UNCANNY ECOLOGY

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PROJECT STATEMENT

UNCANNY ECOLOGY denies the artificial divide between humanity and nature, and acknowledges the agency of non-human things in the design process. By scrutinizing aesthetic and philosophical precedents, the created object exists in a way that challenges anthropocentric hierarchies that privilege humans and the human made world above all other things. The resulting project can be understood as an ontological network of objects in which architecture is reinserted into an ecology that includes both the “human” and the “natural” worlds.

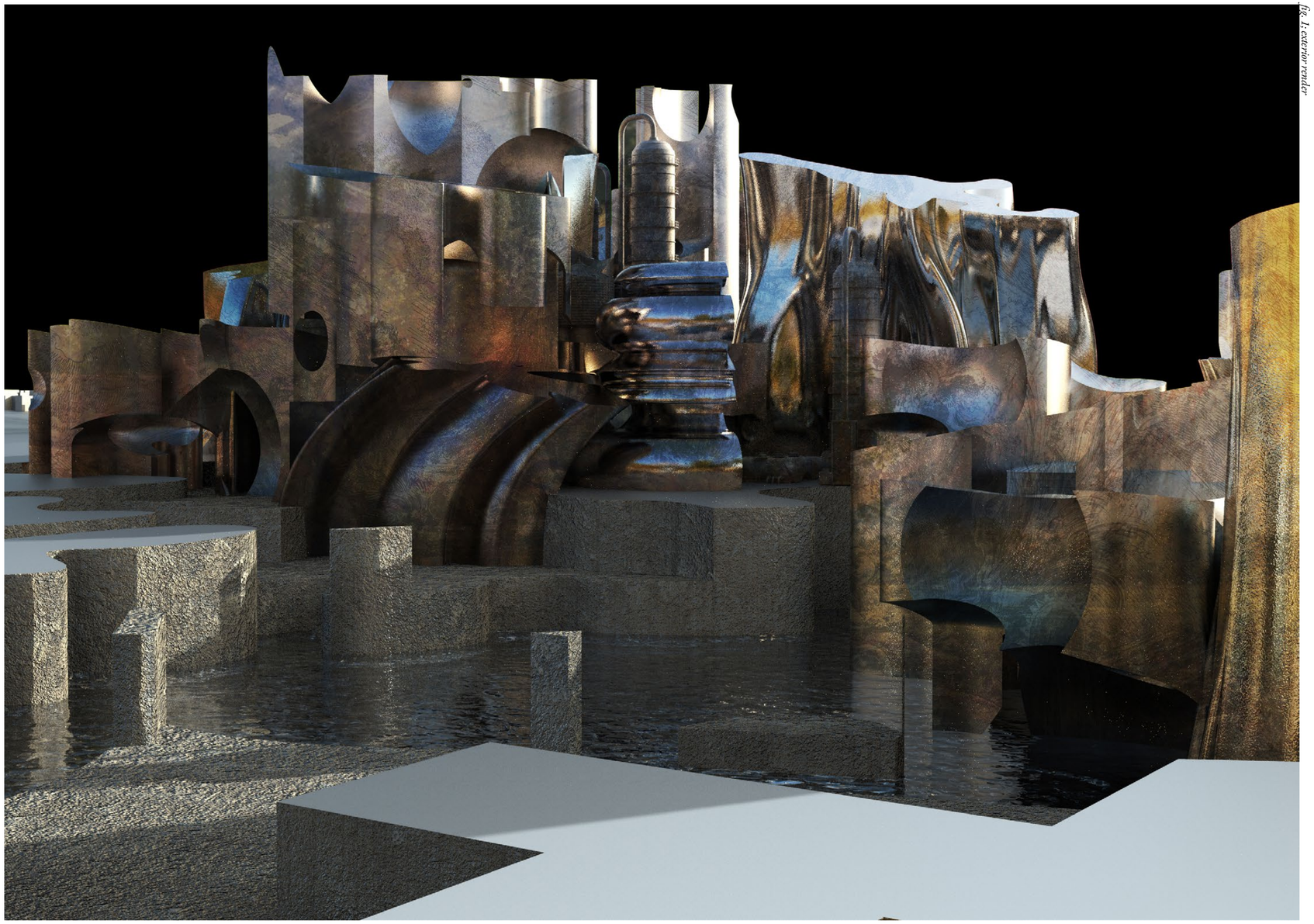


fig. 1: exterior render

THEORETICAL FRAMEWORK

In *Dark Ecology*, Tim Morton argues that everything exists with a gap between its appearance and its being. Any object I interact with "appears" to me as a collection of sensorial experiences; reflections of light, sound waves, nerve signals relating to touch, etc. These phenomena pair together to create my understanding of what that specific object is. We often understand these phenomena as the reality of the object, but object oriented ontology (OOO) argues that the reality of an object is more complex than simply how it "appears" to other things. A rock may appear to me as a specific set of sensory phenomena, but if the reality of that rock is only defined by those phenomena, then the rock can't be thought of to exist "in itself," but rather only as a collection of subjective experiences. If you were to remove the physical rock, but somehow recreate the phenomena in my mind, then the rock would "exist" even in the absence of any physicality. This is where philosophical realism distinguishes itself from idealism. Idealism theorizes a reality that exists only in the mind of the subject (always a human), but realism argues for a reality that exists independent of subjective experience, or outside the mind of an individual (human) subject. In a realist framework such as OOO, simply recreating the phenomena of the rock in my mind does not mean that the rock really exists. There is something more to the reality of the rock beyond what can be accessed by a human subject (or any subject). This is what Morton means when he talks about the gap between appearing and being. If appearing is the reality of an object that can be accessed by another object through interactions, "being" is the reality of the object that can't be accessed in this way. In simpler terms, there is something about each object that remains hidden when objects interact with each other, and these hidden qualities are as real as any part of the object that appears.

Within this framework we can begin to scrutinize how we as humans relate to the objects around us in new ways. This has obvious implications for our relationship with the idea of nature. The preference toward idealism, among other things, has allowed humans to artificially elevate ourselves conceptually above the nonhuman things around us. This idea, known as anthropocentrism, has warped our understanding of what nature is and our place in an ecology, conceptually removing humans from the natural ecology that surrounds us, inadvertently creating an oppositional relationship between the "natural world" and the "human world." As an extensions of the "human world," architecture exists in the same oppositional relationship with nature, framing the construction of architecture as the destruction of nature; "less architecture therefore yields better ecology" (Gage 100).

To illustrate this point, Morton borrows the idea of the uncanny valley from robotics. In this idea, as a robot becomes more and more human-like, it enters a space of resemblance that we can't quite categorize as human. This denial of categorization triggers the uncanny unease that comes from our fear of the non-human invading the human world. In Morton's discussion of ecology, this same uncanny feeling is triggered when we struggle to categorize something as distinctly human or distinctly natural. This is because it threatens our subjective reality in which nature, as the other, infringes on "our" world.

The categorization of humans as

distinctly separate from (and elevated above) non-human things in the Anthropocene has played a critical role in the climate crises caused by anthropogenic climate change. This has made it clear that this conception of reality is no longer appropriate for us today. We can no longer think of nature simply as "that stuff out there." Contemporary notions of sustainability, while important to slow the addition of harmful actions, continue to operate within the same understanding of reality which has enabled the current crises to exist. It is likely that long lasting relief from these dangers will require a new understanding of how we think about our place in the world.

Uncanny Ecology aims to imagine a new relationship between humans and nature, using architecture as the driver. By developing aesthetic approaches that deny categorization as human or natural objects, acknowledging the agency of non-human things in the creation of an architectural object, and giving aesthetic attention to objects and ecological interactions previously seen as unworthy of it, we can begin to imagine an ecology in which humans are not removed from but deeply integrated into the ecology around us, equal actors among many.

AESTHETIC THEORY

Constable's Hay-wain, a classic example of picturesque aesthetics, presents an image of an idealized nature in which limited human intervention allows for a pristine image of a relatively untouched and pure landscape, nature at its best. But this idealized image does not represent a replication of an existing pristine landscape, but is instead an imagined one in which the artist has created a fantasy of what they believe a beautiful landscape could (or perhaps should) look like. Picturesque representations of nature, such as Constable's Hay-wain, show an idealized version of nature that has been imagined and curated to elicit an emotional response for a human subject. Rather than depicting nature as it is, it is altered solely to make it more appealing to a human subject. When we scrutinize our interactions with nature, we find that most of the we are interacting with this kind of curated and controlled idealization of nature, alienating us further from the idyllic wilderness that we think nature represents.

fig. 2: The Hay Wain - John Constable (1821)

fig. 3: The Great Day of His Wrath - John Martin (1851-1853)

The sublime, an example of which is shown in John Martin's painting to the left, can also alienate us from the idea of nature. By depicting scenes of nature which elicit fear and deny a sense of understandable scale, nature becomes a transcendental threat. Something that exists outside of us, as the other, and creates a sense of anxiety and fear due to our inability to fully grasp it.

Piranesi's Grotteschi series drawings can be misread as representing a different conception of reality. By depicting a collection of objects, both human and non-human, in a way that doesn't privilege any singular object or figure, the scene can be seen as representing a more inclusive ecology of objects, one that includes human and non-human things as equal actors. This misreading provides a starting point for the development of aesthetic characteristics that challenge anthropocentric realities.

fig 4: The Skeletons, from Grotteschi (Grotesques) - Giovanni Battista Piranesi (1748)

