

Product Design in the Desert Common: Methods and Practice.

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Approximately 13% of the land area of the United States is protected in some way by formal designations through state or federal government. Each designation implicates specific forms of management and interaction with ecological systems and community members. Current strategies rely on a complex network of NGO's, government bodies, and Sovereign Tribes, often with disparate or contrasting needs, values, and desires. This paper will discuss a platform in design education that finds common ground for these groups to collaborate through design research and practices.

Design methodologies organize and mediate this complexity and foster free exchange of ideas, knowledge, and values. The platform is unique in that it moves beyond traditional science partnerships, and seeks to mediate the divide between academic and community scholarship. This paper will discuss methods of the the studio for commoning design in public lands.

INTRODUCTION

Field Studio is a collective platform engaging community with designers, faculty, and students, to affect management and stewardship of public lands through design. It operates simultaneously in formal academic structures, and beyond academic boundaries through community based design/research collaborations. Field Studio is changing the way designers position themselves in relation to partners and community by framing relationship and collaboration as commons. Field Studio rejects 'human-centered' design for upholding human/nonhuman, life/nonlife dualisms and limiting the commons to human benefit. In this frame, care and reproduction are further defined as stewardship of the more than human.¹ The studio is a model for design practice in community with collaborative partnership as a common resource to affect management and stewardship in public lands. In this practice we use design methodology in service to the community positioning designers as particularly equipped for leadership, critical framing, and research—beyond the commercial market.

Approximately 13% of the land area of the United States is protected in some way by formal designations through local, state, federal or tribal frameworks². These are generally known as so-called "public lands" but I take this opportunity to acknowledge that all public lands in the United States are Native Lands.

Field Studio currently focuses on areas overseen by the Bureau of Land Management (BLM). The BLM's mission is 'to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.'³ The mission claims public lands are a resource for all, but they are not a true commons. The public has opportunity for input in management through formal processes, but partisan politics disrupts this with self-serving conflict in each change of administration.⁴ Furthermore, the federal agencies have a long way to go in terms of true collaborative management with Indigenous Tribes. BLM lands in the Western U. S. can be read as a mapping of primitive accumulation enclosing Native Lands though colonial expansion. The Department of Interior is finally evolving from an agency that manages Indigenous Tribes (Bureau of Indian Affairs) to one that collaborates with Indigenous Tribes for management.⁵ 'Collaborative management' must prioritize a 'symbiotic agreement' as Isabelle Stengers would describe 'an event, the production of new, immanent modes of existence, and not the recognition of a more powerful interest before which divergent particular interests would have to bow down.'⁶

STUDIO METHODS

The academic structure of the Field Studio exists in the Division of Multi-disciplinary Design at the University of Utah. The curriculum broadly defines product design as multi-disciplinary, including digital, physical, experience, and speculative outcomes. Students complete (7) semester-long studios (6 credits each, 9 contact hours/week) to graduate. The studio has traditionally worked with Design Juniors (studios 4/5 of 7). I have developed the model I am presenting here over the past five academic years with a variety of partners relative to various public lands in the Western U.S. The studio accommodates design outcomes in both product and research (design research as product). In the majority of past studios we have followed a community-engaged design process. Over 90 students have participated in Field Studio: they have focused on Yellowstone

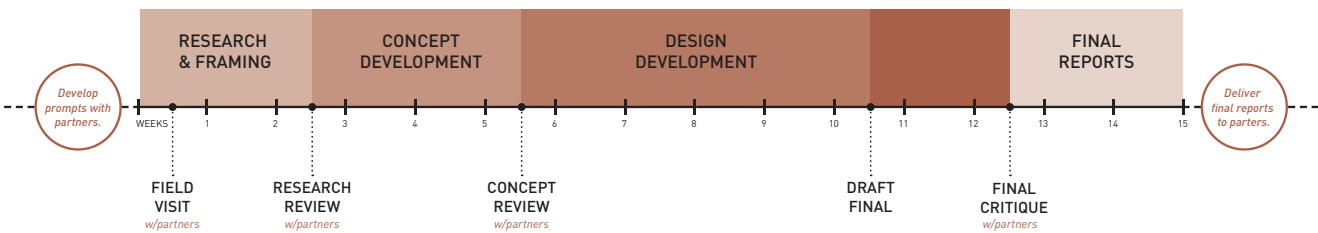


Figure 1. Studio Diagram. Image by the author.

