



Utility

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Advanced Studio / Spring 2009
MWF 3-7pm

Project 1b: First Microboundary : Body Matter

"The Chimera" is the proper name given to a mythological monster - the "supreme hybrid" - constituted of part lion, part goat, part snake. The chimerical differs in crucial ways from other forms of hybrid systems such as collage, montage, or the prosthetic. While the latter are also systems in which the diverse parts operate together, these parts never lose their individual identities. We have two primary interests in the chimerical. One has to do with its seeming capability as a concept to help define existing phenomena of fairly complex hybridity in which categorically different systems somehow operate as a single identity. The other is based on the assumption that the ways in which chimera are constituted and operate hold clues to a transformatively aggregative model of construction/production. That is to say, an aggregation which becomes more than the sum of its parts, and therefore is not reducible to its constituent parts.

- Sulan Kolatan / William MacDonald, on Co-Citation Mapping

As described above, mediated elements – between bodies, between spaces, between objects – emerge in varied forms of aggregation. The hybrid differs from the collage, which in turn is different from the chimera, the implant, or what might be called the explant (a withdrawn body component). As the boundaries of the body and of space become one, they take on new spatial, material as well as aesthetic and other properties. In each of your studies, there exists the potential for a unique set of such properties, as a unique form of aggregation between the body and space.

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Having now conducted initial research around technologies of/in the body, and sketched some possible consequences in space and time, you have what might be called *scenarios*. These are filled with explicit and implicit values of functionality and of beauty. They perform, even if they are not programmed. They are scaled and situated, but without site or material presence. These various aspects will be the focus of our next steps.

As you prepare to move to the scale of building, you will develop a set of material and spatial qualities through continued research and exercises in making three-dimensionally. In so doing, you will make a first attempt to articulate the logics behind these qualities as a thesis for *utility*, an initial statement on our shifting definitions of both functionality and of beauty today.

To Start

Look at the video and drawings that you have just produced, which together make a scenario; a speculation on relations between the body and architecture through an embedded technology.

Write a simple paragraph to summarize the research and theme that you are pursuing around technology and the body; in your paragraph, articulate your research as the following:

1. Architectural prosthesis, chimera, hybrid, or other relation to the body
2. Proposal of Functionality and of Beauty; a first attempt at a thesis of *Utility*

Week 1

This week should be divided between explorations in 3D making and material research.

Your explorations so far should relate to the human subject or body in a number of possible configurations: body to a surface (such as the ground or a wall); body to an object (such as a media device, or simply a chair); or body to another body.

1. **Diagram:** Start by defining what relations to the body your scenario create or change, and draw a simple set of clear diagrams that explain it in these terms, as a sort of architectural storyboard. Include your research to date in these diagrams, either through text labels or images, or both.
2. **Orient:** Does your scenario relate the body to the ground surface, and as a result take on gravitational qualities? Does the scenario take place at or on or in place of an enclosing vertical surface (wall); and if so, can it implant itself into the structure and surface of that wall? Can it be modeled into a wall's section, or does it relate to the body as a sort of prosthesis? Does it relate to something that is free of surface, an object for example, with volume and weight? Or does it join the body to another body, where interface may cross space but always connect flesh to flesh? Use these questions to plan a series of models at the site of the human body, and to orient its architectural relations through a series of built experiments.
3. **Build:** Experiment with a series of full scale built details or prototypes that join the body. These may be building surfaces, objects, or abstract spatial models that explore the body's relationship to physical space through your new proposal of utility. In each, you are seeking on the one hand to simply make what you have drawn. On the other hand, this is a chance to imbue the physical construction with haptic and aesthetic value, with functionalities that may have not appeared within your drawings (such as social or tactile). These can be treated as models, or as real building detail prototypes that explore changes to mundane, ever-present moments in building such as a door handle, a window frame, a counter ledge or floor surface. You may also use these constructions as *self-referential*; they may be constructed to hold or display the video you have just made; to frame it and establish a relationship to viewing. Explore what sort of aggregation suits your scenario: the chimeric, hybrid, and so on. Begin by choosing an initial single material, such as paper or board (if you are exploring surface) or a solid material (for volume, etc.) to work at repeatedly, observing and varying your strategies with each iteration.
4. **Materialize:** As you build these experiments, continue to conduct research into other materials that could influence an architectural "host" for this scenario. What materials are in development that may contain or shape this body relationship? What is available now? What is electrically conductive? What performs optically, acoustically, or even hormonally, as is appropriate to your exploration? Make a point of visiting the school's Material Resources Library, a unique resource that can guide your research. Other resources that are remote but also useful include the Transmaterial books and their associated website. This step remains about brainstorming and is open-ended, but should be closely directed by your first week's inquiries. It can add new unexpected properties to your proposal.

Week 2

After a week of exploration mostly focused on serial production of built prototypes and on material research, select one of your prototypes and develop it for the full week through a more refined, and more materially and tectonically rich development. The final product of this week's work should function in every way except electronically; in other words, it should be scaled to and in some sense accessible by a body; and perform its ideas of both functionality and beauty as much as possible.

You may consider siting this final construction specifically on a gyp board wall in the nave (and therefore parasitically attaching to it) for presentation and for real testing; or on the floor; and so on.

You may also shift or add materials; or decide on multiple bodies that it may affect simultaneously (perhaps by scale), thereby starting to suggest a social component if not program.

For our final review of this project, collect and organize the first 3 weeks of research and making as a proposal that will inform larger scales of building, based on the logic of a local, body-scaled element or moment.

Due: Final Review for Project 1a/b: Friday 6 February

- Video
- Drawings
- Research (printouts, formatted and labeled)
- Paragraph Proposal
- Diagram / Narrative
- Serial Prototype Studies (any scale, but a consistent scale)
- Material Samples or Printed, Formatted Material Research
- Final Built Prototype with specific siting for presentation (Full Scale)

Online References

The Open Prosthetics Project –

an open-source collaboration between users, designers and funders to make prosthetic design available and affordable. <http://openprosthetics.org/>

How Stuff Works : Biomechatronics –

an overview of the field of biomechatronics, of which prosthetics is a part. <http://health.howstuffworks.com/biomechatronics.htm>