Fairhaven College Interdisciplinary Concentration:

Regenerative Design, Ecological Solutions & Craft

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Rationale

In design school, creation is a laborious process, each step meticulously planned, with the end goal set at nothing less than perfection. Steeped in this mindset and stressed over my most recent design assignment, I watched in amazement as my roommate, a carpenter and psychology major, built a table. He didn't draw out plans, carefully consider its aesthetic qualities, or attempt to maximize its functionality. Rather he grabbed a hammer and a saw, disassembled two pallets, and half an hour later of eyeball measurements, skilled and efficient handiwork, and valuable conversation, we had a new table. Though it may have been rough around the edges, this free, recycled, custom-built table did everything we could need. Despite what my schooling would say, I believed I had just witnessed a perfect design.

The design process, as it is conventionally taught, is deeply rooted in the idea of discontentment. There can always be a more elegant design, a more beautiful object, a more intuitive process. Yet designers firmly believe in the moral value of their practice. They consider themselves to be making others' lives better, more efficient, easier, more aesthetic, and ultimately more enjoyable. Though this is sometimes the case, it can be a very dangerous and destructive mentality when applied to the field of consumer products. No longer are designers working to find creative solutions to difficult problems, rather they are employing their skills to create simply for the sake of consumption and thus profit. A mass market capitalist system employs a designer's skills to convince the consumer that what they have is no longer adequate and that buying a new product will improve their lives and increase their happiness. Through this cycle, beautiful and interesting designs, in combination with consumerism, marketing, and a materialistic culture, actually lead to discontentment, waste, and the material embodiment of cultural hierarchy.

In considering these realities, I began pondering how design could be applied differently, in ways that help to minimize cycles of environmental degradation rather than spur them on. Sitting

through a presentation from an Industrial Design alumnus who now works producing high end televisions, I was curious to hear their response when asked how sustainability plays into their work. The presenter's reply perfectly summed up the prevailing issue with the design world's treatment of sustainability. They replied that sustainability was not a priority, but when a product could be designed more sustainably that was marketable and thus valuable to the company. This sentiment is largely echoed throughout the design world in which sustainably is emphasized but rarely prioritized. Unless we shift this paradigm so that sustainability and regeneration become the motivation behind each step of a design, I struggle to see how it can be used in an environmentally conscious way.

Through my concentration, I am looking to engineer a new way of thinking and learning about design that is wholly grounded in regenerative thought. I will approach this goal through three interrelated areas of focus: regenerative design, ecological solutions, and craft. The regenerative design aspect will focus on studying design practices which not only sustain the health of our natural and social environment but reinvigorate the many degraded areas therein. This will include looking at sustainable materials, methods of small-batch, low-waste, hand manufacturing (including carpentry, metalwork, and sewing), recycling and upcycling, and promoting material longevity over consumption. Ecological solutions will employ some of the tactics and ideals from regenerative design but will focus specifically on the interaction between design and ecology. This theme will include studying ecology, permaculture, biomimicry, and system design. My craft focus explores the unique benefits that skilled means of hand-done design and creation can provide over mass industrial production. Through these three areas, I will be able to fully integrate regenerative, sustainable, ethical, and ecological thinking into design, thus using its many unique and useful applications in an environmentally and socially positive way.

I am searching to find the meeting point between what I love doing, what I feel skilled in, and ethical actions that bring about a tangible and positive impact on those around me, the

environment, and everything therein. It is difficult to outline exactly what shape this may take for me in the form of an occupation, or to rule out any given career direction; but I can identify many fields I am curious to explore. These areas of intrigue include reclaimed material carpentry, riparian habitat and salmonid restoration, regenerative agriculture, zero-waste construction, anti-consumer campaigning, and permaculture landscape design. As global climate change worsens, and its effects more clearly impact our everyday lives, these practices and methods of thinking will only become more crucial. Though my path is uncertain, I am confident in the value of studying the intersections between design, regeneration, ecology, and craft, through which I am excited to apply my talents and passions to solving critical problems.