National Park (Fall 2018, Fall 2019), Bears Ears National Monument (Spring 2019, Fall 2020, Spring 2021, Fall 2021), and more general topics like “Rural Activism” (Fall 2020, Fall 2021) “Human/NonHuman” (Spring 2022) or “Commons” (Fall 2022).

The Field Studio follows a design framework for independent student projects over the course of 12-15 weeks in the academic semester. Students identify their own topics with in the studio prompts and work through phases of Research and Observation, Framing, Concept Development, Design Development, Presentation, Assessment and Reflection. Work is developed through field visits, desk-crits, pin-ups, and formal reviews with community partner involvement throughout the process.⁷

STUDIO PARTNERS

My focus on relational design practice has developed from three divergent perspectives. First, from partnerships with community organizations in what is formally known as Community Based Research (CBR) or Community Engaged Learning (CEL) at the institution where I teach. Second, my understanding of relationality has been further expanded by Indigenous research paradigms related to Bears Ears and the Indigenous co-management of the Monument. Third, my design research practice with Ochres (mineral pigments) has given me a platform to further consider relations and entanglements of life and nonlife and more than human worlds through the materiality of color, and these interests in turn influence my teaching. CBR becomes more than a design tool or strategy and instead scaffolds collaborative, community relationships and inter-subjectivity—between humans, and between humans and nonhumans—in the studio and in our practice. It becomes critical to balance learning objectives and scholarship outcomes with the interest and service to community partners. In addition to dismantling dualisms between humans/nonhumans and nature/culture, I am interested in leveling hierarchies between academic ontologies and epistemology with community expertise and experience.

I have developed several courses for our curriculum that include CBR and partner engagement at multiple scales and curricular levels. These courses have explored divergent topics such as education, community gardens, rural economic development, and voting activism. The current Field Studio model focuses on

topics and partners related to management and experience in public lands in the Western United States.

STUDIO PRACTICE

A critical divergence in my studio pedagogy is to develop open prompts that require students to frame their own opportunities of design. The students are presented with a topic or open-ended question for research and further inquiry in which they develop their own framing and opportunities based on their values, interests, and perspectives. A rhetorical example I like to use is toast. Instead of asking students to design toasters; I invite them to consider wheat, fire, and emergent entanglements.

One challenge in working with partners is developing a prompt that doesn't presuppose a design outcome. In the case of studios with National Park System (NPS) or Bureau of Land Management (BLM), the students are guided by partner needs and desires that I develop in discussion with partners prior to the semester. I have ongoing relationships with BLM management staff in which we develop opportunities for student engagement. I attend public scoping meetings and monument advisory meetings to identify potential design research questions, and also meet with BLM staff in the field to understand the focus and pressures of their work. We have an ongoing list of potential collaborations.

In the case of Bears Ears National Monument (BENM), the BLM works closely with diverse Tribal Nations and community organizations, such as the non-profit Greater Bears Ears Partnership based in Bluff, Utah. Field Studio has entered this complex network of relationships through direct collaborations with BLM and the GBE Partnership. I will note that while we have welcomed guest from the Bears Ears Inter-tribal Coalition and independent Indigenous scholars⁸, we have not formally partnered with Tribes for several reasons. First and foremost I believe it's critical to develop trusting relationships over time, and I'm developing these relationships with intention and care. Even in my own institution I have witnessed harmful academic-community partnerships that misrepresent Indigenous leadership and use decolonization rhetoric as fodder for extractive and marginalizing projects. Lacking critical process, rushed outcomes—often for the sake of funding deadlines—and inexperienced project managers are damaging

and take advantage of community partnerships for the sake of scholarship.

