

Quiet: ***We Live in Public***

Home in the Age of Spatial Computing
and Social Networks





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Keywords: Home as Infinite Screen, Exploratory Objects, 1:1, Mixed Reality, Multipurpose Domesticity, Expanded Materiality, Spatial Computing as Spatial Practice, PublicVSPrivate, Architecture as Inhabitable Media Hybrid, Here&There, Worldmaking, Interior Design, Crossprogramming, SocialVR, Unity3D, Superimposition, XR Installations, Spatial Internet

This studio explores how architecture can respond to the evolving nature of domesticity in the age of Spatial Internet and social networks. As media and technology increasingly merge with our living spaces, we aim to remove the traditional screen and replace it with the space itself, redesigning homes as hybrid environments where physical and digital realities intersect.

We will investigate various housing projects, research theoretical and practical architectural and design approaches dealing with **domesticity, media and online communities**, and draw inspiration from Avantgarde and Radical Designs. We will challenge conventional notions of home, reimagining domestic spaces as experimental public stages for contemporary social interaction and experiential living and develop new methodologies and design languages for online contemporary communities and program, asking ourselves:

How can we tailor the design of domestic spaces and their overlapping digital environments to seamlessly integrate and transition between one another, making them explorable in their 1:1 qualities simultaneously? If homes double as canvases for immersive content, how will their architecture and design (both the space and the objects) influence and, in turn, be influenced by new spatial content typologies? If we grasp spatial computing as fundamentally an architectural discipline, what forms of spatial expression and design that were previously impossible will now become possible?

Through the construction of 1:1 built designs and the development of XR installations—encompassing physical objects, stages, and immersive experiences—the studio seeks to develop artistic and architectural visions that reimagine the home as a space where new modes of living and community thrive at the intersection of the online and offline worlds.

The ultimate goal is to transform the domestic environment into an active participant in the digital age, where **space itself becomes a medium of communication and engagement through architectural design.**

Design Methods: XR/AI, SocialVR, image-to-image, image-to-3D, Worldbuilding, VR, AR, Interactive Exploratory Objects, 1:1 build objects and stages, 3D scanning, 3D printing, Interactive Installations, LiDAR, Film-making, Unity3D, Record3D, Storytelling, Rhino, Blender



Context

The advent of television as a media object fundamentally altered the domestic setting, transforming how we dwell and socialize at home. As Lynn Spigel discusses in her seminal work, ***Make Room for TV: Television and the Family Ideal in Postwar America***, television became the focal point of the modern living room, reconfiguring domestic spaces and the social dynamics within them.

The integration of electronic media into the domestic setting and everyday life inspired Austrian Avantgarde architects and designers like Walter Pichler and Hans Hollein, who recognized mass media as both a new paradigm and domain for design. Long before mobile telecommunications had developed their actual potential, Hollein proposed a *Mobile Office**, a place for temporary work relocatable everywhere. Pichler's *Portable Living Room**, *TV Helmet** and *Intensive Box** anticipated the modern digital age, where personal spaces are both hyperconnected and isolated, speculating on a hybrid domain capable of extending domestic spaces and their associated functions into new virtual realms.

Further examples of this reimagining of domesticity can be found in the 1972 exhibition *Italy: The New Domestic Landscape** at the Museum of Modern Art in New York. This pivotal moment in design history introduced the Italian Radical Design movement, where architects like Ettore Sottsass, Archizoom, Gaetano Pesce and Superstudio rejected modernist ideals, proposing that utopia should be reimagined within the domestic sphere rather than through urban planning. They positioned the household as a laboratory for new social interactions. For instance, Ettore Sottsass* envisioned a domestic environment composed of mobile, networked plastic containers, each serving a specific function like cooking, storage, or entertainment, promoting an emancipated lifestyle free from traditional domestic roles.