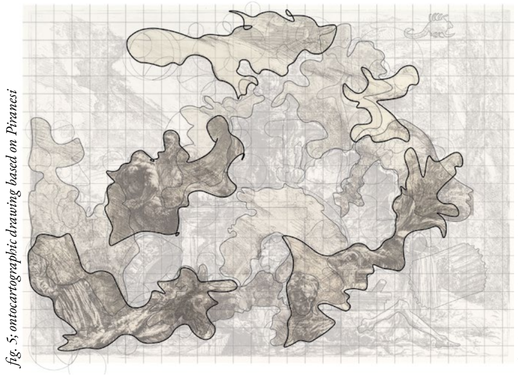


fig. 5: ontocartographic drawing based on Piranesi

fig. 6: speculative drawing based on ontocartography

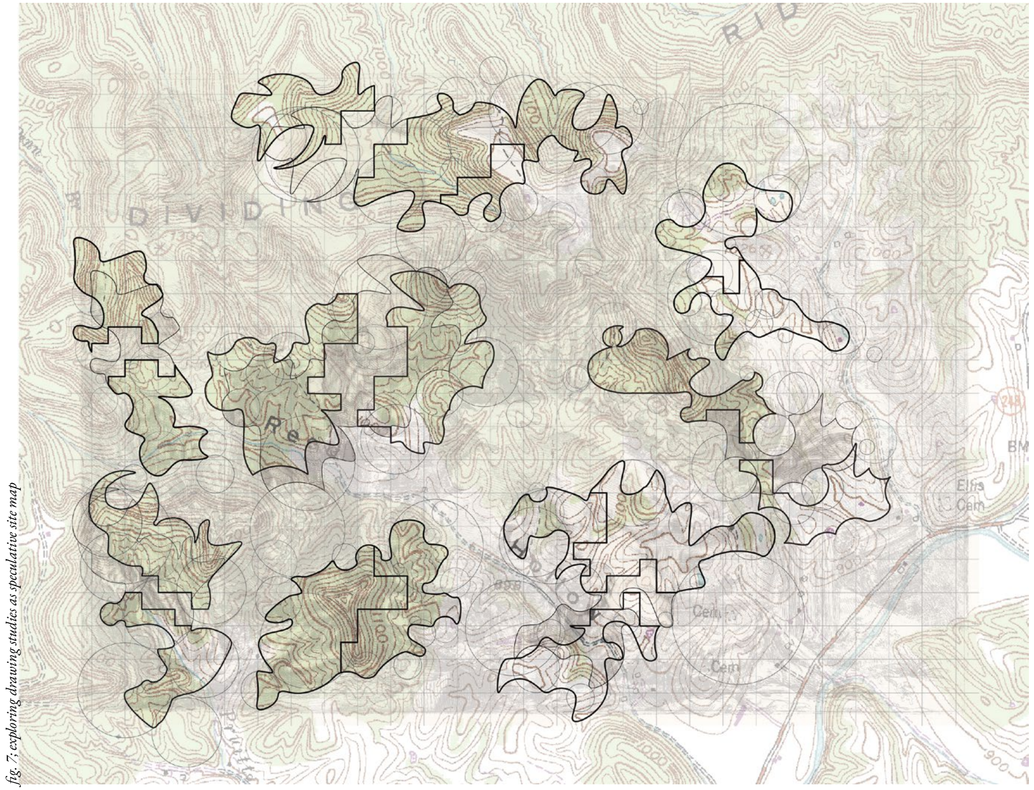


fig. 7: exploring drawing studies as speculative site map

DRAWING STUDIES

Using Piranesi as a base, a series of drawings were created as studies to begin to develop a formal logic that capitalizes on the ontological implications of the drawing. The first of these is a simple exercise of grouping objects as a kind of ontocartographic map of the relationships between the objects in the drawing (*fig. 5*). Extracting an ordering logic of grids and circles from this allowed for the creation of new figures that follow a similar formal logic (*fig. 6*). Finally, these new figures were fragmented to expose a potential logic of joinery and overlayed onto a topographic drawing to imagine this process as a mapping of a speculative site with the trace of Piranesi (*fig. 7*).

OBJECT CREATION

A series of objects were created from the speculative figures of the drawing studies using a set of simple digital operations - extrude, revolve, and loft (*figs 8-14*). Using these operations begins to acknowledge the agency of the software in the design and creation of the objects. The inherent logic and parameters of the software impart a certain sensibility onto the object depending on the specific command used. Human agency is reasserted upon evaluation of the output, allowing us to adjust the process or curate new inputs. The arrangement of the individual objects into aggregations composed of objects from all of the series of commands allows for opportunities to highlight or obscure the legibility of each aesthetic sensibility.

