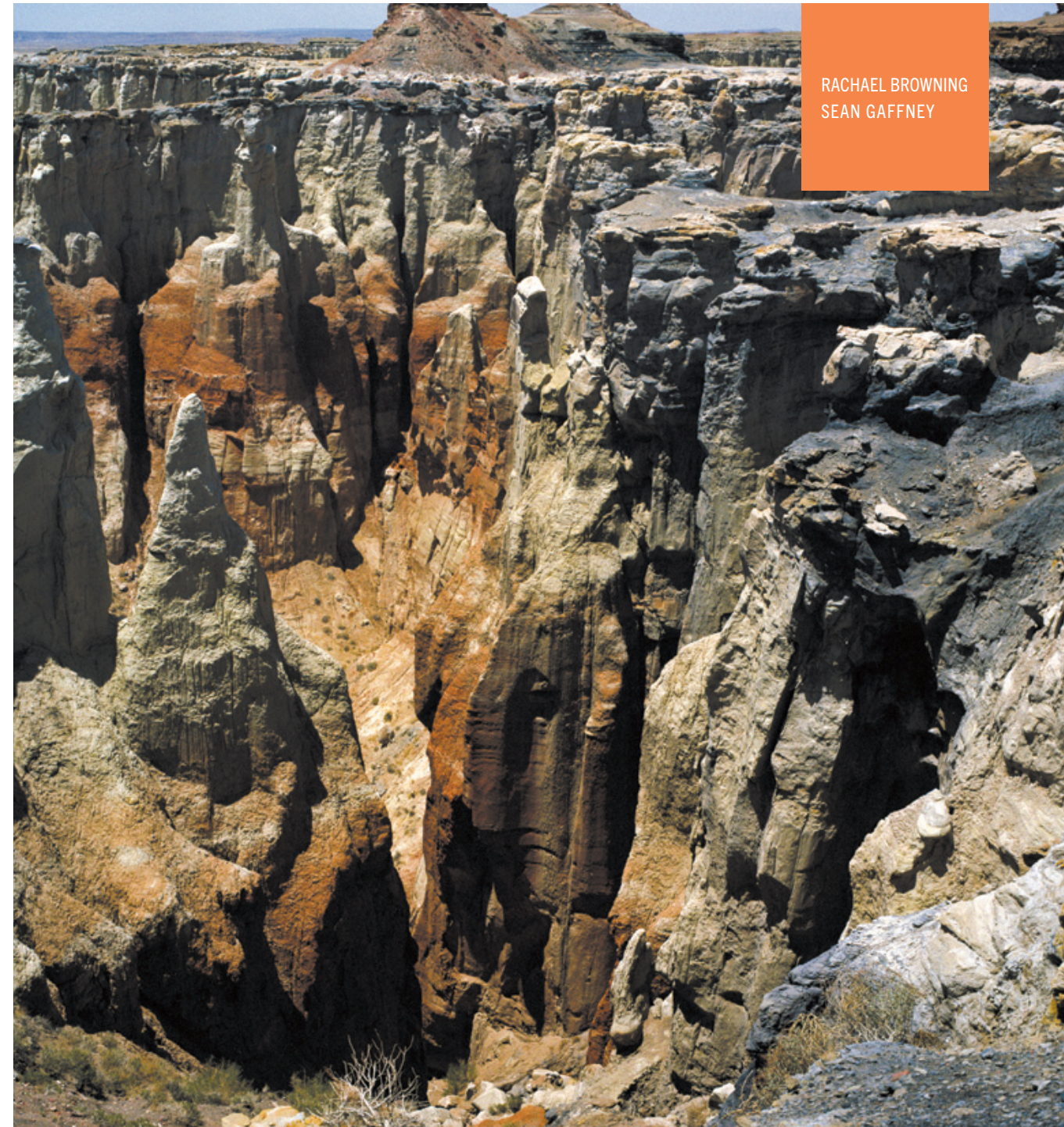
We have questions about vastness. We have questions about limits. A city is designed for humans. The scale of things is relational to the scale of the human; the size of doorways and the height of ceilings, the length of a city block and the width of a sidewalk. The horizon in the desert is indifferent. It exists at a scale unknown. We looked at these four conditions

in a scale applicable to our selves, to the city, to the 6th floor lobby of the Cooper Union. One square foot of a land. One bit among millions of bits. A piece of information the same size as the tiles on the floor.

Within each of the four typologies, numbers are extracted through marking points on the ground and determining the distances and relative angles between them, mapping the constant shifts in the grade of the land. Four are compared together, gradating the changing orientations of the ground.

Between each typology, eight surfaces were extracted through mold making, mapping haptic qualities of the land which the numbers cannot describe. Eight are compared together, fragmenting the earth into isolated frames of ground.

