Dimensional Dialogues

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Masters of Industrial Design Requirements

Typically, the completion of a graduate thesis or degree project is a final requirement for a graduate degree at RISD. The thesis requires basic standards of excellence and a high-quality professional appearance. Note that formats may vary within departments, as criteria must be developed specifically for each student. The thesis is composed in relation to the pedagogy of each department and the nature of the specific thesis work. Each graduate student convenes a thesis committee (generally of three members) in the final year of a degree program. The final bound document must be submitted to the thesis committee for signatures and ready for delivery to the Fleet Library one week before Commencement. (RISD.com)

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Credits
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Signatures

Ayako Takase

Jess Brown

Pamela Hersch

Monica Nelson

Marcel Marcel

Alicia Tam Wei

Part 1

1-9

Text

Part 2

10-196

Image

Text

Preface: On Language

Language is about more than communication, and delivering messages. It's our way of connecting, and existing in a way beyond the immediate moment. The Ancient Egyptians believed that through writing, and inscribing their hieroglyphic language, they could achieve immortality. And perhaps, in a way, they were right.

Their language harbored typography with such a strong iconic, visual signature, that cultures and societies in a globalized and connected world today still use it in their arts and media. Our relationship with this ancient language today is not at all a practical or technical one; we don't use this language in our verbal or written communications to convey a message and meet a goal of any kind. And yet, thousands of years later, irrespective of cultural background or time period, humanity constantly reaches for it to stylistically express ourselves. This ancient language, each hieroglyph, remains etched in humanity's self expression, because it has remained etched in our international consciousness and fascination. I propose that this is because in this example, as well as countless other languages, we aren't connecting to the words and their meanings-we are connecting to their typography. The elegance, the personality of the characters. The immediate recognizability of the characters.

To read, to understand and use hieroglyphs requires years of study that builds on linguistic contexts, it of course, requires one to learn a new language. But to pay attention to, to be enchanted, transfixed and find emotional connection to the hieroglyphs-requires nothing of us. We connect so easily to these recognizable, and deeply relatable symbols: The eagle, of the ripples of water on the river, the human hand...The Ancient Egyptian Hieroglyphs are a unique example, as it is an iconographic language - full of silhouettes that can be recognized as elements in the natural world and completely jump across language barriers. This project is not about the Ancient Egyptian language, but a couple of languages later: Arabic. Arabic, and the Perso-Arabic script, a script used by a population of 400 million and for over a millennium, lives as an emblem for various aspects of human history. It is in this script much of our contemporary understanding of both the Sciences and Arts. In this script Algebra was developed, countless developments in the sciences, as well as pivotal literary works that shaped our understanding of poetry and human expression.

As an artist, I see how the visual characteristics of this language can also be a bridge of connection. This language already decorates our bodies in the tattoos we choose for ourselves, is shaped into abstract and elegant forms for calligraphic works of art that decorate our walls, and carries a rhythm and sound that resonates in music enjoyed across countless cultures.

Illuminating Language

This Thesis is about offering us an opportunity to not just see, and read language, but to interact with it in a fantastical environment and feeling through the avenue of built installations.

When we physically stand next to typography, next to language, scaled up to a human-sized presence, do we find an immediate kinship and warmth towards it? Do we find ourselves more captivated and intrigued?

This work explores linguistic expression, through the exploration of three-dimensional and interactive spaces that create an opportunity to interact with language as a visual and felt environment; rather than language on a page or the spoken word.

I believe that when we encounter the unfamiliar, the new, in an intentionally fantastical setting, we can reconnect with our innermost, childlike selves that reach for the unfamiliar with open arms and a boundless curiosity. I believe that this non-practical, non-agendaed session and moment with a language truly allows us to find a personal memory and encounter with an unfamiliar word or language. I believe this turns language into something like music, or dance, which are art forms that may present in languages or stories that we don't understand or relate to, and yet can be boundlessly moved by.

And I propose that there is something particularly important about the built arts, and the built environments that are ephemeral: the performance set design that takes months or years to build only to be presented for a series of mere nights before being collapsed, the installation that stands in front of a veil of technology which is aglow and alive when the lights are off, and back to a completely regular room when the lights are on. This type of ephemeral, built environment is a place in which we encounter a glitch to our senses: of our sight, our hearing, our touch...it creates a moment for us in which we question our senses.

And I believe that when we question something as concrete and true as our physiological senses, it is easier for us to question other non-concrete convictions we may have. This is part of why we find ourselves with new pathways of thinking after visiting a foreign country, after existing a near-death or high risk experience, after traversing in life milestones we may have never imagined for ourselves: a premise, a truth that you held close about yourself or your reality has been fractured–and you may now be more open to looking down avenues and perspectives that may have not been illuminated previously.

Presentation of Research

I will now break down the various aspects of my research. This is a heavily multidisciplinary project, fusing more than one domain together to create a blend of a final output. I will introduce what step I am at in the project, what those motions look like for me, and then share the thinking and research that happens in parallel to that step.

Essentially, a through line is drawn, where the study of one subject leads to another, and the information and findings flow in an additive way, cascading like the stream in the river:

How The Domains Come Together: This collection presents an organized compilation of work developed across the page and the screen.

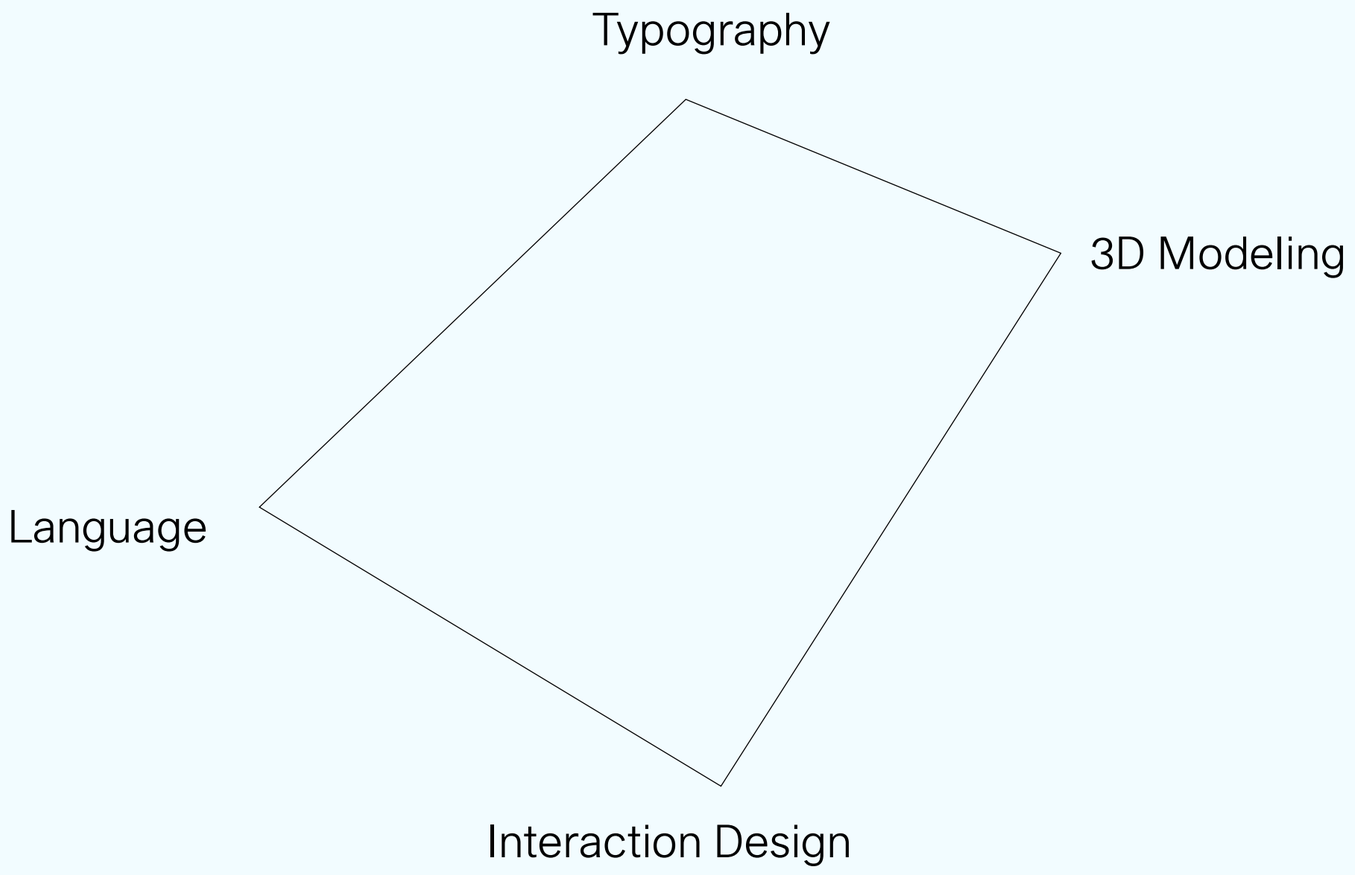
The visual contents and outputs span across a wide range of activities: 3D CAD Design, 2D compositional design, motion graphics, reaction-programming, the harnessing of machine learning models, spatial design and considerations, material tests, and more. I see these pieces in my research and work as pieces to a mosaic, building an overall picture with each color and shape of the piece.

Domains and Flow

My thesis focuses on the interplay between 3D form and typography, a subject that comes to life through the application of tangible industrial design, architectural, and typographic methodologies. This project, in another alternate universe, could have been done as a collaborative effort between three designers: one with a background in installation design, one who's an industrial designer, and a third who is a graphic designer with a typography specialization.

Concretely, ways in which these various domains are explored:

1. Typography: I examine typographic forms by applying concepts like axis and orientation, much like the way forms are scrutinized in architecture.
2. 3D Modeling: I delve into the modeling and manipulation of scale and human perception, drawing direct inspiration and methods from industrial design practices. Leading questions: What are ways that Arabic script looks and feels in 3D? What are ways to creatively harness the pre-existing, unique qualities of this script in 3D Space? (Ex. these beautiful 'dots' that float above and below the letters, the various styles in which one letter can connect to the next...)
3. Interaction Design: I design Arabic calligraphy, with considerations on how it will be altered and interacted with digitally. (For example, how will the calligraphy look and move in space once it is connected to sensors that capture movement of the human body? Yes, how will the calligraphy look when 'flat', in 2D, but how will it read and look when it is rotated? When it is diffused in texture onto fabric? When it is scaled up and down in size depending on the distance of the person to the sensor? When I add glitter-like particles to the form of the word, and have those particles diffuse and change shape?)



Themes and Output

Throughout this exploration, several overarching themes emerge. This includes the realms of translation, perception, interpretation, and extends to interaction and illusion.

I do this for the purpose of experiencing language in a very specific way: spatially, personally, emotionally, and theatrically. A very technically dense process is behind the curtain, and before the viewer is a sleek, simple, clean and elegant output that intentionally veils all the technicalities behind it. The same way that months or even years of heavily technical toil and development are poured into the behind the scenes of the likes of CGI or performance: set, stage, lighting design–the end result is one of emotion and organic elegance.

Language

This all begins with the study of language, and the history of language. Yes, the history of language is the history of humanity – but I think more precisely, it is the history of exchange. The history of exchange of culture, of goods, of ideas and of power. In the context of the script I'm using in my project, the Perso-Arabic script, is a number of fascinating developments that create direct influence on how I get to use it today.

Technology Molding the Arabic language.

A fascinating example of this is the storyline of how Arabic went from being an almost purely calligraphic language, to a language that was adapted into print of letterpress.

It was a Catholic missionary's desire to print the Bible in Arabic that led to Arabic being adapted to letterpress for the very first time, in the late 15th century. (Latin had already been printed in letterpress in the mid-15th century). The physical and technical constraints of an invention like the letterpress meant a simplification of the lettering and accents for standardization and efficiency. And in the end, that diffused copy of the Bible and Biblical text struggled to compete in a market of a population that was accustomed to significantly more visually beautiful handwritten religious texts in Arabic, produced with a great sensitivity and artistry in the calligraphy. The Church, in fact, later redirected their attention and approach to producing Bibles in the same way. Zooming out, this is a fascinating case study on Typographic adaptability and evolution following market behavior.

> Letterpress: Letterpress is a printing technique that involves pressing raised metal or wooden type onto paper, creating an impression. It was widely used for printing newspapers, books, posters, and other materials before modern printing technologies emerged. Its efficiency and versatility made it a popular choice for mass-producing printed materials, contributing to the dissemination of information and the growth of publishing industries around the world.

But this adaptation, and this first encounter with the letterpress, is a significant one to this day. The typographic adaptations of the letterpress made for the letterpress in the 15th century laid the groundwork for the digital representation of the Arabic script in the late 20th century. If I switch my keyboard into Arabic on my computer right now, I'll be typing in a manner that is significantly more streamlined, and less accented and embellished, just as it was in the letterpress. The typographic adaptations of this language molded to digital in a similar way as it did in the late 15th century.

Fast forward to the absolute present moment, and think of all of the emerging technologies that the market is presenting us. While I just spoke about Typography entering the digital, typed space, we are now entering an era of 'Spatial Computing' in which VR headsets will create realistic, and highly functional AR environments for us to work, socialize, and live in. Typography is now going to need to adapt to float and move in space, to realistically and elegantly capture light, and things that used to be mundane as contrast checks on flat 2D space will need to adapt to a living environment.

> AR / VR: immersive technologies that alter or enhance the user's perception of the physical world (AR) or transport them to a simulated environment (VR).

This means a 3D era of Typography. Now, what that means in its significance is still unknown. We might see a time in which this is a standardized way of computing and interacting with technology, or it may be a spearhead that inspires a world of other similar technologies that create influence on fields that we don't expect. As someone designing and creating a thesis, of 3D typography that is not intended for AR / VR, but rather creates what AR / VR attempts to recreate but in real, physical space, I can't help but wonder if these explorations have a way of adjacently informing fields and domains out of my expectation.

I welcome the cross-disciplinary share, and am always keen to see how various fields affect one another. We exist in a porous field. And what this means is that we are creating Interactive Design, in two very different avenues. Let's say there's an open call for: Explore Three-Dimensional, Arabic Typography. I strive for an analog-interactive, while a programmer or developer will pursue a digital-interactive one. The two of us cannot exist without the other, as the developer must recreate realism and beauty based on what is performed and seen in the analog, and I must harness technologies and solutions found in the digital.

Arabic in This Project

It is not a surprise that I, a designer who works heavily with projection, typography, architectural programs and three-dimensional modalities would be visually fascinated by a language that seemingly floats in space: with curves that dance across a composition like musical notes and accents and dots that float and below. The cultural background to this script is an expansive and beautiful landscape seemingly too vast to traverse in a lifetime. The visual characteristics to this script are the sights to see on that landscape. The details, the opportunities found in every curve and form, and from the very beginnings of its linguistic origins. It has been turned into art. This art is a backdrop to my life, decorating the wall of every home I've ever lived in.

As mentioned, Arabic began as an art form, and has been straightened out, standardized, and heavily simplified with era after era in forms to fit into inventions such as the letterpress, and later the digital screen. The original art form that is the brush and pen did not fade, but rather continues and flourishes to this day in parallel to each epoche.

It is up to us to combine the strong visual charisma of this script with these new, highly adaptive and expansive technologies to see what the next era of this script looks like.

As someone who often jumps between graphic composition with the Perso-Arabic Script in Arabic, and the Roman Script in English and French, I sometimes have this feeling: The Perso-Arabic script is by default, a primarily of art that needs to be pared down to fulfill simple functionality. The forms, the curves are so expressive and powerful, I marvel and find a fascination in that we've been able to harness it for more straightforward, technical usages.

Typography and Script

In my exploration I use the Arabic language, which is a language written with the Perso-Arabic script. The fascinating beauty of this, is that someone who speaks another language such as Urdu, or Farsi, may walk into my installation, and be able to read the letters as well. They may not have a direct translation of the word, as it is another language and even dialect, but there are important distinctions to be defined here as I speak further on this:

Perso-Arabic: The alphabet used for Urdu, Arabic, and Farsi is the Arabic script, which is also known as the Perso-Arabic script. It's an abjad script written from right to left.

Roman Script: In English, Italian, Spanish, and many other languages, the alphabet used is the Latin alphabet, which is also known as the Roman alphabet. It's an alphabet script written from left to right.

The Perso-Arabic script, I best explain by saying it is akin to musical notes on a notation page. The baseline is not at a 'floor', base 0, rather the baseline seemingly floats into space. The letters and their curvatures can dive above and below that baseline, and there are, calligraphically, countless creative ways to make those connections that will create different visual styles. This script also contains 'Nuquat' or 'Dots' that you see above and below the letters. It also contains accents, or 'Harakat' which also are placed above and below letters.