fig. 8; extrusion object top view

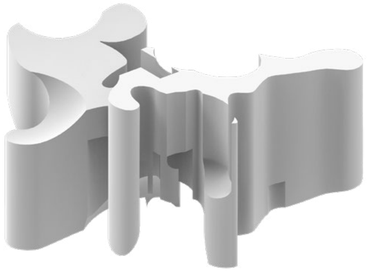


fig. 9; extrusion object isometric view

fig. 10; loft object top view

fig. 11; loft object elevation view

fig. 12; revolve object elevation view

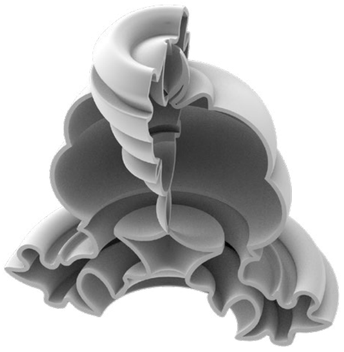


fig. 13; revolve object isometric view

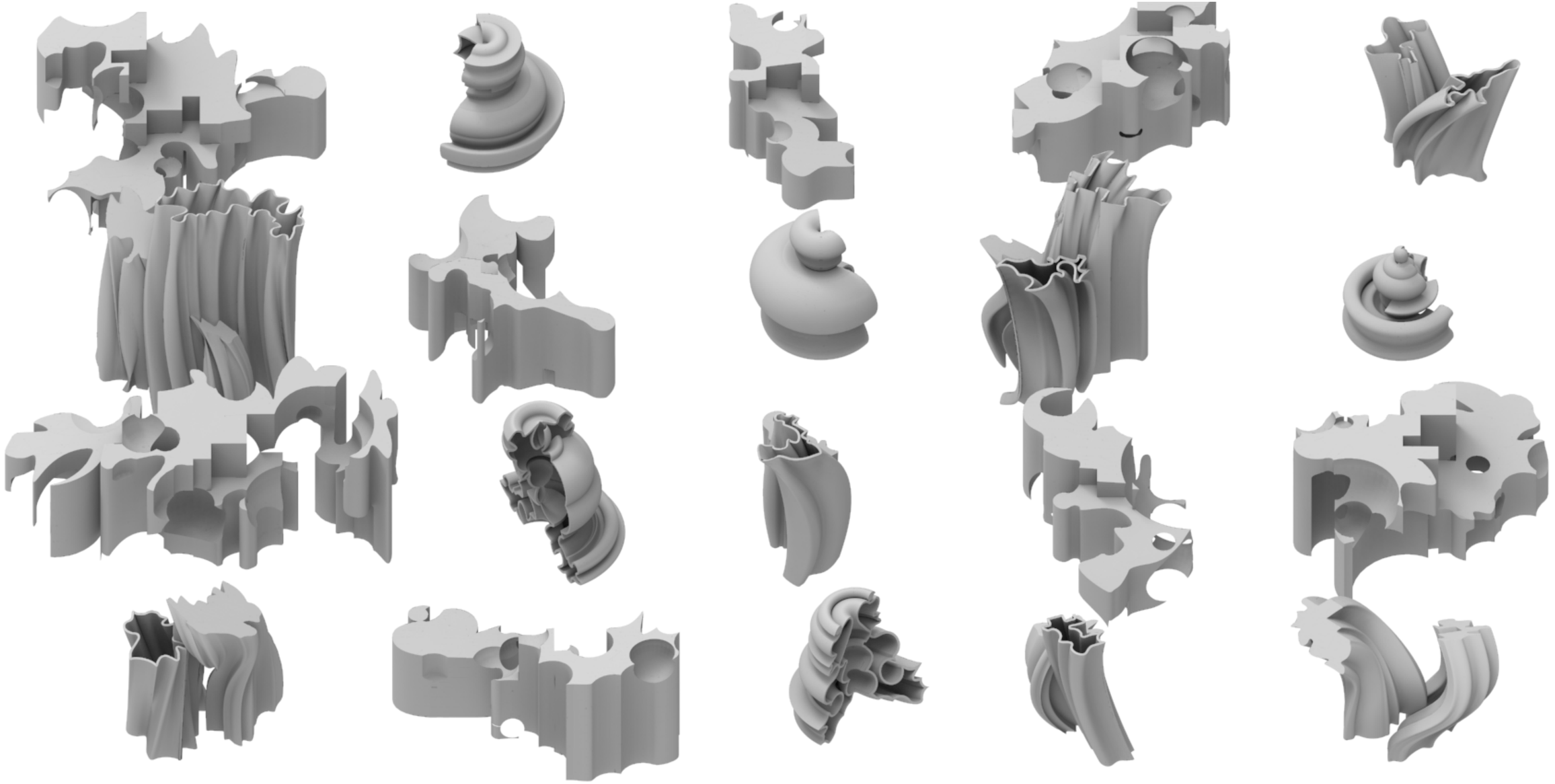


fig. 14: full set of digital objects

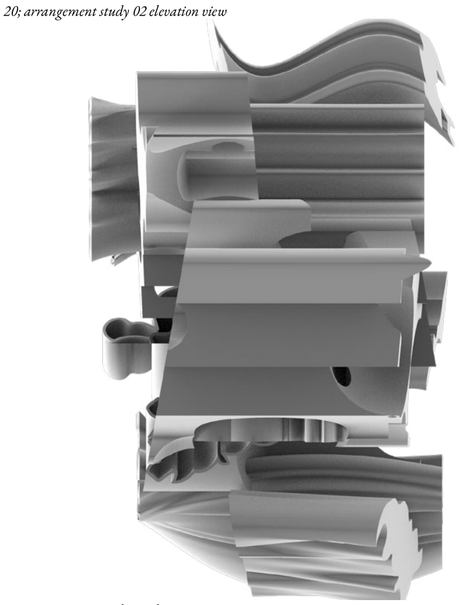


fig. 20; arrangement study 02 elevation view

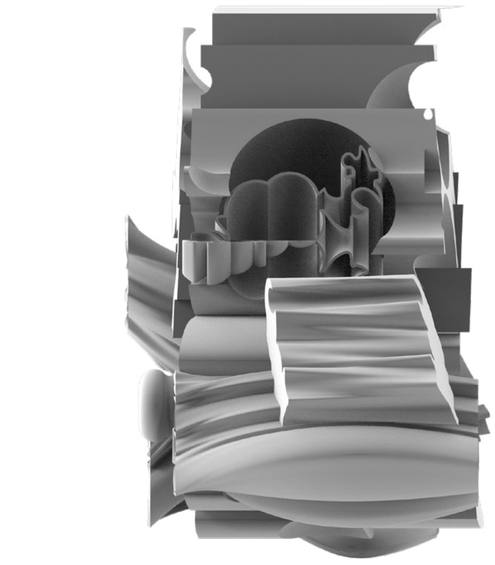


fig. 19; arrangement study 02 elevation view

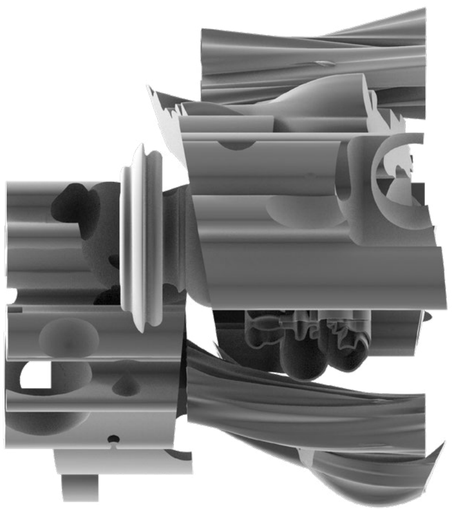


fig. 16; arrangement study 01 elevation view

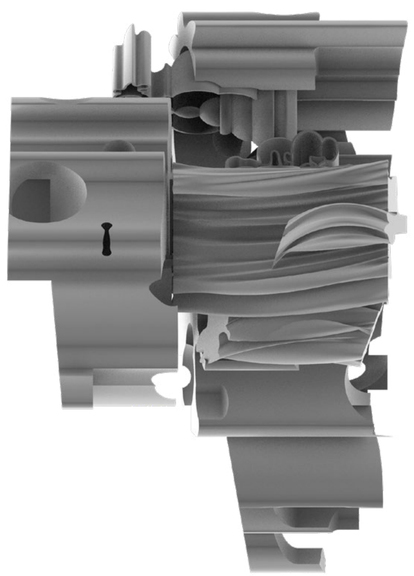


fig. 15; arrangement study 01 elevation view

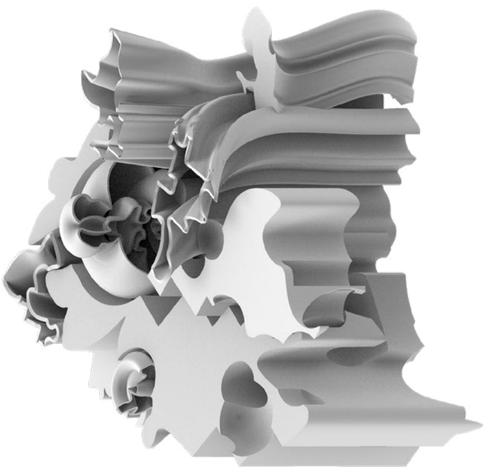


fig. 22; arrangement study 02 isometric view

fig. 21; arrangement study 02 top view

fig. 18; arrangement study 01 isometric view

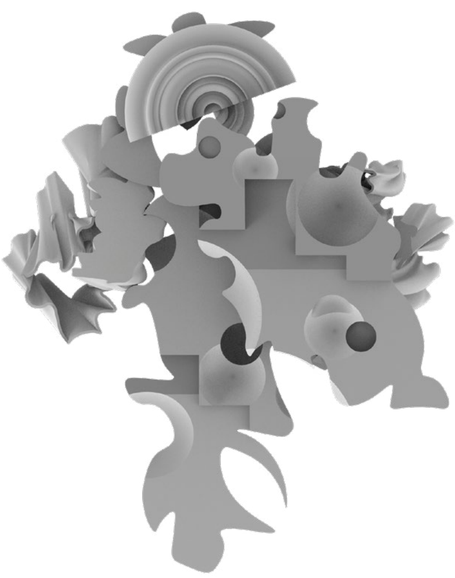


fig. 17; arrangement study 01 top view

fig. 25; arrangement study 03 top view

fig. 23; arrangement study 03 elevation view

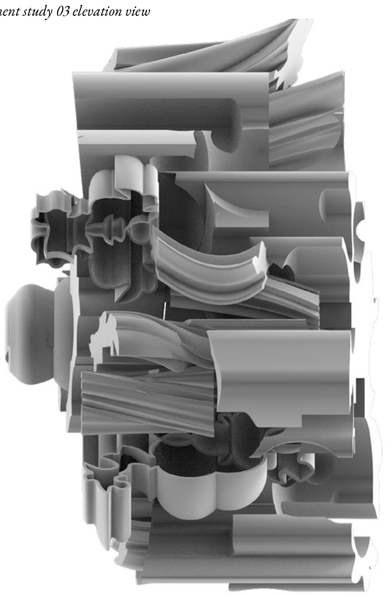


fig. 26; arrangement study 03 isometric view

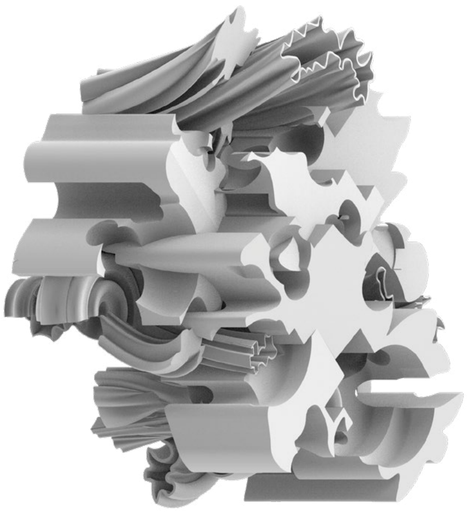


fig. 24; arrangement study 03 elevation view

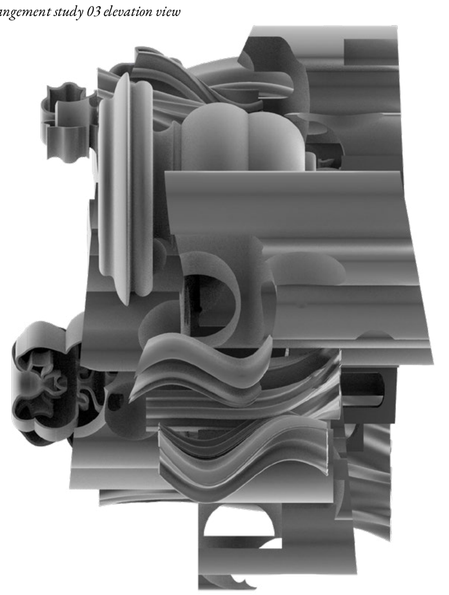


fig. 29; arrangement study 04 top view

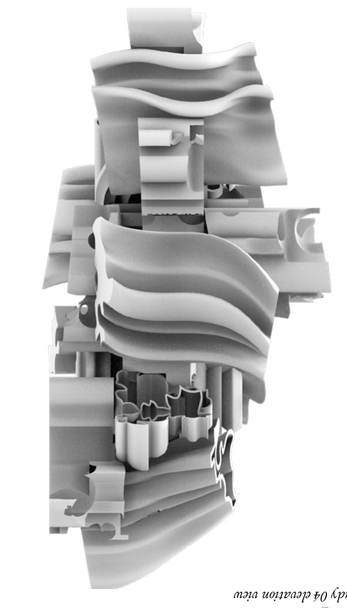


fig. 27; arrangement study 04 elevation view

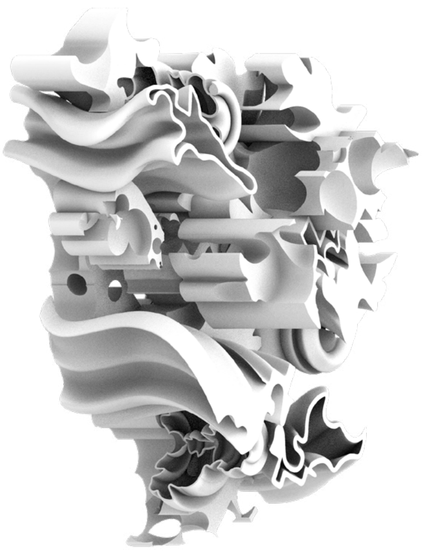


fig. 30; arrangement study 04 isometric view

fig. 28; arrangement study 04 elevation view

SITE

Acknowledging the speculative nature of the project allows for experimenting with new ways of approaching architectural challenges like site and program. By focusing less on some of the practicalities associated with the topics of site and program, they can be thought of as mediums for expressing and amplifying the argument of the project. For example, Discovery Park in northwest Seattle was chosen as the site specifically for the existing ecological conditions and for the opportunities that those conditions provided for positioning the project against existing notions of human interaction with our environments. The park is home to diverse wildlife from