As media continue to integrate more deeply into our daily lives, they not only reshape the physical layout of our homes but also transform the way we inhabit them: ***immersive technologies bring public space and, by implication the spatial quality of the city, into the home, allowing for the creation of and access to a myriad hybrid spaces and programs.***

*see references at the end of the document





Joe Hunting - We Met in VR (Movie)

Historically, social spaces were anchored in physical locations such as plazas, public gardens, coffee shops, parlors, and clubs. Today, these social spaces are supplemented by and intertwined with social media, streaming platforms, online forums, multiplayer video games, and virtual worlds: ***the modern-day campfire is the World Wide Web***. For instance, you can work in virtual cafes or deliver pizza in games like GTA, run a restaurant business in Roblox and have real guests, dine while watching a Mukbang video on Twitch, or join live fitness classes in VR Chat. The culture of global interconnectedness—due to our constant connection to the Internet through digital devices has altered the perception and function of the home, transforming it from a private space to one that is increasingly accessible and exposed to the public.

In contrast to traditional telecommunication methods found on Social Media Platforms like Instagram, TikTok or Youtube, which primarily revolve around user-generated content in the form of visuals, text, or videos, ***SocialVR*** takes things a step further toward spatial content. This emerging domain allows online communities and creators to generate, edit, and distribute content in a spatial and physical dimension within the vast expanse of the internet, anchored and tailored to their specific physical spaces. For example, a VRChat user who streams or creates VTuber content might have a domestic setup filled with specialized hardware that expands their space into new realms of sociability. This setup could include binaural microphones, high-definition webcams, and multiple screens for real-time interaction and monitoring. A green screen to superimpose digital environments, a mocap suit enabling full-body avatars to move fluidly in virtual spaces, and object trackers that locate physical objects within virtual worlds.

These tools transform a simple flat into a hybrid studio, where physical space is continuously merged with digital environments. The home becomes a multipurpose space, serving as both a private residence and a public-facing studio accessible to a global audience, allowing us to revisit Bernard Tschumi's notions of *superimposition* and *crossprogramming* ***merging space, function, and event*** into anew. However, a complementary design approach that addresses both the physical home and the digitally dwelled environment remains unexplored, opening up significant new inquiries for architecture.

How can we tailor the design of domestic spaces and their overlapping digital environments to seamlessly integrate and transition between one another, making them explorable in their 1:1 qualities simultaneously? If homes double as canvases for immersive content, how will their architecture and design (both the space and the objects) influence and, in turn, be influenced by new spatial content typologies? If we grasp spatial computing as fundamentally an architectural discipline, what forms of spatial expression and design that were previously impossible will now become possible?

Studio Objective

By examining the intersection of architecture, media, and domesticity, the bachelor studio will **reimagine and redesign home as a multifaceted interface that integrates design objects and interventions with spatial computing, social networks, and immersive technologies.** Starting with an investigation of different housing projects and drawing inspiration from Avantgarde and Radical Designs, the studio challenges traditional notions of the home by designing objects and spaces that merge the physical and virtual. We aim to redesign homes able to transform the domestic spaces into experimental public stages for contemporary social interaction and experiential living.

Participants will investigate key questions such as: What constitutes the social value of a home today? Is it its square meter, the kitchen table, the TV, or the Internet speed? What new design language will we establish for creating homes that integrate SocialVR and cater new programs to online communities in the era of the Spatial Internet? How can architects integrate virtual spaces into physical designs to create new social spaces within the home? What kinds of new domestic objects might emerge that open up to virtual programs through tactile, auditory, olfactory, and visual interactions?

Through the construction of 1:1 built designs and the development of XR installations encompassing physical objects, stages, and immersive experiences the studio seeks to develop artistic and architectural visions that reimagine the home as a space where new modes of living and community thrive at the intersection of the online and offline worlds.

The ultimate goal is to transform the domestic environment into an active participant in the digital age, where space itself becomes a medium of communication and engagement through architectural design.

Methodology

The studio will begin with an in-depth exploration of the historical and contemporary perspectives that form the foundation of this study. We will engage with key texts and projects through a combination of readings, discussions, design experiments, artistic research, and film screenings, which will provide a critical understanding of the relationship between media, architecture, and domesticity today. To further enrich our understanding, we will embark on excursions to design museums and housing projects in Milan and Vienna, along with studio visits.