Regenerative Design

Regenerative design lies at the heart of my interest in applying environmentally conscious action and thought to the practice of design. It involves approaching design with the conviction that one will be designing only that which has an environmentally and socially positive impact. The basis of this theme lies in critical analysis not only of what one designs but also how one ought to carry out the design process, which ties into the theme of craft (addressed later). As with regenerative versus sustainable agriculture, the goal of this mentality will not be simply to design with a net neutral impact; but to use design as a means to restore what has been previously degraded by humankind's harmful practices. In their piece "Transitioning from Green to Regenerative Design", Raymond J. Cole comments "the emerging notion of 'regenerative' design and development emphasizes co-evolutionary, partnered relationships between humans and the natural environment"[1]. This concept of regeneration extends past the customary bounds of environmentalism to include social and equity issues. In terms of environmental action, I am

[1] Cole, "Transitioning from Green to Regenerative Design."

specifically interested in issues of waste, recycling/upcycling; the cultural and commercial concepts of what it means for a product to be "used," "new," "worn out," or "necessary"; and the shifting of design to prioritize functionality over appearance. Within the social and equitable bounds of regenerative design I am interested in exploring how industrial design and product marketing is used to reinforce social hierarchy and socio-economic gatekeeping, specifically within outdoor recreation.

I developed the concept for this study as a reaction to my time spent in the WWU Industrial Design program. Though I thoroughly enjoyed the practice of design, I held significant moral hesitations about the environmental and social consequences of the industrial design field. After taking a class with a professor who shared some of my views and had used his industrial design degree to move into permaculture (holistic, system-based agricultural design), I was inspired to explore options that might integrate design with sustainability. After taking two quarters off from school to consider my possible future education, I was able to ponder these issues more deeply and gain a better idea of what my new course of study might look like. Simultaneously, these ideas interacted with my experience in the outdoor recreation world as I began to realize how outdoor companies use media to promote the notion that material wealth is required to commune with nature. These insights gave me a new motivation to look at production and consumption from an equitably sustainable perspective and integrate this into my education.

I have already taken many of the courses in this theme as part of my studies in the Industrial Design pre-major, building my base knowledge of design. The two sophomore design studios (ID 210 and 220) have given me a deeper understanding of what the design process is like from start to finish, as well as hands on experience with design projects. I have also taken two sustainability-focused classes through the honors program, one on sustainable plastics (Hnrs. 354) and another on sustainable financial and investment practices (Hnrs. 350) both of which helped to broaden my

understanding of sustainability. To move my design knowledge into coordination with regenerative thinking, I will be taking additional classes that fall under the Sustainable Design Minor at Western, specifically Envs. 471 and 474, which delve into community-focused sustainability and a campus sustainability project. Another class in the Environmental Studies program which I am excited to take is Envs. 343 Urban: Process Patterns, which builds off material taught in Envs. 361 Urban Planning but focuses on the development and downfalls of modern cities. Through building atop my design background with sustainability focused classes, I am excited to drawn from both fields and see how they can intersect to create regenerative design practices.

Ecological Solutions

The second theme of my concentration, ecological solutions, investigates the two-way street between ecology and design that considers how design solutions can be applied to ecological problems and how ecology can inform the context of design. By ecological problems I mean not only the degradation and destruction of natural ecosystems and species, but also the complex issues of contemporary society's broken connection with nature. Ecological problems are often investigated and addressed by scientists, but how might solutions be conceived and achieved more holistically if the people working towards them came from diverse fields of expertise? In what ways could design be used to better inform and mobilize the public around ecological problems and bring about more widespread, lasting change? How could the artistic side of design be used to create more creative solutions to ecological issues? Conversely, using ecological understanding to inspire and resolve design and engineering challenges through natural, ecosystem-based solutions has a tremendous potential to create regenerative designs. This concept is embodied by the practice of biomimicry, described by Michael Pawlyn in their book *Biomimicry in Architecture* as "design inspired

by the way functional challenges have been solved in biology."[2] How can ecology and biomimicry be integrated further into design to create solutions which work with the natural environment rather than fight it? History demonstrates beautiful examples of healthy and mutually beneficial interactions between humankind and nature, how can these practices be brought back to life and applied to modern problems? As I consider the various connections between ecology and design, these are the areas I am most interested in exploring.