endangered birds to salmon breeding runs. This combined with the towering trees and views of the Puget Sound and Olympic Mountain Range add up to an idyllic scene that supports the narrative of unspoiled nature within reach of urban life. However, the history of the park does not support this narrative. The site has undergone a series of developments, clearing and reforestation, then redevelopment that has left almost no part of the site in its "natural" state. Instead it has been largely curated to create a picturesque environment in service to human fantasies of unspoiled nature. To further reinforce this image, the West Point Treatment plant, one of the largest wastewater treatment plants in Seattle, is pushed down the west edge of the site and intentionally surrounded by trees that hide it from human view at eye level. This treatment makes clear that this specific kind of ecological management is not aesthetically worthy of the idealized fantasy of nature.

Expanding the treatment plant

fig. 31: satellite image of Discovery Park in NW Seattle

then provides a powerful example of aesthetic treatment that the project can position itself against. We can no longer hide the kinds of ecological interactions that reveal the scale with which we are intertwined with nature behind a few rows of trees. Instead, the treatment of human waste is given prominent placement in an otherwise idealized natural setting. The machinery involved in this process is exposed at some points outside the object, which itself has an aesthetic quality that attempts to deny an ability to place it as something strictly human or strictly natural. It does not look like what we expect something to look like through natural processes. Nor does it look like what we would expect a human designed industrial plant to look like.

Additionally, the same figures that resulted in the series of digital objects and aggregations are again mapped onto the site and used to carve out the ground, therefore influencing the design as both solid and void. Carving also reveals the geological layers that have built up over millenia, making clear that the geological layer of the Anthropocene will be just another layer of evidence of a series of changing ecologies.

