In 2016, curator Stephanie Owens invited Caroline Woolard to do a series of projects at Cornell University for an initiative called *Abject/Object Empathies* which focused on the cultural production of empathy and explored how the objects and images people construct are shaped by interdependent relationships to others. Stephanie Owens asked: What are the ways in which art and design mediate and shape the emotional exchanges between people in tangible form?

In a series of events throughout the semester, Woolard shared her open-access kit for *Queer Rocker* and invited students to make adaptations of the rocking chair. The Rocker circulates as an open access toolkit. It was first shown at *The Very First Year*, curated by Laurel Ptak at Eyebeam in 2013, and has been modified for use by students at Cornell University, the State University of New York, Purchase, and at WeMake, a maker space in Milan, using ratchet straps, hardware, and press-fit joints. The kit is available so that anyone with a maker space can modify and produce a *Queer Rocker*.

What are the ways in which art and design mediate and shape the emotional exchanges between people in tangible form?
Capitoline Wolves, commissioned by Owens for the exhibition, was an installation made for conversations about masculine violence and fantasies of “founding brothers.” Five tables were placed in a pentagonal formation under the grand dome of Sibley Hall at Cornell University. Each table resembles the she-wolf that raised Romulus and Remus; the cherry-wood table has bent hind legs of steel, distended udders of stoneware, and a hanging mirror for a face. The she-wolves’ breasts were filled with water from Ithaca’s gorges. Throughout the installation, visitors placed a delicate bowl with a single hole in the water when their conversations began. When the bowl sunk to the bottom, it marked the duration of a topic of conversation at the table.

An object of art creates a public capable of finding pleasure in its beauty. Production, therefore, not only produces an object for the subject, but also a subject for the object.

—Karl Marx
2015/2016
Cornell University
interdisciplinary hopes in the art school
#metoo 2017
Obama 2009-2017

My brother was in a fraternity at Cornell. I heard all about masculine violence in those spaces.

I will make an object that invites dialog to counter masculine violence.

If I am paid well, I will pay people at their highest rate.

smart rich white kids fraternities collaboration not supported Ivy League fraternity brothers land grant school "founding brothers" founding fathers
This is a four month, site-specific project created at the invitation of an institution (Cornell). A series of sculptural objects that invite gathering and dialogue.

Unstackable column stool
American wooden Column Corp
CNC column
Copper hand formed water clock
Cherry wood
Mirrorizing glass
No social practice plywood
Props
Lasting objects as gifts
Events around wolf tables

Corinthian columns
Composite columns
Tuscan columns
Smugglers carry away marble columns in sections
Romulus's descendants inherited the she-wolf's beauty milk.
Breast milk as blood
Breast as water clock
Pack of wolves
Tuscan column
Mirror as a face

Timeframe
Experiment
Idea in Public
Reflect

More information at CarolineWoolard.com.
An Aesthetics of Interdependence

Stephanie Owens
Head of School, School of Arts + Media, Plymouth College of Art, UK

At the time I first saw Caroline Woolard’s work, I was immersed in thinking about empathy. As Director of Cornell Council for the Arts in 2016, I had just spent the last month crossing into the art, biology, materials science, architecture, information science, and psychology departments on campus to involve the community of students and scholars in discussions about the origin of the word and its contemporary meaning. Unknown to me before the discussions, empathy has deep historical connections to reception theories in art and aesthetics. Learning that empathy shares common cultural ancestry with early aesthetics gave me inspiration to use the biennial as a platform to explore how notions of beauty, phenomenology, and vitalism might be experienced in the work of contemporary artists in relation to objects. With its deep, cross-cultural and cross-disciplinary foundation in theories of perception, empathy is a concept that merges the making of art with the experience of it, where its primary effect is embodied, connecting artist and audience through the art as mediating object. Seeing Caroline’s barricade turned into a bed—literally an object of exclusion transformed into an object of support, it seemed to me that aesthetic empathy had been revitalized in a cogent, purposeful way in her work.

Recently out of her undergraduate studies at The Cooper Union in 2013, Caroline created Barricade to Bed see chapter 4 in the context of the Occupy Wall Street activism and her thinking about economies of solidarity living in NYC. Although I would eventually discover
her pedagogical and collaborative practices which questioned the role of the discrete art object in producing $120,000 art degrees, I felt her bed was nonetheless a quiet, insistent proposal that objects can be phenomena of shared experience. Disarmingly simple, her repurposed barrier sculpture inspires immediate associations with Duchamp’s *Fountain* and other historical ready-mades.