Further more, it becomes challenging to balance the relationship and value proposition when partnering predominantly white, settler design students from an urban campus with rural community members in the most economically marginalized county in the state, not to mention the potential for appropriation of Indigenous culture and knowledge. My emphasis on student positionality has emerged from navigating these issues and centering ethics as a driving parameter in the design process. Designers must relinquish the control and entitlement that convinces them they should intervene in every opportunity for design.

STUDENT RESEARCH & FRAMING

Projects with BENM and the GBE Partnership have mainly focused on designing for “Visit With Respect” principles, education, and experience. Students refer to the BENM management plans to identify areas of design potential in combination with their first hand research and experience in field visits. This development of non-prescriptive topics and prompts with partners ensures that we address their needs and priorities by listening first and responding through design.

The first 2-3 weeks of the projects are dedicated to research and framing. The students have introductory meetings with partners, assigned readings, and site visits to conduct their own experiential research. During site visits we meet with partners

in person and have an opportunity to ask further questions, but we also make a point to get to know our partners and fellow studio-mates socially through community events and shared meals. This connection goes beyond the formal studio classroom to develop relationship with our collaborators and engage the broader community.

Students develop their interest in response to the partner prompt or studio topics and develop their own briefs and opportunities for design intervention. These are presented to partners in order to keep the work on track with their needs and to make space for valuable partner feedback and reflection. Developing skills in opportunity identification and framing are critical for design impact beyond styling and commodification.

PARTNER ENGAGEMENT IN DESIGN PROCESS

Students in the Field Studio are in discussion with partners throughout the entire process. Prior to the Covid-19 pandemic, this was complicated by our ability to travel to sites, or coordinate reviews with partner travel to us. The unanticipated benefit of pandemic adjustment was a new platform for partner interaction through zoom and virtual collaboration tools. These new modalities allow us to meet with remote partners on a regular basis for introductory lectures and discussions, feedback on reviews, and final presentations.

During the studio we have formal reviews at three points, each of which are conducted with our community partners: Concept Presentations, Concept Development, and Final Critiques.



Figure 2. Students at Mule Canyon, image by author.

These student presentations also become an interesting forum for diverse partners to engage with each other through the student work, thereby increasing capacity for collaboration toward common goals. Partners join our slack channel and Miro Boards, and are available for individual consultations with students when necessary. Students are also encouraged to reach out to other experts relevant to their interests. Sometimes our studio partners facilitate these introductions, but students are also encouraged to seek them out on their own. I mentor students in developing these forms of outreach and communication for inter-disciplinary work.

LEARNING OUTCOMES

Final Critiques for the Field Studio occur two weeks prior to the end of the semester. This allows the students to spend the remaining time developing a final report document summarizing their work for the partners. This document accomplishes two main objectives: it allows us to share outcomes with partners as a valuable resource, and requires the students to reflect on their work creating portfolio ready synthesis of the projects. These final reports are shared directly with partners and posted at an online, public website.

The hybrid nature of our collaborations—in person and virtual—create pedagogical opportunities to translate work in multiple forms: traditional large-scale, presentations on the wall, virtual slide decks, and final pdf reports. Students develop visual strategies and practice skills at various scales, for diverse audiences, and multiple material outcomes. Communication of the work is integrated with design development throughout the semester.