Through the lens of a 3D designer, this script is a wonderland of exploration, as there is so much that can be explored and developed with all of these beautiful details. Something that I keep remembering, as I swim in the calligraphic design portion of the work, is how the languages that use this script are some of the world's first variable typefaces. How remarkably different versions of the same letter and word can exist, to serve functional or stylistic purposes.

Perso-Arabic Script: The Perso-Arabic script, which we more colloquially hear referred to as the Arabic script, has a truly expansive history. It finds its roots in the Arabic script, which dates as far back to the 4th century CE. It is primarily associated with the Arabic language but has played a crucial role in various languages across the Middle East, North Africa, and parts of South Asia. Over these centuries, it has evolved and adapted to accommodate different linguistic nuances. In particular, the Perso-Arabic script is widely used for languages like Urdu, Arabic, and Farsi. This script is an abjad, a writing system where only consonants are typically represented, and it is written from right to left, and that orientation and its curvature gives it a distinct and recognizable look. Beyond the functions of language itself, this script has a significant cultural and artistic presence in the regions where it is used. For example, it is often seen in beautifully crafted calligraphy, from delicate ornamental designs to grand architectural integrations.

Roman Script: The Roman script, also commonly referred to as the Latin script, has a remarkable historical lineage that spans over two millennia. It originated from the Latin alphabet, which was used in ancient Rome as early as the 7th century BCE. The Latin script's influence expanded with the expansion of the Roman Empire, making it one of the most widely recognized writing systems globally. I especially enjoy the expansiveness of this script in how it belongs to many different languages. (Ex. English, Italian, Spanish, and many more. The Roman script is an alphabet, a system that represents both consonants and vowels and is written from left to right, which is a distinct characteristic setting it apart from right-to-left scripts. Its historical and cultural significance is immense, as it has not only been a tool for communication but also a symbol of classical education, art, and literature. Today, the Roman script is ubiquitous and prevalent in the Western world, appearing in literature, signage, digital media, and various forms of creative expression.

Abjad Script: It is an alphabet, and unlike some writing systems, it represents only consonants. In the Abjad script, vowels are typically indicated by diacritical marks, though in some cases, they may be omitted. This script is used not only for Arabic but also for several other languages in the Middle East and North Africa, such as Persian, Urdu, and Kurdish. It's a key element of the Arabic writing tradition and is written from right to left. The word "Abjad" itself refers to the first four letters of the Arabic alphabet, which are Aleph, Baa, Jeem, and Daal.

The scripts that this project uses, the Roman and the Perso-Arabic, have their similarities and differences. To spotlight a few that are most relevant to the explanation of my project:

In similarity, they are both alphabetic writing systems, where characters represent sounds (phonemes). To highlight three most relevant distinctions: 1) The most obvious difference is the orientation. The Perso-Arabic script is written from right to left (RTL), while the Roman script is written from left to right (LTR). 2) Consonant/Vowel Representation: In the Perso-Arabic script, consonants are primarily represented, and vowels are often indicated using diacritical marks. In the Roman script, vowels are usually represented using separate letters. 3) Typography: The Perso-Arabic script has specific calligraphic and typographic traditions, resulting in distinct script styles and ligatures, while the Roman script has its own typographic conventions and styles.

Typography and Script

I will now walk through some of my thinking that runs in parallel to my explorations of the script in 3D. Especially in the context of creating and designing at the bridge in more than one area of practice, it is key that I recognize that they each come with their respective set of definitions and vocabulary. In the interest of honing in and spotlighting the concepts most apt to my study, I will selectively cover initial definitions as I literally, and figuratively set this exploration into space.

2D vs 3D Space Axis

In 2D space, we can easily relate objects using the XY Axis, where X signifies left and right, and Y signifies up and down. However, when transitioning to 3D space, we introduce the concept of Three-dimensional Cartesian coordinate axes. In this new dimensionality, the Y axis takes on the role of 'forward-backward,' and it's the Z Axis that captures 'up-down.' This shift in perspective requires us to reframe our thinking when positioning objects in three-dimensional environments.

In the context of my designs within this project, this means that I get to reconsider how I treat each detail of each letter. For example, I could stretch a letter out from flat, to a stretch from one end of the plane to the next, and from any angle it will look like an incoherent squiggly line, but when the camera is positioned at the right, front facing angle, the word is now perfectly legible again.

Axis: An axis in spatial orientation is an imaginary line defining the position and orientation of objects

Three-dimensional Cartesian coordinate: A system that defines points in a three-dimensional space using coordinates along the X, Y, and Z axes, enabling precise positioning and orientation of objects within the 3D environment

Baseline in 3D Space

In the context of positioning letterforms within a three-dimensional space, a fundamental consideration arises concerning the baseline. In typography within a three-dimensional space, the baseline is a fundamental reference point where the ground plane becomes the new basis for positioning letterforms, possibly involving the creation of a secondary ground plane to serve as the baseline.

Baseline: The baseline in typography serves as a reference line upon which characters' bottom edges align, helping to ensure uniformity and readability in text.

Arabic and Roman Type in relation to Baseline

Exploring the visual translation of Arabic and Roman lettering in a three-dimensional context is fascinating. Arabic, Farsi, and Urdu lettering, with their resemblance to how birds interact with surfaces in relation to the baseline, offer a unique perspective. Conversely, Roman lettering can evoke the imagery of horses standing, running, or even rearing, as seen in letters like 'F.' I think a good example or explanation of how Arabic Script letters behave on a page, is that they remind me of musical notes, dancing above and below a baseline, with a flexibility and lightness in that visual movement.

Considerations of Type Anatomy into Three Dimensional Space

Delving into type anatomy within a three-dimensional space involves several critical considerations. Beyond adjusting the baseline, crafting letterforms becomes paramount, ensuring readability and aesthetic coherence from various viewing angles. Moreover, spacing and kerning, essential aspects of typography, demand meticulous reevaluation to maintain harmonious letter interactions in the 3D environment. Lighting and shadows play a significant role, influencing text legibility and visual impact when viewed from different perspectives.

Spacing: Typography's spacing refers to adjusting character distances to achieve visual harmony and readability

Kerning: Kerning is the typographic adjustment of the spacing between specific pairs of characters to improve visual consistency and legibility.

Type Anatomy: Type anatomy encompasses letterform structure, proportions, and design details, especially significant in three dimensions, where meticulous crafting of contours and proportions maintains readability and visual appeal from various angles.

Considerations of Scale as I Reference Typography and Architecture

Scale is the size of an object, or in my case, of lettering and typography. When we open a text document, our clicking between text sizes such as 11, 18, or 86, will be how we change the scale of the letters. In 3D programs, things are less straightforward, and everything relates to something else. Of course, we begin on a grid with set units: Inches, Feet, Meters, but the 3D model that you create in this program is still an ambiguous scale. You could design it in detail to scale, rotate your computer to show your screen to a new set of eyes, and they may not be able to tell you a definite answer on how large or small your 3D model is supposed to be, particularly if you've created an abstract form. If you were to show them a 3D model of a more standardized scale for example, a car, a building, we have immediate references to determine scale.

But what of Typography? Is this in the category of abstract, or referenceable form? I think the answer is somewhere in between. We are quite used to viewing Typography, words and language, at very specific, standardized scales. The scale we see of words on a billboard, posters, and the typed page, and every book and application follow very specific guidelines for clarity and accessibility. We are not accustomed to words, language, and typography being a large, scaled up to human size, interactive nor 3D form.

In Industrial and Graphic Design

In the realm of Industrial Design methodology, scale is key in considerations of product / object usage, and a first element to determine the ways in which we are to interact with a design. In Graphic Design and Typography, the same could also be said: scale is a key factor in determining usage of the material, hierarchy, and other elements. I find that with type, we are quite used to seeing type at certain scales, and even at the billboard / larger than life level, elements of distance and requirements around legibility fit into our general custom of type sizes. Scale is a key factor in both industrial and graphic design methodologies. It influences product and object usage in industrial design and determines material usage and hierarchy in graphic design. Scaling up typography to a body-level and architectural level, often accomplished through methods like projection, offers an immersive experience that can evoke surprise and wonder, breaking the norm of our accustomed type sizes.

Categorizatization

In the exploration of scale, categorization proves helpful. We can begin with very small scales, progressing to larger-than-human scales, which apply to urban and systems planning. This categorization allows us to navigate and understand the diverse dimensions of scale in design and architecture.

Interaction Design

Industrial and Product design is a field and domain that rests entirely on human interaction. On human touch, human need, and that initial spark of human interest. That is the lens through which I explore the final step of animating and programming my 3D model creations.

I design the interactive portion of this Installation, the same way I would design the interaction of any physical product. Iterations and prototypes are made, repeated, refined and in a constant stream of feedback of visitors who come to experience. While the output looks and feels very adjacent to a Fine-Arts domain piece, it is created entirely within the framework of how we are trained to approach the design of a product in the Product and Industrial realm.

Interaction Design: Interaction design is about creating interfaces that let users interact with digital or physical objects. This could be anything from apps to 3D models. In this case of my project, it means programming 3D models to respond to human movement in real-time, like turning them into dynamic sights that react to people's presence.

Something that is a very important consideration for the interaction designer to consider, is the end point, and step back from there. "How do I want my user to feel?" or "How do I want my user to interact with _____?" serve as important markers of how one would mold the form to follow the end function. And in the context of designing an installation, I ask myself: "What do I want the audience to feel?"

Calling back to the very beginning, my goals in creating ephemeral spaces that I want the audience to find kinship and personal connection in interacting with language in a very literal way. More specifically, I don't just want to create a feeling, I want to recreate a specific feeling.

Peace, calm, melting of tensions that we find in language barriers, understanding, approachableness, childlike wonder, curiosity, ease.

I want the audience to feel the way that I feel when I sit in my Aunt's garden, a garden situated geographically outside of Cairo, Egypt. The lush green of the grass and foliage envelops you in heavenly scents of mint - a fragrant mint that can't be found anywhere else. The scent of Mango colors the air. The sounds of water flows and trickles, creating a cooling sensation for the body just by hearing it. The garden is a home for all, neighbors, friends and new connections alike, all are treated as our family upon entering and enjoying the garden with us. The air is warm, and the conversations add to that warmth. We enjoy summer night's weather with the full bodied, spiced taste of red Turkish tea and the light, sweet scent of Jasmine in the air.

The business and the bustle of Cairo can be seen and heard in the twinkle of city lights in the distance. A large part of what makes the garden a place of true ease, tranquility, and comfort, is the way in which it is a sanctuary away from the bustle and noise and the movement of life itself.

There, it's not uncommon for me to meet guests who speak languages or dialects that I don't speak. Earlier than later I decided and realized: it matters to become someone who can speak to anyone; even when you don't have the words. I show pictures on my phone of my family and life. I play soccer with others. I play music on my cousin's ukulele. I think there are infinite possibilities and ways to connect to others without uttering a single word.

And perhaps that brings us a bit to what connection really is. Love is when you sit with a loved one, and even if you do have a lifetime of words, stories, dialogue and literature to share with one another, you don't need to utter a single word. You can simply share space, share air, share time with someone. You may not always understand them, their actions or thoughts, but you don't feel that you need to.

We do not need to understand in order to connect. But we need to connect in order to understand. And when unpeeling layer and layer of my recent work, layers of technical drawings, a fictional 3D landscape that exists in CAD-land, lines of code, and dark rooms with bright projections in them, that is what is revealed underneath.

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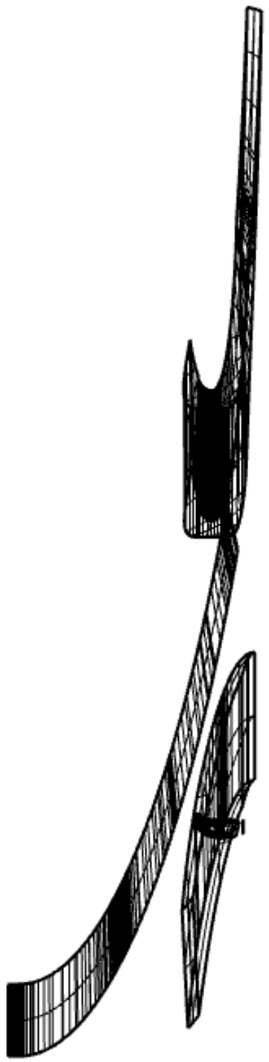