Throughout design school, one gets to experience the incredibly informative, challenging, and rewarding process of taking a project from an initial problem to a finished product. Though this style of learning is quite difficult, it provides one with a great problem-solving perspective that sees how complex problems can lead to beautiful solutions. My curiosity about the application of a design mentality to ecological solutions arose as I began learning ecology through my Hnrs. 213 Biology Colloquium class and my personal time spent investigating salmonids through fly fishing, personal reading, and podcasts. In the book *Eager: The Surprising Secret Life of Beavers & Why They Matter,* Ben Goldfarb gives a beautiful example of ecological problem-solving. He tells the story of Skip Lisle and Mark Callahan, two individuals who through their drive to save wild beavers, started companies designing complex mechanisms to keep beaver dams at a controllable level. Through these men's creative inventions, beavers can provide the many ecological advantages of their ponds without destroying human infrastructure such as road drainage culverts.[3] A beautiful example of the connection between design and ecology also can be seen in the historic English practice of hedge growing. For many centuries, English farmers practiced the art of hedge growing in order to contain livestock and section off land. By carefully tending and crafting the various species of tree or shrub

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[2] Pawlyn, *Biomimicry in Architecture*.
[3] Goldfarb, *Eager: The Surprising, Secret Life of Beavers and Why They Matter*.

that might comprise a hedge, a farmer would create an ecosystem which not only functioned as a fence but also provided raw materials and a home to many species of flora and fauna[4].

In order to be effective in pursuing this theme I will need to gain a better understanding of ecology and environmental science. I am currently taking Fair. 432q Ecological Restoration focused around hands on restoration work at a Fairhaven Outback Farm project site. In addition, I look forward to taking Envs. 397k Ecological Design 1, Esci 325 Fundamentals of Ecology, Fair. 440n Ethnoecology, and Fair. 330e Ethnobotany, with which I will continue to grow my understanding of ecology and its links with design. The independent study I am currently taking on Pacific Northwest Fish Ecology & Habitat is also teaching me to grasp complex ecological ideas through reading and field observations. The contrast between ecology and design may appear stark in places, but gaining a solid base in scientific coursework will enable me to more readily think and communicate across these two fields.

Craft

The final theme of my concentration is on hand-done means of production, or craft. In his book titled *Craeft*, Alexander Langlands dedicates the first chapter to defining this old English word. He explores how craft is more than just an ability to perform a given task, but a very specific type of knowledge acquired only through repetition and experience, which gives one a unique and innate connection with the materials and process of creating. Langland muses "With the severance from this ability we're in danger of losing touch with a knowledge base that allows us to convert raw materials into useful objects, a hand-eye-head-heart-body coordination that furnishes us with a meaningful understanding of the materiality of our world."[5] My love for design comes from

[4] Langlands, *Craeft: An Inquiry Into the Origins and True Meaning of Traditional Crafts*.
[5] Langlands.

experiencing the process in which one must work skillfully with physical materials and tools. Langland's concept of *Craeft* is inherent to these aspects of design, in which the physical act of making becomes a key aspect of the design itself.

This theme of my concentration focuses on learning about craft and learning to craft through hands-on skill building. Firstly, I am interested in expanding my understanding of craft by addressing several key questions, which tie back into my regenerative design theme. How can producing, repairing, and understanding one's tools and materials change the way one views and consumes objects? Can maintaining traditional and historic forms of crafting help us to value products in a more meaningful way? Learning to craft through skill building will be centered around a few areas I am particularly interested in building my competence in, and which are highly applicable to design work: drawing/sketching, carpentry, and metal work.