Product outcomes are as diverse as the student interests that drive them. In addition to articulating their project focus, students develop their own emphasis in physical, digital, experience, research and speculative design practices. This expands our definition of designer, allowing students to identify their own approach to design practice while making our curriculum more inclusive. Some projects provide valuable research and exploration our partners might not otherwise have the bandwidth to take on, while other projects solve real tangible problems through design products at various scales. One surprising—and validating—outcome is the benefit partners see in speculative design work. One might assume that BLM staff and nonprofit groups might be so engaged in immediate practical concerns that they don't have time or interest in speculative design. However, we have seen some of these speculative works provide insights and opportunities to shape perspectives and values in positive ways.

STUDIO OUTCOMES

Product outcomes in service to partners have emerged in three categories: research as product, process and capacity building, and implemented physical products. Students interact in various phases of the design process for each project, including in

some cases final fabrication and implementation outside of the classroom as independent research assistants.

RESEARCH AS PRODUCT

It should come as no surprise that the partners we work with are often under-resourced in both labor and funding, whether they are government agencies or NGOs. A significant partner benefit to working with Field Studio is the research and framing that students are able to provide in service to partner defined challenges. In many projects the students not only present research findings, but also introduce partners to diverse perspectives they may not have previously considered.

One frustration shared by everyone engaged in stewardship and management of public lands is the sheer volume of information available on the internet. Challenges that arise from damage to sites, impact from volume of visitation, and lack of visitor awareness and education are exacerbated by the scale of distribution of information on the internet. While it's a valuable resource, BLM and USFS are in no way equipped to monitor or manage the abundance of information uploaded and shared every minute. Inspired by the GBE Partnership's fledgling 'virtual stewardship program' we partnered with BENM to conduct a research project on the availability of internet information regarding Bears Ears. We organized the students into teams addressing Youtube, Social Media Influencers, Social Media Users, Google Maps, and third party applications such as Alltrails or even—surprisingly—Groupon. Students searched these channels for information relating to visitation in Bears Ears and presented their research findings as well as opportunities for design intervention for BLM to consider.

Our partners were struck by the breadth of information, in some cases seeing online resources for the first time, or considering sources of information they had not seen as relevant in the past. The presentations provided an initial survey of the internet landscape for further inquiry and investigation. The research was useful in a practical sense, but our partners also found the translation shaped by the students to be insightful and relevant. We were able to deliver a database of hundreds of data points, and also the presentation reports and videos for future reference. I'm currently working with partners to figure out next steps in regard to this work.

Beyond this example in the research methods course, students are sharing research outcomes with partners in every project they work on as a foundation for a rigorous design process. Design solutions are guided by—and often derived from—interdisciplinary perspectives and research. In some cases however, the research itself becomes the product, or a project follows a model of design through research.⁹ In the Spring of 2021, BENM asked the students to consider experience in a particular area known as Mule Canyon Interpretive Site. The site has outdated infrastructure and interpretive messaging, but its proximity to the main highway and unique cultural features

makes it an ideal front country stop. The Mule Canyon projects generated several outcomes for partners, including products we are currently implementing. I want to highlight two projects here for their impact in research and framing.

Kevin Howard (B.S. Design '22) surveyed the built structures that had been implemented on the site by the BLM over the past 20 years. Through their analysis, Kevin clearly articulated the way in which colonial settler perspective and building typology were literally oppressing the Indigenous built environment—in this case a room block and kiva. Through their analysis Kevin made a thoughtful argument to the BLM staff showing how to correct the dualism present in the site through re-design of the physical infrastructure. At one point one of the BLM staff said something to the effect of “you’re right, I never thought about it this way.” The project didn’t propose a design alternative due to time constraints, but the impact was not in the potential design outcome.

