ABSTRACT

This paper describes an interactive experiment in which “middleware” is interpreted as the architecture of non-building, and the making of media as a mediator between physical and visual; temporal and fixed; digital and analog.

Leon Battista Alberti, Jorge Silvetti, and other architectural critics have posited that architects do not make buildings but, rather, representations of buildings. The simple translation of this is that architects make drawings, models, computer simulations, and the like for the ultimate purpose of making a building. This work challenges the notion that architects make only representation media, and expands the role of architecture to include mediation as an act upon a space that is both physical and analytical.

What if architects make, but they don’t make for the end result of a building? What if architects make representations that are physical and experiential, and that are designed and built without the presumption of a building? This is the space that middleware occupies.

1 INTRODUCTION

Digital media exploration typically lacks a physical presence—the work is done on a computer screen, and its space is the flat plane of that screen. One of the architectural intentions within this experiment is to explore the physicality of media. The physical work can be considered a commentary on the lack of architecture in contemporary architectural discourse—especially digital architectural discourse. The project acts as a prototype or a testing area to investigate the physical relationship of media and the space the body inhabits. This Compu-Kinetic Mediapod was produced for a space in order to define the space and the act in the space. The Mediapod and its environment provide a temporal place for one to engage media.

The frame of the Compu-Kinetic Mediapod is built out of steel, while the intricate moving parts are built from stainless steel. Upon this frame rests the digital and mechanical devices that move in response to the inhabitant and the audience. As a participant changes from audience member to inhabitant, his/her effect on the piece becomes more physical. The inhabitant must lower the chair and, in turn, triggers many events (figs. 1–4). One event is the lowering of the computer display from the height of the standing audience to the height of the seated viewer. Another event is the Flash animation that is presented on the display. This animation is manipulated by mechanical switches that trigger events within Flash, as well as by motion detectors that register not only the inhabitant as he/she engages the piece, but also the audience as they move; the more active the movement, the more active the Flash animation.
Films strips are also attached to the Mediapod. These film sequences depict the theoretical underpinnings of the project. The first filmstrip contains a very early inspiration for the form of the media pod. A second filmstrip shows the elegance and ergonomics of the current computer. Finally, a third filmstrip responds to the many agricultural/Midwestern influences in the device. Surrounding the Mediapod is a wall of curtains. The main purpose of this wall is to define an intermediate space for the device and to separate the device from its environment. The curtain makes reference to both a theatrical curtain as well as a material reminiscent of grain sacks, which are used for agricultural purposes.

2 MIDDLEWARE AS SPECTACLE

The initial working title for this Compu-Kinetic Mediapod was “Spectacular Spectacular,” a term gleaned from the movie Moulin Rouge. This stemmed from the desire to deal with media physically, but also for it to be a spectacle or focal point that would attract a participant. How one interacts with media is, in the end, a physical relationship: one must touch the keyboard and the mouse, and one’s head position relative to the viewing screen is important. Humans relate with media on display in various ways; recent technology has allowed television to be viewed on a wide array of displays from iPods to the traditional television set and in many different relationships with the human body from on your lap to high above on the wall. The structure for the Compu-Kinetic Mediapod began with the idea that one’s engagement with media is a body/space relationship which is ultimately an architectural relationship. The desire to make this piece a spectacle required that the program for the Mediapod go beyond a glorified computer holding device; it had to address the physical relationship a body and an audience has with an object such as this. In addition, the person had to be located such that he/she could interact with the device and, thus, sensors had to engage the various ways that a human might interact with the device.

There is a rich history of interactive and kinetic sculptures by artists such as Rube Goldberg and Nam June Paik, and even Laszlo Moholy-Nagy from the Bauhaus period experimented in movement and light. The Compu-Kinetic Mediapod was constructed to intrigue the participant by engaging him/her with the spectacle of its performance. As in the movie Moulin Rouge, the title preceded the product, with only the event of making it and the process undergone in its evolution left to determine what the “Spectacular Spectacular” really was. In other words, this project began without knowing what it would become, and with no prescriptive needs (a very difficult way to work because no limits are placed upon the project). Prior to its current program, the project’s only initial purpose was to be a spectacle; its purpose was to be physical and engaging. With the benefit of hindsight, it is much more than a spectacle, while it maintains the power of being a performance in process. By being in process, it suggests an indeterminate end. In other words, the story continues to develop; the ways in which the Compu-Kinetic Mediapod may engage the participant may evolve and become more advanced and, potentially, more personal.
The making of the Compu-Kinetic Mediapod had to relate with much more than merely something to hold a computer screen or manage cables that connect computer devices. Because the final form was not known, nor what peripherals or equipment would be required, the construction had to have a framework that could adapt. As with a building, a structural framework provided the necessary flexibility and strength. A simple telephone pole—a conduit for media—inspired the chosen system. Furthermore, that its final location would be in a university building required that the Mediapod be able to be installed without penetrating or disrupting the university facility. A compression-expansion mechanism was employed to take advantage of the honeycomb grid of the ceiling. Essentially, the device, when put into place, expands, therefore, compressing the structure between the floor and the ceiling. This method responds to the temporality and portability of media.

The only place where the participant must engage the device by touch is in the chair. Notably, the chair is a vintage tractor seat rather than a modern chair. The use of this has many meanings—one is the anti-technology that it represents, another is the materiality of steel and the simplicity of form, while yet another may be the surprising level of comfort of such a rigid material.

The mechanism that holds the seat and allows it to raise and lower holds a relationship to the can-can dancer depicted in Moulin Rouge. It is as if the machine is doing a high leg kick with one foot firmly planted on the floor—a technique used by the dancer to invade another’s personal space. This mechanism is also much like the complexity of landing gear and the mechanisms involved to make it both expand and contract in a compact manner. No matter what the interpretation, the purpose is to connect the device to the user visually, physically, and intimately. Ultimately, this is the act of architecture.

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