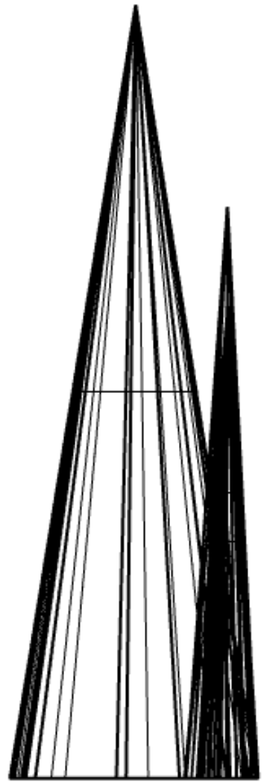

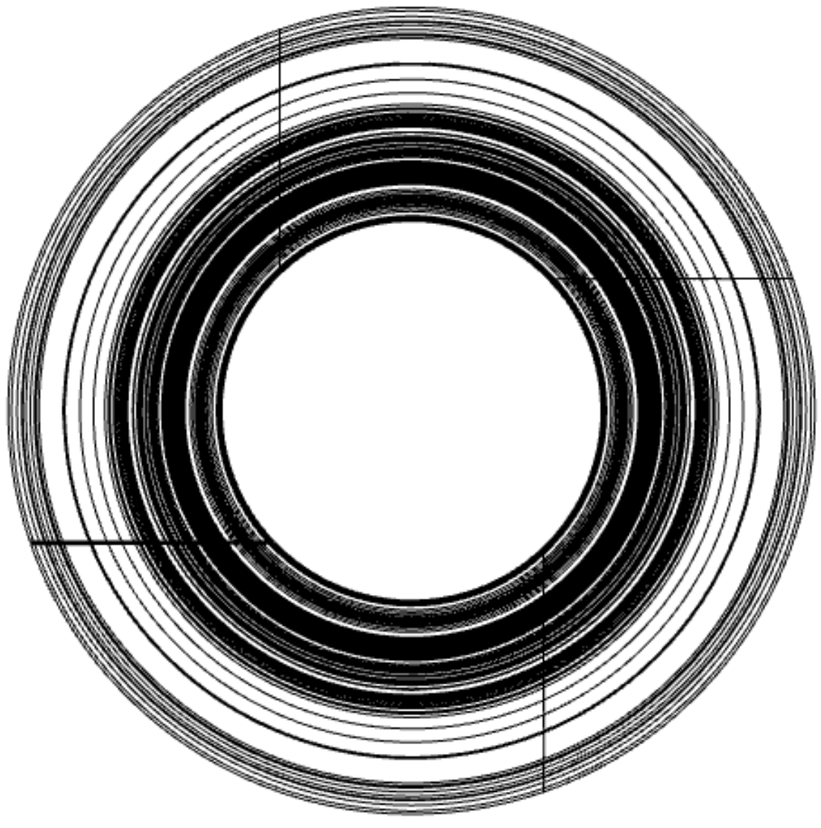

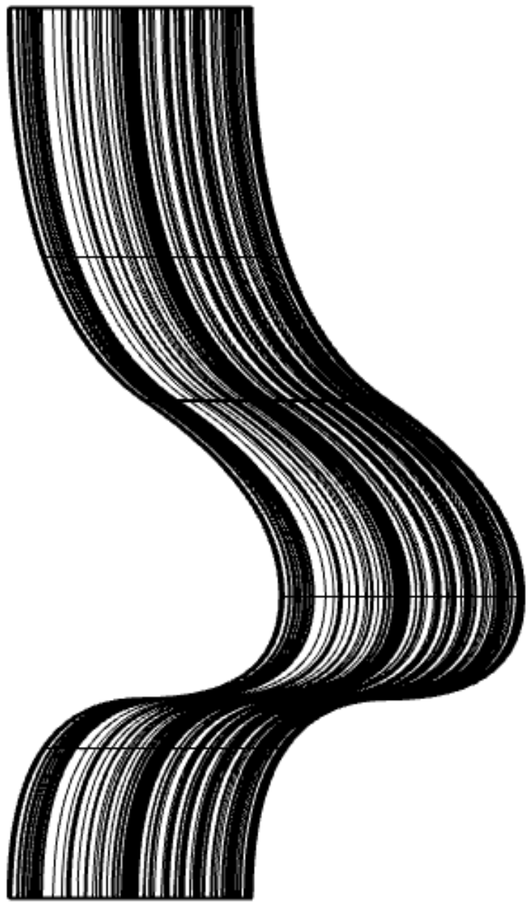

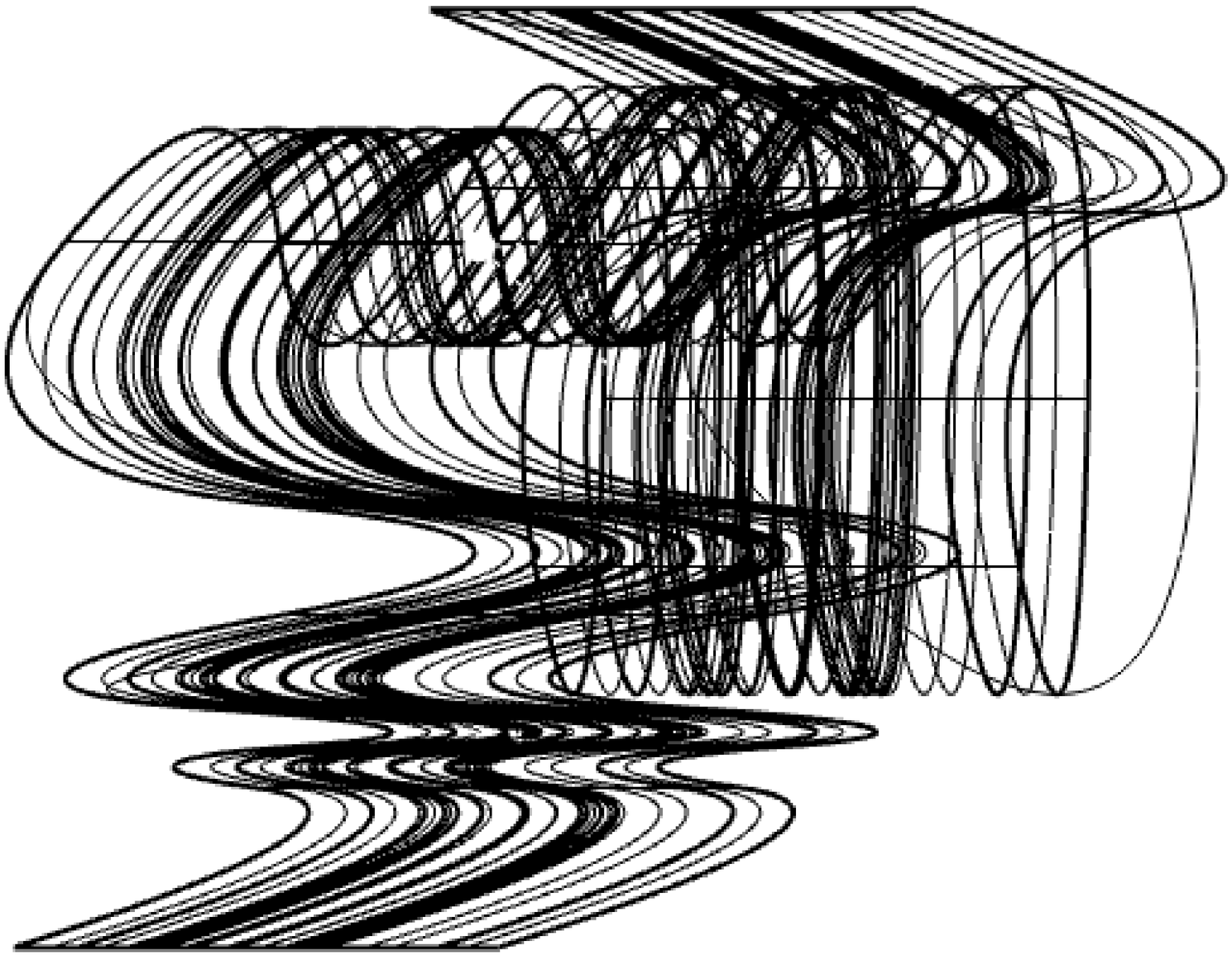

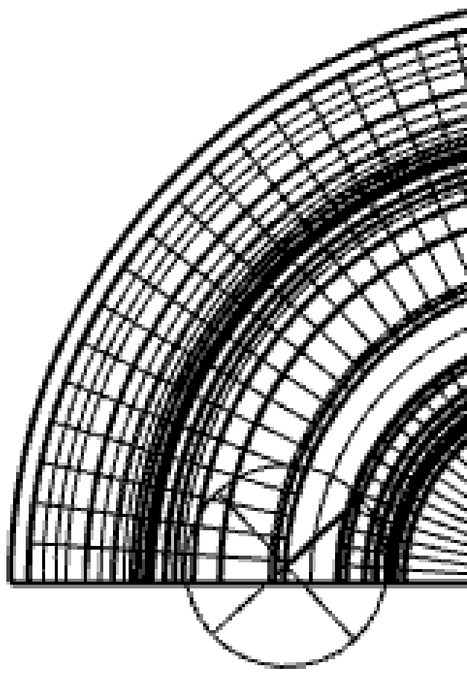

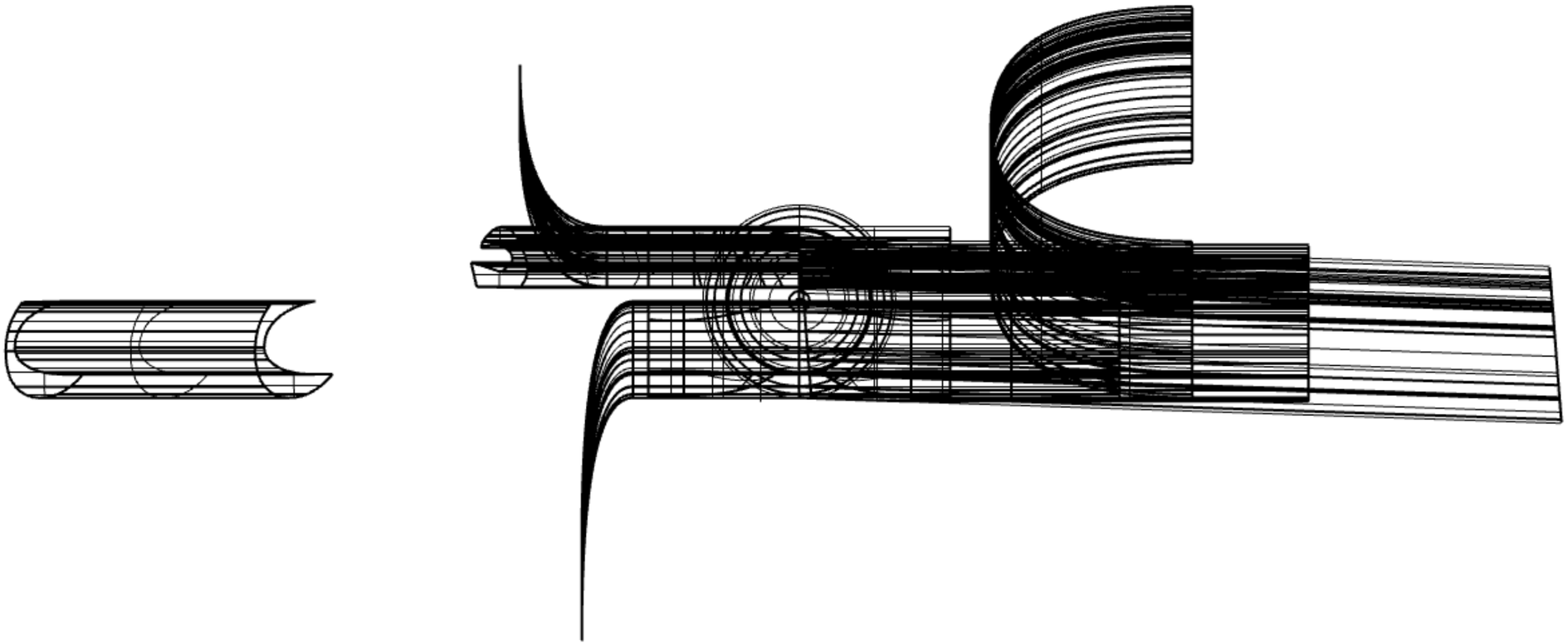

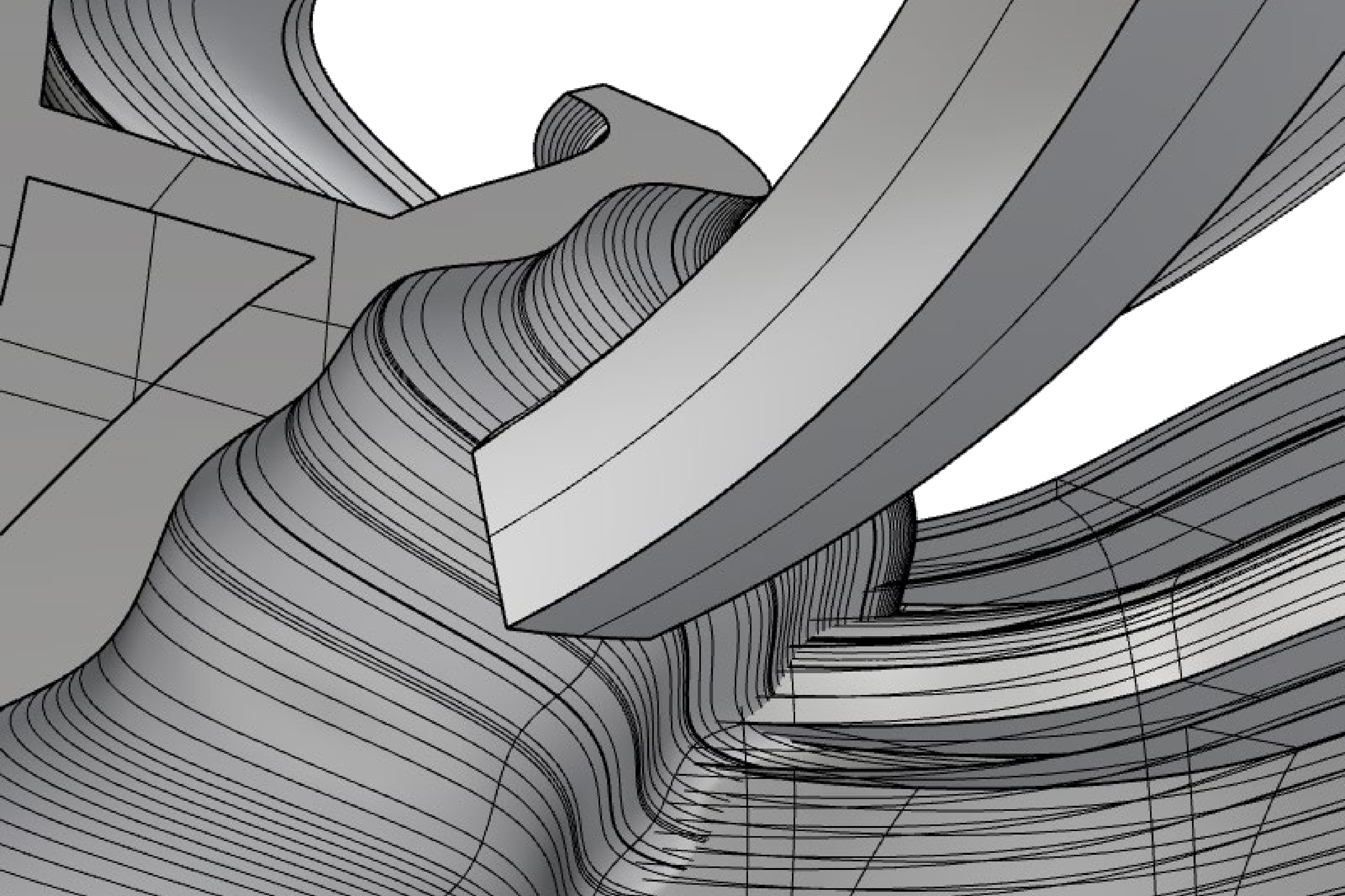

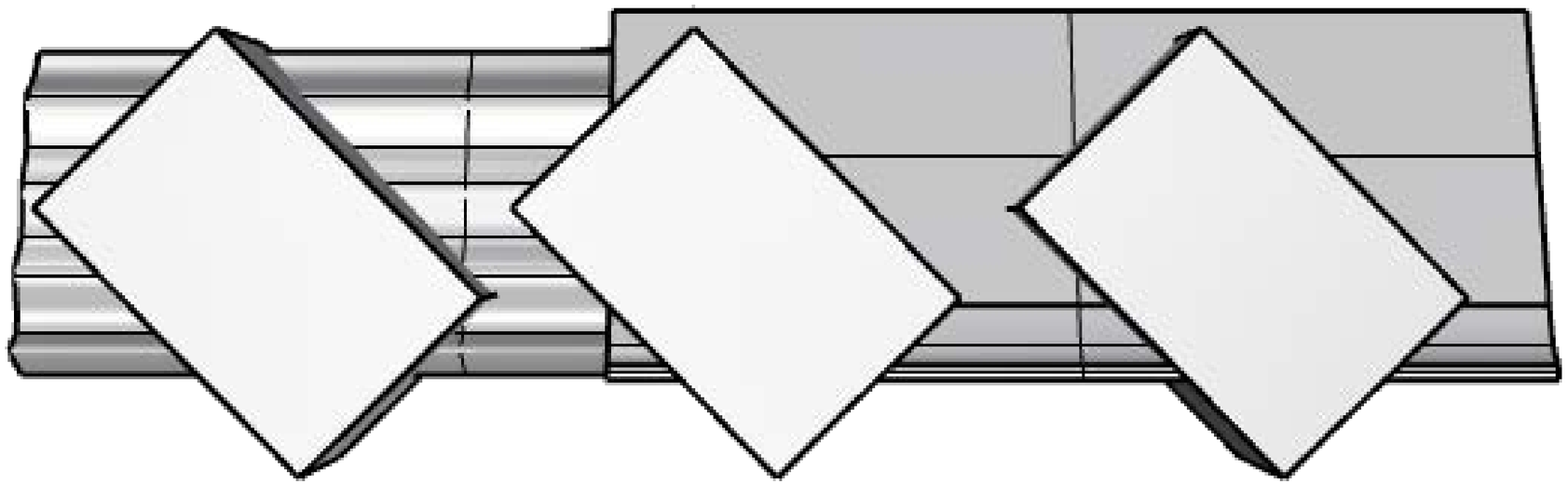