Rikki Price (B.S. Design '22) became interested in the message of Tribal Sovereignty and co-management that was lacking from signage and interpretive information in the Monument. She crafted a proposal derived from her research to include the Tribal seals of the five Tribes in the Bears Ears Inter-Tribal Coalition—Ute, Dine, Ute Mountain Ute, Hopi, and Zuni—on official signage throughout the Monument. Our BENM partners were very receptive to her proposal and continued its implementation with their Tribal partners. BLM staff used the projects as a tool for their conversations. Earlier this summer BENM celebrated the first official monument signs that include



Figure 3. Above: Proposal by Rikki Price, rendering by her; below: BENM sign installed the Summer/Fall of 2022. Image via the Salt Lake Tribune.

the five Tribal seals. In this case our contribution is not the initial design idea to include the seals, or even the final design of the product itself. Through our model of collaboration, we are able to leverage specific points of the design process in service to our partner’s goals and provide outcomes they would not otherwise have immediate bandwidth and/or expertise to generate. Typically, agencies managing protected lands would rely on research and discussion with experts in the natural or social sciences, but in this case we are able to use Design methods to inform management.

PROCESS AND CAPACITY BUILDING

The Field Studio¹⁰ project archive has become an idea bank of potential solutions for both BENM and the GBE Partnership—the challenge is implementation, in both labor and funding. Currently, I’m working with the GBEP to furnish the outdoor classroom in the yard of their Bears Ears Education Center in Bluff, Utah. The BEEC was established in 2016 as a stop-gap measure until the agencies are able to build a formal monument visitors center. We have been awarded two phases of state funding grants for exhibits, interactive activities, and furnishings. GBEP staff had already identified the exhibit topics—paleontology and geology—for their first installation. Concepts for the exhibits, interactive activities, and furnishings were developed from several student proposals in Field Studio.

During the Mule Canyon exercise I mentioned above, two proposals emerged that both BLM and GBEP want to implement at the BEEC and eventual monument sites. Traditionally, if either of our partners wanted to implement exhibits and furnishings they would contact professional design firms, or purchase products available in the market. This process is not only much more costly than non-profit budgets allow, commercially available products are often not tailored to their needs. By collaborating with Field Studio, our partners establish design expertise and stretch funding further by leveraging academic resources outside of the traditional commercial market.

The BEEC exhibits were developed through a collaborative process including GBEP staff, paleontologists and geologists from other academic institutions, NPS, and community scholars. I managed the exhibit content development, design layout, refinement feedback and approvals, and now fabrication. When funding allows, I hire research assistants to work on design development. I will travel to Bluff next month to install the exhibits. The GBEP Education Director has expressed that while they could have just hired an outside designer, our process has expanded their capacity to develop a richer, more meaningful exhibit. We were able to expand the research and scholarly input in the content developing a high standard for the exhibit narrative in addition to the aesthetic design.

PRODUCTS OF DESIGN

One of the student concepts identifies the ubiquitous public lands picnic table as a site/tool of potential messaging and

education on “Visit With Respect” (VWR) principles. VWR is a campaign that the GBE Partnership launched for awareness and best practices in the Bears Ears region. It has been adopted by the BLM and USFS, as well as the Bears Ears Intertribal Coalition and other regional organizations. It consists of 19 principles guiding respectful visitation (ie. don’t build cairns, leave artifacts where you find them, etc.) Field Studio is redesigning tables— to be implemented first at the BEEC as prototypes and later through-out the monument—that will feature integrated VWR messaging. The VWR tables were first introduced to partners in Spring 2021, and earlier this fall students worked in teams to explore further design development. Students visited the BEEC and sites in BENM with an interpretive ranger to further observe and research site context.

I am working with undergraduate research assistants to finalize the VWR tables, manage fabrication, and installation at the BEEC in the Spring of 2023. In material research, students identified an abundant local source: deadfall trees in the expansive juniper and piñon pine forests covering the western flank of Bears Ears. Native residents in the region depend on burning this energy source for heating and cooking and a significant amount of reproductive labor is dedicated to gathering firewood in an ecologically sensitive way. Field Studio is currently researching the potential to use the deadfall trees as a material source for the VWR tables in a manner that allows the wood to return to the local energy ecosystem as firewood. This creates a new opportunity in the tables for spreading awareness of human interaction with the environment and critical resources affected by climate change.¹¹



Figure 4. Field Studio at the Great Salt Lake: students gather for the first day of studio followed by dinner on site . Image by the author.