Beyond this research ground, the studio will hold Social VR and Mixed Reality workshops and tutorials to delve into the subculture of online communities within VRChat. Using VR/MR as our primary medium, we will treat online communities as our clients, designing and constructing 1:1 scale homes, interiors, architectural interventions, stages, and objects that digitally expand through these media. The spaces will be designed to host collective events, such as dining, plays, gatherings, music performances and more, to explore and assess their social value within these unique spatial dimensions. To do so we will both **digitally design these spaces and objects as well as build them in 1:1 in the real world to test their qualities and possibilities of action and immersion.**



Me AndOther Me - Meet Me Halfway

First Semester

Phase 1: Research, Readings, Round Discussions and Concept Development

- Build a conceptual foundation for the studio's design work by analyzing historical and contemporary theories and design approaches.
- Develop initial concepts for hybrid domestic spaces that integrate physical and digital layers, laying the groundwork for more detailed design explorations.

Excursions

To deepen this understanding, we will also undertake an excursion to the Milano Triennale and Fondazione Prada, allowing us to experience firsthand the design era discussed in our studies. Additionally, studio visits in Milano (abnormal.stories, Parasite 2.0, 2050+, formafantasma) will offer insights into contemporary applications of this design paradigm.

We will also explore some of Vienna's distinctive housing projects to delve deeply into these architectural typologies and draw inspiration from its elements, spatial configuration and floor plans. While in Vienna, we will visit the MAK Museum, as well as schools of architecture, both Angewandte for Applied Arts and Academy of Fine Arts during the Rundgang.

Phase 2: Case Study Houses and Online Communities

- Departing from Housing examples, we will connect theoretical analysis with practical design by engaging with digital online communities, discovering their needs, and treating them as clients for whom you will design/redesign homes.
- Document online community events, programs, and use of space through immersive participation and interviews, gathering insights that will inform the design process.

****studio will provide VR headsets and tutorials on, for example, VRChat visits**

Phase 3: Design Process

- Redesign Case Study Houses for online communities, creating interior and object designs that serve as physical interfaces to immerse users in both physical and digital environments as well as expand and transform the architecture of the house itself according to the concepts developed
- Develop physical and digital models of the proposed spaces using VR/MR tools, ensuring that the designs are both functional and immersive.
- Experiment with the interaction between physical objects and digital overlays, considering how these spaces can adapt to varying social and functional needs.
-

****studio will conduct tutorials on XR/AI driven design methods including Rhino, Blender, Photogrammetry and Unity3D**

Second Semester

Phase 4: Hosting Collective Events

- Test the designed spaces in real-world scenarios by hosting social digital events within them: dinner parties, dance classes, social gatherings, etc...
- Use these events as live tests to observe how the interaction between physical and digital spaces influences user experience and shapes the design's social and functional value.
- Documentation

****studio will conduct tutorials on publishing virtual spaces onto SocialVR platform of VRCHAT using VRChat SDK and Unity3D**

Phase 5: Production and Exhibition

- Build 1:1 objects, fragments of the redesigned homes, stages and XR Installations and present the final designs, demonstrating their potential as hybrid spaces.
- Upload the final redesigned spaces into VRChat and use them within the physical stage to host social events.
- Build coupling interactive XR installations that expand on the physical models, showcasing the hybrid nature of these environments. These installations will be part of a final presentation or exhibition, allowing the public/audience to experience the interplay between physical and digital elements firsthand.

Final Outcome

The studio will culminate in a comprehensive portfolio that includes:

- Artistic and architectural diagrams, writings, plans and models exploring the integration of physical and digital realities.

- Physically 1:1 built and digitally expanded prototypes of hybrid spaces designed to function as domestic environments, social stages, and immersive experiences or objects.

- A group exhibition showcasing interactive XR installations—comprising fragments of domestic scenarios, built stages, screens, VR, and MR—where the studio's explorations will be presented and experienced by the public (both at the university and an external institution).