fig. 32: Aerial view of Discovery Park

fig. 33: Discovery Park in the fall

fig. 34: Aerial view of West Point Treatment Plant

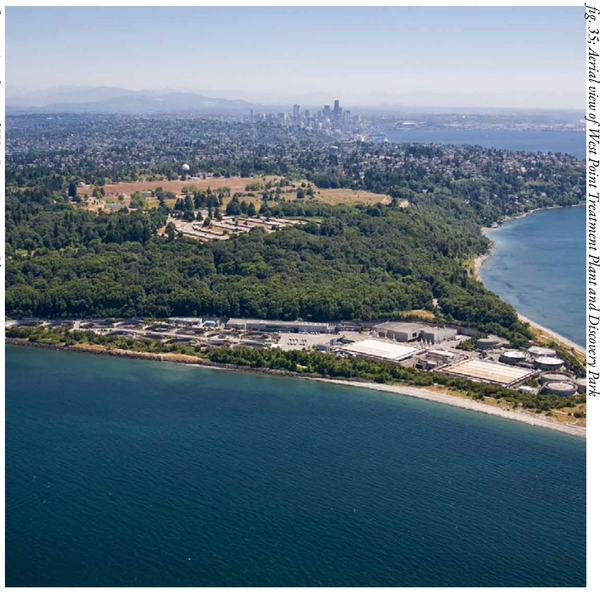


fig. 35: Aerial view of West Point Treatment Plant and Discovery Park

fig. 36: site map showing arrangement of objects into clusters

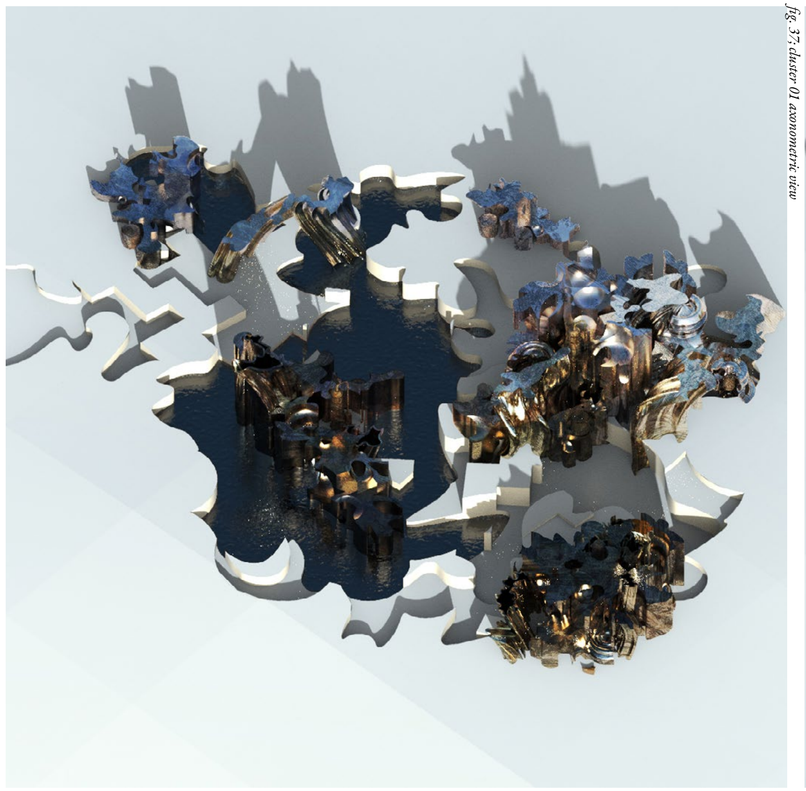


fig. 37; cluster 01 axonometric view

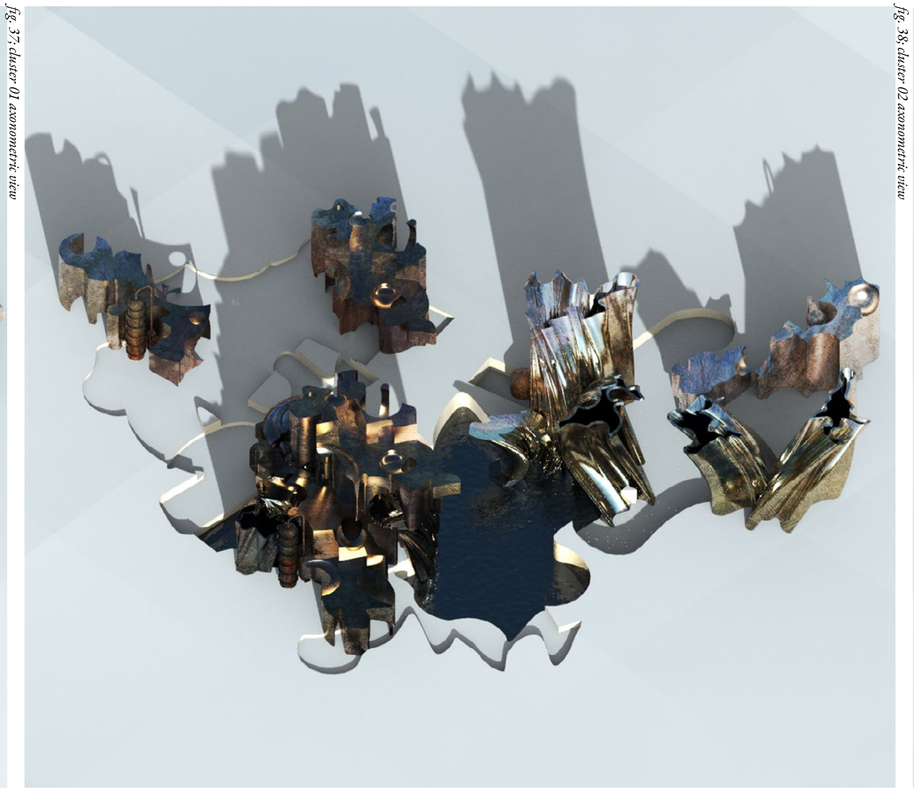


fig. 38; cluster 02 axonometric view

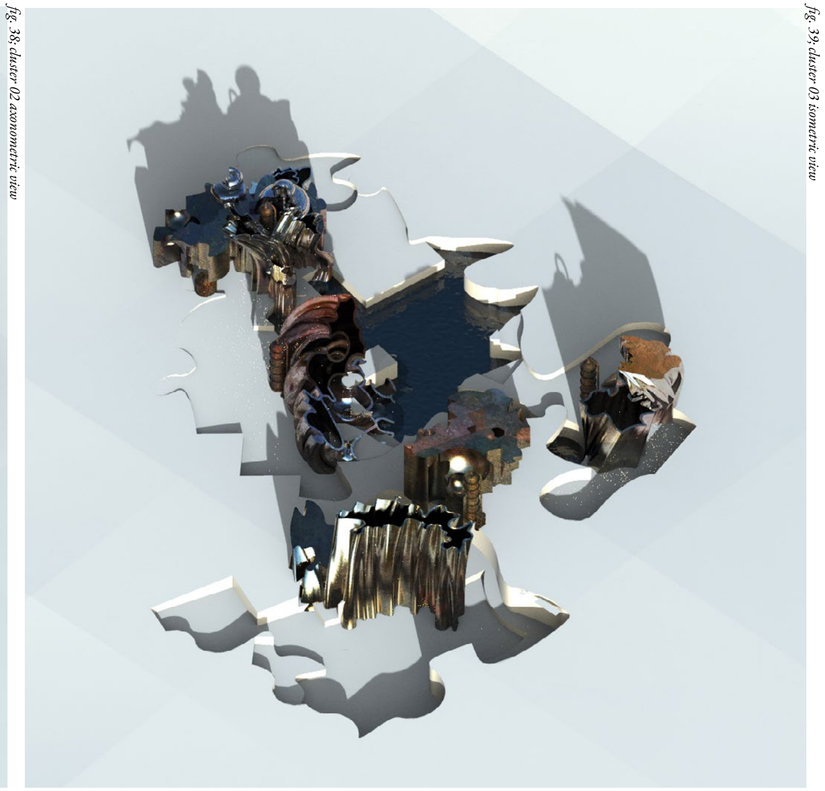


fig. 39; cluster 03 isometric view

MACHINES

The arrangement of the machinery is yet another opportunity to position against our expectations. Rather than arranging them in accordance with efficiency, they take inspiration from the arrangement of sculptures and other artworks on the walls of the John Soane Museum in London. Here, an otherwise smooth surface of walls gain a highly saturated textural quality. In the image shown, the artworks are even poched in the same manner as the walls, pointing to their importance as an element of the architecture. Giving this kind of aesthetic attention to the machinery gives a prominence to this specific kind of ecological interaction that it is usually denied. The machinery is neither hidden nor arranged in an optimized functional way, but rather is arranged with an artful intention.

fig. 40; Sectional Perspective of the Donne Ave Looking East - George Bailey

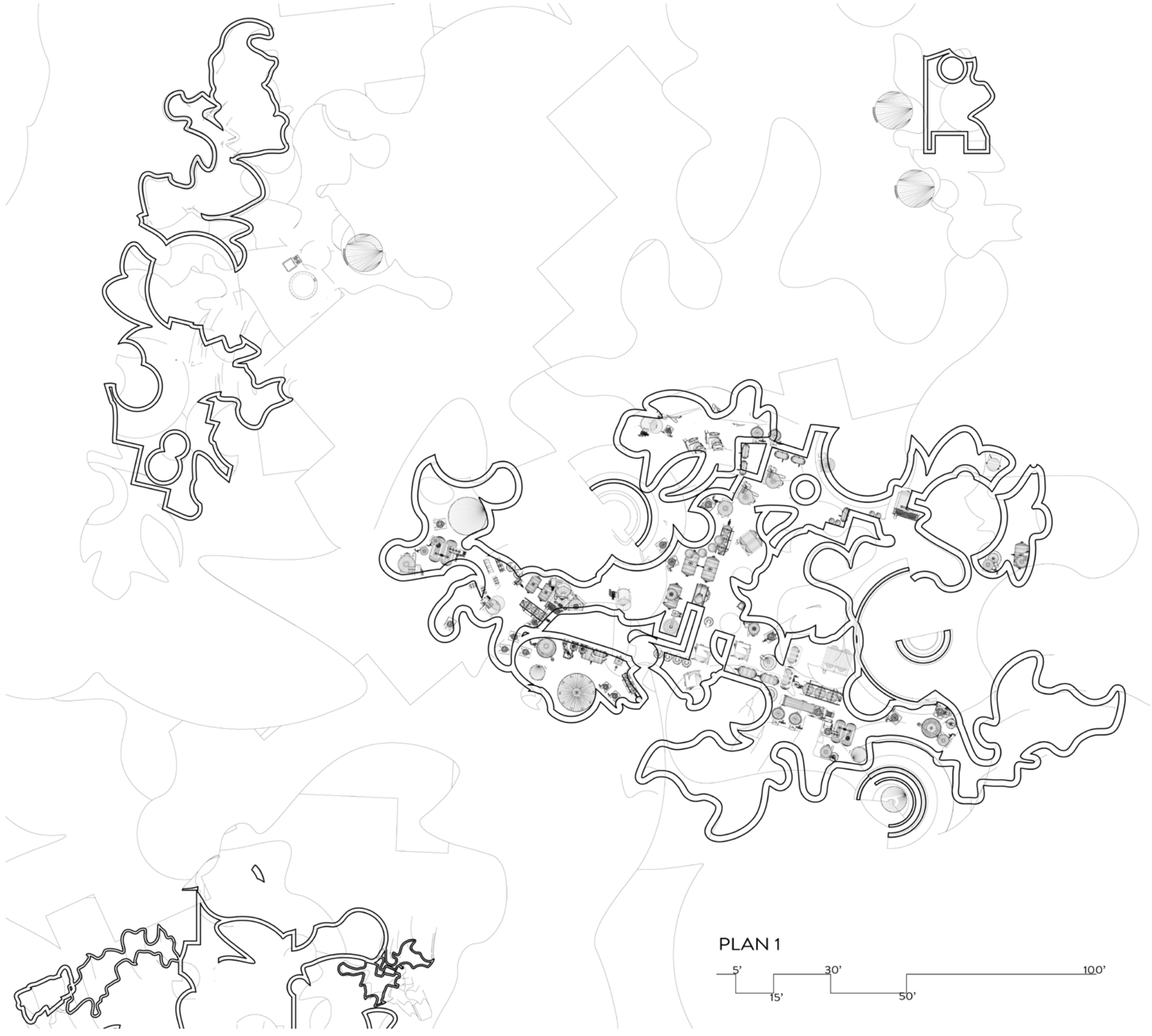
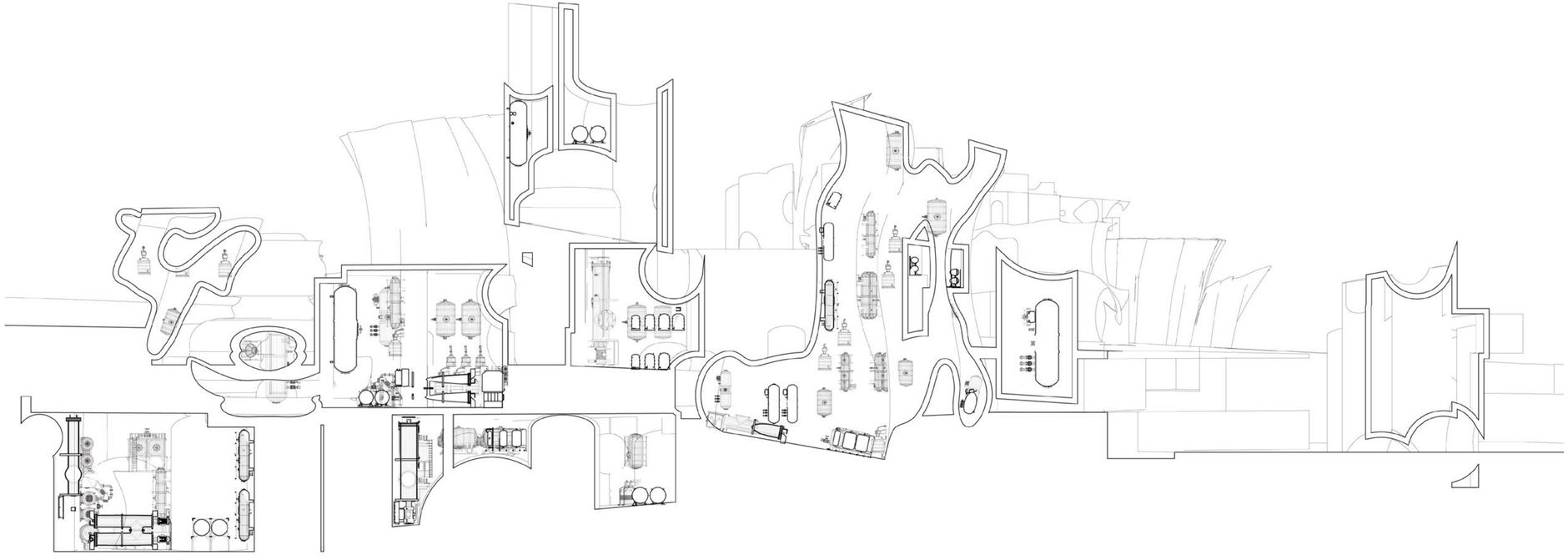


