fall 2003

Genera House 1

constructing the subject

Mathematician (Danny Vera)

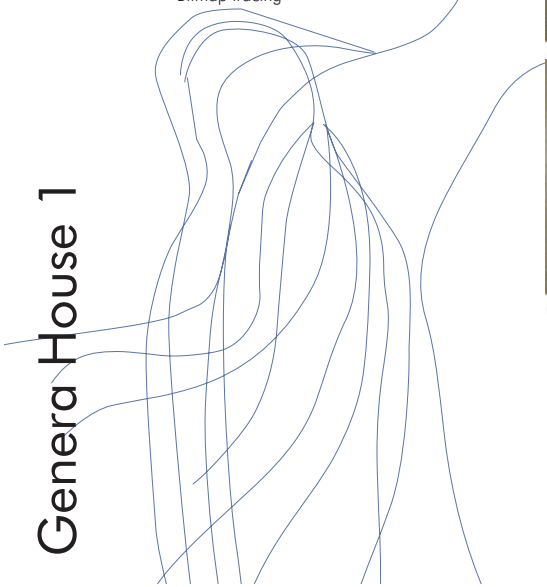
P1.

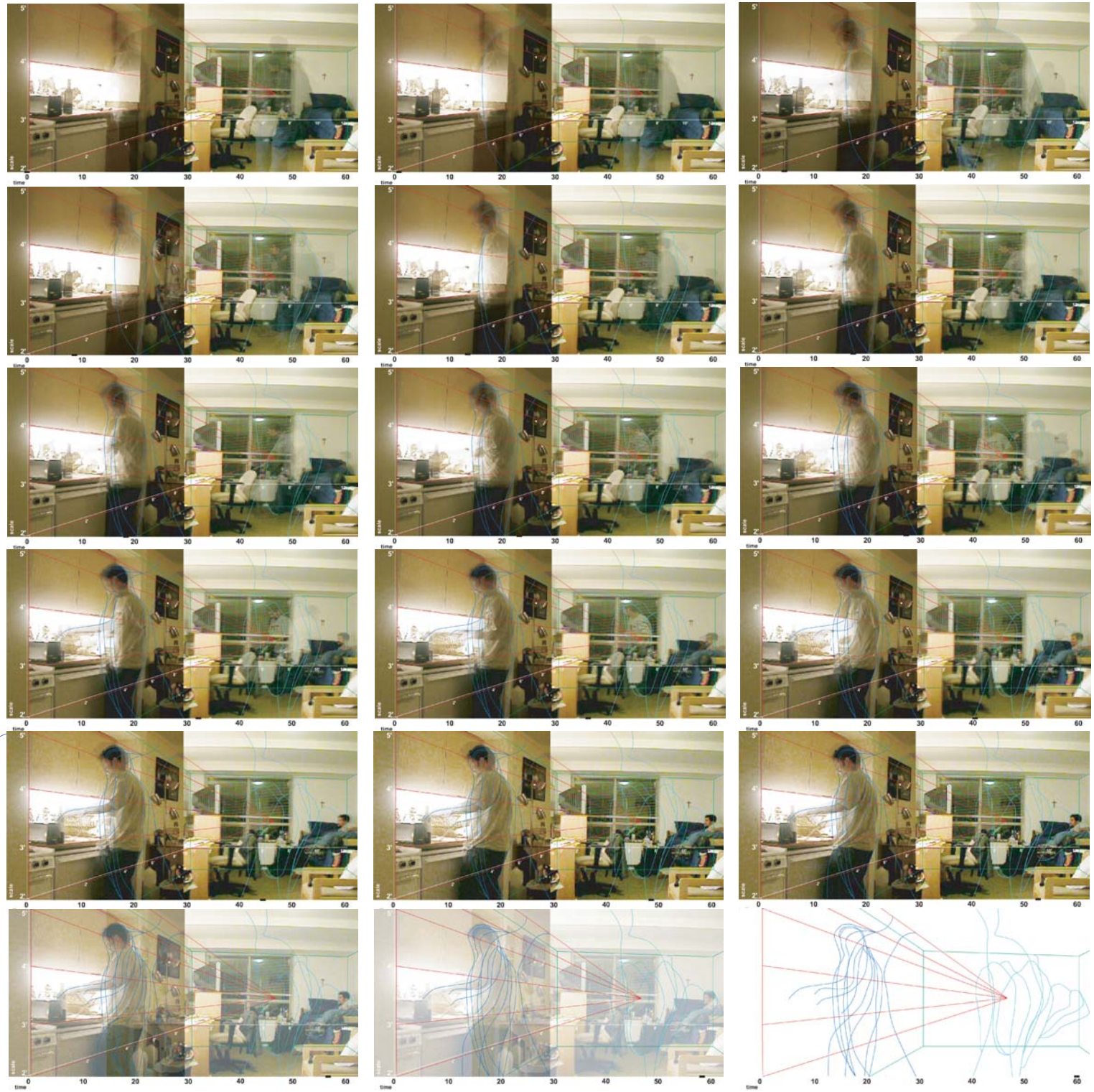
Constructing the subject

Every space has efficiencies and deficiencies that affect the condition of the body's interaction within that space. The idea is to use film as a source for an architectural analysis, specifically, to use film as a point of access to spatial constructs.

The study takes place in a mathematician (the subject) dorm room (a controlled closed environment), and analyzes his daily routine. By establishing a system