PERSISTENCE OF VISION

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Pre-Ramble

Persistence of Vision investigates the relationship between past, present, and future perceptions of place in the Poly Canyon area. Persistence of Vision takes up the Cal Poly mantra of “learn by doing,” and explores its pedagogical value by engaging with theory, design, engineering and implementation.

This project is manifest in the form of a series of signs in the so-called “architectural graveyard” area; with an eye towards changing the name, perceptions, and narratives about this place. This project hopes to create a recognition within the minds of students that this place is, and was intended to be, a place for their own experimentation and participatory involvement.

This project was made possible in part by funding from the Foundation for Interdisciplinary Studies, and by the advice, oversight, and involvement of the College of Architecture and Environmental Designs Associate Dean Kevin Dong. Without the involvement of concerned faculty, alumni, and donors this project would never have come to fruition.

The work has primarily been done by Landscape Architecture student Patrick Kelty and Architectural Engineering student Antonio Baldazo. Additional help has come from the Canyon Days volunteer group, and the staff at the CAED support shop. Many thanks are owed to all involved.

One of the canyon's many paths.
A Place is
Always Already a Place

Poly Canyon begins on the southwest side of Cuesta Ridge, a ridge-line on the southern end of the Southern Coastal Mountain range of California. At the epicenter of this canyon sits Brizzolara creek. This creek runs through Peterson Ranch, past the architectural practices area and Caballo Peak, and eventually through the Cal Poly campus. This canyon is a part of the unique, and beautiful, central coast countryside. It is a post-card worthy landscape of rural charm and idyllic sunsets.

Although somewhat remote, Poly Canyon is by no means a wilderness. All parts show signs of human activity. Habitation of the area dates back at least ten thousand years. Littered with Native American bedrock mortars of the distant past, and the fence lines and cattle ranching equipment of today, this area also contains the Cal Poly College of Architecture and Environmental Designs (CAED) Experimental Practices Facility.

Began in 1963 by the Dean of the CAED George Hasslein, this area has become home to over forty experimental structures built by students over the years. Although the area has seen periods of heavy activity, it slipped into decline by the early 2000s’. Caretakers who once lived in the area and maintained it no longer lived there, and the passion for the place that once existed within the CAED had waned. The area is now somewhat derelict, with graffiti and vandalism being apparent in almost every structure. Many of the structures have been lost under decades of overgrown vegetation, with about twenty projects still remaining on site. Against the wishes of faculty and the campus administration students have labeled this area the “architectural graveyard.”
The first Poly Canyon project, the geodesic dome.

Remains of a project knocked over by cows.

The interior of the former caretakers residence, now uninhabited.
The Weight of Memories

"During the summer in which the initial site study was done I was working on campus at the CAED support shop. While cleaning out a long forgotten portion of one of our buildings on campus I came across a dusty cardboard box of old books. They were slated to be tossed out, and I flipped through them before they went to the recycling bin. One caught my attention . . ."

-Patrick Kelty

Put together with support from the Foundation for Interdisciplinary Studies, “The Vision” proved to be a vital resource in helping us understand the founding culture of the CAED. The FIS works to keep alive the spirit of “learn by doing” that the Cal Poly CAED was founded under. “The Vision” was one of the products of that mission. The book told the story of the founding of the College of Architecture and Environmental Design through the life of its longtime dean and patron, George Hasslein. “The Vision” described a man we knew of in name alone, and spoke of an ethos which resonated with us deeply.

In scouring this and other resources, we began to gain a new understanding of the CAED, and the role of “learn by doing” in the curriculum. After this research it became clear that the so-called “Architectural Graveyard” was actually the largest and most obvious manifestation still on campus of the college’s founding philosophy.

But how could this vision be better communicated to future students, and what could we do to sustain the ethos that our college was founded under? The first, and most obvious, point of contention was the name of the area itself. The second was the narratives associated with those names.
Existing entry sign. Small and inconspicuous.