fig. 41; plan 1



SECTION 1

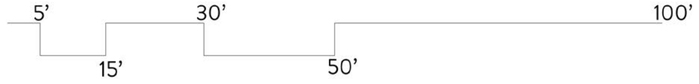


fig. 42: section 1

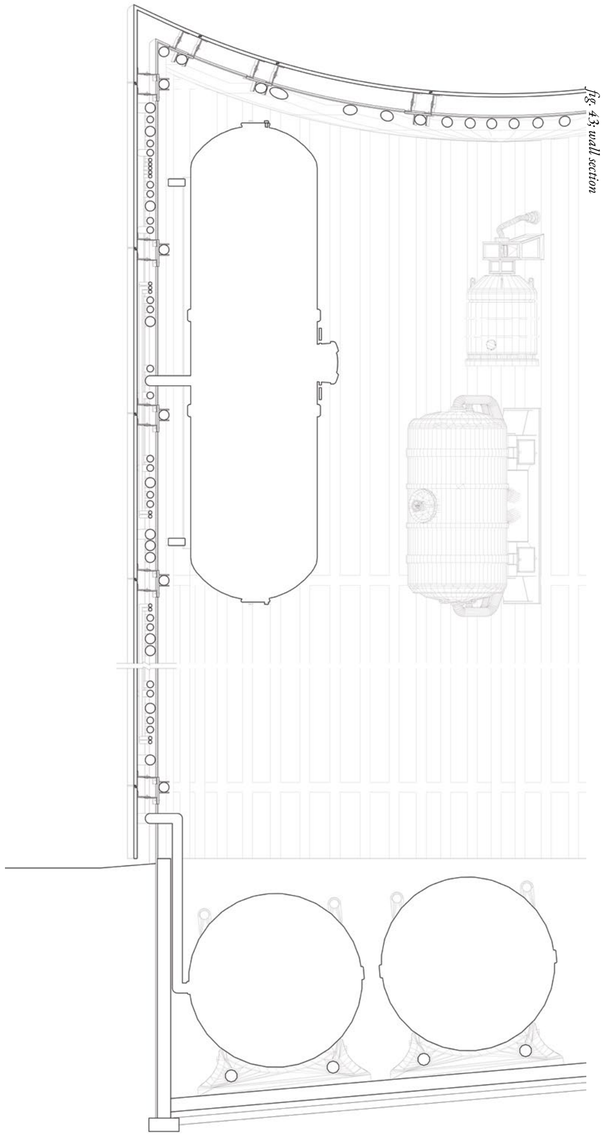


fig. 43: wall section

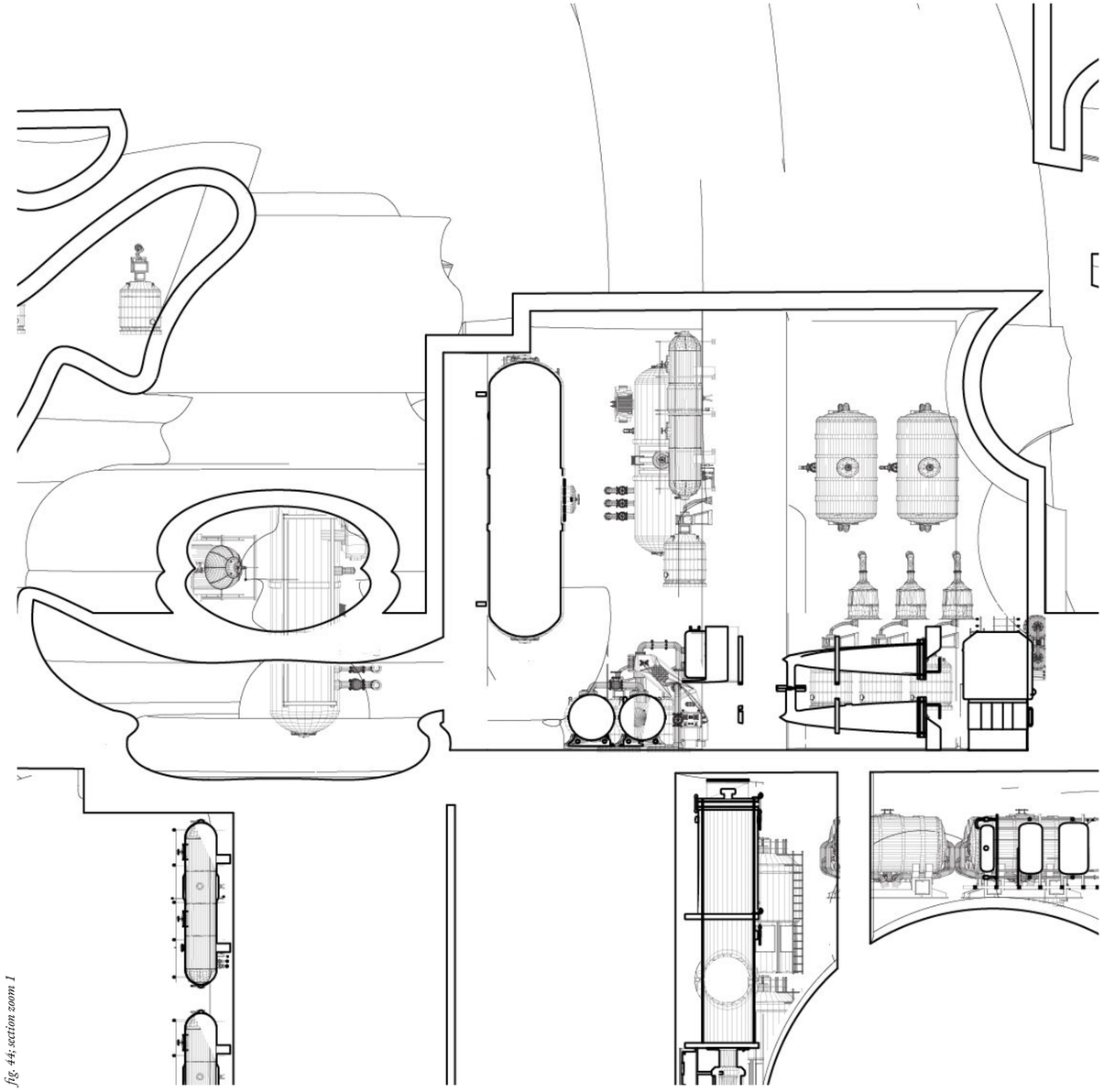


fig. 44: section zoom 1

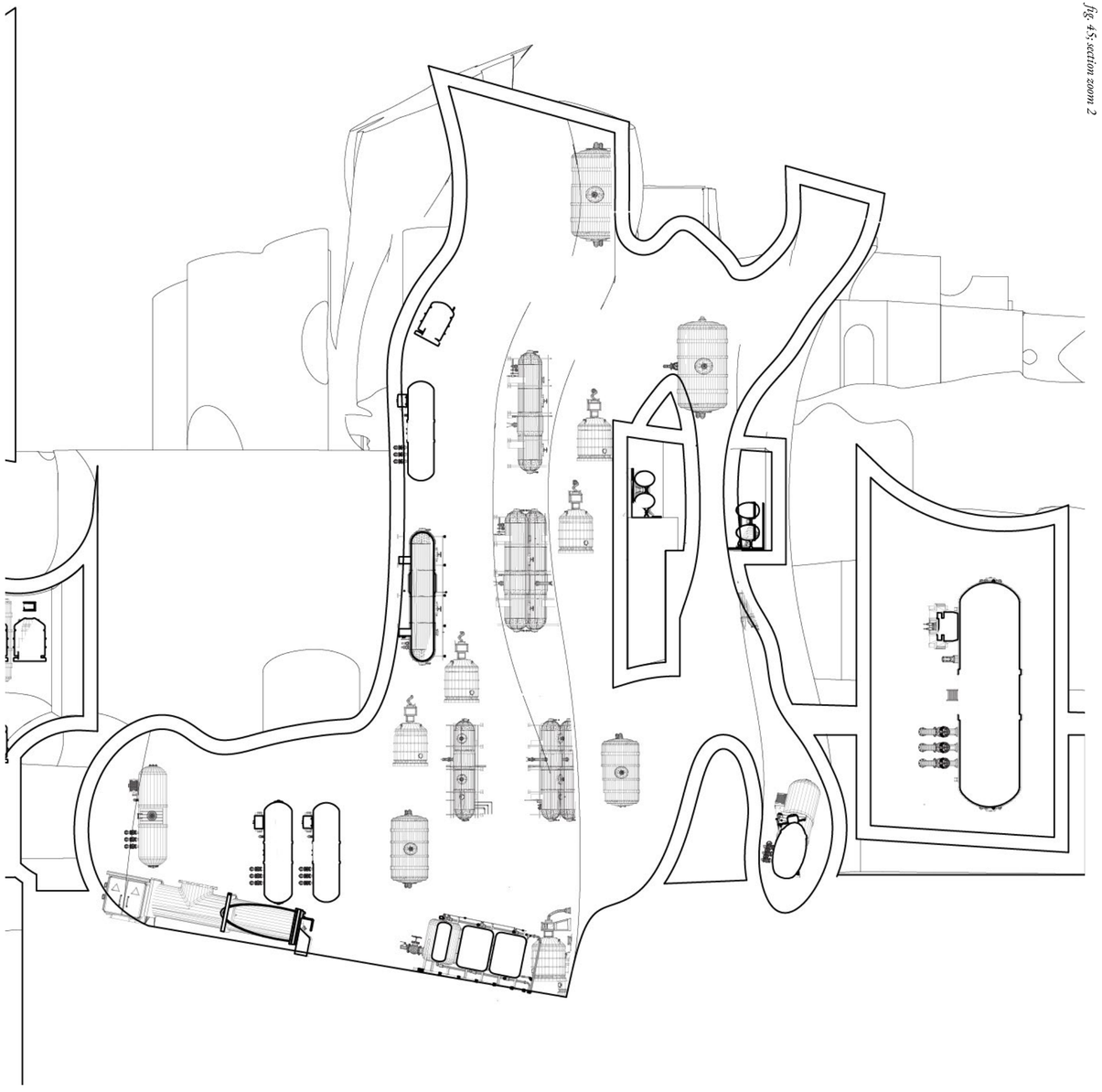


fig. 45: section zoom 2

MATERIAL

The application of the material combines digital techniques that attempt to have characteristics that we might expect from both “natural” and “synthetic” materials. Here again we see the uncanny in the denial of categorization as human or natural. The objects possess a polished and at times reflective effect that we associate with a synthetic material, but they are also overlayed with images from the aesthetic studies from the early stages of the project that blend aesthetic characteristics associated with idealized landscapes. The result is a varied surface effect that at times triggers associations with smooth reflective surfaces, and at others with gradated textures that can be reminiscent of “natural” formations like cliffs and canyons. The application of these effects can be adjusted also to highlight or obscure the geometry of the object, providing another moment v agency in the expression of the aesthetic characteristics imparted onto the objects from the digital operations.