that measures the subject's changing relationship though space and time, I am able to diagram traces left by his body. The system reveals changes in scale perspective speed and movement.

Each frame in the sequence is simplified (information reduction). The methods for reduction are: Pixilation reduction
Bitmap tracing





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Temporal Boundaries

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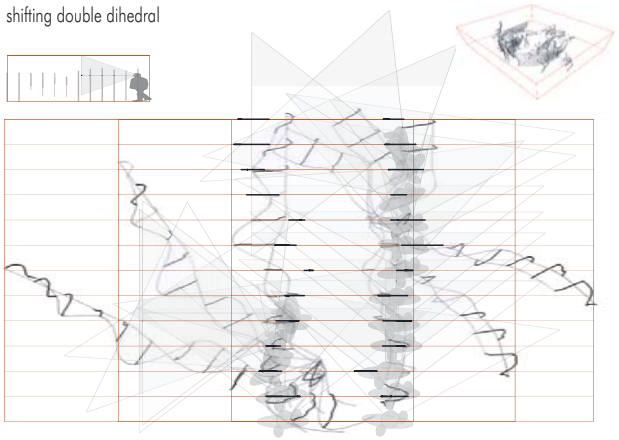
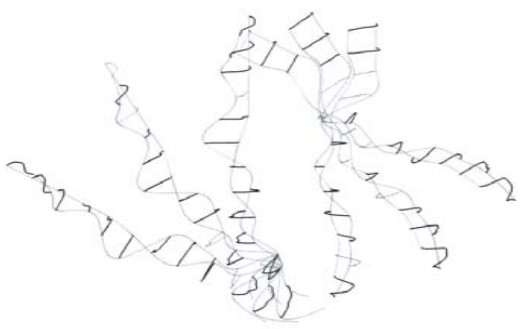
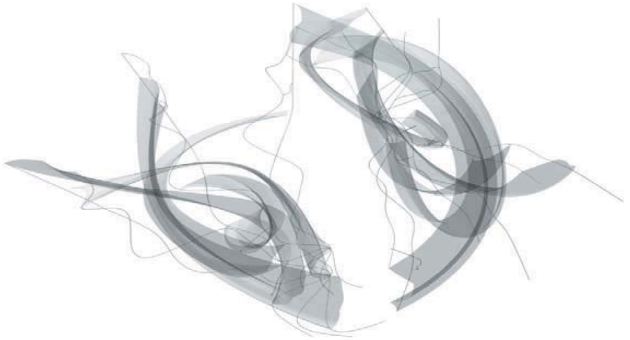
shifting double dihedral