**her sculptures, seem conditional in the most positive sense—an instrument for making economic and affinity networks visible**

Yet if transforming a urinal to a fountain by flipping it upside down was a disinterested act of **authorship** without making, *Barricade to Bed* offers a more radical idea of making as an act of **unity** and co-creation. With its toolkit construction plans and material resource list available as part of its display at MoMA, *Barricade to Bed* is an eloquent act of generosity that suggests how reciprocity between people might take shape amid a world that idealizes autonomy and an ethos of self-reliance. The transparency with which she works transforms our complicity with the violence of discrete, isolated objects of art into a curiosity about how cultural form might be symptomatic of the amalgam of thoughts and lives we share with others. Not unlike ritual objects of social incantation, each of her projects, and particularly her sculptures, seem conditional in the most positive sense—an instrument for making economic and affinity networks visible, and perhaps for making them possible in new ways. Caroline has nearly x-ray vision in perceiving the human and political DNA embedded in objects and the sensitivity to unfold this hidden vernacular into its component parts, like building blocks to reimagine worlds.

Having been struck by this quality of interdependence between artist-object-audience inherent in her proposals, including her socially speculative and pedagogical spaces, I invited Caroline to be an artist-in-residence for *Abject/Object Empathies* for which a number of artists, including Pepon Osorio, Caroline O’Donnell, Alexandr Mergold, and Teresa Diehl were commissioned to make new work in the context of how feeling becomes form. For her first project with the university, Caroline arrived on campus with a whole system of producing art expressed as *Free, Libre, Open Source Systems and Art* (F.L.O.S.S.A), a manifesto for making “free art” which she used to guide students through an understanding of how they might modify her *Queer Rocker* in order to make a version of it, by adapting it, for themselves. In the end, 11 new *Queer Rockers*, made unique in their slight difference of shape, color and texture, were exhibited together like products of an assembly line. Paradoxically, the artist’s sharing of the blueprints for her sculpture made the core chair prototype, obviously common to them all when seen in a group, the content of the exhibition rather than the individually modified sculptures. Students embraced this process of making **variation** as an act of creativity familiar to them in social and platform media and approached Caroline’s sculpture as a meme in shape and origin.

*Capitoline Wolves & Queer Rocker*
Part internet of things and part DIY tool-kit, the CNC fabricated Queer Rocker is above all a set of rules to engage others in a conversation about ownership of creative process. The openness with which Woolard embraces the whole ecology of making had a profound impact on the college, triggering equal parts gratitude and hostility. Reactions were strong, particularly to the vulnerability of her art objects to the influence of others when met with the artist’s invitation to change them. Although there is a rich history of temporal and participatory art that also challenges the notion of permanence and what Woolard refers to, she embraces a very contemporary tension between relinquishing and embracing art in object form. This on-demand production of art, within which both artists and art are made, proved to be a provocative proposal for questioning the material interface between ourselves and others.

Well-known for her pedagogical and economic models of solidarity, Caroline is an artist for whom art objects or symbols are not reducible to spaces or contexts of display, but invitations to act and reflect. The success of her creation of objects as spaces of learning and teaching through F.L.O.S.S.A./ Queer Rocker led to my expanding her engagement with the biennial, and we discussed ways that she might be able to make an object that facilitated public panels and discussions. Embedded in the Doric corridors of innovation and power at a research university, Caroline turned to the story of Romulus and Remus, and the patriarchal myth of the “found-ing fathers,” to centralize the presence of the female she-wolf that nurtured them. Reimagining the she-wolf as having equal power in the birth of Rome/civilization, she detourned the symbol of taking (child) into one of giving (mother), and built an interlocking circle of individual animal-like tables as a prowling interface. The ring of tables, perforated with large fist-sized holes in the wood surface that plunge into ceramic breasts filled with water, suggested that the anonymous she-wolf, like the artist who makes objects which empower others, does not act alone but always acts with and for others. Simultaneously an installation and a stage set, Capitoline Wolves is a discursive object that derives its meaning and physicality a priori—from its ability to intentionally shape and encourage a shared imagination.