Teaching Language

English and German

First Meeting/Einführung

Donnerstag 03.10.2023 - 10:30 @ ./studio3, Institute for Experimental Architecture (2. Floor, North Side Architecture Building)

>> We will then meet regularly on Wednesdays for crits and round discussions, and on some Thursdays for workshops and tutorials.

... we're looking forward to our year together!



Univ. Ass. DDI Anna Pompermaier



Univ. Ass. MA Cenk Güzelis

<https://www.studio3.me>

./studio3



Austrian Avantgarde



Haus Rucker CO, Oase no. 7



Walter Pichler, Portable Living Room



Walter Pichler, Kleiner Raum

Hans Hollein, Mobile Office



Franz West, Passstücke



Haus Rucker CO, Mind Expander



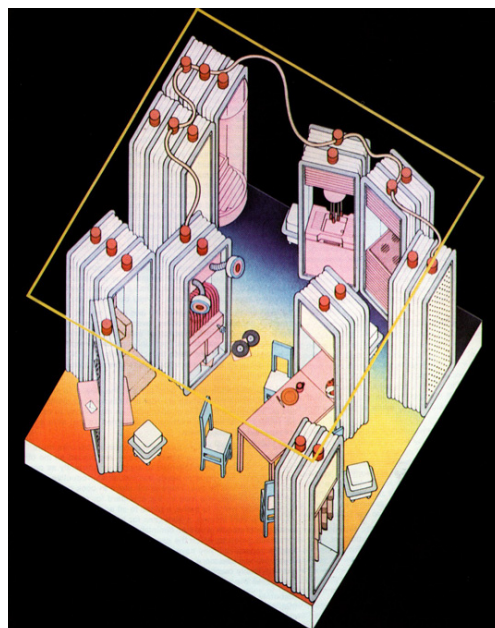
... some reference projects



Ettore Sottsass, Mobile and Flexible Environment

Italy: The New Domestic Landscape

(from the exhibition catalogue)



Joe Colombo, Total Furnishing Unit

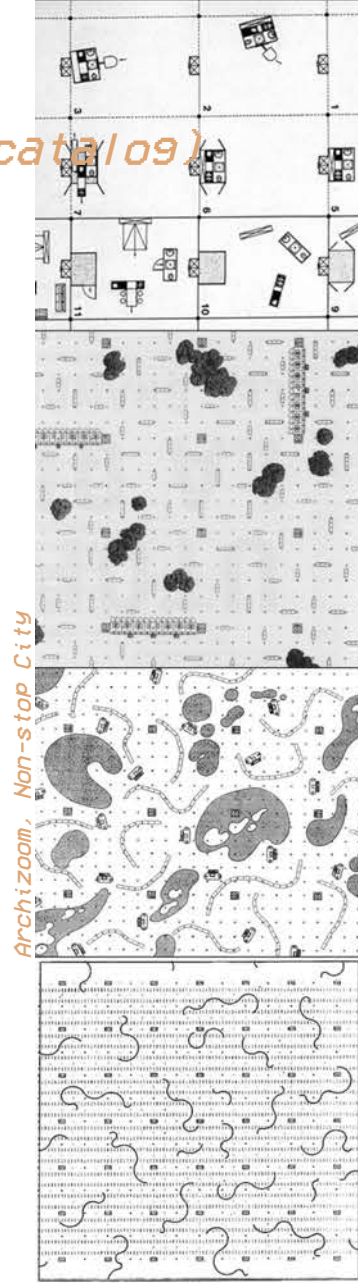


Ugo La Pietra, Casa Telematica



Bruno Munari, Abitacolo

Superstudio, Supersurface



Archizoom, Non-stop City



Ettore Sottsass, Jr. (Italian, born Austria)
Modulo di wardrobes, 1968 (1968), prototype
cast in aluminum



Ettore Sottsass, Jr. (Italian, born Austria)
Cupboard, 1968 (1971), prototype
Plywood and plastic laminate, 30x11 3/4
x12 1/2 inches (84x28x31 cm)
Archizoom, Gift of the manufacturer