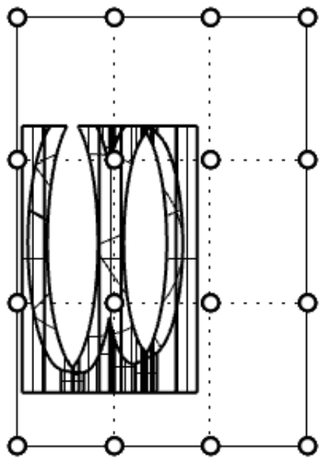

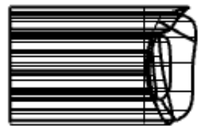

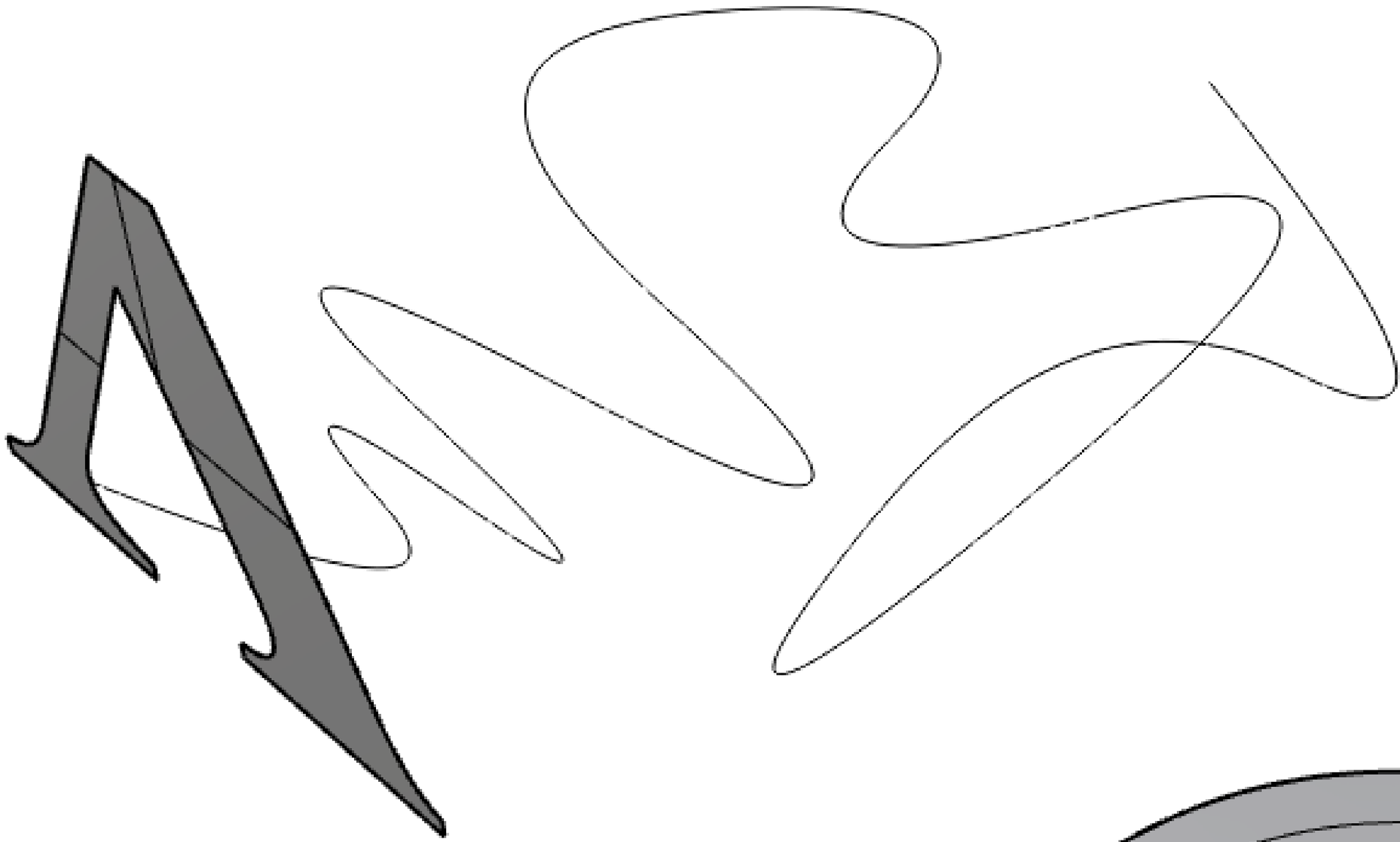

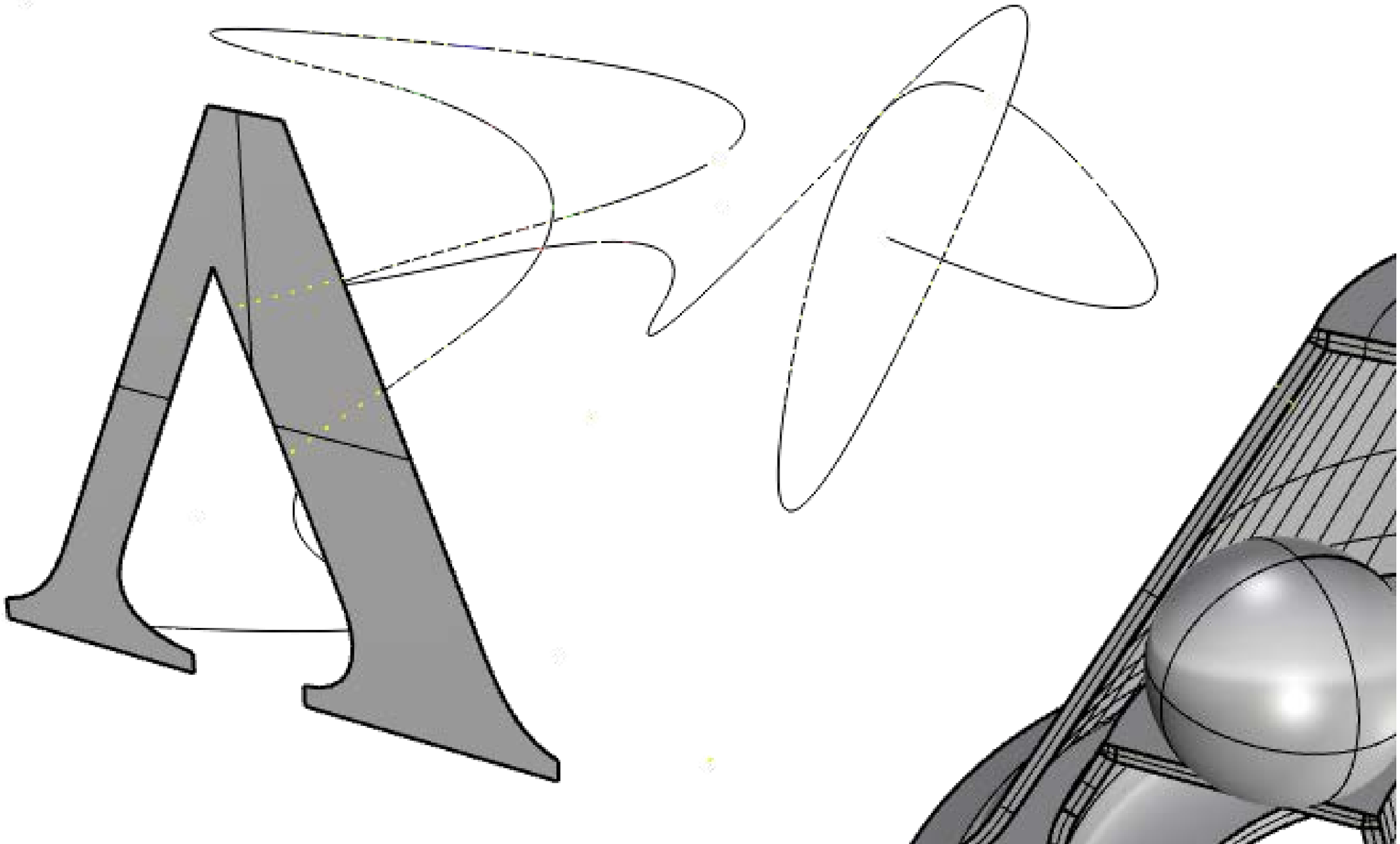

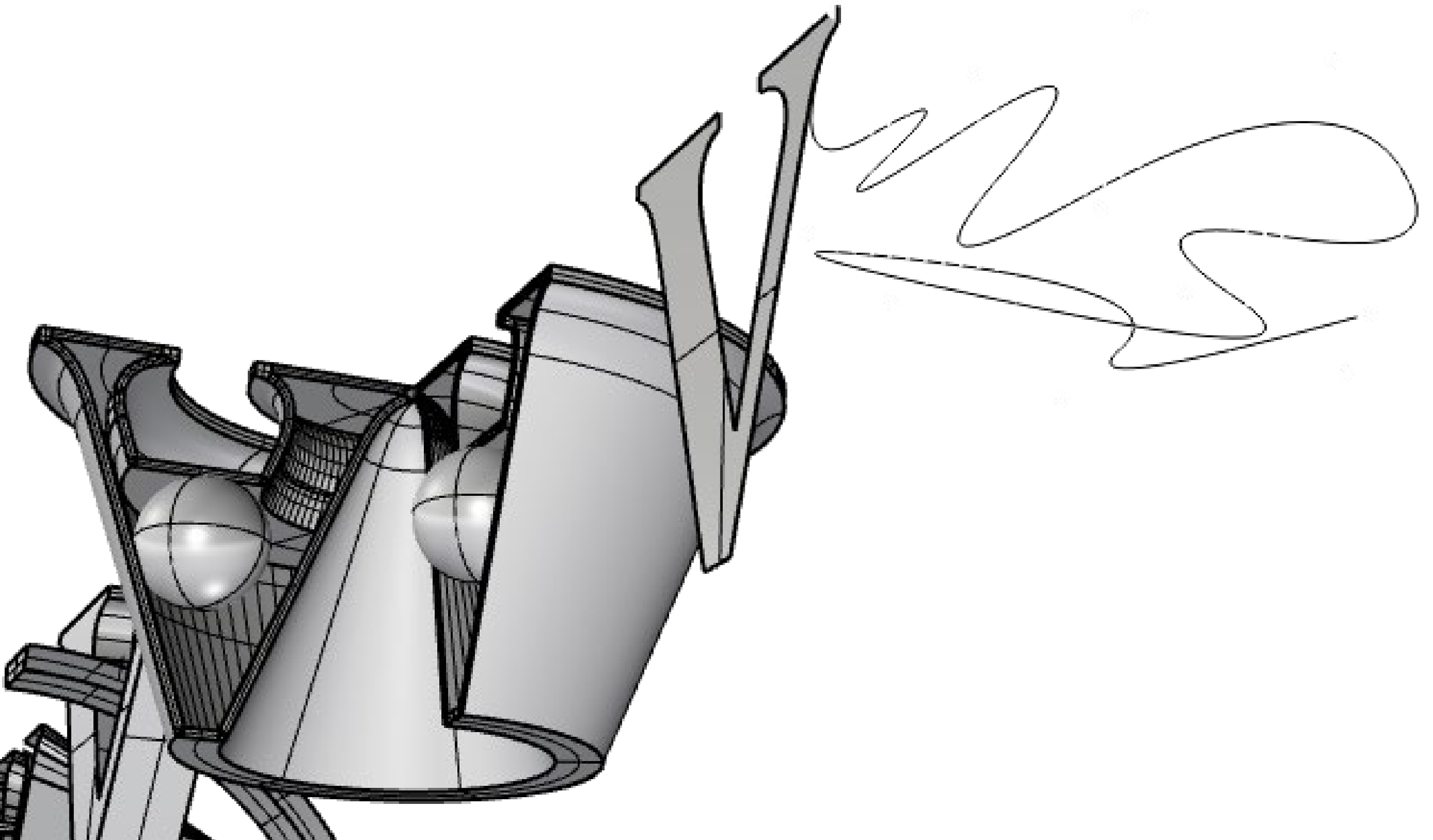

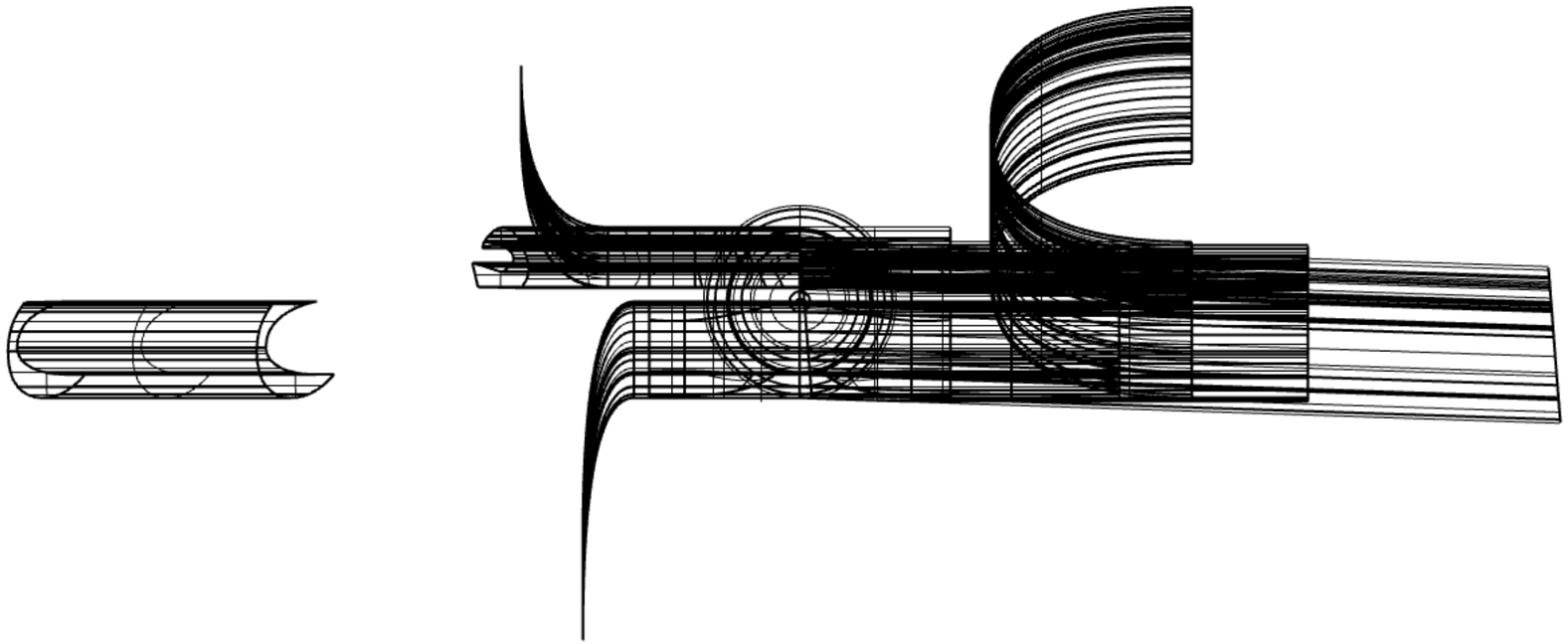

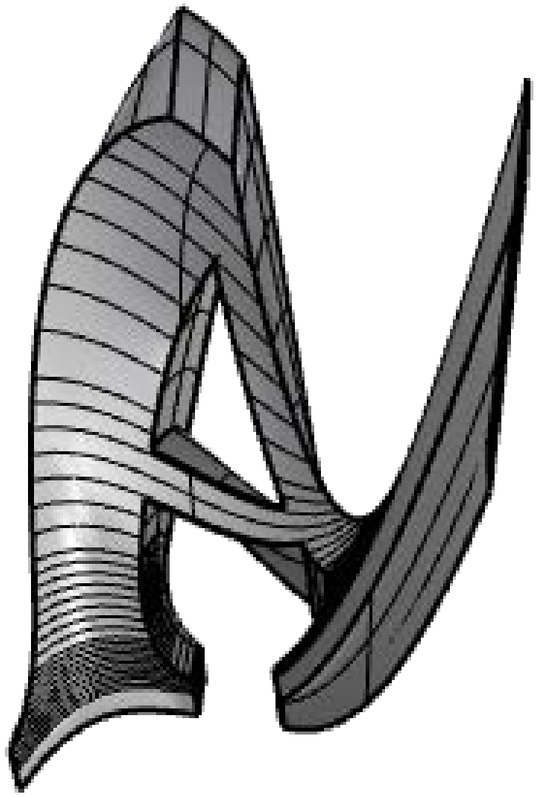

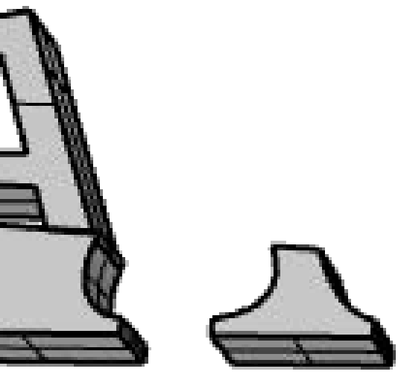

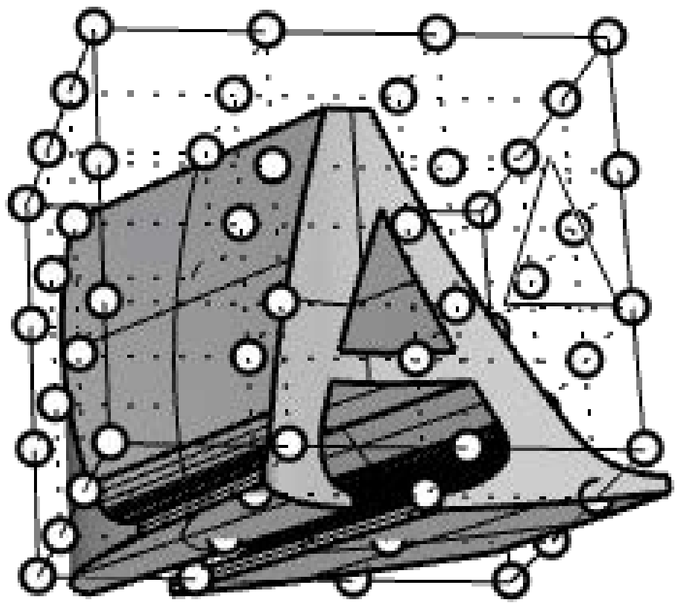