Although she is often aspirational in writing and speaking about her projects in their relationship to economic and societal models of equity, the aspect of her project that is often overlooked is the way Woolard inscribes this social imagination in the most intimate details of the physical realization of her art objects. Easily unnoticed in the complexity of references in Capitoline Wolves is the small, exquisitely intimate way one corner of each thick wooden table top fits puzzle-like inside a recessed, perfectly-matched notch in the table adjacent to it. Each she-wolf table is
designed to both interrupt and receive in relation to the other, binding them together.

Woolard inscribes this social imagination in the most intimate details of the physical realization of her art objects.

From the perspective of neuroscience this is the very definition of empathy in object form. If we imagine mirror neurons (the she-wolf tables have a mirrored face) in an individual brain firing when another’s action is experienced as if our own, biologically programming our empathetic understanding, we begin to realize that there are ways of perceiving and knowing that cannot be experienced in isolation. In some real physiological sense, empathy is a structural condition of our interdependence with others which allows us to comprehend and know the world. The Capitoline tables— as she-wolves, as objects, and as sculptures— make sensuous argument for art as a form of social cognition. They offer a new aesthetics of interdependence, where they are wholly knowable as individual objects but more meaningfully experienced as an intertwined group, posse, or circle.

empathy is a structural condition of our interdependence with others.
IMAGINE A GROUP GATHERING
Imagine a group gathering.
Queer Rocker, 2013, CNC prototype
oak plywood, ratchet straps,
newspapers, 48 × 30 × 44 inches.
Courtesy of the artist. Photo
by Ryan Tempro.
fig. 7-2 (overleaf)
fig. 7-3
Capitoline Wolves, 2016, cherry wood, powder coated steel, dyed stoneware, local water, hand mirrored glass, copper bowls, performance, 29 × 36 × 72 inches each, forming a circle that is 15 feet in diameter. Commissioned by Cornell University. Courtesy of the artist. Photo by Levi Mandel.
Capitoline Wolves &
Queer Rocker
More information at CarolineWoolard.com.
In the pages that follow, you will find correspondence, budgets, readings, renderings, and technical drawings made in the process of developing *Capitoline Wolves* and *Queer Rocker* at the invitation of curator Stephanie Owens. The CNC rocker was made by Caroline Woolard with support from Costantino Bongiorno, Ozden Kose, Francesco Perego, and Zoe Romano at WeMake, a maker space in Milan, and from Isabella Crowley and Melody Stein, students at Cornell University. In *Capitoline Wolves*, the mirrors and copper bowls were made by Caroline Woolard, and her design was fabricated by local craftspeople, with expert woodwork by Mahlon Huston and the American Wooden Column Company, metalwork by Ian McMahon and journeyman ironworker Julia Helen Murray, and ceramic udders by Alex Zablocki.

Woolard has selected ephemera that serves as visual reference points for *Capitoline Wolves* and *Queer Rocker*. All materials here are reproduced with the consent of the people involved.
Queer theorist Sara Ahmed suggests, “queer furnishing is not such a surprising formulation: the word ‘furnish’ is related to the word ‘perform’ and thus relates to the very question of how things appear. Queer becomes a matter of how things appear, how they gather, how they perform, to create edges of spaces and worlds.” This rocking chair is “queer” because it is simultaneously a dividing wall, a window, a table, and a chair. It is “queer” because its holes become its strength and its structure. It is “queer” because it makes the politics of its own production visible. It is never singular, as it desires adaptation and interdependence. It is “queer” because it rests in organizing spaces that recognize the rights of LGBTQIA+ people, which have been and will continue to be won through grassroots community organizing for economic and social justice.

In 2013, I created a document that described how to make the Queer Rocker, so that students in many places could re-make it.
TOOLS AND MATERIALS

DIY/Non-CNC Requirements
(for making it in a woodshop)
- Illustrator file (printed out on a plotter)
- table saw, router, drill press, bandsaw, and jig saw
- 3/4" birch plywood, 0.71" thick (12-15 ply) or found wood
- email me for woodshop directions, or improvise on your own!