Achille and Pier Gaeulien
Modulo di wardrobes, 1968 (1971), prototype
Plywood and plastic laminate, 30x11 3/4
x12 1/2 inches (84x28x31 cm)
Archizoom, Gift of the manufacturer



George Corbell, Piero Dorazio, Roberto Piretti
Tavolino, 1970 (1970), prototype
Metal and wood, 20x19 3/4 inches (50x50 cm)
Dorazio, Gift of the manufacturer

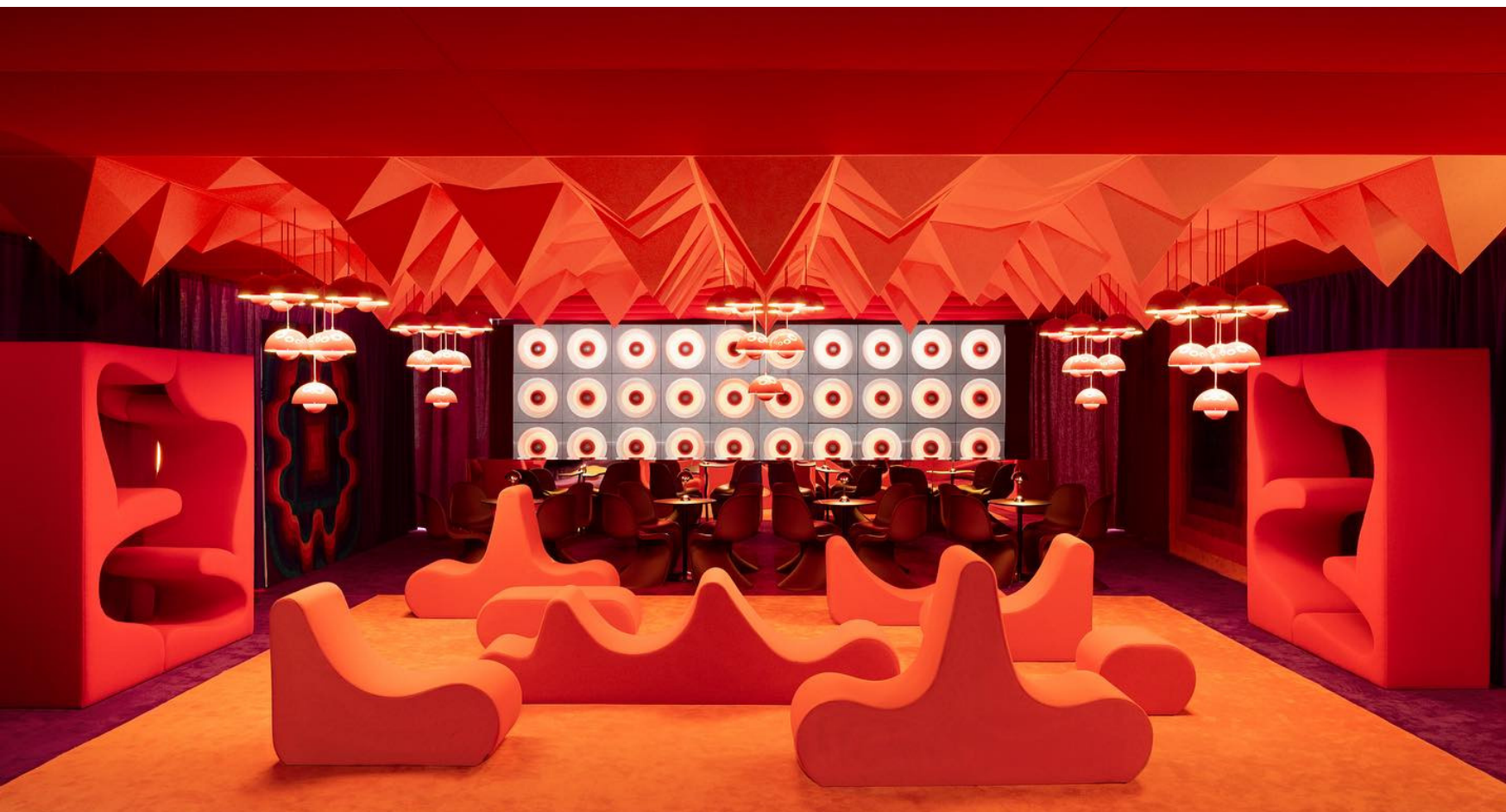
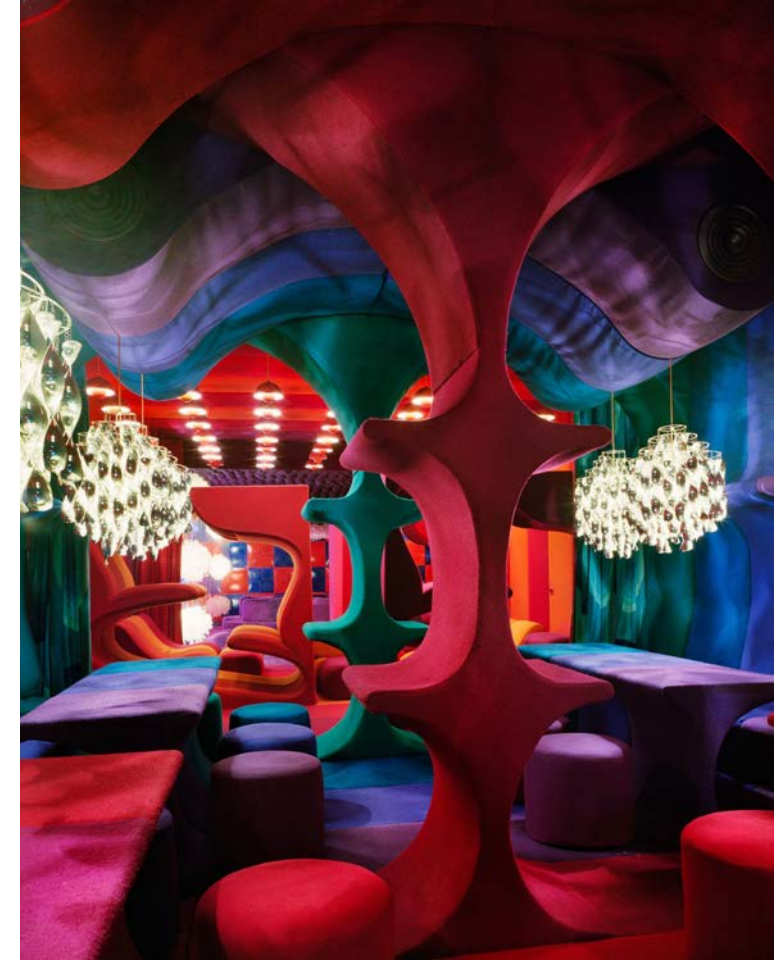