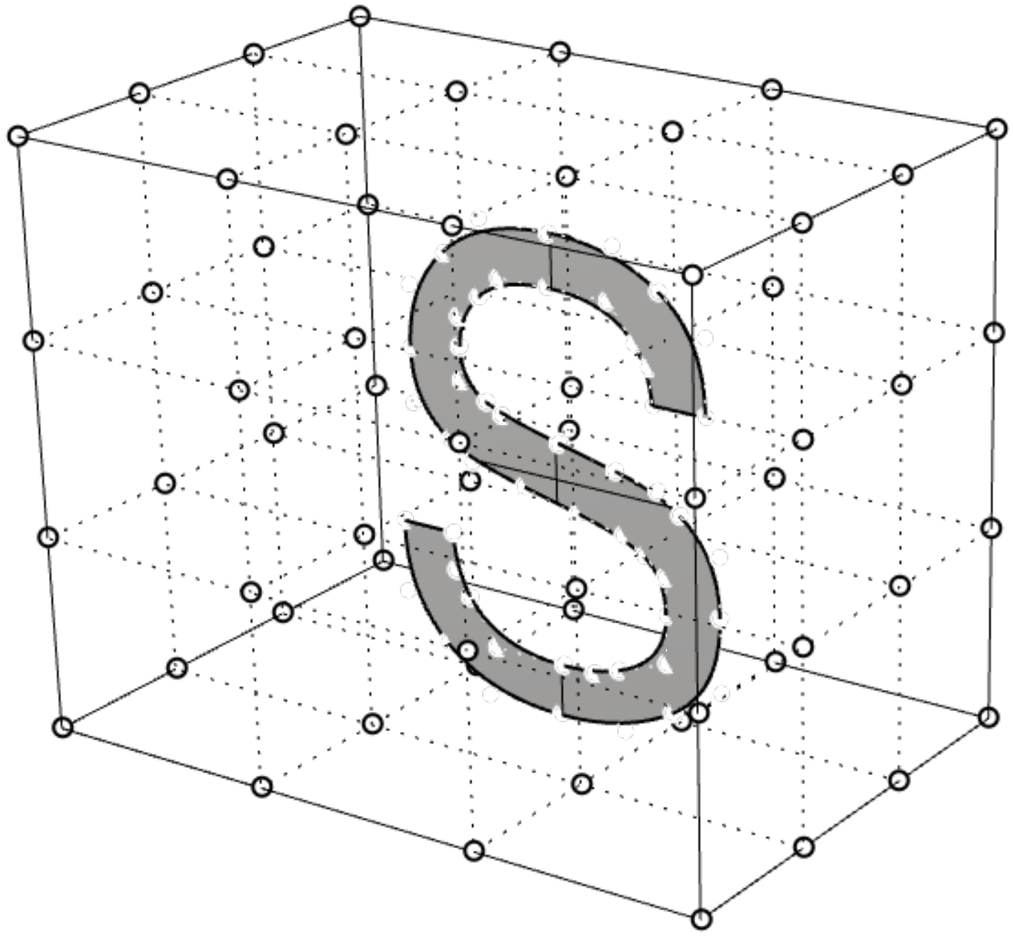

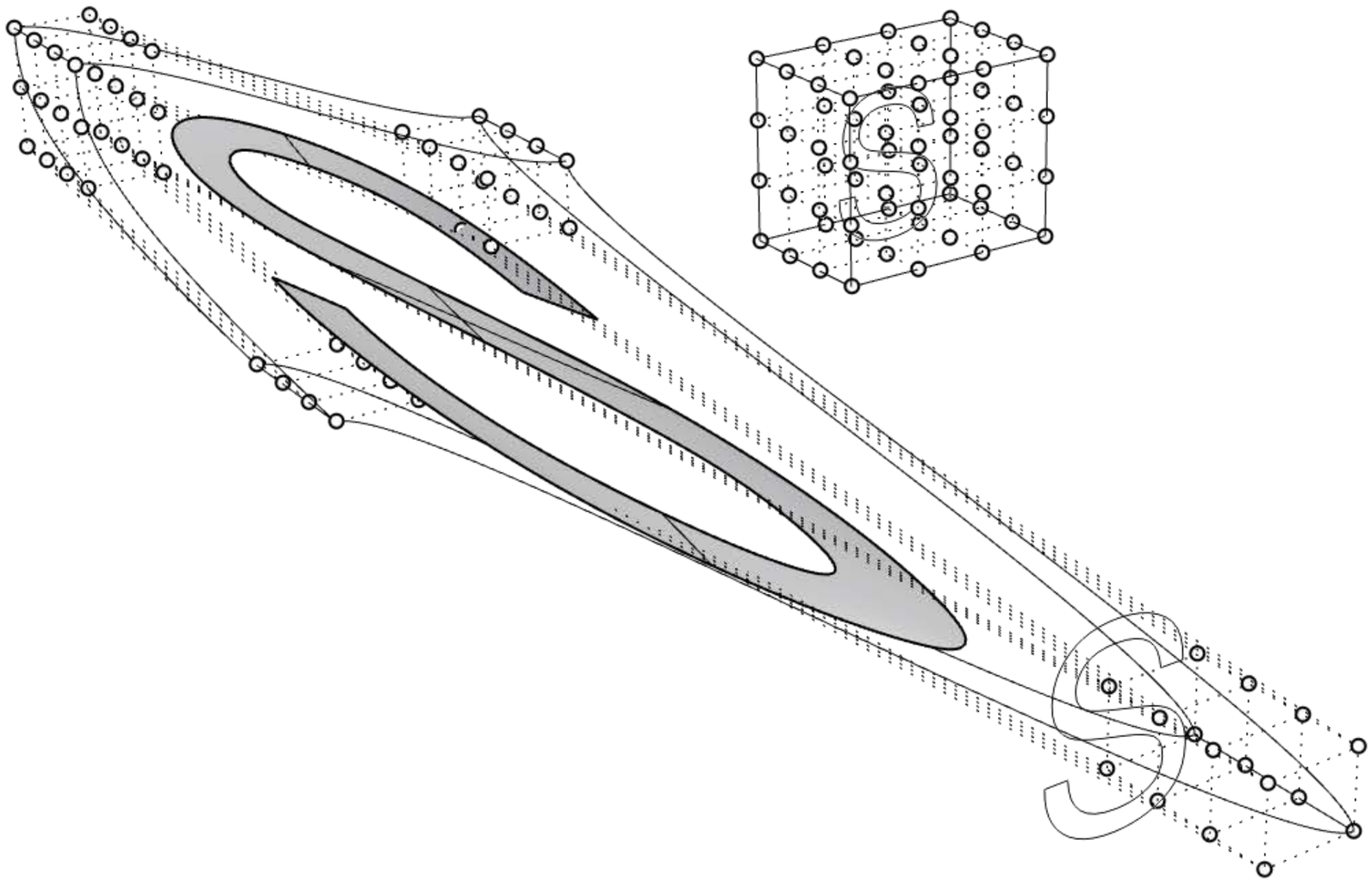

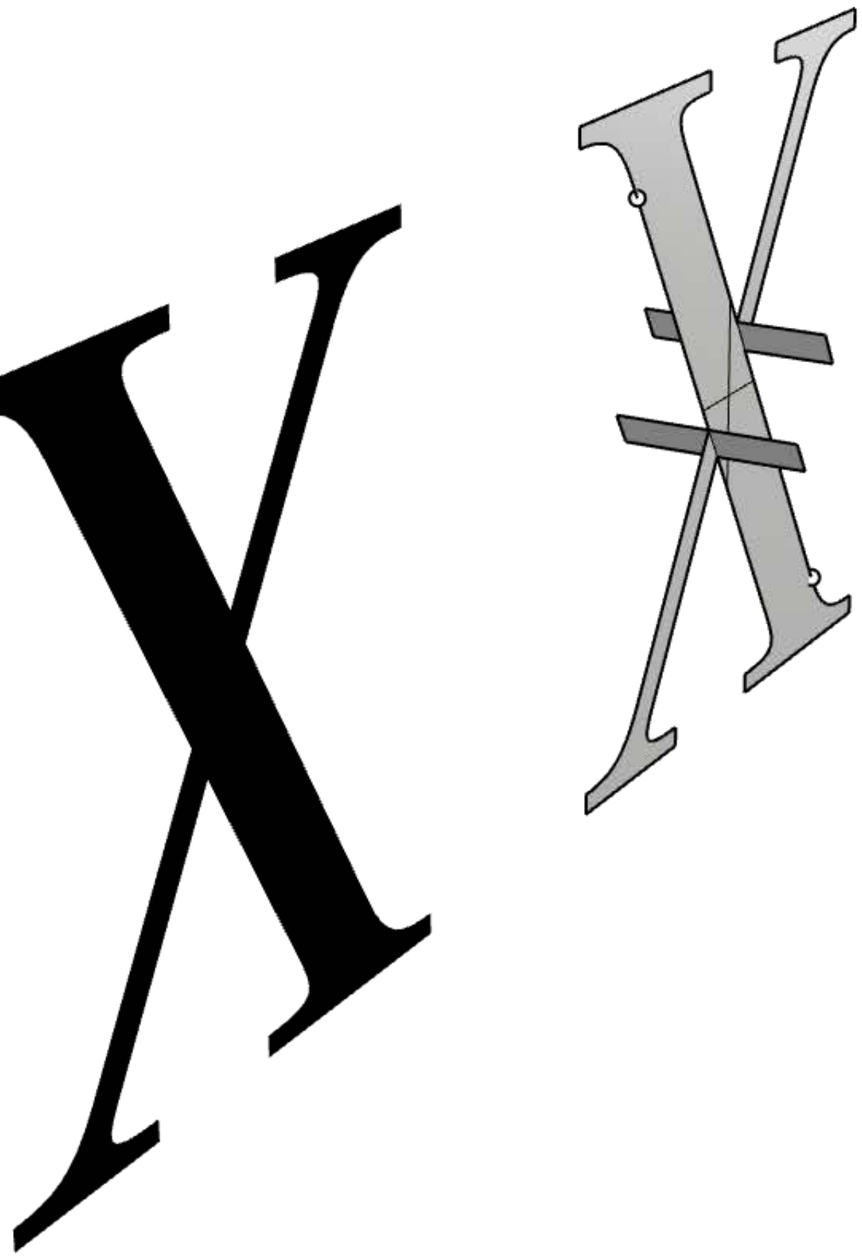

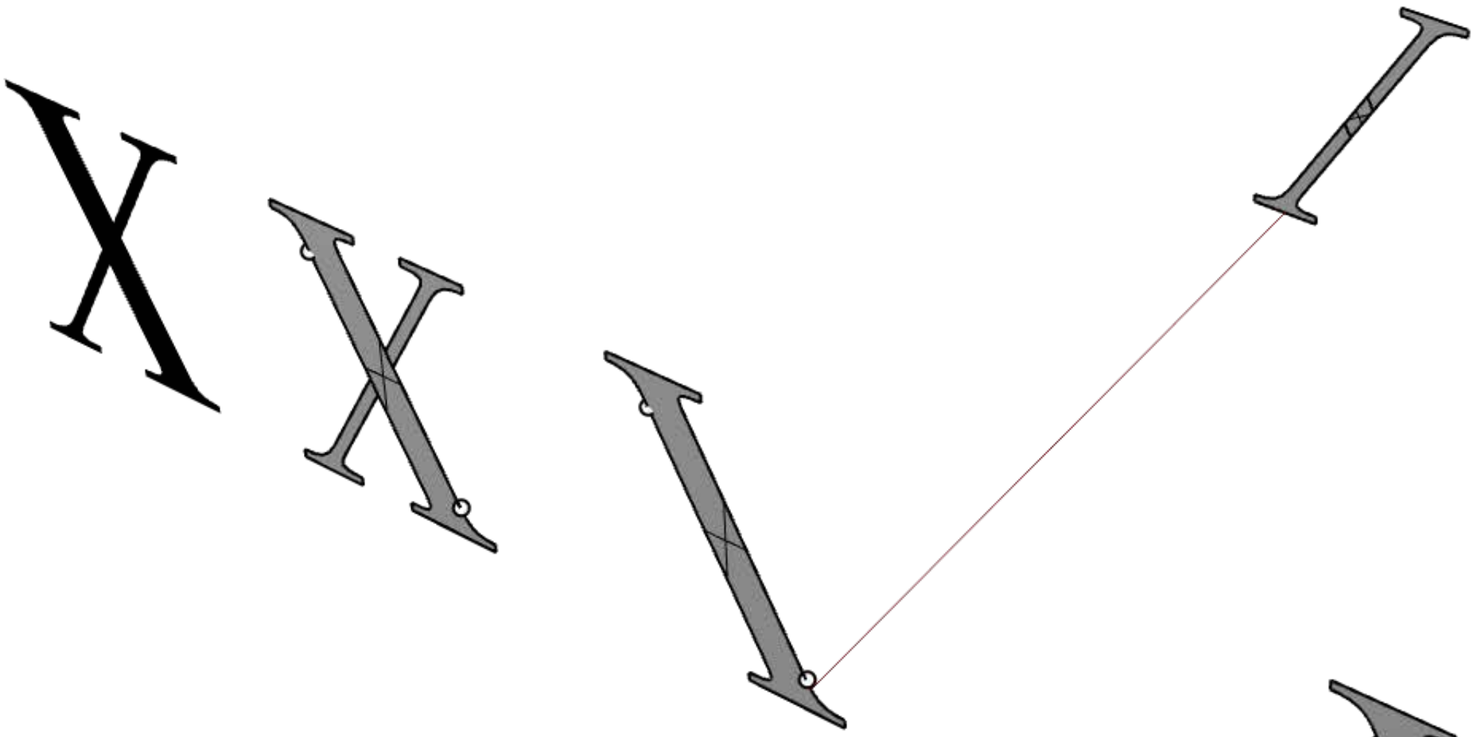
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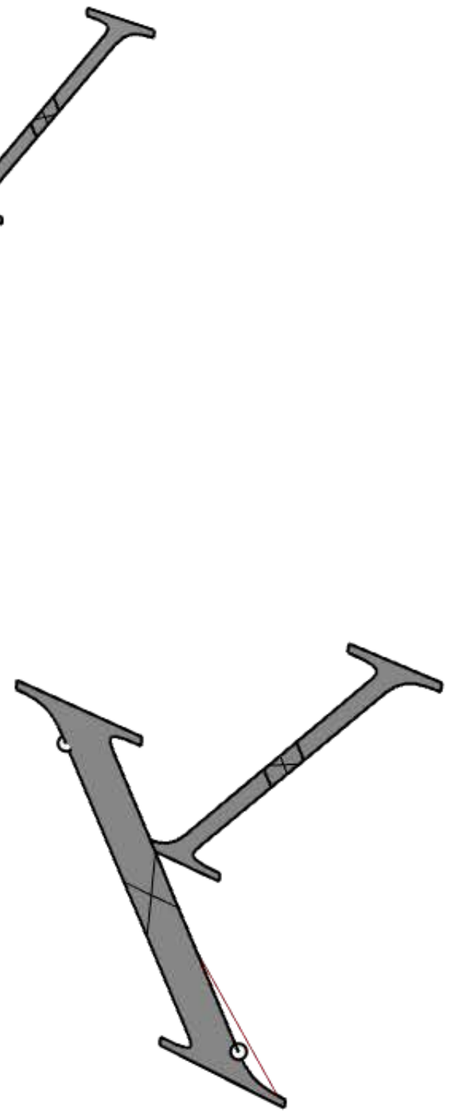
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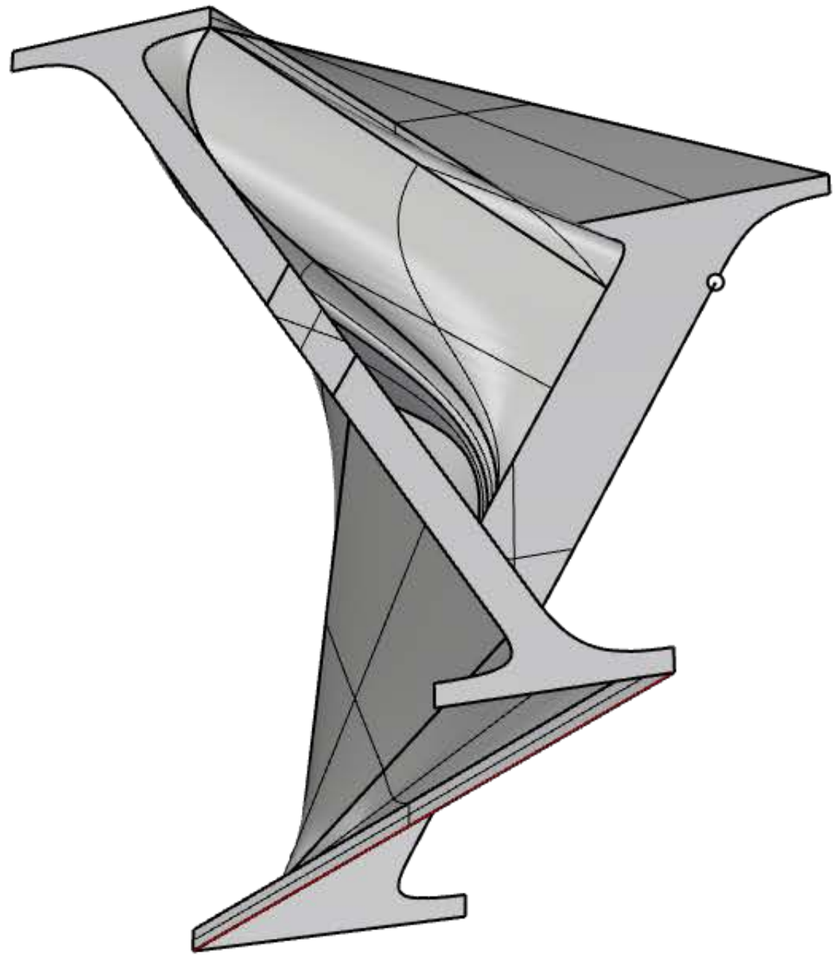