CNC Requirements
- ShopBot PRS file
- ShopBot PRS Standard 9648 CNC Router (adjust the file if you have another CNC)
- 1/4" carbide bits (one for a downcut and one for an upcut, not worn down)
- 3/4" birch plywood, 0.71" thick (12-15 ply)

Tools for Finishing the CNC Queer Rocker
- 1/2" and 1/4" chisels (to carve out the corners that the CNC router cannot reach, by hand)
- rubber mallet to hit wood together without damaging it. This can also be used to hit the chisel.
- power drill to connect pieces together with screws below
- corx/star drill bit and pre-drill bit
- orbital sander and 240 grit (or other fine grit) sandpaper to sand the rough edges

Supplies for Finishing the CNC Queer Rocker
- work table: if you have a work table with a surface of at least 4’ × 4’, handling the rocker will be easier
- screws: 16 pcs per rocker of #8 construction screw 1-1/4" (3.18 cm). Boxes of these from grip rite are yellow and come with a star/corx bit
- optional: finish washers: 16 pcs per rocker of #8 finish washers (if you will use a natural finish)
- sandpaper: extra 240 grit (or other fine grit) sandpaper for orbital sander
- paint, putty, and/or tung oil/wax or other finish for the ply (you choose)

CNC FILE SETUP

File Assumptions/
Order of Operations when using CNC
1. We will drill holes in the center to screw the material down.
2. We will drill the holes for the screws after that (pecking), and screw the material down in the center.
3. We will then cut the channels for the wood to slide into, cutting inside the lines in the file.
4. We will then cut the slats and the big sides of the rocker slowly, on the outside of the line in the file, cutting halfway into the wood as a downcut, and then changing the bit so that it is an upcut bit and is less rough on the edges.

Making your own file/
Ways things can go wrong
1. Software: I have provided an Illustrator file and also a CNC file that works with the ShopBot PRS Standard 9648 CNC Router. If you have different software, and are using my Illustrator file, please read this section and adjust your new CNC file accordingly.
2. Plywood Thickness: Adjust the Illustrator file based on the thickness of your plywood. Be sure to measure your 3/4" plywood with calipers to get the exact thickness of the ply. The Illustrator file I've made assumes that the ply is 00.71" thick and therefore has press-fit channels that are 00.735" wide. If you need to edit this file, note that the slats and channels are at 5-degree angles and that the T channel assumes a 00.30" depth for the T. Export a new CNC file. You may be able to adjust the ShopBot file by adding .025 to the channels all around, rather than editing the Illustrator file.
3. Type of Plywood: Make sure your plywood has as many ply as possible (12–18 ply) as regular plywood only has 7–8 ply and will cut very rough and not look good.
4. CNC File Channel Depth: make sure you cut your channels at 00.30" depth (everything in purple is a channel).
5. Cutting Inside or Outside the lines: Always cut inside the lines for the channels, but make sure all passes for the slats/windows and the rocker sides go on the outside of the lines in the files, otherwise the pieces won’t fit!
6. Hole size: make sure you drill
the holes with a 1/4" bit.

7. Many Passes: For all of the lines (the slats/windows and the rocker sides) make sure you make many passes (3–4 passes) with a down cut bit and then many passes (3–4 passes) with the up cut bit to finish it, so that the plywood has a smooth edge on both sides—is not rough and ugly.

ASSEMBLY

1. Chisel the tabs: Dislodge your pieces from the sheet of plywood by chiseling the tabs away from the pieces you want to keep. Be careful not to chip the plywood.

2. Chisel the corners. Every channel has rounded corners due to the nature of round the router bit. Using a 1/4" or 1/2" chisel and a rubber mallet, make the corners of all 6 channels square. Carve it out fully and carefully, or else the slats won't be able to press-fit in. You do not need to elongate the channels.

   While your pieces are separated, take time to sand the surfaces of all pieces while it is easy. Sand the edges of the long sides of the slats and the entire perimeter of the rocker and the windows of the rocker so that the plywood doesn’t chip and is easy to handle. If the plywood is chipped, sand off the chips and remember that you will likely have to putty, sand, and paint the rocker.

4. Put the T seat together. One of the 5-1/2" slats sides into the channel on the large slat, making the seat for the rocker. Carefully
slide the 5-1/2" slat into the channel of the large piece, using the rubber mallet to assist you with this press-fit. Once it’s in, pre-drill into the top of the T where you see the 1/4" holes and screw in 1-1/4" #8 corx/star bit construction screws (optional: with #8 brass finish washers if you won’t paint it).

5. Put the T, lumbar support, and top slat into one side of the rocker. Place one side of the rocker on your work table, so that you can slide part of it off the work table and get under it to screw it together. You are assembling the rocker on its side. Press fit the T seat, the lumbar support slat, and the top slat into that side. Use the mallet to help you. Get under the rocker and pre-drill holes where you see the 1/4" holes and screw in 1-1/4" #8 corx/star bit construction screws (optional: with #8 brass finish washers if you will not paint it).