Driving across this land, seeing exists in time. A continuity of frames inseparable from one another is created. Perception of the earth is linked by the path of movement across it. The gestalt experience of perception links the endless expanse of seeing, the whole totality of the terrain, with that of seeing one square foot of a terrain. One bit among millions of bits.



RACHAEL BROWNING  
SEAN GAFFNEY



## COLLECTIVE RESPONSE: SUSTAINABLE IDEAS FOR RURAL COMMUNITIES

In the summer of 2010, I spent three months living in the Upper West Region of Ghana, a rural area that consists mainly of small agricultural communities interspersed through lightly wooded savannah. During my time with these communities, I was often inspired by the feats of local mechanics who kept cars in working order using nothing more than salvaged metal scraps and simple tools. As an engineer, I realized that this was design in its purest and most elegant form, exactly suited to fit immediate needs and resources. With this inspiration, I spent the last year creating a sustainable source of mechanical power that can be used to support pumps, electrical lighting, and grinding mills cheaply and responsibly.

The common lack of electricity and running water the Upper West Region has disastrous effects on the area's agricultural and economic development, but these impoverishments particularly encroach on the lives of local women. Women are obligated to spend large portions of their time fulfilling domestic tasks such as bringing water to the home or carrying grain to the mill. With their time consumed in this manner, women are simply unable to pursue education or acquire independent income.

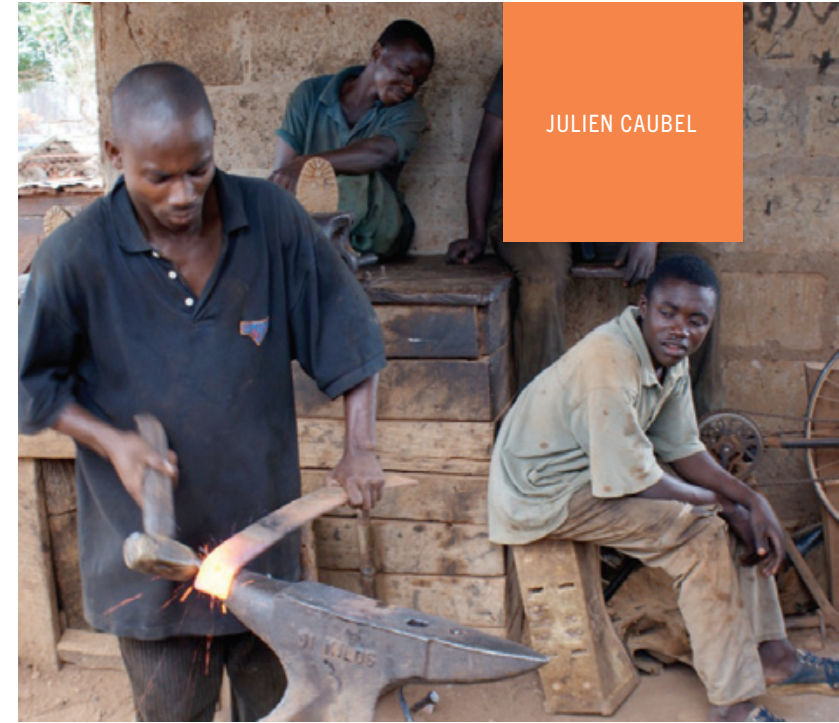
The steam engine's principle of operation is simple: The combustion of bio-waste in a boiler produces high-pressure steam that is passed through a two-stroke engine to generate mechanical power. The

system can be fueled using any sort of cheap and abundant bio-waste, such as the wild brush and agricultural residue that farmers usually burn off their fields. In this manner, the system exploits resources that can be collected with little environmental impact.

The system is almost entirely constructed from recycled materials that are readily available throughout Ghana. For example, the boiler is built from old oil drums, while the engine consists of automotive scrap. Throughout the construction process, only basic machine tools and simple welding equipment were utilized. The goal was to allow Ghanaian craftsman to cheaply build and maintain the system for their own communities.

The project would have been impossible without the help of Michael Schaff, who played active role in every stage of development from material collection in junkyards to final testing.

The steam engine is primarily intended to serve as a functional example of sustainable design, not as an ultimate solution to infrastructural problems. The design is meant to be adaptable so as to fit local needs and customs. The future of this project lies in the cultural and social integration of this system into self-sufficient infrastructural systems.



JULIEN CAUBEL



## A LIFE THROUGH THE LENS: THE NANCY FLOWERS PROJECT



Will we one day visit Internet graveyards and lay flowers before digital tombstones?

With no living relatives, Nancy May Flowers'

entire legacy lives in the photographs she and her camera are leaving behind. The personal camera is Nancy's lifelong companion. In a sense, at age 92, she and the use of the camera evolved together.