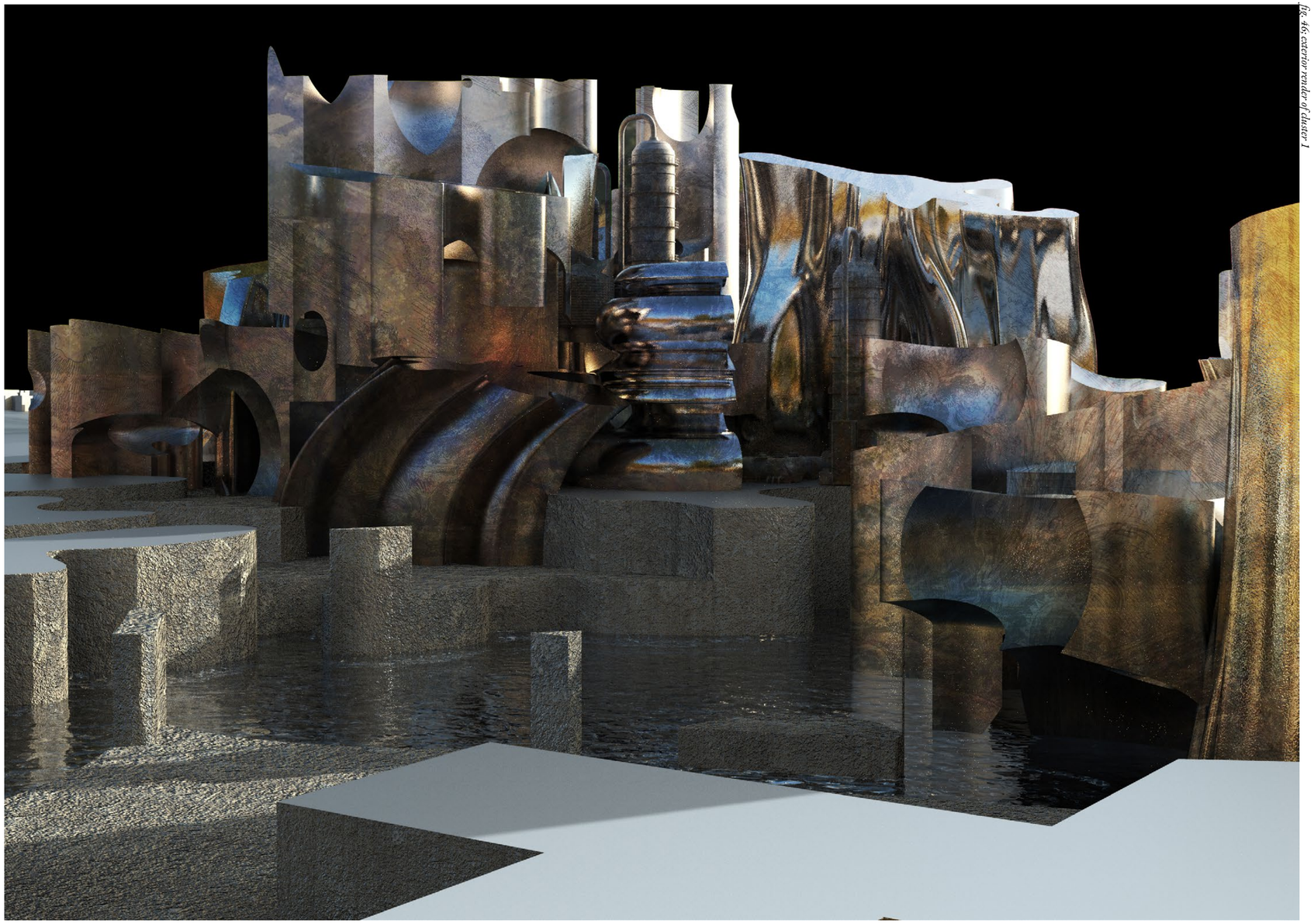


fig. 45: exterior render of cluster 1

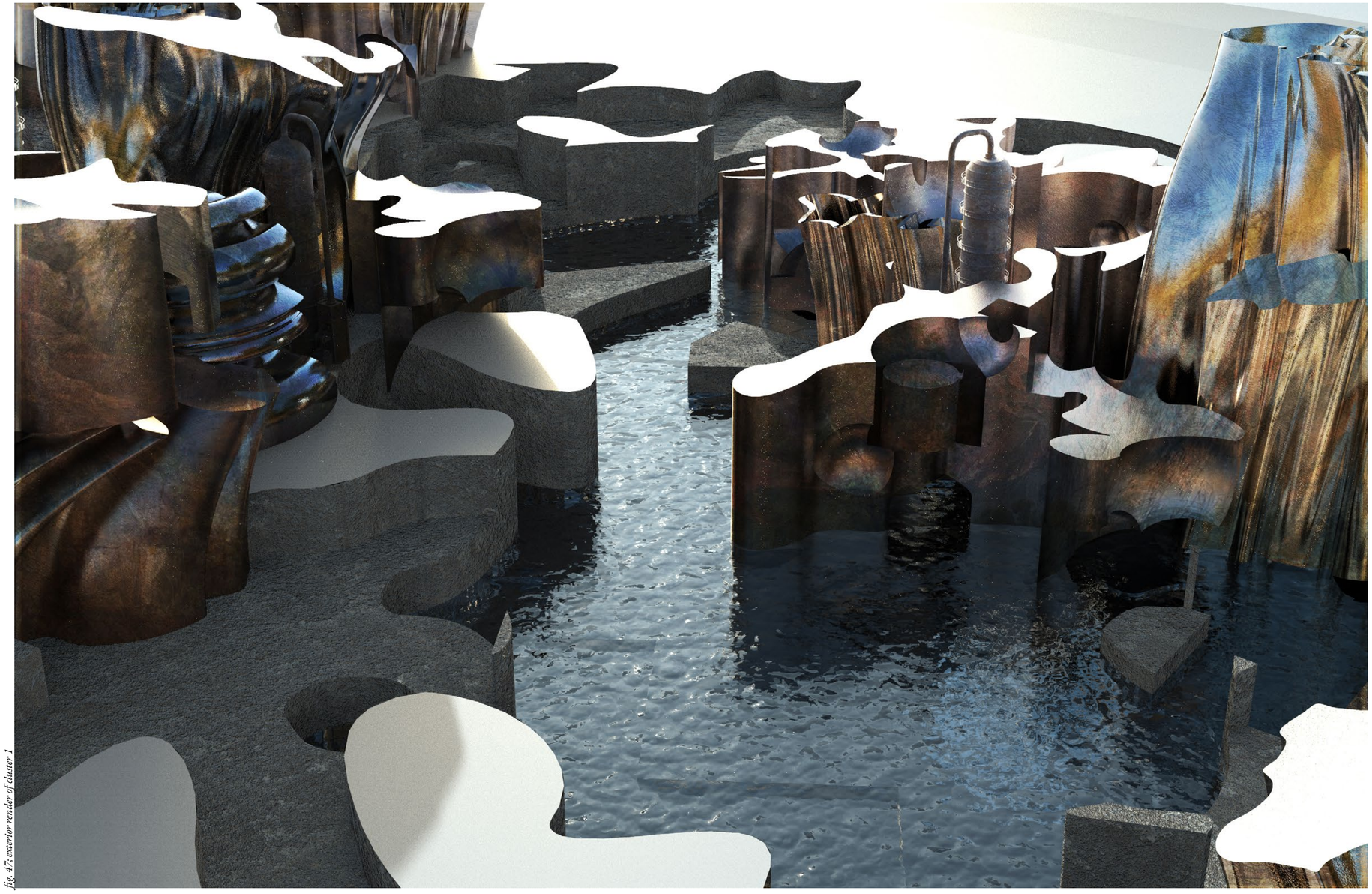


fig. 47; exterior render of cluster 1

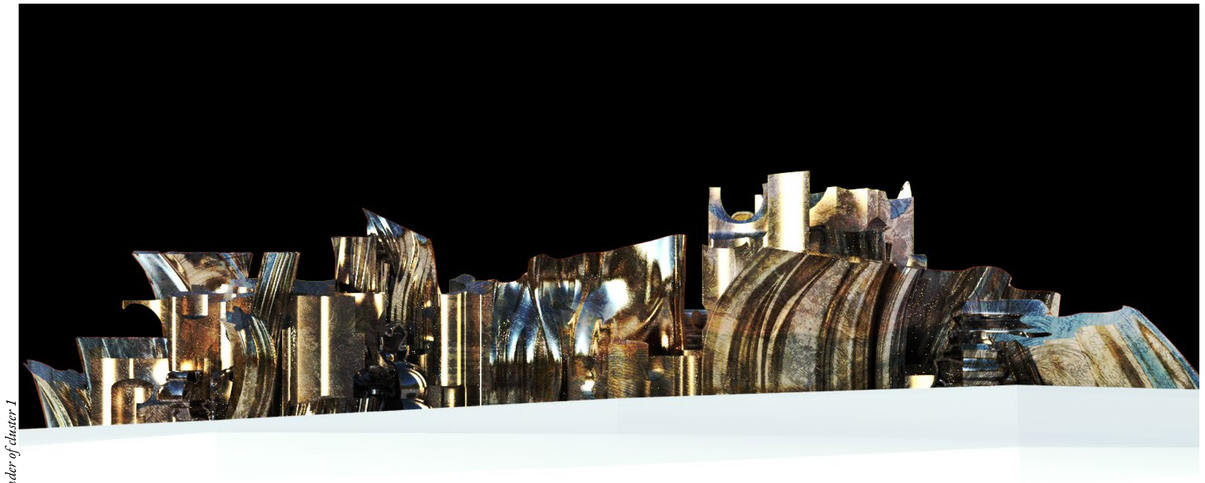


fig. 48: exterior render of cluster 1

fig. 49: exterior render of cluster 2

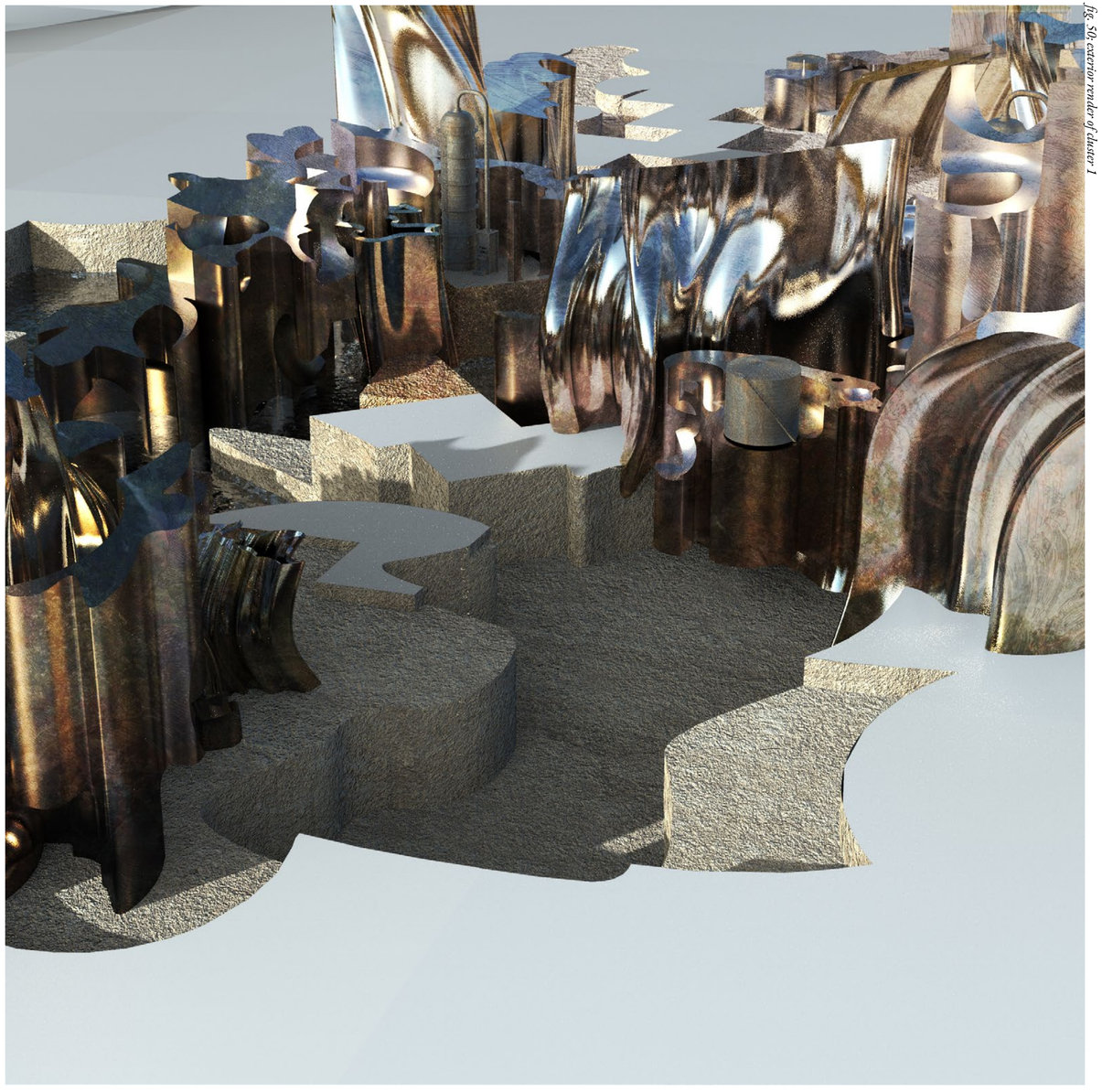


fig. 50: exterior render of cluster 1

fig. 51: exterior render of clusters 1 and 2

Media

The creation of a physical model allows us to scrutinize the ontology of the project further. When considering an architectural project, we typically assume that the built object is the "actual" object and all the drawings, renders, and other representations are in service to that object. In the absence of a building, it may be tempting to now consider the physical model as the "actual" object of this project and that all the images leading up to this point have again been in service of the physical object. For this project, however, it is more appropriate to recognize the different ways that this project exists simultaneously. There is not one single image or representational medium that allows us to access the full reality of Uncanny Ecology. Instead, each medium reveals different qualities of the project. The renders reveal the intentions of the material and its effects, the drawings reveal the approach to organization and composition of space and machines, and now the physical model reveals 3 dimensional implications that can only be approximated through other mediums.

Here again we see the gap between appearing and being. Uncanny Ecology, as an object, appears to us in several ways through different mediums. However, there is no medium that allows us to access the full reality of the object. It is withdrawn, to use the term from Graham Harman, and therefore has its own objective existence, independent of a singular human subject. By acknowledging this, we acknowledge that the power of representational mediums for designers is in their ability to expand our access to the reality of the object we are attempting to design.