6. Place the other side of the rocker on top, carefully aligning all the channels to the slats that you just screwed in place. Use the mallet to help you. Stand on top of the table or use a stool to get above the rocker (still on its side) and pre-drill holes where you see the 1/4" holes and screw in 1-1/4" #8 corx/star bit construction screws (optional: with #8 brass finish washers if you won’t paint it).

7. Get help lifting the rocker off the table and try it out on the floor! Now, your rocker should be assembled securely, with all 16 screws in all 16 holes. With help, move the rocker from its sideways position on the worktable to the upright position on the floor. Try it out!

8. Finish the piece. You likely see parts of the rocker that need to be sanded, as well as parts that are chipped and that could use putty. Decide whether you would like a natural finish (bowling wax, beeswax, tung oil, etc.) or if you would like to paint it a color. If you are painting it, you can fill the chips/splinters with putty, sand it, and finish it to hide them. Be sure to recess your screws enough so that they are hidden.
fig. 7-6


Photo by Ryan Tempro.
For the project at MoMA see chapter 4, I made everything myself, and I felt that it did not go well. The research, meeting, and proposal process at MoMA took more than half of the time allocated for the entire project, so I was left with relatively little time to do material tests to get the forms and materials to a place that I loved. When I worked independently or in groups outside of institutions, projects took over a year to develop and were refined at a high level.

An aside: this is why, I realize now, many curators want to exhibit finished work. They also don’t have to pay to commission it; they can simply ask for your finished work on loan without paying for the labor to fabricate it.

With institutional invitations, and for projects of a certain size, I decided to try paying people to make aspects of the work for me. So, I hired fabricators for the first time with the Capitoline Wolves project. I didn’t want to make the same mistakes that I made at MoMA. I knew that I could not work on the scale or speed that was necessary to meet the requirements of the commission if I were making it alone. To accomplish this mysterious task—the task of extending my labor into the bodies and hands of other people who are not collaborators—I made hundreds of sketches, and then technical drawings in Illustrator, and then renderings in Rhino, and then sent them to fabricators that friends recommended, to complete the work.

I knew that I could not work on the scale or speed that was necessary to meet the requirements of the commission if I were making it alone.
fig. 7-7
Capitoline Wolves, 2016, cherry wood, powder coated steel, dyed stoneware, local water, hand mirrored glass, copper bowls, performance, 29 × 36 × 72 inches each, forming a circle that is 15 feet in diameter. Commissioned by Cornell University. Courtesy of the artist. Photo by Levi Mandel.
It was also important to me, as an artist doing so-called “socially engaged” projects, that the physical objects could stand on their own, as sculptures, regardless of the social engagement. I was upset by the theater-prop approach I often saw in exhibitions, of bright colors and plywood, and tried to convince curator Stephanie Owens that the objects should be made to last.

fig. 7-8
A collage of research imagery that led to the creation of Capitoline Wolves, including clocks that use water and smell to mark intervals of time and the Lupa Capitolina, a bronze sculpture depicting a scene from the legend of the founding of Rome.
fig. 7-9
Technical drawings for Capitoline Wolves.
More information at CarolineWoolard.com.

Capitoline Wolves & Queer Rocker
What shape should the table be, and how will individual tables fit together to make a gathering space? To determine shape of the table, and to see how tables fit together, Caroline Woolard created this geometric study.
Capitoline Wolves &
Queer Rocker
fig. 7-11
Quick sketches that led to the creation of Capitoline Wolves.
Since I had a big budget for this commission, I wanted to pay fabricators at a good rate as well. My sense is that artists, designers, and **craftspeople** should all rise up together in terms of our **labor** conditions. When one of us is paid well for a job, we should all be paid well. I met one of the fabricators, Ian McMahon when I was a visiting artist at Alfred in 2015. I kept in touch with Ian and his partner, Ashley Lyon, as I was impressed by what they both made, conceptually and technically, and by their ambition and generosity of spirit. I thought: these are incredible people. I want to do more together, one day. Ian connected me to a woodworker, Mahlon Huston, and Ashley connected me to a ceramicist, Alex Zablocki. In the following examples, I want to share some of the correspondence that was required to coordinate with many people so that art students and emerging artists have a sense what is required to find, contact, and work with fabricators in a respectful and clear way. I made the mirrorized glass “face” of the wolves and the copper bowls for time keeping myself, but everything else required coordination.
fig. 7-13
Technical drawings for
Capitoline Wolves.