My interest in craft has evolved out of a personal connection with the process of making, and personal observations on the way modern American culture views skilled labor. Though I enjoy design, it is less the tedious process of over-ambitious planning that appeals to me and more the act of taking a raw material and creating it into something that elegantly performs a function or communicates an idea. Watching a master at any craft is amazing; they are not stressed over the process but rather work with calm confidence, knowing exactly where they are headed and how to get there. Yet, despite this amazing ability, we live in a culture which distinguishes hierarchically, educationally, and financially between "head knowledge" and "hand knowledge," and downplays the ability to craft. I spent some time the past summer working on a small organic vegetable farm and was always amazed by the proficiency with which my manager worked. I soon realized it was through this craft-knowledge that he could match the combined pace of four inexperienced college students. As I continue to witness this skill elsewhere, I grow more eager to bolster my own craftiness.

Through two drawing classes in the Industrial Design program (ID 110 & 310) I had the opportunity to experience hands-on craft learning in which I built tangible skills through many hours of practice. ID 110 focuses on introductory sketching skills, specifically how to communicate through drawing and learn this skill as a language. ID 310 dug into some of the specifics of product sketching, revolving around the techniques required to accurately convey perspective and rendering. The ability to look back over one's work from a quarter and see how drastically you have improved within that time is incredibly rewarding. In addition to these classes I have begun doing some self-employment carpentry work, and always enjoy the opportunity to learn through doing by fixing my truck, building myself something useful, or honing my abilities in rock climbing. In exploring this theme, I will focus heavily on ISP's as I have already exhausted most of the design classes that are available to non-majors. One Independent Study I will take, Reclaimed Carpentry, will focus on building with recycled and scrounged materials. I am also excited to do an Independent Study that focuses on drawing and sketching for landscape and ecological design, and another where I will learn a skill I have little prior experience with: welding and metalwork. This theme will flow well into the previous two, as it will provide me the tangible design skills to accomplish my goal of uniting ecology, design, and regeneration.

Senior Project

As portfolios are integral to the design field, for my final project I will create a portfolio consisting of projects and work that represents the focus of my concentration. This process will not only include compiling previous projects, but also creating some new ones to fill gaps in my portfolio and accurately demonstrate what I have learned through my concentration. I will include work that focuses on the design and craftsmanship aspects of my concentration, ecological and sustainability-focused work, and some projects which span between these two fields. It will be

critical that not only the material of the portfolio be valuable, well executed and representative, but that the design and layout of the portfolio as a whole demonstrates good design and represents the intent of my concentration. Some examples of work I might use in this portfolio are a collection of my drawings and renders from ID 310, an industrial design project from ID 210 or 220, the ecological restoration project from Fairhaven 432q, and some examples of carpentry work. As design portfolio development is a very intensive process and I will be creating some material specifically for the purpose of the portfolio I am proposing, this senior project will require 5 credits.

Conclusion

Through my reaction to all that I see wrong with the way industrial design is being taught and carried out, I am hoping to create something positive, that will allow me to take what I have learned and appreciated from design and apply it in an ethical way. I see this opportunity in regenerative development, ecology, and craft. By combining these fields, I am looking not only to offer innovative solutions to the environmental problems which will only be worsening in the coming years, but also to develop a healthy relationship between the natural world and how I produce and consume. Within these intersections I will work to answer the guiding questions: How can design be pushed past the concept of environmentally friendly and into the realm of regeneration? How can the practice and method of design be applied effectively to the field of ecology? Can design be used to deconstruct and combat the cultural ideas of consumption? And how are these perceptions tied to issues of equitable and environmental sustainability? I am excited to see where these studies will lead me as I attempt to use my skills to have a positive impact on the environments that surround me.

Work Cited:

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