movement path



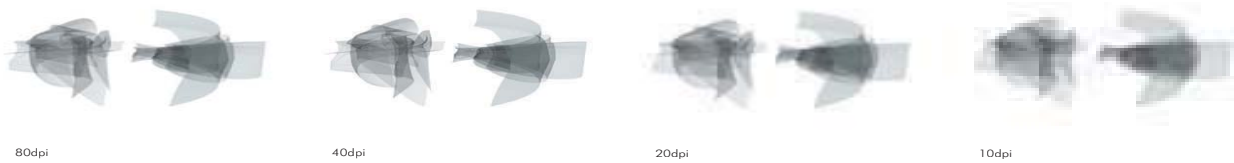
movement trace



front view

left view

pixel data reduction



Data Reduction: as a means to define patches

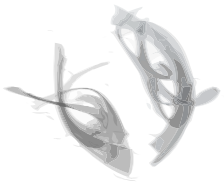
Patches are defined as nonlinear surface areas-in this case each patch is a visual representation of a traced movement of the body. The idea is to capture the idiosyncratic movements of Danny's body (the residue) as he goes through his daily routine in his dorm room (closed system). Then, the data can be used as a seed (DNA) which can be introduced into the site (open system), where it can engage and adapt to the surrounding environment.

Patch Typologies
Instead of a specific design proposal for future occupation of the site, a series of loose organizational typologies are proposed.

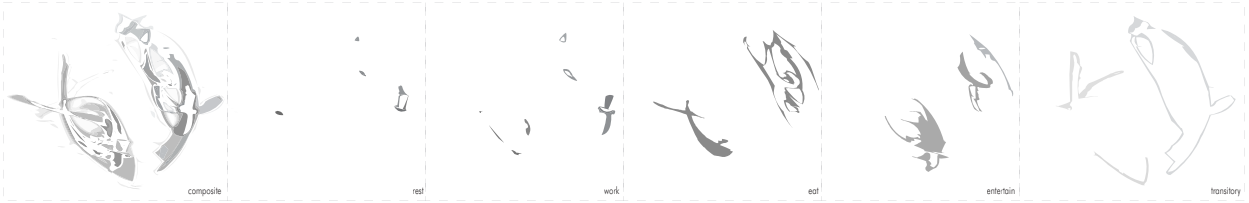
Hybrid Programs
Four broad programmatic categories are proposed: rest, entertain, cook, and work. These programmatic zones are fragmented (distinguishing) and fused (blending) into another creating a hybrid condition.

Skin
Depending on density and organization on the site, the hybrid patches might function as: rest/entertain, cook/work, or some other variation. Scale and density of material suggests possible programs.

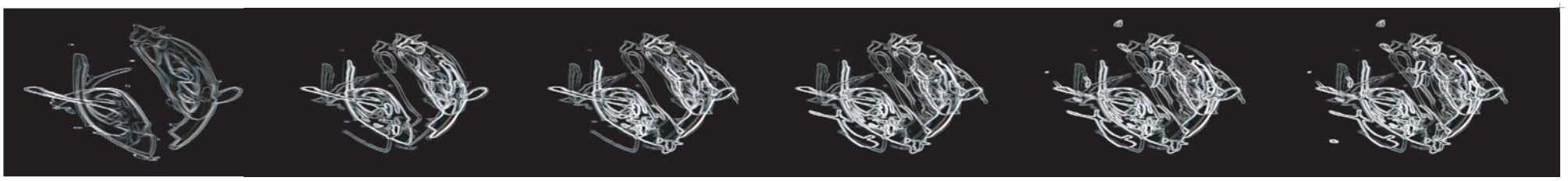
vector data reduction



patched space types



hybrid programs



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space diagrams

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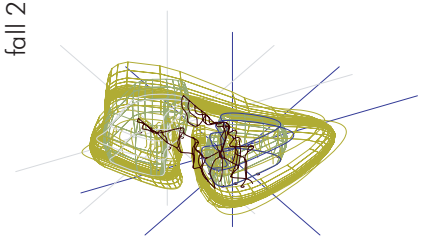
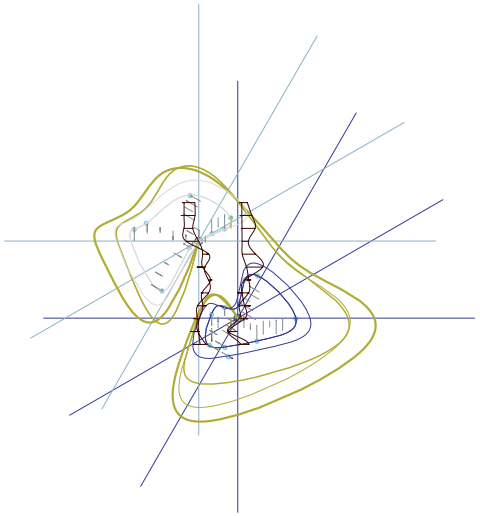
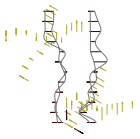
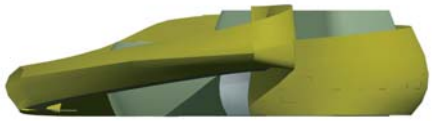
subject translation 1a