Existing donors sign near entrance.

The Vision

When talking to alumni from years past the name “Poly Canyon” was used to refer to our site. When referring to maps it was labeled as the “Architectural Area.” When discussing it with students it was called the “Architectural Graveyard.” This variety of names signaled that the place was valued in different ways by many. These names are not arbitrary, and for many the name of the place will precede an experience of it. These names are the beginning of certain sorts of narratives about the place which were echoed in discussions with students, alumni, and faculty. These names frame the way we see the place, and how we behave towards it.

Whatever the name anyone might use, the facts of the place remain the same. Our research found that the place was initially called the “Experimental Practices Facility.” Although perhaps less poetic a name than the “Architectural Graveyard,” this title seemed to more closely encompass the initial vision of the place. However, during critiques the “Experimental Practices Facility” was seen as too sterile by some. Others noted that we already had several spaces on campus known as “laboratories.” These critiques in mind, we settled on the title “Experimental Practices Laboratory” as a new name for the place. This differentiated it from the canyon in which it is sat, and marked its importance as a place for learning on campus.

How should we communicate this name and ethos to current and future students? Although brutally simple, the most obvious way seemed to be with new signage. The existing entryway sign was hard to find, and an existing donors sign was already dilapidated and in need of replacement. The entryway sign would also afford us the opportunity to communicate the spirit that the place was founded under, as well as its title. These goals in mind, our work began in earnest.
Materials &
Techniques of Construction

Our guiding conceptual strategy: you know that you have arrived when you see the sign. The sign is so simple that it escapes our scrutiny, but without it we are left wondering if we have yet arrived. What is a sign? A sign is a rectangle with words on it. Recognition of a place’s entrance is signaled with a sign, and a sign is recognized as a sign only when it meets our symbolic definition of a sign. A sign is a symbol that signifies an entrance. A sign looks like a sign. Forms carry meaning. If it looks like it’s a sign, it’s a sign. There is a high speed recognition of the sign when it meets our definition of the sign as symbol, and the symbol of the sign is a rectangle with words on it.

If a sign is a rectangle with words on it, how do we make the sign? Why not go to the thing itself, and learn by doing? Only by engaging with the “doing” can we learn what the sign wants to be, and what it can be. This project is about an experimental practices laboratory, but it is part of that place too, and had to be an experiment itself. Towards that end we chose to use mig welded extruded aluminum and aluminum composite material panels (ACM) to fabricate the sign. ACM panels have a paper thin sheet of aluminum front and back, and a quarter inch thick polyethylene plastic core. The box section aluminum tubing supports the panel.

In order to engrave the type on the panels we used a computer numeric controlled (CNC) milling machine. This machine allowed us to transition from digital space to physical space. These machines allowed us to substitute machine work for the craft skills that we lack.

These materials were chosen based primarily on their resistance to weathering, longevity, weight, machine-ability, and for the possibility of future recycling or re-purposing. The longevity of these materials was important, because anything that easily showed age or wear would begin to hearken back to the idea of the site being a graveyard (a tombstone is, after all, another kind of sign).

As part of this fabrication process we also tested the relative strengths of these materials, and our welds and joining methods. Mockups of joints were tested to failure on the CAED support shops Riehle extensometer.

Welding aluminum took some practice.
Aluminum welds before grinding.

Aluminum welds after grinding.

Fabricated frame after grinding and hand polishing.
The machine at work. The plate to post connection welds are being tested.
Initial milling tests.

Slowly getting close to something presentable.

The Haas sr100 CNC milling machine in action.
Final milling test.

Not all experiments are successes, but all experiments yield results.
Forming the rebar footing cages.

In the shop yard ready to be installed!
Entryway sign fabrication complete.
We went to college so we wouldn't have to do this kind of work every day.
Installation complete!