Caroline Woolard
Cornell Table
Due Aug 17

2" square stock / legs 27-1/2" tall
(final table height 29" with 1-1/2" boa
plate 4"x4" with holes for hardware

= 1 inch

2 per table x 7 tables
= 14 pieces bent

2 per table x 7 tables
= 14 pieces straight

Key = 1"

Each Bowl = 6" outer diam. bowl with 0.5" flange all around / full sutter diam. 7"
(6.4" deep, 0.5" thick)

Table top = 6.125" hole with an offset path 0.5625" around and 0.5625" deep,
making a 7.125" wide circle recessed 0.5625" deep
(leaving 1/8" tolerance on either side, 1/16" tolerance in depth)
I wrote to Ashley to see if she knew anyone who might be able to fabricate my design in ceramics. I wanted to work with someone who was local, or close to local, and Alfred, New York was a lot closer to Ithaca, New York, than New York City was to Ithaca, New York, where the work would be installed.

July 6, 2016
Ashley,

I hope the summer is treating you well! Congrats on your new job and your amazing shows. I've been following your work from FB and am so honored to have a framed print of yours! Whenever I make a print that you want, or another edition, come get it.

I'm writing now because I am looking to find someone to throw a breast-like shaped bowl and then cast 56–60 copies of it, in stoneware, this summer. I can send drawings to give exact measurements, but it's about 8" wide in diameter at the widest and 10" deep, tapering down. Do you know anyone who'd be up for this job? I'd love to talk to them soon, and get a quote.

Ian has connected me to Mahlon, who will be making the table that these shapes fit into, and he's welding the legs, so you may have heard something about it. It's due the first week of Sept at the latest, or Aug 16, ideally, and it will be transported to Ithaca.

Hoping to hear from you,
Caroline

PS: so you know the whole story, here it is …
I've been commissioned to make a big series of tables for a performance at Cornell, and I'm maxing out the budget to make this table I've always wanted to make that has bowls/breasts in it, based on the she-wolf that raised Romulus and Remus. It's made of cherry with steel legs and the cherry has 8 holes cut out with a recessed lip for 8 bowls to rest in. Images of an earlier version are here: https://www.dropbox.com/s/69j217osjl3hb9w/Caroline%20Woolard%20Capitoline%20Wolves.pdf?dl=0

Ashley then generously put me in touch with Alex Zablocki, a ceramicist working at Alfred with her at the time. I wrote to Alex, to see if I could hire him.

July 18, 2016
Alex,

Please see a near-final design for the breast bowls, in 3 formats for easy viewing (I hope). I wanted to share this with you to ask about the depth the cherry wood should be routed, and how the connection from the flange to the wood will work in the design.

To figure this out, I need to know:

- how thick will the bowls be? I want them to be sturdy, but not overly-heavy. This will impact how deep the cut into the cherry wood is, and the design, of course...

- what kind of radius can the ceramic make, as it transitions from the flange/lip to the breast shape?

See the attached drawings to get a sense of the clay thickness/curve I am wondering about — right now I designed it as though the clay flange would be .875” thick, which is very
unlikely. Once I know the thickness and the radius it needs (I imagine it can’t make a 90 degree angle), I will send the final design. These are 8” in diameter, going down to 4.5” and then 1” and the whole thing is 9” deep. The cherry wood is 1.75” thick, so I will design it to rest in there snugly.

Thanks,
Caroline

From there, I talked to Alex on the phone, and he asked for half of the money up front. I had not been paid by Cornell yet, but I paid him anyway, as I wanted to respect his labor. I learned later that this was a very bad practice for me, as I was going into debt in order to be more punctual with payment than the commissioning organization. More on that, later.

hey caroline,

here is the break down for the project

hope this all makes sense let me know if you have any questions

the only thing that might change slightly is the material cost i really need to start making them to see if i will need more clay, i think it should be fine

but we can talk more about that later this is a great start i think

I usually do 1/2 up front 1/2 upon completion. Will this work for you? I will keep you updated throughout the process. Excited to be a part of this project

thanks
alex
Breast shaped pots for tables project

---------------------------------------------
Making = 30/hrs $1500
Clay Mixing = 4.5/hrs $225
Testing/Maintenance = 5/hrs $250
Materials = $275

---------------------------------------------
Total hrs= 39.5 @ $50/hr = $1,975
Materials + $275

---------------------------------------------
Total Cost = $2,250

Extra info:
Clay needed 550lbs Custom Red Stoneware:
material per pot = $6.25 \times 44 \text{ pots} = $275
(material cost)
Clay= $12.50 per 25lbs roughly 1 bag/2 bags
needed 22 \times 25 = 550lbs (this is only for the 44
pots, I know I will need to make at least 60 to
account for cracking, warping, slumping, etc …
or any other mishaps that can happen throughout
the drying and firing process.)