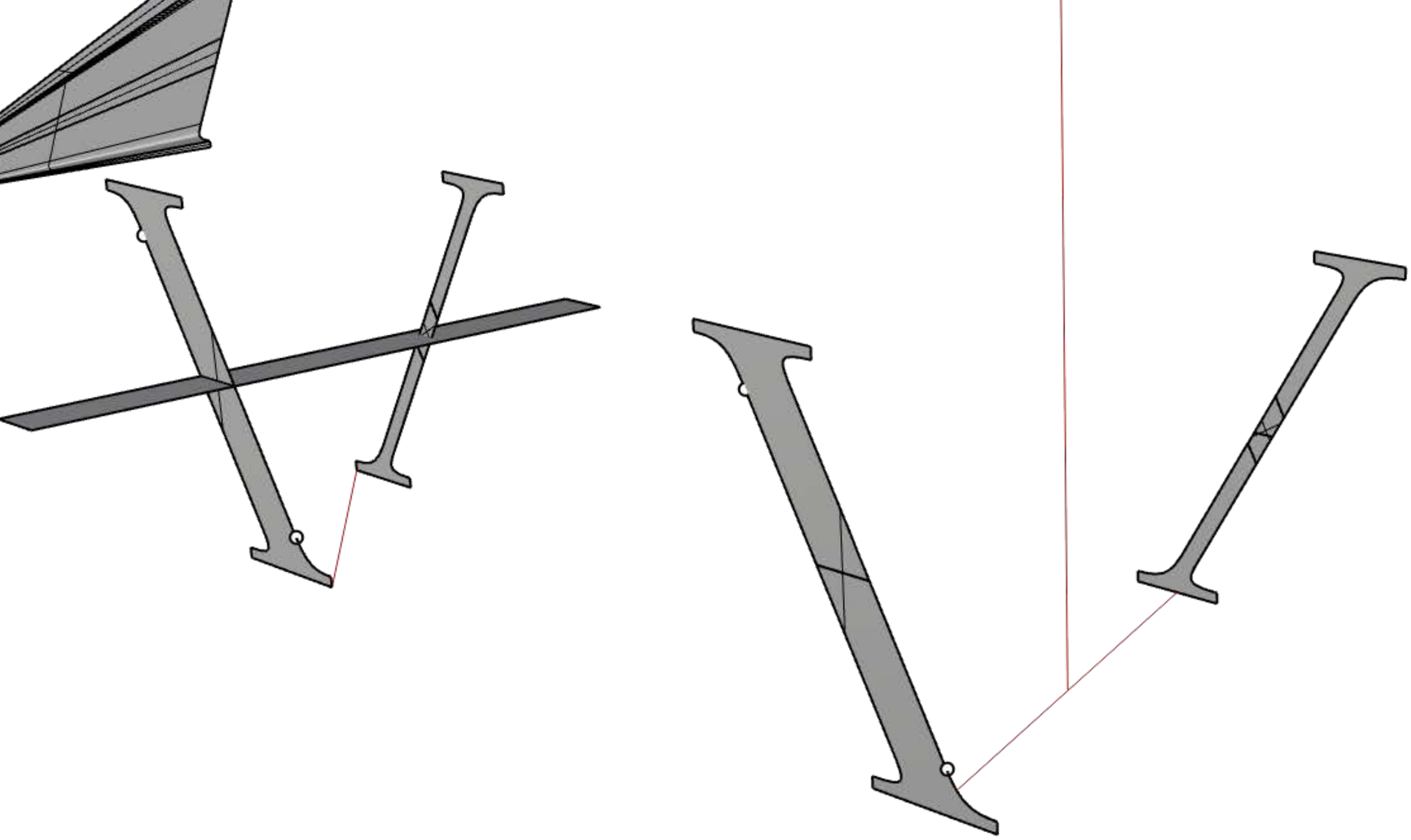

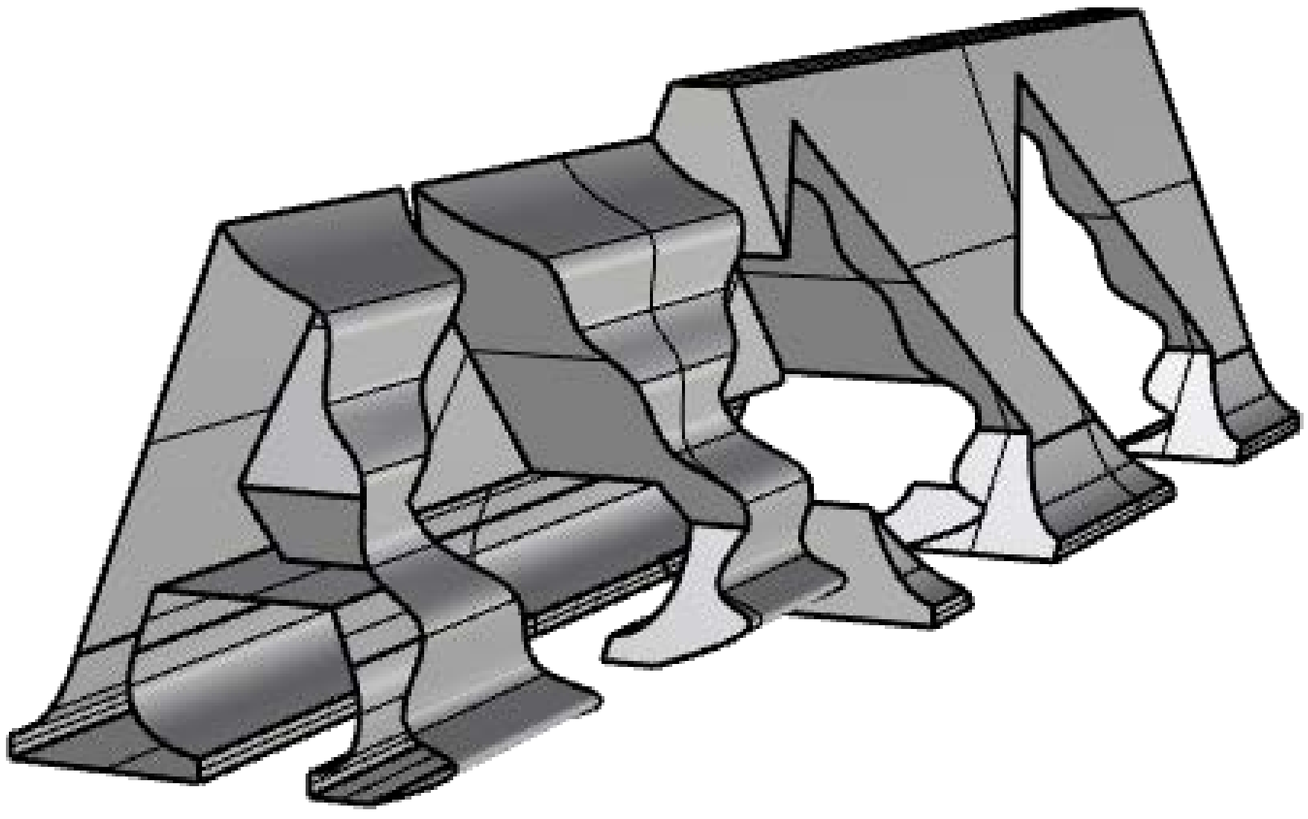

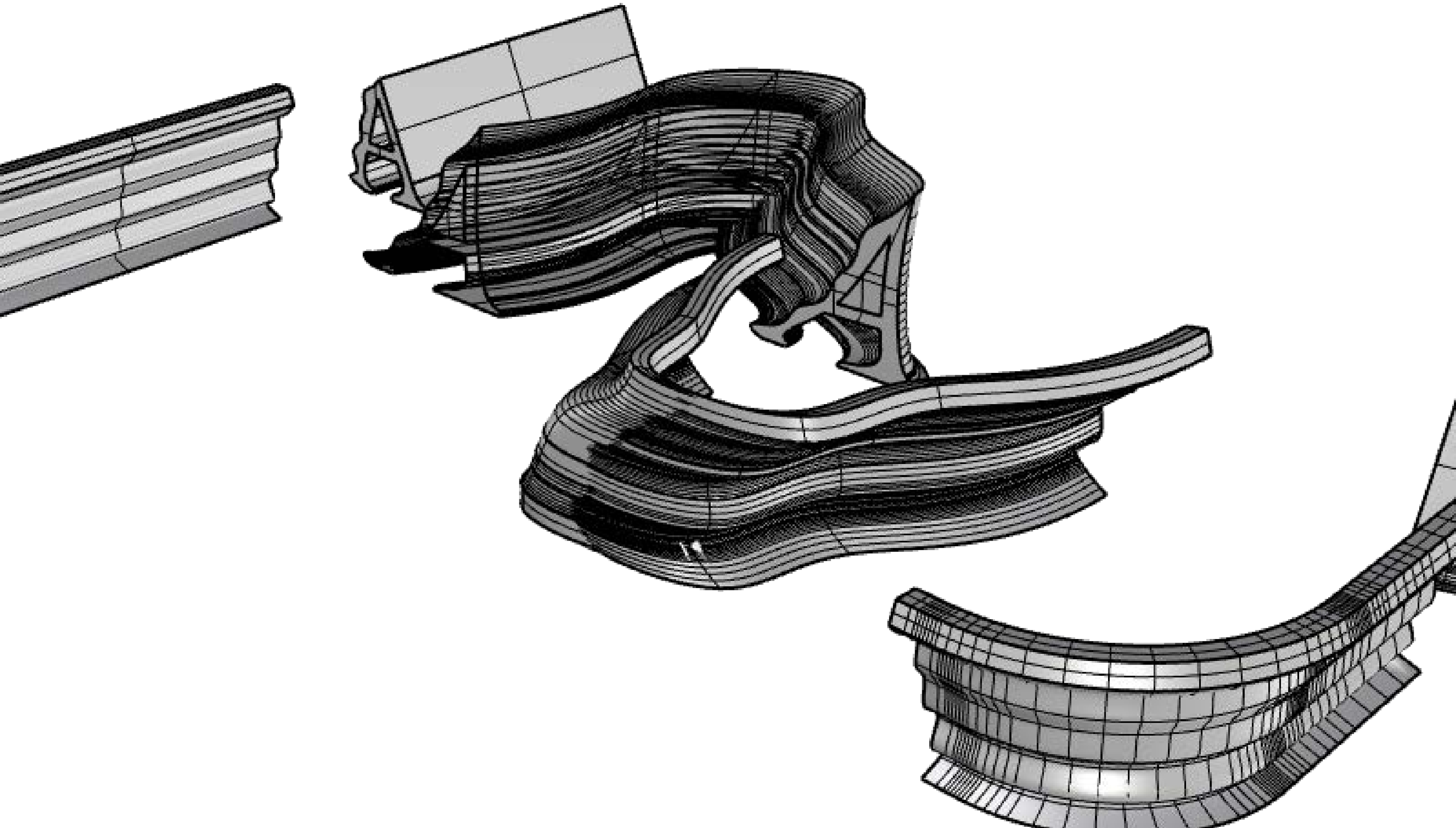

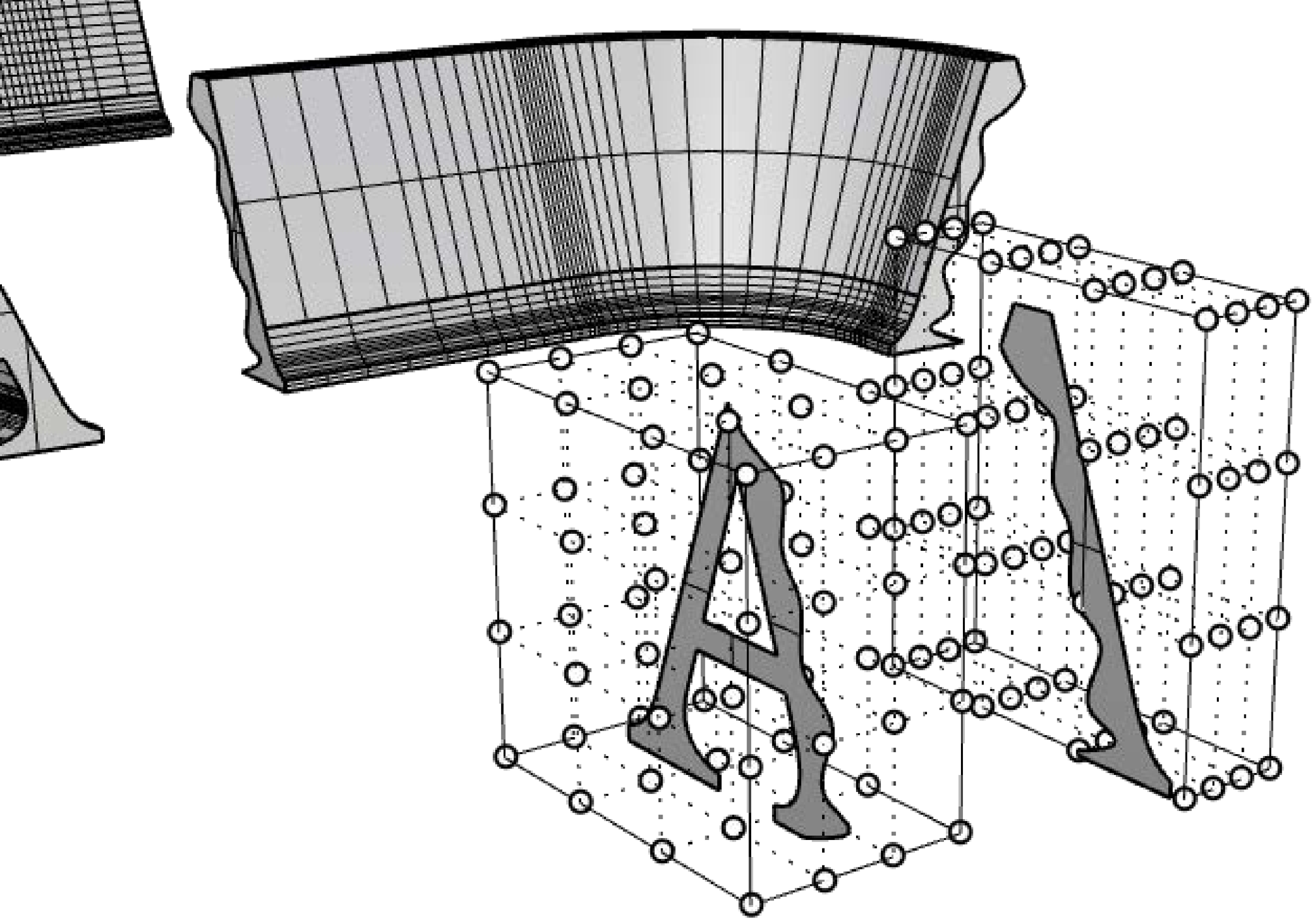

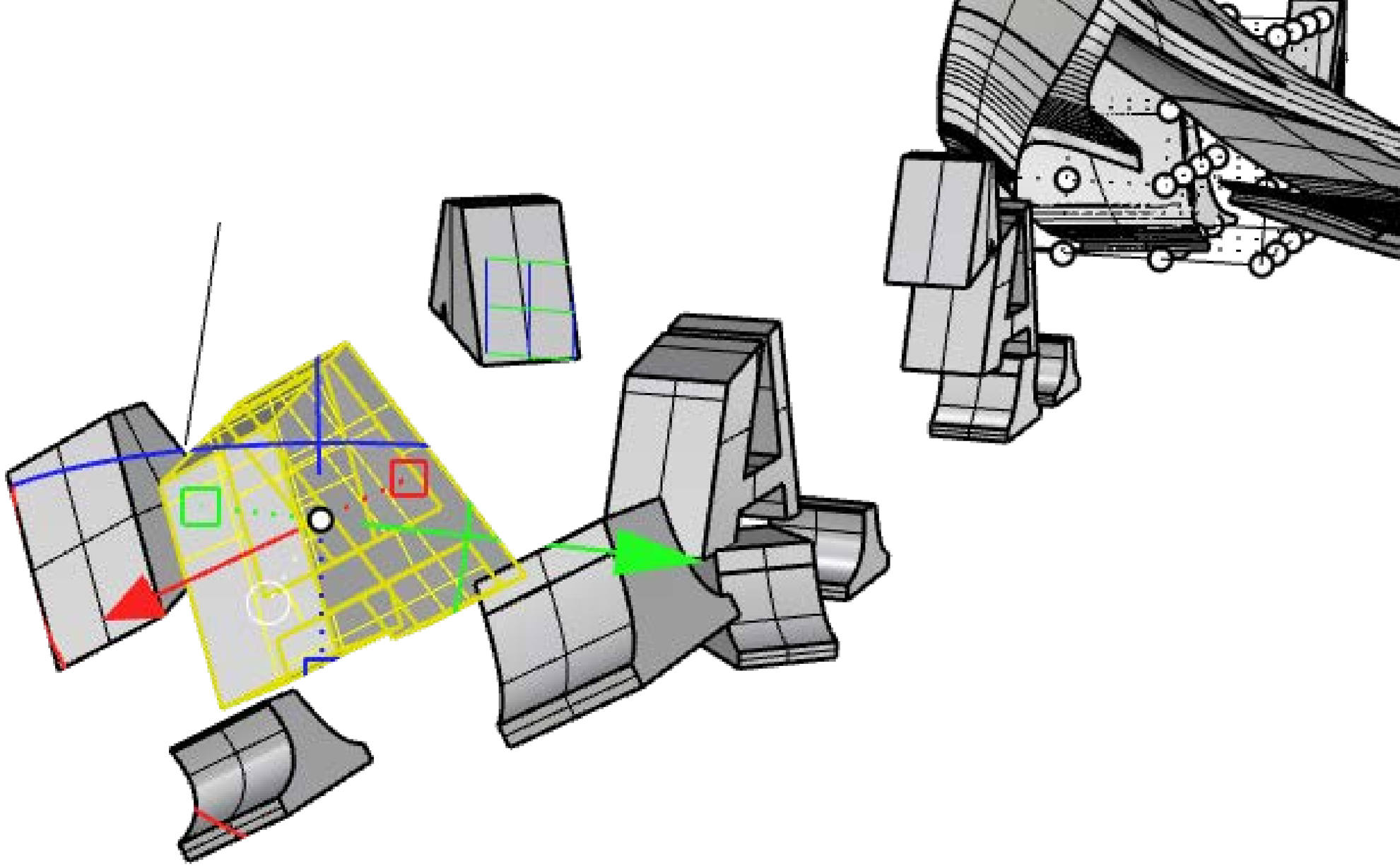

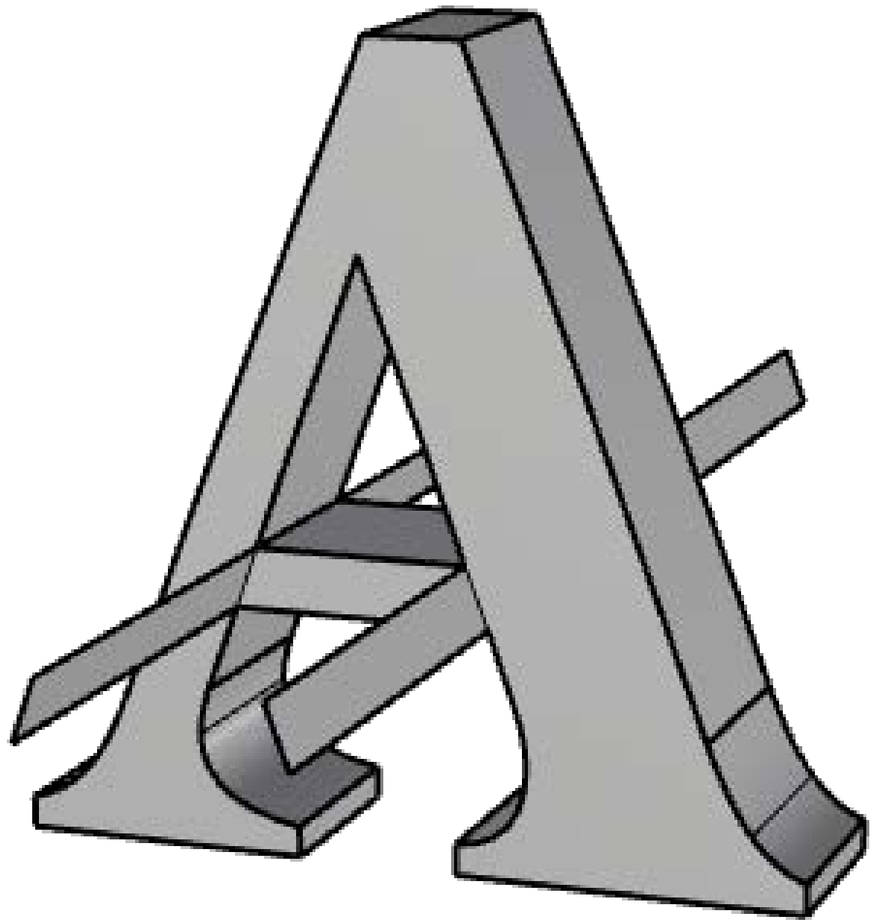

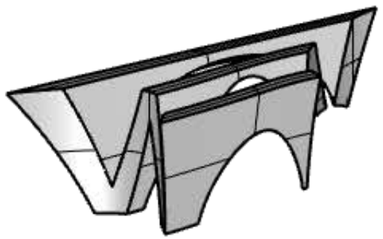

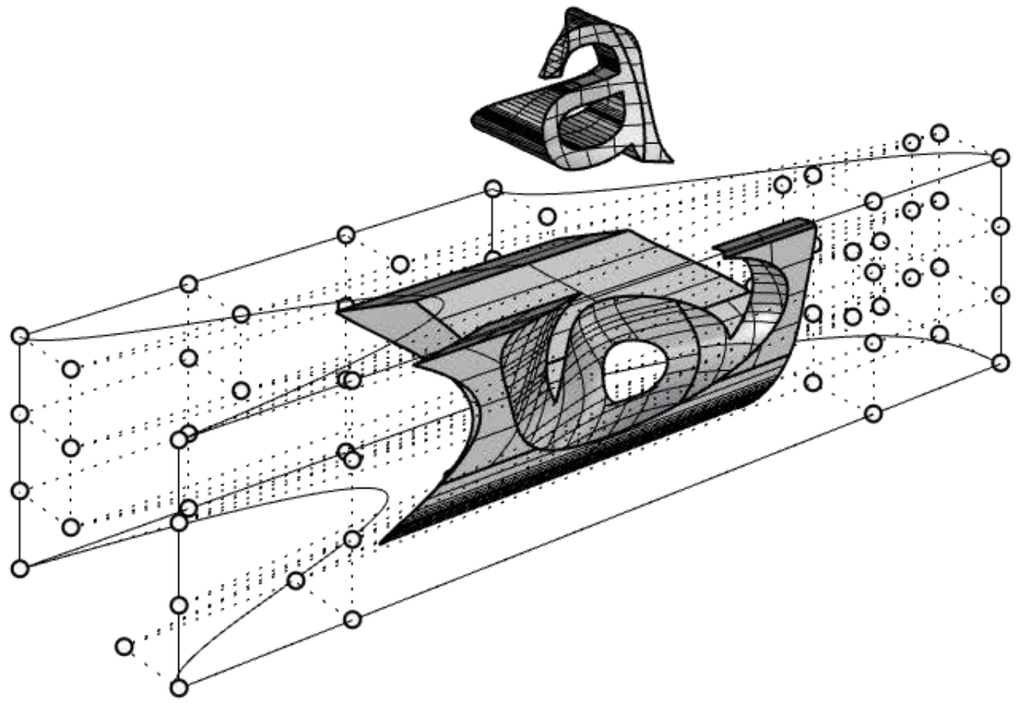