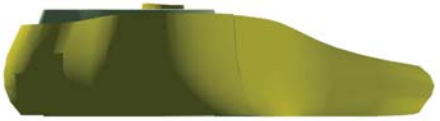


subject traces

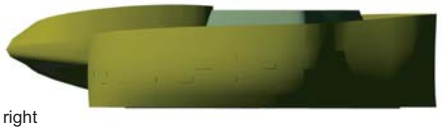




front



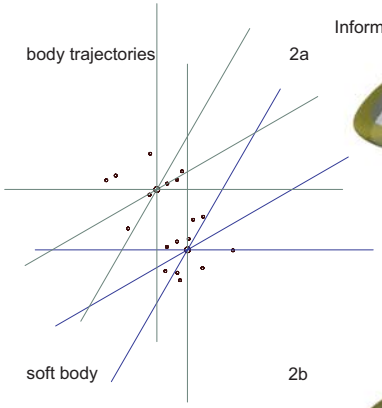
back



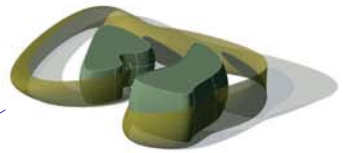
right

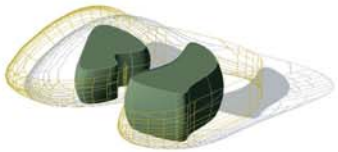
left

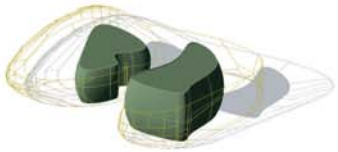
body trajectories 2a

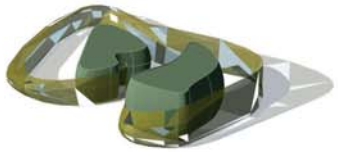


Information reduction as a method for transformation

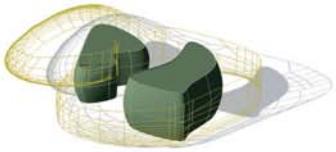


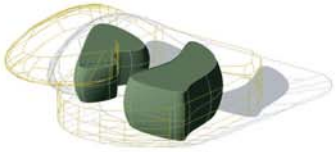