I have decided not to charge for firing since
I will be firing it here at alfred. Though the
project will require two gas firings which will
consist of loading, unloading of work, kiln
clean up/maintenance prior to and after firing
along with making sure the kilns reach tempera-
ture (each kiln will take roughly about 8-10
hours to fire to temperature). I would normally
charge around $150-200 dollars for this depend-
ing on the job, but since we are not paying for
gas of course there will be no charge for that
so that's good. I factored in the labor involved
in loading and unloading/maintenance into the
testing and maintenance category above.

Ian did the welding for the project, but asked me to go through
his friend Mahlon, as the primary contact person for the proj-
et. Here is what I wrote to him:
July 10, 2016
Mahlon,

I am not completely done with the table top design, but since you still don't have your wood, I figured I can take a few extra days! That said, I finished the leg designs, as I want Ian to be able to move forward as soon as possible, as I know he is gone in August.

Please find the designs attached, both to scale (in illustrator) and letter sized for easy printing. Feel free to call me anytime today or tomorrow to discuss.

The legs should be:
- 2” square stock steel
- 14 pieces of straight legs
- 14 pieces of bent “wolf” legs (enough for 7 tables it might become 5 tables, but I'm happy to have 2 extra sets of legs)
- 27-1/2” tall (to become 29” tall when the 1-1/2 boards are on top)

The things you and I need to agree on are:
- the exact size of holes for hardware that lines up with the inset hardware or plate under the table
- legs welded to 4” plates (or another size plate that works for the hardware/plate under table)
- flat black/oil finish?

Once we are on the same page, you can hand this to Ian and supervise his work.

Thanks for all you do,
Caroline

After many conversations over the phone and by text message, I sent the final design to Mahlon.
July 19, 2016
Mahlon,

Please find the final designs attached. You will see three images, each in three formats. Images of the connection/recessed area for the ceramic bowls, images of the table alone, and images of the tables as they connect to one another. I will have a final rendering by tonight or tomorrow, as well.

You will see that I’ve removed the curve, going back to a simple table size of 36” x 72,” which means you may have extra wood. I’m hoping this means you may have overestimated the amount of wood for the job, so you may have material to give me for my own use since the table is smaller now. You will also notice that I added a small hole near the “head” of the wolf, as I will personally be making a mirror frame that will hang from that area.

We can go over all of these details:
- table top = 36” x 72”, 1.75” thick cherry
- holes = 6.125” holes with .5” offset paths around them, routed at .5625” deep, making 8.125” diam. recessed circles routed out around holes (for ceramic bowls)
- steel legs = connect to inset hardware with 4” x 4” plates (or other size, that Ian and Mahlon determine)
- tiny hole = 3/8” hole drilled through cherry with 1/2” routed circle around it, 1/8” deep, making 1.375” diam. recessed circle (for mirror attachment)
- notch = cut into table all the way through to mark pentagonal alignment of 5 tables

We still need to figure out:
- The finish (matte/luster/oil?)
- the bread board (please send me a drawing of this)
- if you think the legs are too far from the edge at the “head” side of the table (will it tip over?!)
- the metal plate/hardware (how the hardware is recessed to bolt/screw the legs on and off)

So thankful for your work, and looking forward to seeing this realized,

Caroline

Mahlon sent me the final budget estimate, far over the $8,000 that I had from Cornell for the project. I decided to go forward with it, anyway.