Right, above, and opposite, above:
Giuseppe Penone, 1970 (1970), prototype
Glass, 21 1/2x21 1/2 inches (54x54 cm)
Dorazio, Gift of the manufacturer
Nicola Pietrangeli and Roberto Piretti
Modulo di wardrobes, 1968 (1971), prototype
Plywood and plastic laminate, 30x11 3/4
x12 1/2 inches (84x28x31 cm)
Archizoom, Gift of the manufacturer
Right, below, and opposite, below:
Superstudio, 1968 (1971), prototype
Plywood and plastic laminate, 30x11 3/4
x12 1/2 inches (84x28x31 cm)
Archizoom, Gift of the manufacturer
Superstudio, 1968 (1971), prototype
Plywood and plastic laminate, 30x11 3/4
x12 1/2 inches (84x28x31 cm)
Archizoom, Gift of the manufacturer



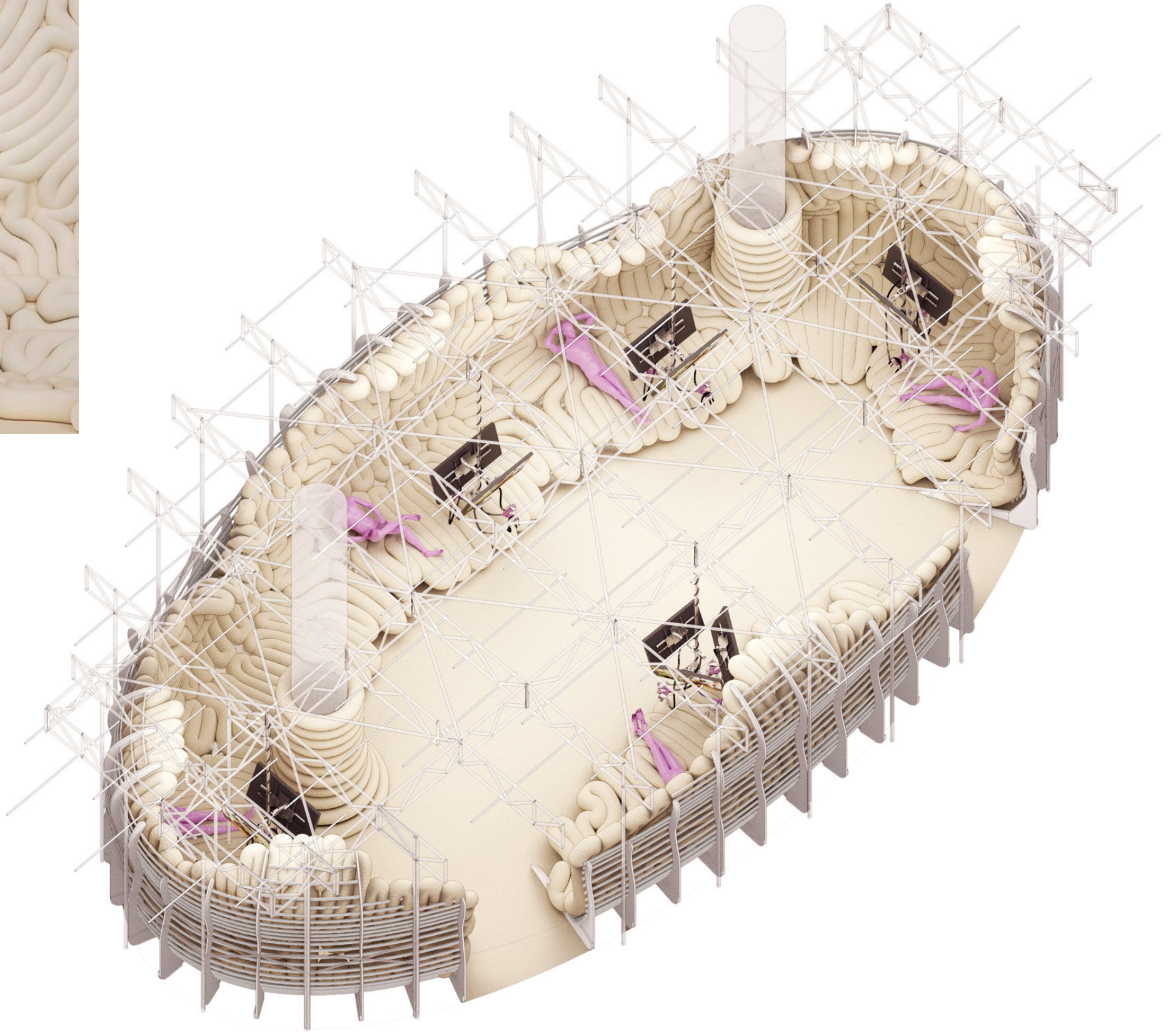
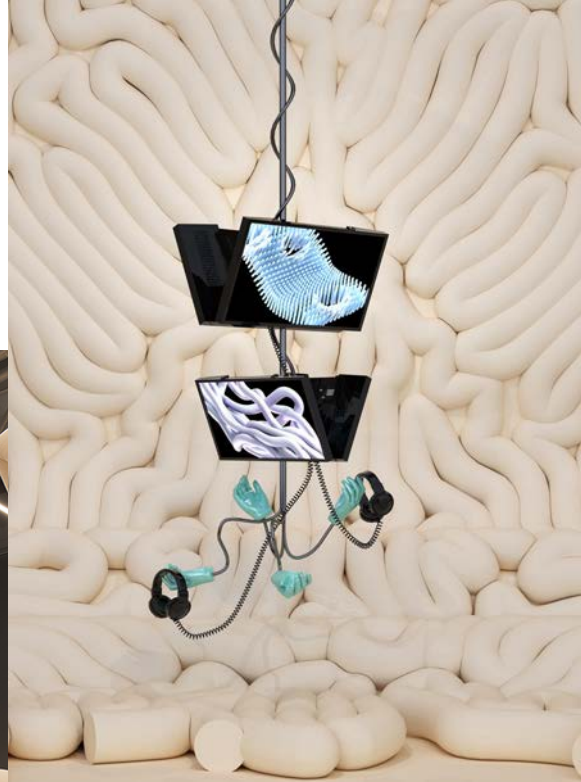
Opposite, above:
Ettore Sottsass, Jr. (Italian, born Austria)
Modulo di wardrobes, 1968 (1971), prototype
Plywood and plastic laminate, 30x11 3/4
x12 1/2 inches (84x28x31 cm)
Archizoom, Gift of the manufacturer
Below:
Ettore Sottsass, Jr. (Italian, born Austria)
Modulo di wardrobes, 1968 (1971), prototype
Plywood and plastic laminate, 30x11 3/4
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Archizoom, Gift of the manufacturer