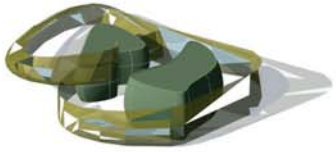




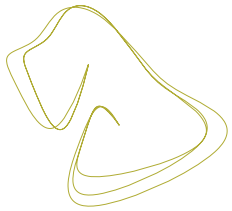
soft body 2b

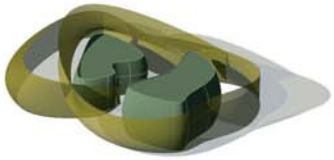


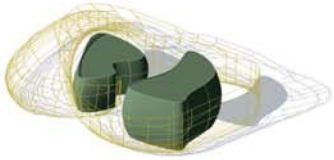


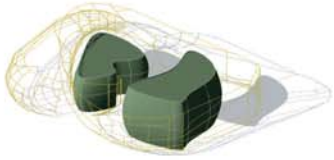


shell 2c









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Development Cycles

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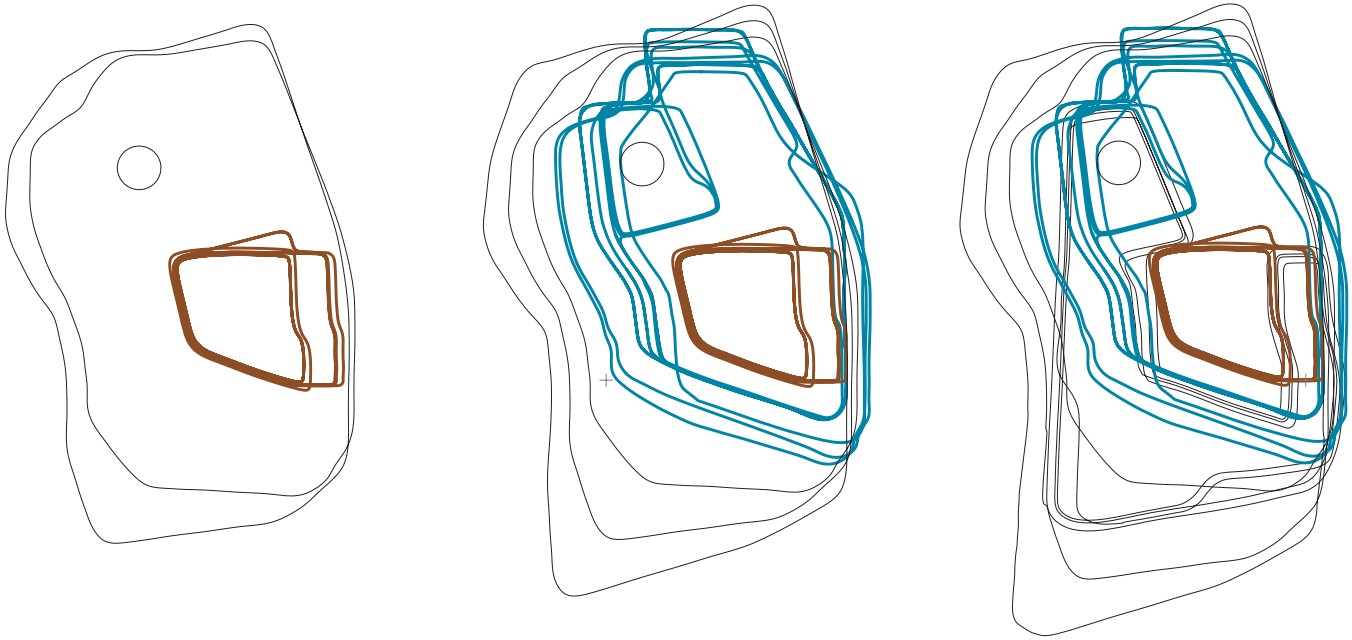
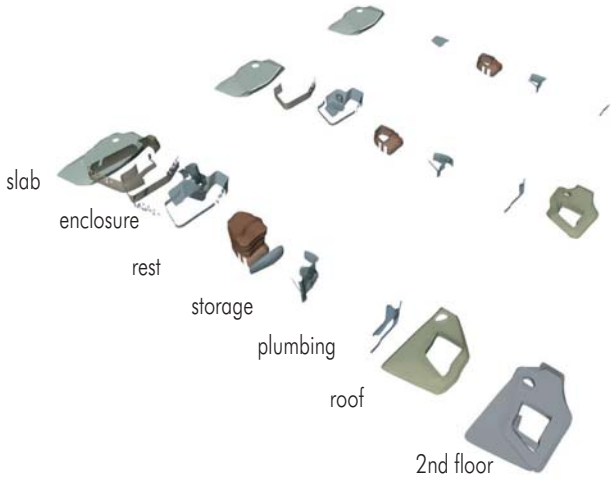
vector traces