fig. 52, model photo

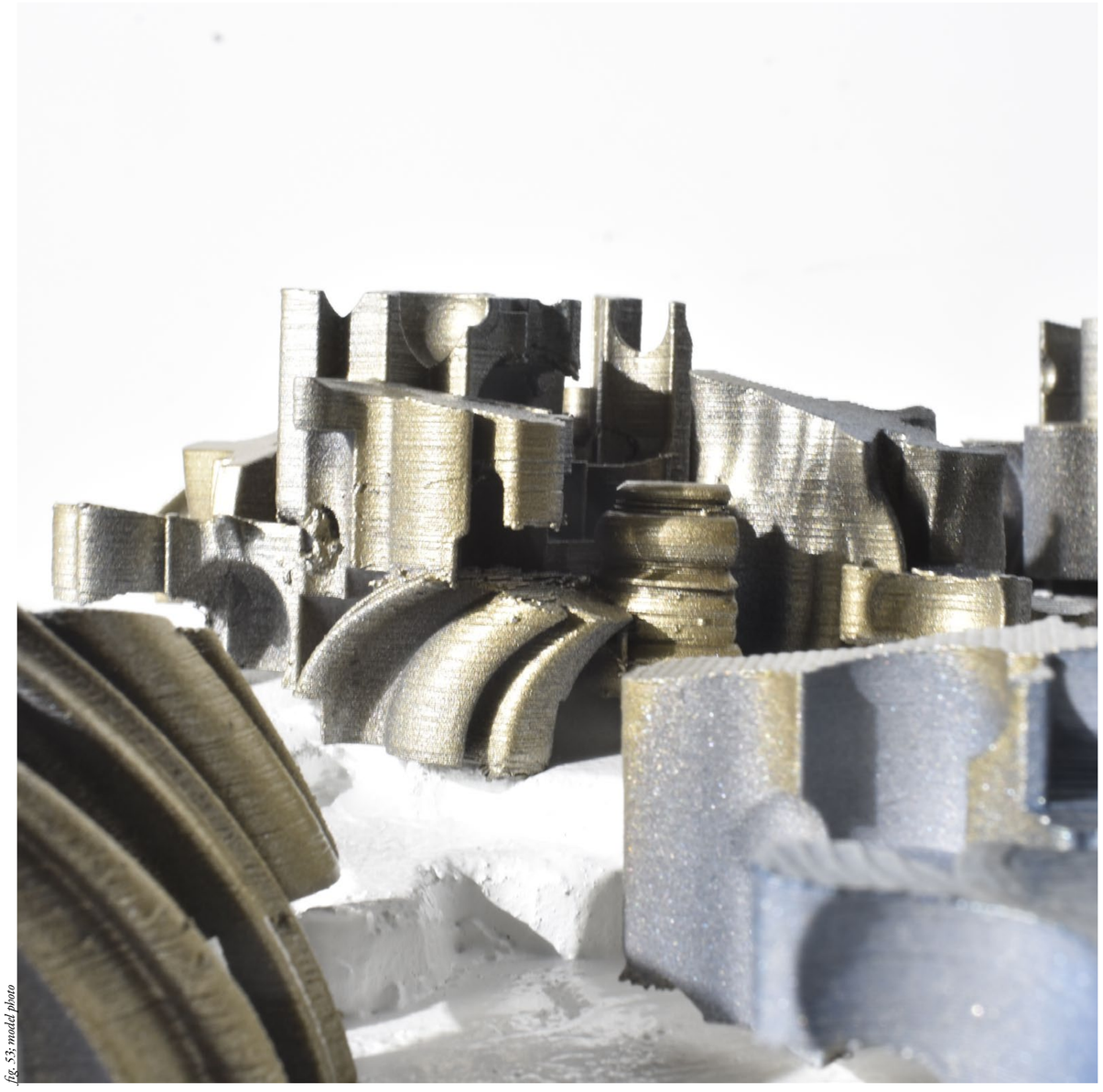


fig. 53: model photo

fig. 54: model photo

fig. 55: model photo

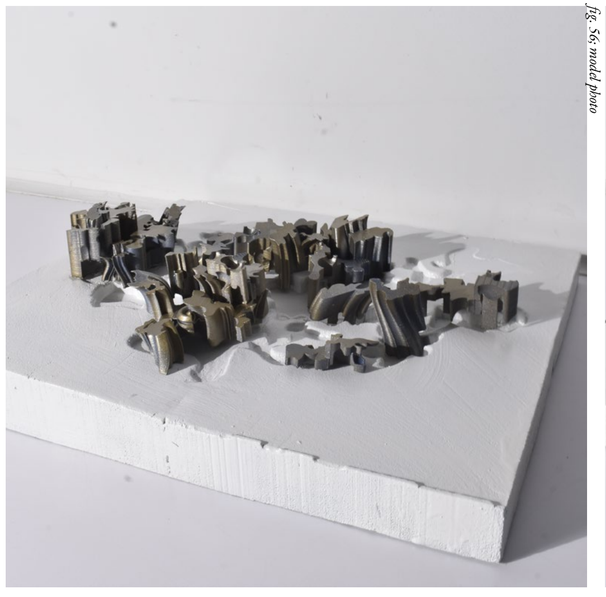


fig. 56: model photo

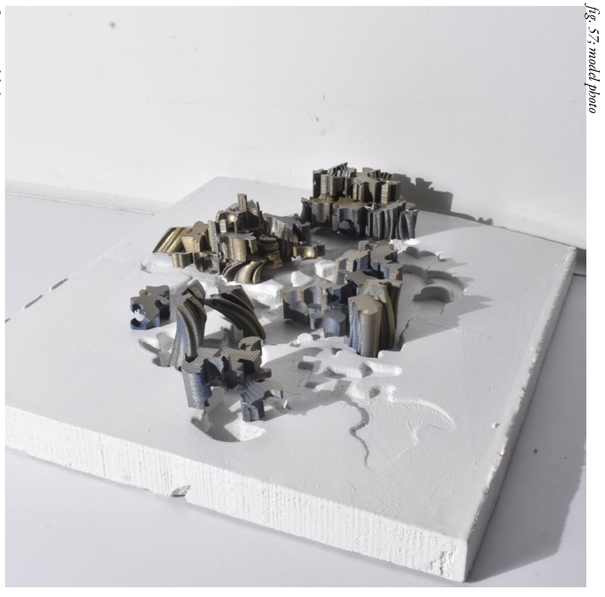


fig. 57: model photo

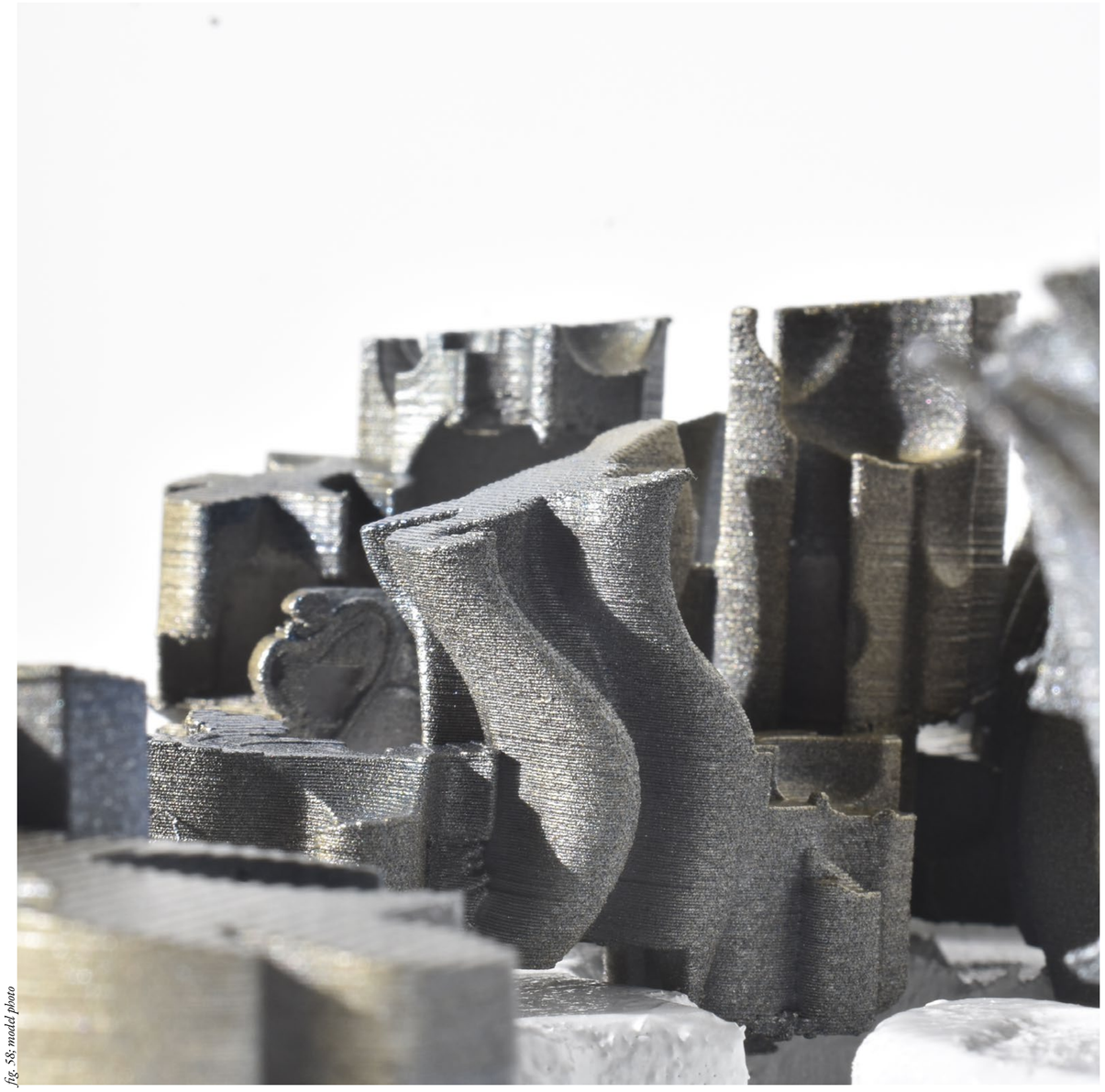


fig. 58: model photo

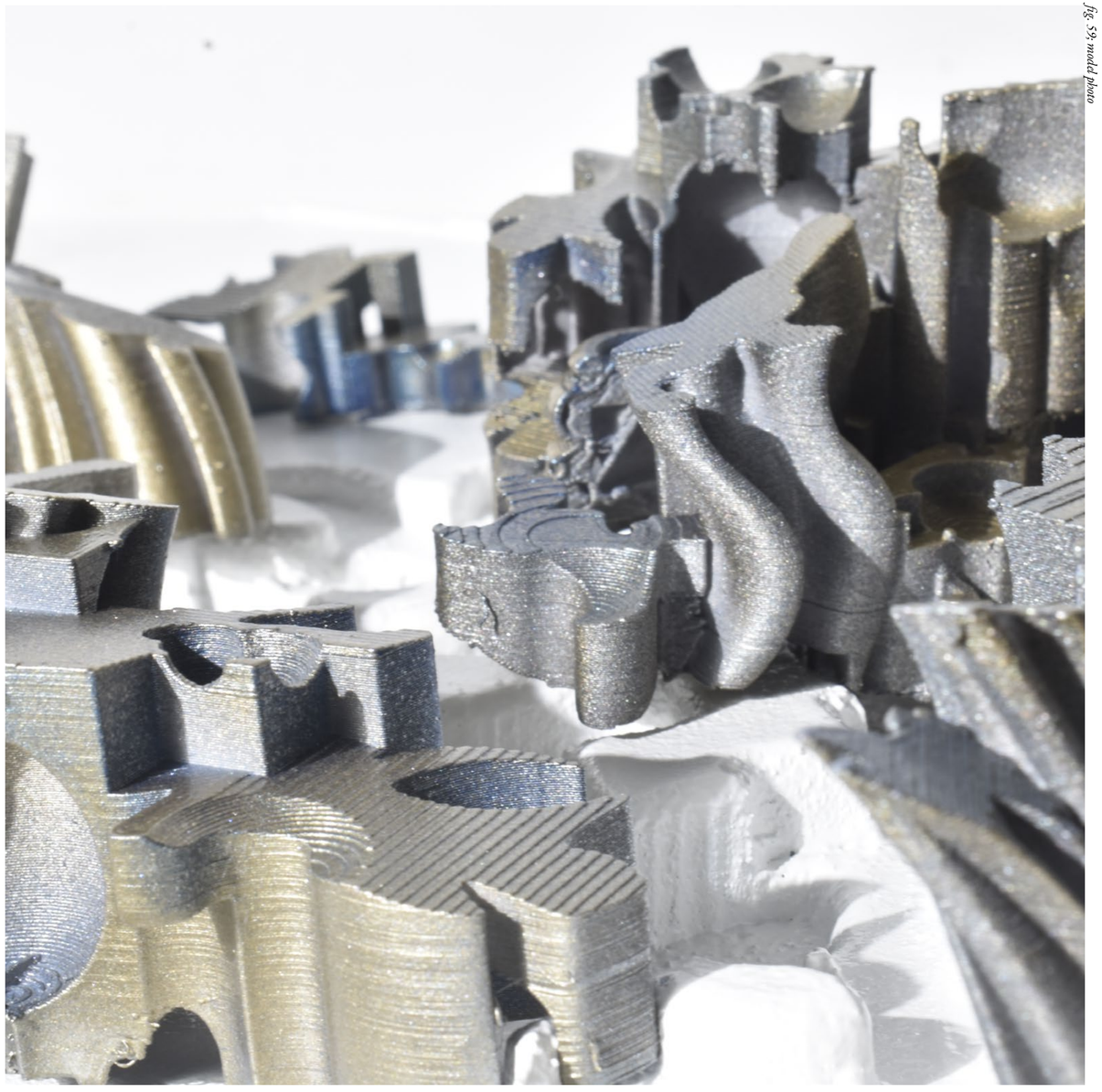


fig. 59: model photo

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