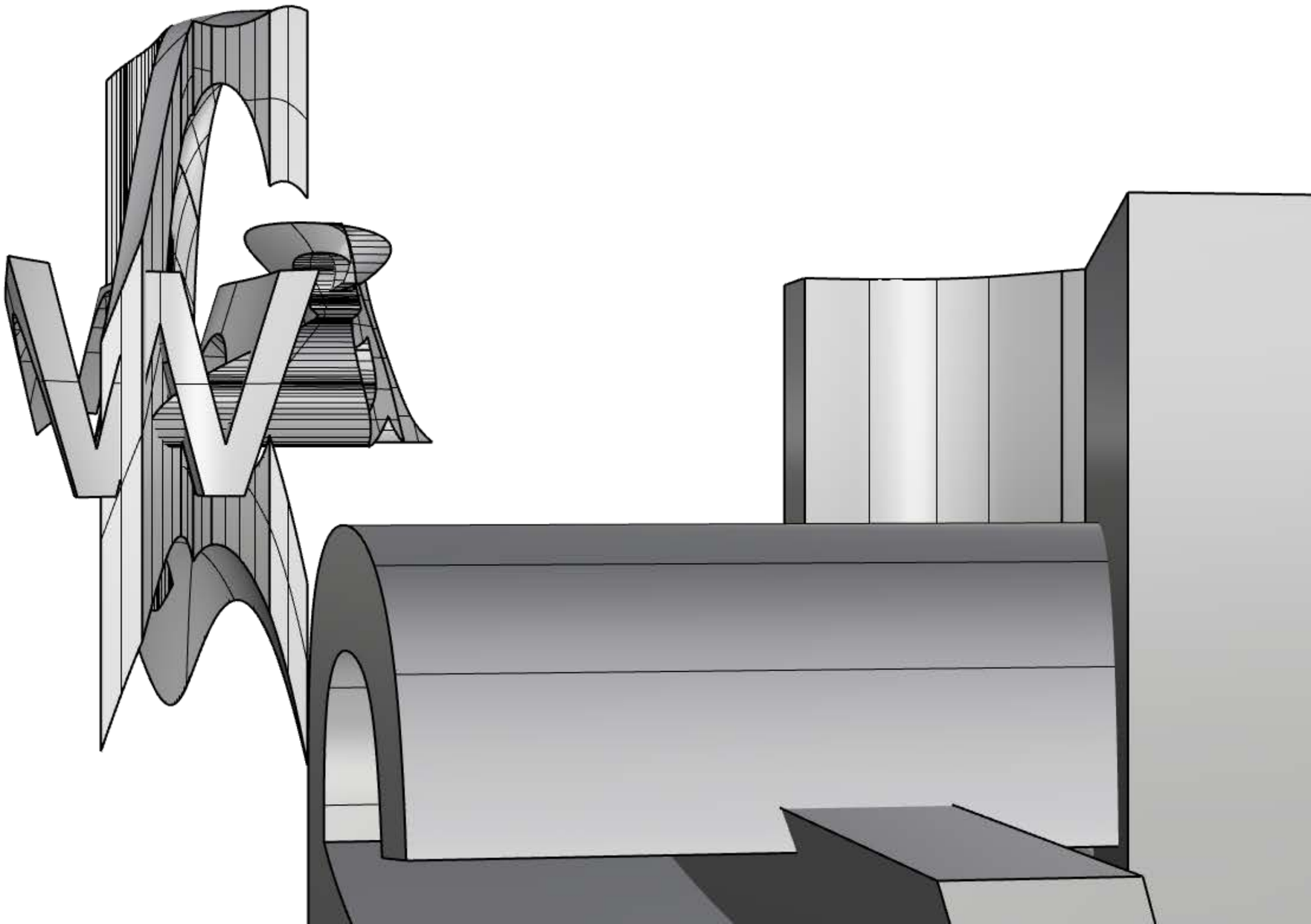

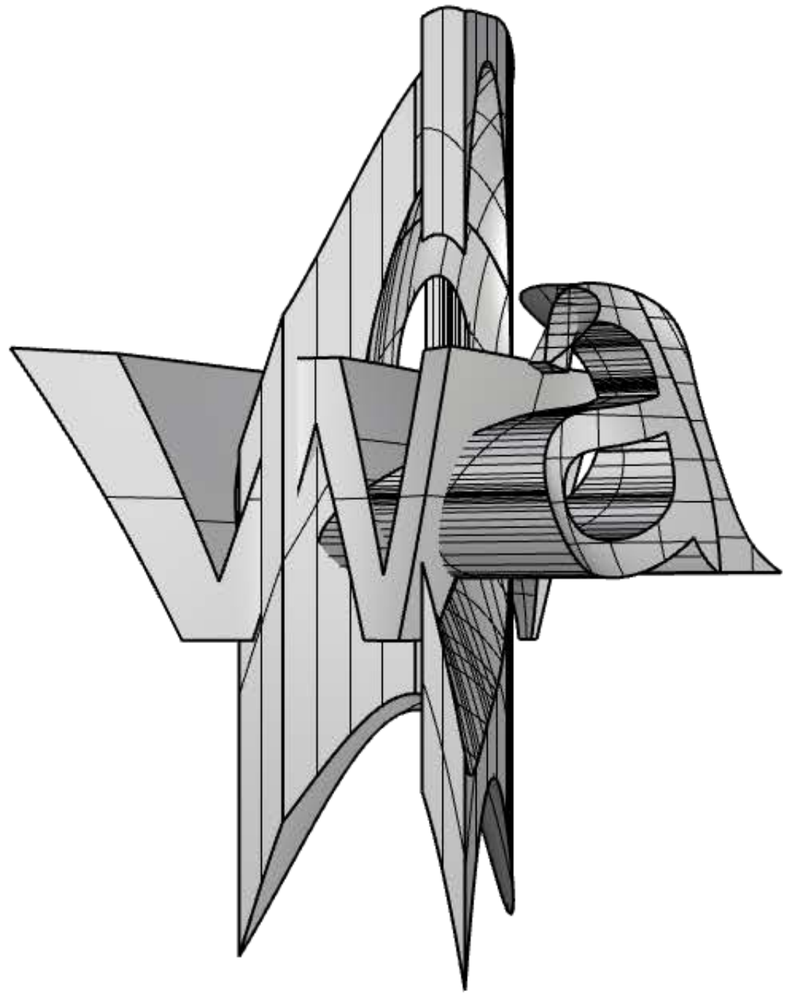

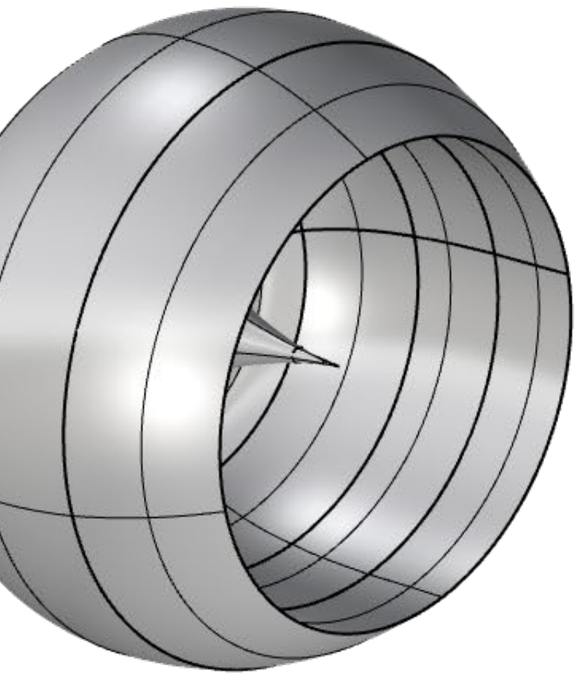

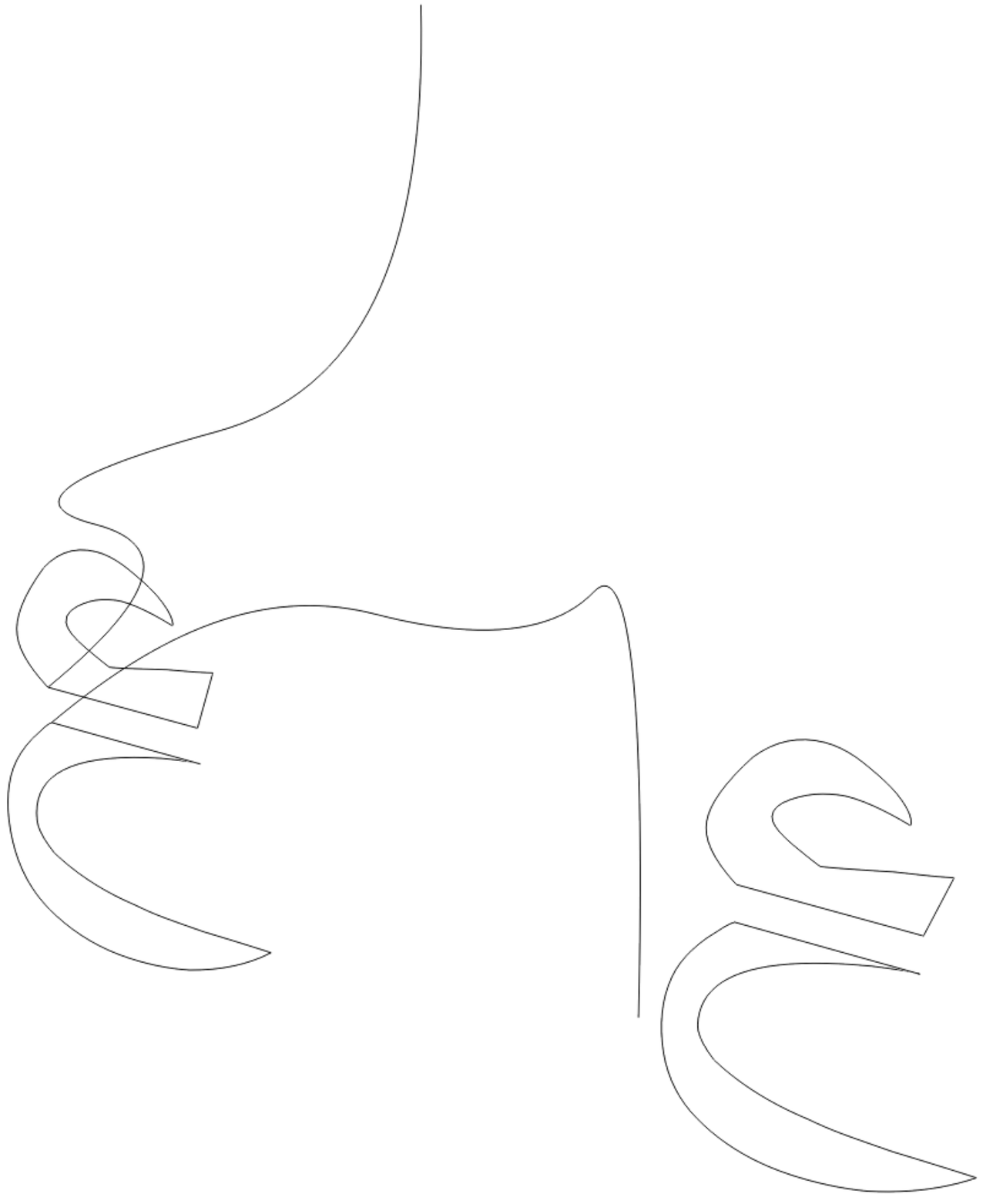

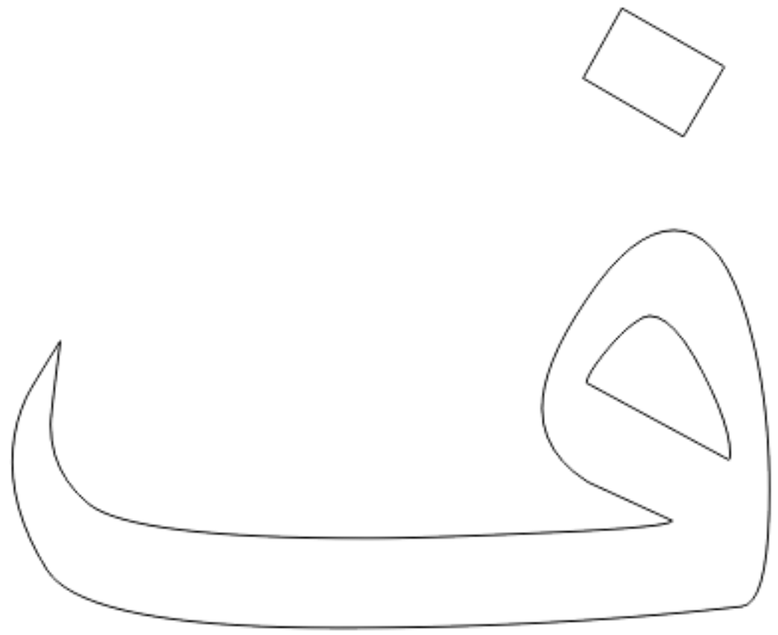

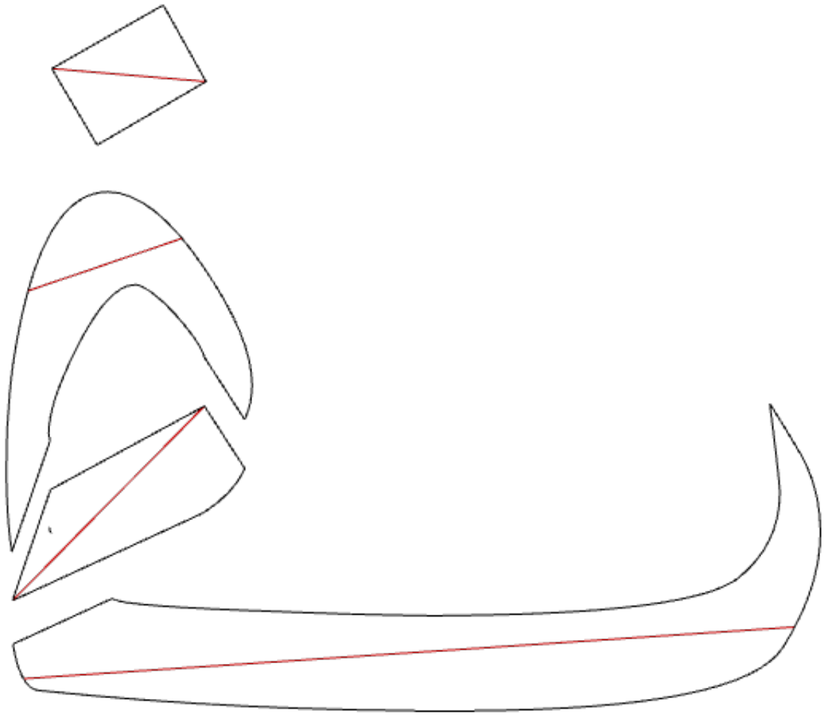

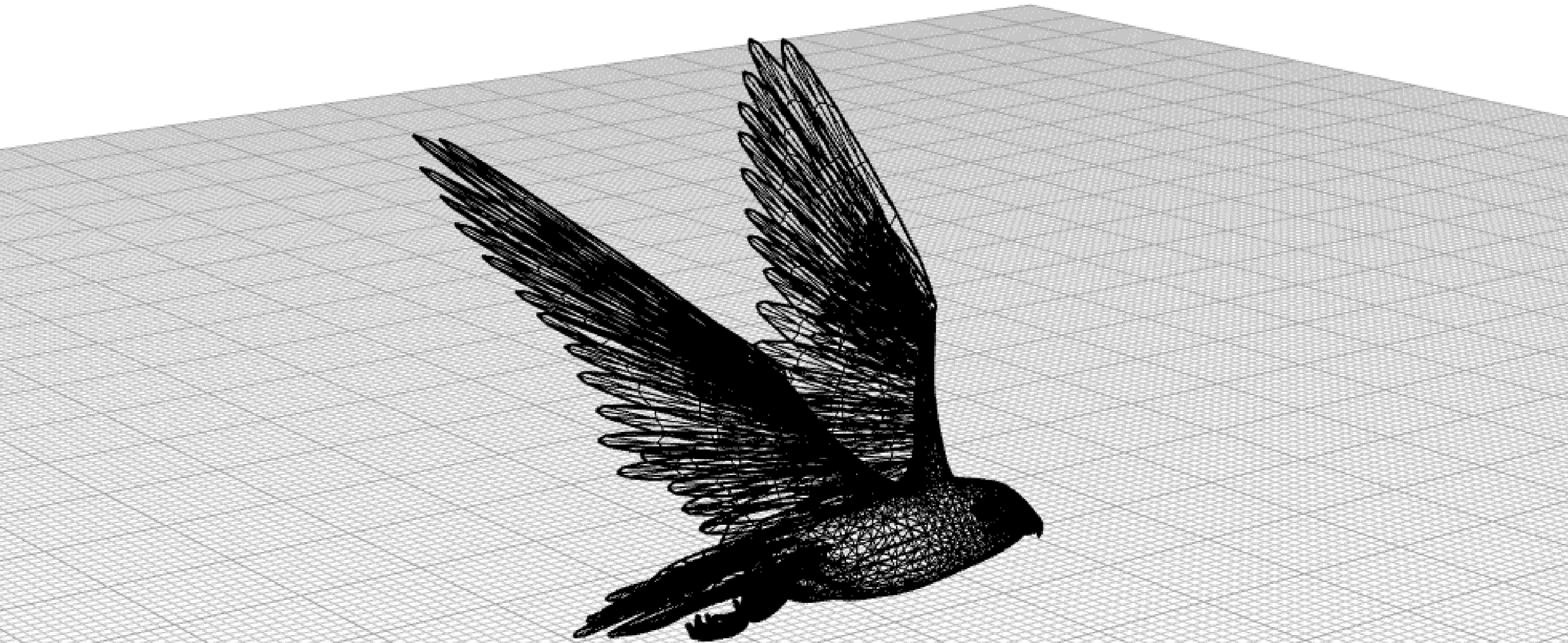

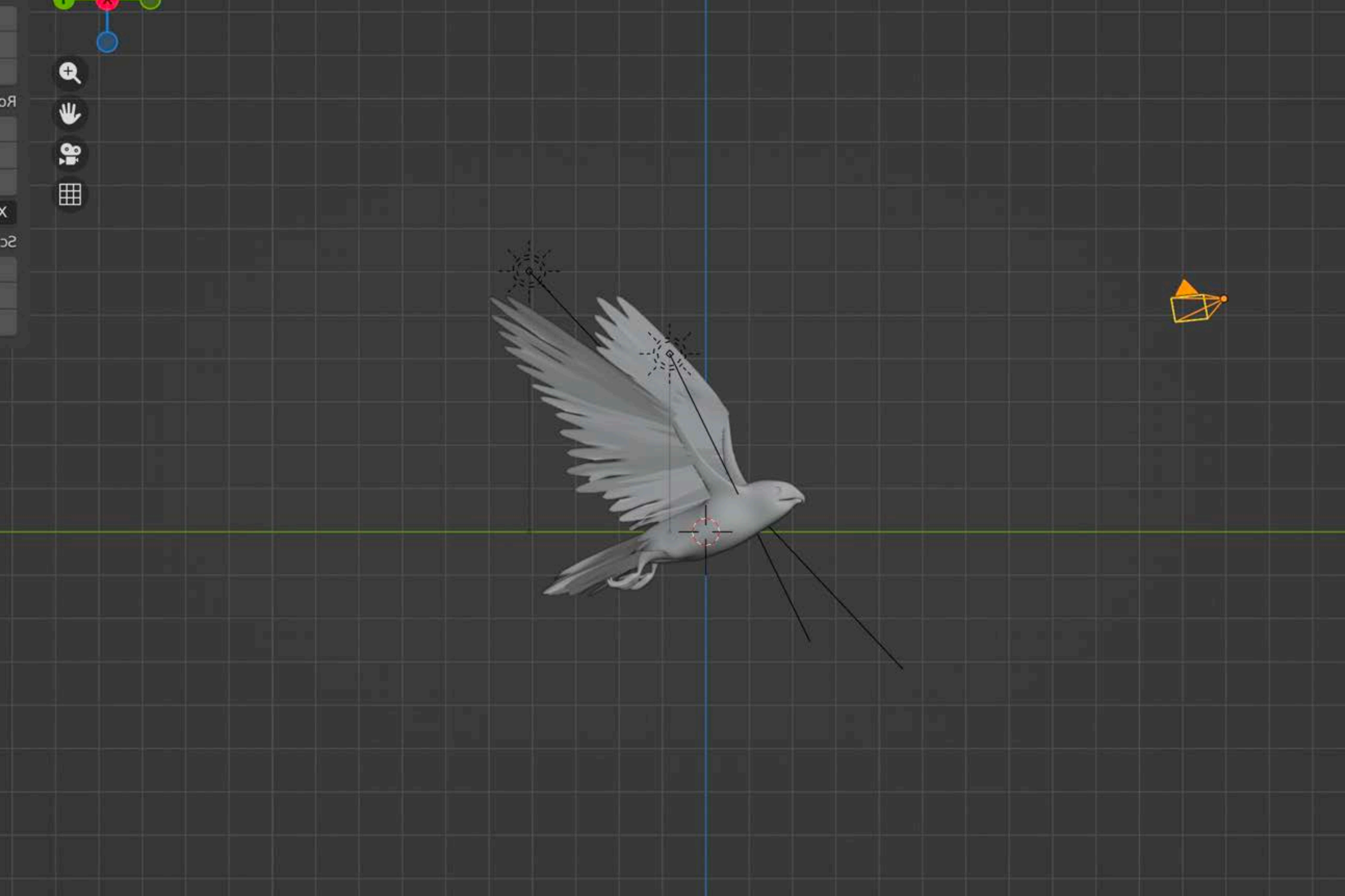