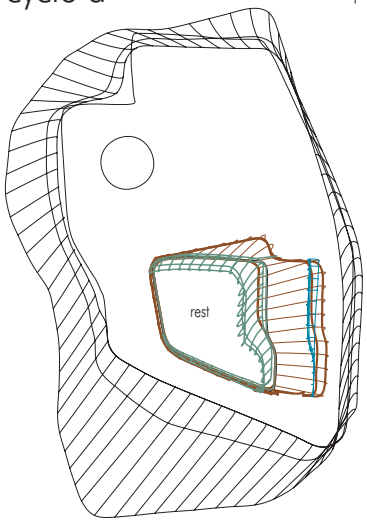




Cycle Evolution

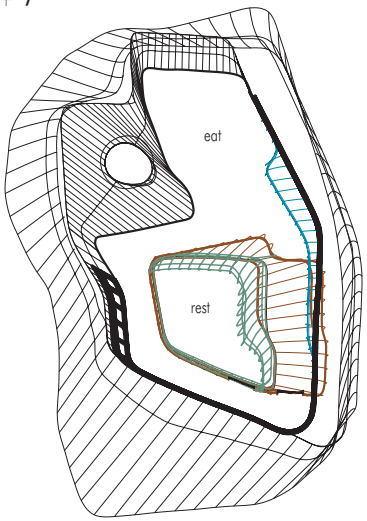
The idea is to derive patterns from Danny's daily bodily movements, or his daily routine. These 2 dimensional diagrams are translated into a 3 dimensional environment, 3d modeling construct. The patterns of movement are then fused together to capture the subjects movement residue; the residue is the result of an act of automatism by the body. At this point, the data is translated into a spatial construct. The goal is to trap Danny's spatial idiosyncrasies and embed them into the construct. The result is an understanding of dwelling as a fusion between a series of activies. Imagine the movements of the human body blurring in space leaving a residue which fusses into the environment.

cycle a



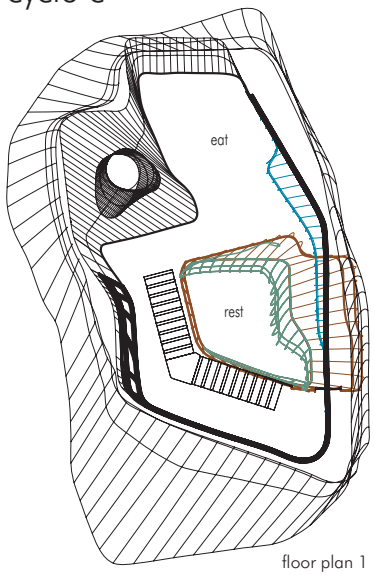
floor plan 1

cycle b

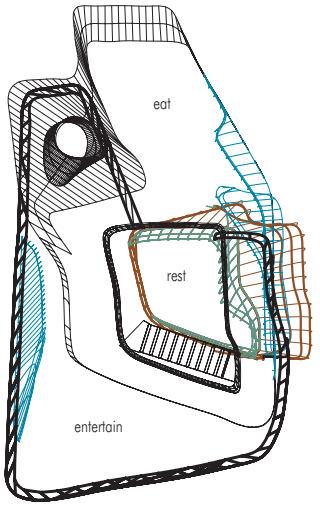


floor plan 1

cycle c



floor plan 1



floor plan 2

cycle 1 program patches

cycle 2 program patches

cycle 3 program patches

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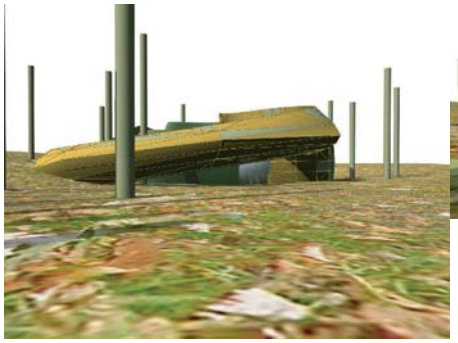
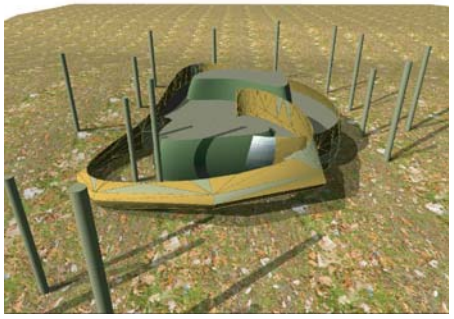
Site Plan

Pixelation as a method for information reduction

Assimilation to Space through Morphological Mimicry



Boston, MA Back Bay



Information Reduction

Since this process attempts to examine a blurred body relationship with ever-changing contextual conditions, traditional line drawings seem inappropriate, since they emphasize the edge or boundary. Digital pixilation (information reduction), on the other hand, provides a useful analogy for this process. By pixilation and blurring superimposed movements, the altered areas create new readings which, contain traces of the background that can only be understood in that specific context. Figure and color patterns of sameness and difference can be derived from the altered images.