Various lighting conditions.
Persistence of Vision has explored the relationship between narrative and place in the Poly Canyon area. Although this has been the conceptual inquiry behind the design, the process has been led via an experimental “learn by doing” methodology. Engaging both theory and process at a deeper level than I have before, this has been an incredibly rewarding experience. Feedback from the interested parties (students, alumni, and faculty) has been remarkably positive.

So much of design seems to be focused on providing recreational amenities or “solutions” to perceived social and environmental problems. This design focused on little of that, and instead sought to connect place and people in a way that valued all parties. Place is not just a site, a piece of property, or a landscape. Invariably all places are, at least for someone, an important part of their own life and personal history. This intimate human connection between place and people is easy to speak to, but hard to actually capture or articulate in a design project. I hope that this project hits that mark, and I feel that it has.

Discovering the true value of “learn by doing” requires doing, and if you can do it wrong you probably will. Hitting these spots of difficulty however, I never regarded them as a failure. Overcoming difficulty is as much a part of the design process as the steps that brought you to that difficulty in the first place.

Now at the end of the project looking back, we seem to have stumbled into designing something that many genuinely value and appreciate. I could not have imagined a better outcome for this project, and it has been gratifying in a way that I never imagined. This is an outcome that never would have been possible if myself or Antonio had chosen to stay locked in our comfort zones, and our own respective majors. Only by moving away from the kinds of paper based projects we typically do in school, and into the messy world of reality, was a project like this possible. This was a kind of challenge, and a kind of reward, we could not have come to any other way.
“For me it’s not just a project. It’s a memory.” - Antonio

Years from now, I like to think of coming back into the area to see the facility filled with dozens of new projects and in front of these magnificent structures sits a sign. While this sign won’t look as polished as it does now, it will sit there as a reminder of the hard work put into revitalizing the area.

Interdisciplinary collaboration is an aspect of this project that pays homage to the area’s history. For myself, it was abnormal thinking about things such as the strength of a weld that has been grinded down for appearance sake. It seems like an afterthought now, but this project came together because of two strangers coming together to support a cause they believed in.

This project incorporates everything that we are taught in classes and takes them a step further. For myself, these things included connection design, wind load calculations, and foundation design. These calculations were then put in combination with Patrick’s designs to being the fabrication process. This fabrication process is what makes the CAED and the goals encompassed inside of the “Vision” different from any other school in the world. It’s the sweat from bending multiple rebar, the small stings from sparks flying off saw blades, and the blisters from wire tying the cages together for installation that make the project and create a sense of accomplishment.

I believe the essence of “Learn by Doing” motto can be demonstrated by our installation experiences. Two students and a few volunteers came into an area to work for many hours digging, drilling, and setting the structure into place. It’s this kind of experience you don’t realize is necessary to appreciate every aspect of your field until you do it. We drove away looking at the new polished Experimental Practices Facility Sign staring back at us. We drove away with a sense of accomplishment. All that time and effort turned into all that we had imagined.
Concluding Thoughts

The Experimental Practices Laboratory is a place for Cal Poly students to explore their imaginations and leave their mark in the San Luis Obispo community. With each day that goes by, students, facility, alumni, and many more go out to the canyon and see that the “Architectural Graveyard” moniker no longer fits this area. Our entry sign is the first step in a long process that will bring young minds back into the area. As stated above, recognition of a places entrance is signaled with a sign, and a sign is recognized as a sign only when it meets the symbolic definition of its intent. As a project team we hope that we have accomplished the symbolic definition of the area and the past, present, and future projects that exist in the laboratory.

We attempt to continue the intent that Dean Hasslein laid out years ago by encouraging friend and facility to return to the EPL to build projects of their own. Groups such as Canyon Days and FIS are vital to the revival of this area and their help was fundamental in our success.

After all of the hours designing, fabricating, and installing the entry way sign, we are hopeful for the future. All of the projects, including our own, show that anything is possible for incoming students to create. It just takes an idea and the ambition to see that idea into reality.