FACILITATION IS DESIGN

Field Studio not only expands design action to include research, and framing, reflection and assessment, but also the myriad mundane and administrative tasks that are required to facilitate collaboration and relationship with communities. In an interview for Caps Lock, the design collective Brave New Alps summarizes this well, acknowledging that design is also organizing meetings, cooking meals, and managing process beyond the literal design activity.¹² This extends to the care and reproduction of relations with human/nonhumans, place and community.

RELATIONSHIP

My practice and understanding of design process centers relationship in several ways. This is a defining strategy of collective tactics in commons, and an Indigenous paradigm that operates prior to and outside of colonial, capitalist systems. The key to relationships in Field Studio is that we do not position any one collaborator as dominant expert—dismantling dualisms between academic and community knowledge and world making. Traditional design methods position the designer as expert, outside of the inter-subjectivity that connects all human/non-human beings. The designer as separate from—and dominant to—the user facilitates the capitalist manipulation of resources, labor, and reproductive care. Relationship is further expanded in Field Studio to include human and nonhuman entanglements allowing us to serve beyond just the ‘human user’ to generate impact collectively for all terrestrial beings.

STUDENT POSITIONALITY

Design practice through relations requires that we each individually know our context and contribution to the collective group. Field Studio holds space in our process for developing values and ethics while considering how each of our experiences and privileges shapes our participation as designers.

COMMONS ARE NOT UNIVERSAL

Field Studio embraces multiplicity and a pluriversal design lens. Design process and outcomes that are more nuanced to divergent user experiences and realities are the key to making a ‘world where many worlds fit’.¹³ This is particularly relevant in context of so-called public lands where multiple realities converge and conflict in management and policy.

CONCLUSION

Designers must position themselves outside of capitalist frameworks for shaping our current worlds and affecting our collective futurity. The work presented here is one model to position design in service to the community instead of market demands and logic. Design students are empowered by working with community members to address real issues and by contributing their design expertise in service to the community needs and desires. Partners benefit from innovative design perspectives, as well as the contribution of creative scholarship in critical topics they typically don’t have bandwidth to

explore. The project outcomes and partnerships developed through Field Studio provide a model for the changing role of designers and expanded methods of collaboration in addition to innovative products of design excellence impacting experience in public lands.

ENDNOTES

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2. UNEP-WCMC (2022). *Protected Area Profile for United States of America from the World Database on Protected Areas*, September 2022. Available at: www.protectedplanet.net
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5. First-Ever Secretary's Tribal Advisory Committee Convenes. (2022). U.S. Department of Interior. Retrieved September 20, 2022, from <https://www.doi.gov/pressreleases/first-ever-secretarys-tribal-advisory-committee-convenes>
6. Stengers, Isabelle. *Cosmopolitics*. United Kingdom: University of Minnesota Press, 2010.
7. Students work independently, but are invited to team up in the research phase if their respective trajectories align.
8. Field Studio has a policy of funding independent community scholars for their engagement. This becomes a significant barrier to collaboration if funding applications are not successful.
9. Reference to Frayling's oft cited 3 modes of design research: research for design, research about design, and research through design. Frayling, Christopher. "Research in art and design (Royal College of Art Research Papers, vol 1, no 1, 1993/4)." (1994).
10. Designfield.studio
11. I've connected with Kate Margargal and her research group at the University of Utah who are collecting data on wood collection in the Bears Ears region and will collaborate with them to continue our design research on this material source.
12. Pater, Ruben. *Caps Lock: How Capitalism Took Hold of Graphic Design, and how to Escape it*. Netherlands: Valiz, 2021.
13. To quote the Zapatista manifesto that has inspired pluriversal design discourse formalized by Arturo Escobar, Marisol de la Cadena, Mario Blasner among others.