Verner
Panton



... some reference projects

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Me AndOther Me



Me AndOther Me



SpacePOPular



Soft bodies



SpacePOPular



... some reference projects



SpacePOPular



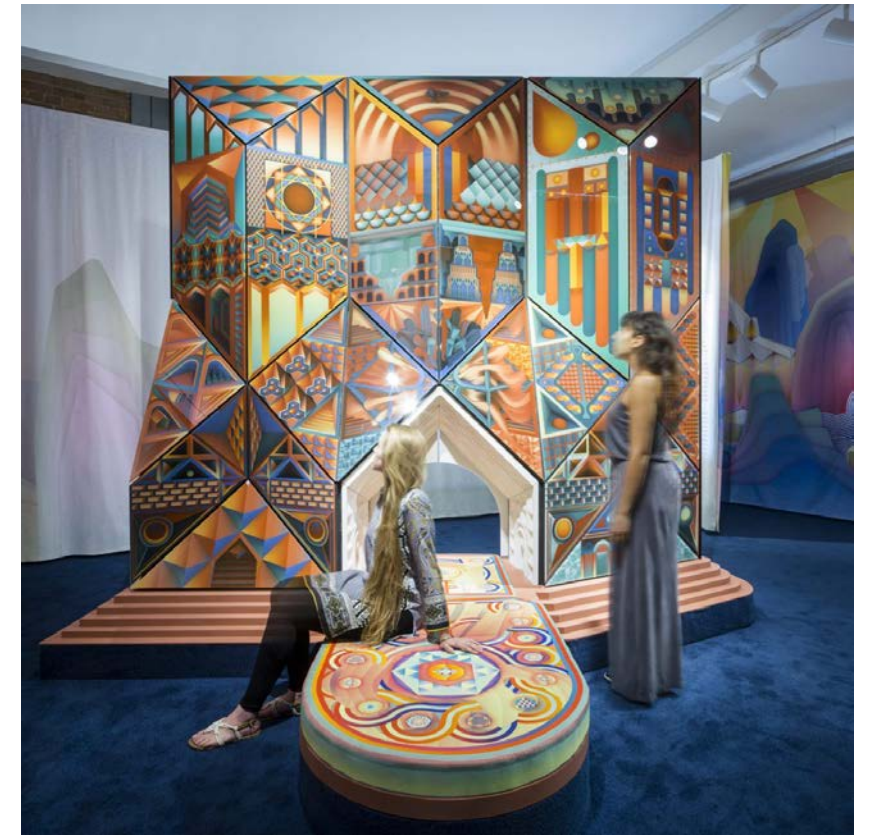
Paula Strunden



SpacePOPular



Soft bodies



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