Keywords: pneumatic structures, human experience, interior architecture, design process

“We (Laurids Ortner of Haus-Rucker-Co) were especially interested in attempts to find new spatial conditions that could not only effect stronger sensations, but also reduce the building material needed for this. Spherical membranes, supported in their form by air pumped in, seemed to offer the best preconditions for this… architecture made of air: a technical return to the roots of building. What possibilities! Changing a society just by the fact that it now finds itself in a softly flowing environment: gliding into a different way of thinking on gentle wings.”

—Andrew Blauvelt, Hippie Modernism

1-452: Embodied Sphere Project

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The design was choreographed over eleven acts that included [01] Inflation, [02] Fastening, [03] Suiting Up, [04] Entry Sequence, [05] Surveying Site, [06] Identifying Dig Site, [07] Excavation, [08] Specimen Recovery, [09] Tagging and Bagging, [10] Landing Sequence, and [11] Acclimation. While highly visual, the installation responded to sound with the inclusion of a piece entitled “m64_Mroot_M64_M64;repeat” composed specifically for the ESP and created by a constant rhythmic striking of tuned wooden 2”x4”s. Sound, or a lack thereof, also played a significant role as the pseudo-archeologists that occupied the inflated sphere were trained to translate their various actions through sign-language, thereby yielding an even greater feeling of embodiment and a personal connection between the design and the several thousand visitors to the site.

Ultimately, the design evolved into an absolute snapshot of the present, a museum positioned between the cabinet of curiosities and the museum forgetful. That day on campus (choreographed step 008: specimen recovery and 009: tagging and bagging) a march for civil rights was captured on Polaroid, a man was badly wounded, and an apartment was broken into - all of these moments became part of the ESP. As well artifacts were collected: a condom, a hairbrush, a flat tire from a bike, a dead bird, and the wanted page from the local newspaper. This is the museum of today!
Figure 1. [09] Tagging and Bagging. Image by Author
UNEXPECTED REALITIES

Originally interested in the inflatable and the historic positioning of such a construct with pneumatic allies that include the work of Haus-Rucker-Co, the Eventstructure Research Group in Amsterdam, Ant Farm and their *Infatocookbook* (1971), and the prosthetic inflatable devices of Archigram, the design evolved into a symbol of transparency that directly contrasted the decision-making process inherent to the museum - traditionally private and behind closed doors with a Board of Advisors. Ultimately, the goal of the design slowly transitioned from a desire to create the ideal gallery to simply raising suspicion with regard to how museums construct a highly singular and biased historical narrative. The scale of the structure, nearly forty feet in diameter, positioned itself between a small-scale pop-up and a substantial space for viewing that inverted the traditional notion of viewing from inside and allowed a deliberate dialogue between internal and external surfaces and inhabitants.

In the 2015 exhibit *Hippie Modernism: The Struggle for Utopia* at the Walker Art Center, Andrew Blauvelt in describing specifically the work of Haus-Rucker-Co, but also other progressive practices that were implementing pneumatic structures, commented that, “As an alternative to traditional modes of architectural practice enmeshed in the restraints of client demands, stylistic debates, and bureaucratic protocols, installations in exhibition and event-based formats offered the collective a means to experiment with novel construction techniques, unorthodox materials, and impermanent forms... By extension, as formats which typically relied on support from institutional platforms, these young architectural collectives often leveraged channels of cultural funding, galleries, institutions, and media otherwise available to artists, in order to sustain their unconventional practices.”

This description aligns closely with the design process and outcomes of 1-452: *Embodied Sphere Project*. The client was, as is typical in a university setting, thinking that they were getting something for nothing by working with faculty and students and that the results would be predictable. Ultimately, this project took advantage of such assumptions by taking greater risks — as there was no contract there could be no expectation with regard to the specificity of the deliverables. It was such unexpected realities that proved to define the project and yielded a series of “unconventional practices.”

Working with students who greatly appreciated the spontaneous nature of the choreographed spectacle was a major component of the project that added to various “unexpected realities.” While scripted into a specific number of acts, the choreography was designed to be impulsive and the assistants were required to react to the unexpected. While highly transparent and therefore very apparent, the acoustics of the construct were anything but. The decision was made to introduce sign language as a form of communication between the two assistants and the crowd that gathered outside the sphere. One of the assistants was trained in sign language and extremely capable in this highly visual form of communication. Towards the end of the day two people approached the sphere and it was clear that one was explaining to the other with their hands what was seemingly going on inside the space. However, the project is not obvious at first encounter and there was clearly some confusion. It became clear that one of the approaching individuals was deaf and, as they approached, a bond instantly formed between our assistant and the older hearing impaired woman. It was quite amazing to watch the assistant inside the bubble articulate an architectural thesis with her hands and facial expressions. The signs enhanced the experience to everyone watching and emphasized the quality of the space and the experience and the evolution of the
performance being played out. It turns out that by total chance, the visitor had been a teacher of the assistant when she was younger which added to the magic of the encounter. Such chance occurrences seemed appropriate for this transparent spaceship that landed at the center of campus and strove to redefine our perception and telling of history.

Another aspect of the performance that could have never been anticipated dealt with the inclusion of the packing peanuts that filled the bottom several feet of the sphere. The differential in air pressure between inside and out caused the peanuts to be pushed out of the sphere onto an immaculate green lawn. NOTE. The university where this occurred takes their lawn management quite seriously to the point where we were not permitted to anchor the sphere into the lawn. This absurdness defined a kind of psychological framework for the entire performance and created a great deal of stress between the museum staff, the university administrators, and our team. As such, a huge portion of our performance between each act required us to run around like rats collecting circus peanuts among the crowd. Fortunately, it was not an overly windy day but the temperatures reached ninety degrees and made life difficult in the Tyvek suits that the team was wearing. An appropriate solution to this unexpected reality was not arrived at but it does seem appropriate that the most absurd component of the project - 400 cubic feet of pink packing peanuts – most clearly defined the relationship between the project team and the university staff.

Epilogue. The university pulled what little funding they had promised to the project... the design was awarded a 2020 S.ARCH International Design Award.

ENDNOTES
Figure 5. [11] Acclimation. Image by Author