8-3-16 Updated Estimate Caroline Woolard
PRINCIPAL DESIGNER / CHIEF WORKMAN—MAHLON HUSTON
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419-551-2375
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PROJECT: Cherry Tables
SERVICES TO: Caroline Woolard
SERVICE TIME DEFINITION
COMPLETE BUILD 120hrs A completed build of design as agreed by Caroline Woolard and myself and finished to the highest standard

LABOR HOURLY RATE TOTAL LABOR COST
120 HOURS $40.00 PER HOUR $4,800.00
DELIVERY OF WORK $250

MATERIALS QUANTITY/TYP/E STYLE COST
LUMBER 650 Board ft. of 8/4 Cherry @ $9.50per board ft. $6,175.00
PLY WOOD 2 Sheets ." Maple @ $60.00 $120.00
STEEL LEGS 28-2” square stock steel legs $1300.00
ANGLE IRON 38.5’ of 1” × 1” × 3/16” @ $1.75 per foot $67.00
TEMPLATE Laser cut template for the routing of the holes $40.00
TOTAL $7,702.00

Capitoline Wolves & Queer Rocker
Mahlon, Alex, and Ian were able to work together to make the pieces come together in a beautifully cooperative way. I believe this was possible because they had experience working together in the past, and both knew Ian and Ashley.

Mahlon and Alex,

Thanks for your work so far—I’m really glad to be working with you two.

Here are 3 things that I hope you two sync up on:

1-review the drawings I’ve sent you (and new renderings, attached, nearly done, to give you a sense of the way the final design will work and look)
2-the color of the clay body/cherry finish (they should have similar luster/matte quality)
3-the amount of tolerance between the ceramic bowl and the hole/recessed area in the cherry (right now I designed the hole and recessed area in the wood to have \( \frac{1}{16}\) extra all around)

Call me if you have a question.

Thanks!
Caroline

The project at Cornell came with a total budget of $8,000, but I wanted to pay everyone well, and was committed to my design being done at a large scale. Rather than scaling back the project, after seeing the costs for fabrication, unwisely, I decided to spend more money than I was given. I ended up spending $20,000 more than I should have, which I put on my credit card. I ignored the credit card payments and the
$20,000 ballooned into $40,000 over two years. I learned never to go beyond the budget allocated, to always pay myself for my time, and to negotiate increased budgets with institutions going forward. To make things worse, with this project, I did not make an agreement with the fabricators about giving them a 1099 at the end of the year, so I was not able to deduct the expense I had for the project of paying them. This meant that Cornell paid me, and I paid the fabricators, and then I was taxed on the money that looked like income, but was actually an expense—paying fabricators. I learned to save 20% of any project for 1099 income as I will lose it when I have to pay taxes. I also learned to ask the commissioning organization to pay for materials and fabricators directly, rather than paying me to pay them. This way, it is their tax problem. Also, commissions never pay for your laptop, your software, your studio, your healthcare, your accountant, or your tools, so I try to leave a 10% contingency that allows wiggle room for surprises and these very real costs of overhead.

I learned never to go beyond the budget allocated, to always pay myself for my time, and to negotiate increased budgets with institutions going forward.
When I presented the project at Cornell, I spoke about all of the labor and artists, designers, and craftspeople involved in making the project. It is important to me to credit people who help with fabrication, and to be in dialogue with them about how to do so in a way that respects their self-presentation. For example, some people do not want their fabrication “day job” to be known about.

Herman Jean-Noel, who I met at a TradeSchool.coop class, asked me if I would be open to him making a documentary about what I was working on. I was thrilled, and decided to pay him something, to support basic costs.

I wrote to Herman:

July 21, 2016
Thank you for your interest in making a film about me. That is SO generous!

One thing: I won't be fabricating the table tops or legs, but I will be making the mirror and the column stools. So there's no welding or wood cutting or ceramic casting here. There will be CNC machine routing and mirrorizing and framing here soon.

I would love the stools and mirrors to be documented, and also the sketching and planning process on paper and computer—yes!

Maybe I could pay you to document the installation at Cornell, and the people involved in the fabrication? We will be installing Aug 17–20 or the first weekend of Sept. Or you can focus on the parts of the project that are happening in NYC this summer?

I'm way over budget and know you're a pro, so didn't ask you. That said, since you're offering, I am thrilled. I'm happy to pay $500 plus
your travel for the documentation. I know that's not much for your skill, but I want to pay you something.

Hugs!

Herman wrote back:

July 22, 2016
Good morning Caroline,

All of that sounds good to me.

Thank you for offering a budget!! You are correct something of this nature can run up several thousands to say the least. It’s very thoughtful of you to be on the transparency tip budget wise. I’m happy to accept what you are offering, since that can cover the cost of travels, plus audio recorder.

What are your work dates looking like for your portion of the fabrication process, also for the casting and welding taking place at Cornell?

I will need you to debrief me on the scope of a work timeline.

Gratefully,
Herman