Today, we are turning the camera on Nancy. We are creating and organizing a Nancy Flowers Archive—92 years of documentation in the process of being digitalized. Our project consists of artwork in the form of photographs, films, installations and a short documentary—all in homage to Nancy Flowers' life and in an effort to immortalize her life's work.

The intersection of our stories occurred at a time of great change. We entered Nancy's life as movers, helping her transition from the Brooklyn brownstone where she resided for over 40 years to an assisted living home in midtown Manhattan. Somewhere on the journey across the river we fell into consciousness of the treasure we were transporting and began to swim in the spirit of the woman who collected it all.

As Nancy settled in her newfound apartment, we travelled to an indigenous reservation in the center of Brazil to visit another place Nancy once called home. As a photojournalist turned anthropologist

Nancy spent 14 months living with the Pimentel Barbosa of the Xavante tribe in the 1970s. She punctuated her research with intimate portraits that reveal the depth of the ties she made with the people of Pimentel Barbosa. We brought Nancy's photographs of the Xavante back to the place where they were taken. We projected the images of the past for the subjects they captured. The minority of the spectators were witnesses to the events depicted and the rest are descendents of those moments. Her images evoked acute emotions and reached eyes that were ready to dance with them. We discovered a legacy of Nancy's that exists beyond her physical photographs.

This month, a new documentation center is being inaugurated in the Pimentel Barbosa village. This small concrete structure will soon house many of our works on display at the Cooper Union. Alongside Nancy's documentation, our research will supplement Nancy's participation in the history of the Pimentel Barbosa.

**“[A]gainst the tendency of contemporary forms of amnesia whereby the archive becomes a site of lost origins and memory is dispossessed, it is also within the archive that acts of remembering and regeneration occur, where a suture between the past and present is performed, in the indeterminate zone between event and image, document and monument.”**

— Okwui Enwezor  
*Archive Fever*





## TERRA AUSTRALIS INCOGNITA: UNKNOWN LAND OF THE SOUTH

“As I live and am a man, this is an unexaggerated tale—my dreams become the substances of my life.”

—Samuel Taylor Coleridge

“*The Dreaming*” refers to the both the psychic and corporeal structure of Aboriginal society; it holds the sense of the mythic dimension of ancient memory from which the community takes its form. However, “*The Dreaming*,” a term coined by early explorers of the Australian interior, is in fact a misinterpretation of an Aranda tribal word which literally translates: “to see God within a dream.” There is no notion of a dreaming within Aboriginal language. Rather, this enigmatic concept attempts to translate something much more a kin to that of the Genius Loci, the spirit of place.

This exhibition was fuelled by a desire to investigate the Genius Loci of the Central Australian Desert. It contrasts two spatial structures: one, mythic and geological; the other, physical and pragmatic. The first reflects upon the constellation of sacred sites of the Aranda tribes of Central Australia, the other, the straight axis of the Australian Overland Telegraph Line. Despite these two dialectically opposed ways of using the land, both were driven by the essential desire to carry message and memory across a vast distance.

The Overland Telegraph Line, completed in 1872, was an Australian engineering feat. It bisected the continent, from south to north, running almost two thousand miles. It sought to connect a then globally isolated Australia to Asia and then, via the Middle East, to Britain. The engineers on the project entered a terra incognita, an expansive interior that had hitherto

been unexplored by white man. The necessity for efficiency and the economy of means in the face of crossing a vast and almost impenetrable distance resulted in a line that cut across the country with little or no regard for the totemic topography it thus intersected.

The Aranda tribes of Central Australia, nomadic by necessity, conceived and inhabited the land through a network of sacred sites that provided food, water and were home to the mythic, totemic ancestors of their past. In a culture that held no written text, the map of the land was passed on in the form of song. These songs not only traversed different routes through the recollection of space in the form of a story; they also possessed a rhythmic and tonal structure that mirrored the topography, which they described.

This exhibition explores the archives of the Australian writer, classicist and anthropologist T. G. H. Strehlow who translated the tales of Australia’s desert interior. In unprecedented and unrivaled detail, in unparalleled eloquence and poetic empathy, from the 1930s to the 1970s, he documented the songs, conception sites, rituals and memory of the Aranda tribe and published it in his magnum opus, *Songs of Central Australia*.

Unfortunately, Australia inherited an ancient text that has not been read. Deemed cultural thief rather than custodian, Strehlow’s life’s work is largely forgotten. Rare and out of print, these texts reside in an archive in the Aranda territory. These texts sit as a quiet testimony to the triumph of language and text to uphold myth and to re-ignite memory in the face of erasure.

This exhibition is a tribute to the contents of this codex.

JESSICA HELEN  
RUSSELL







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