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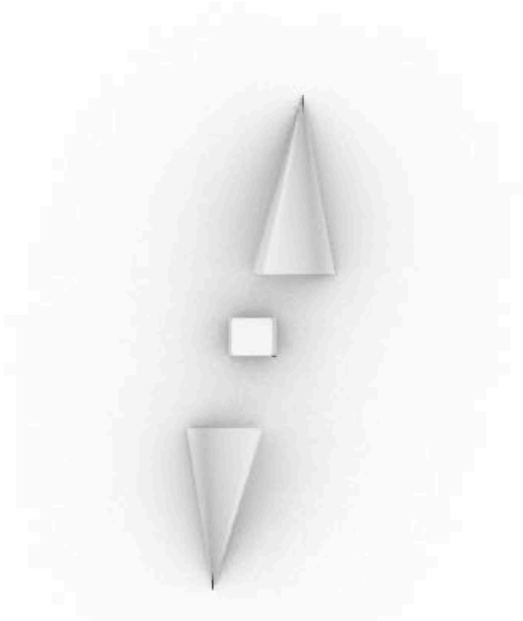

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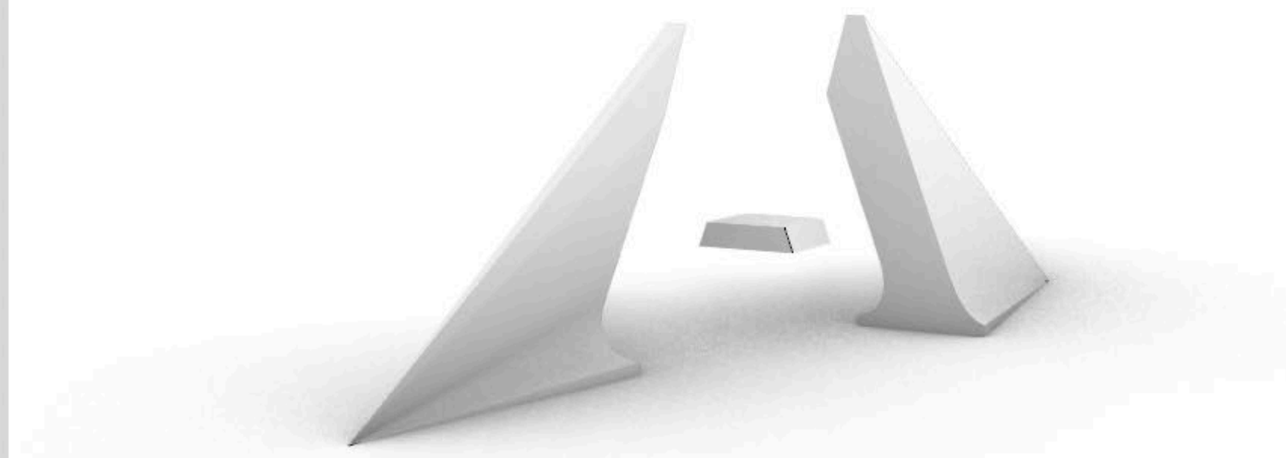

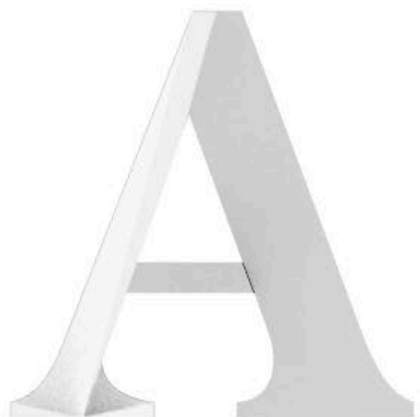

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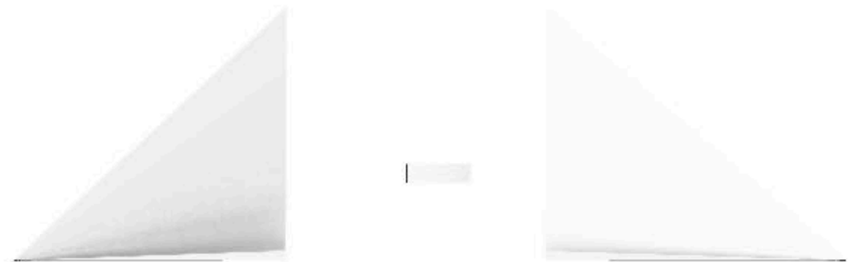

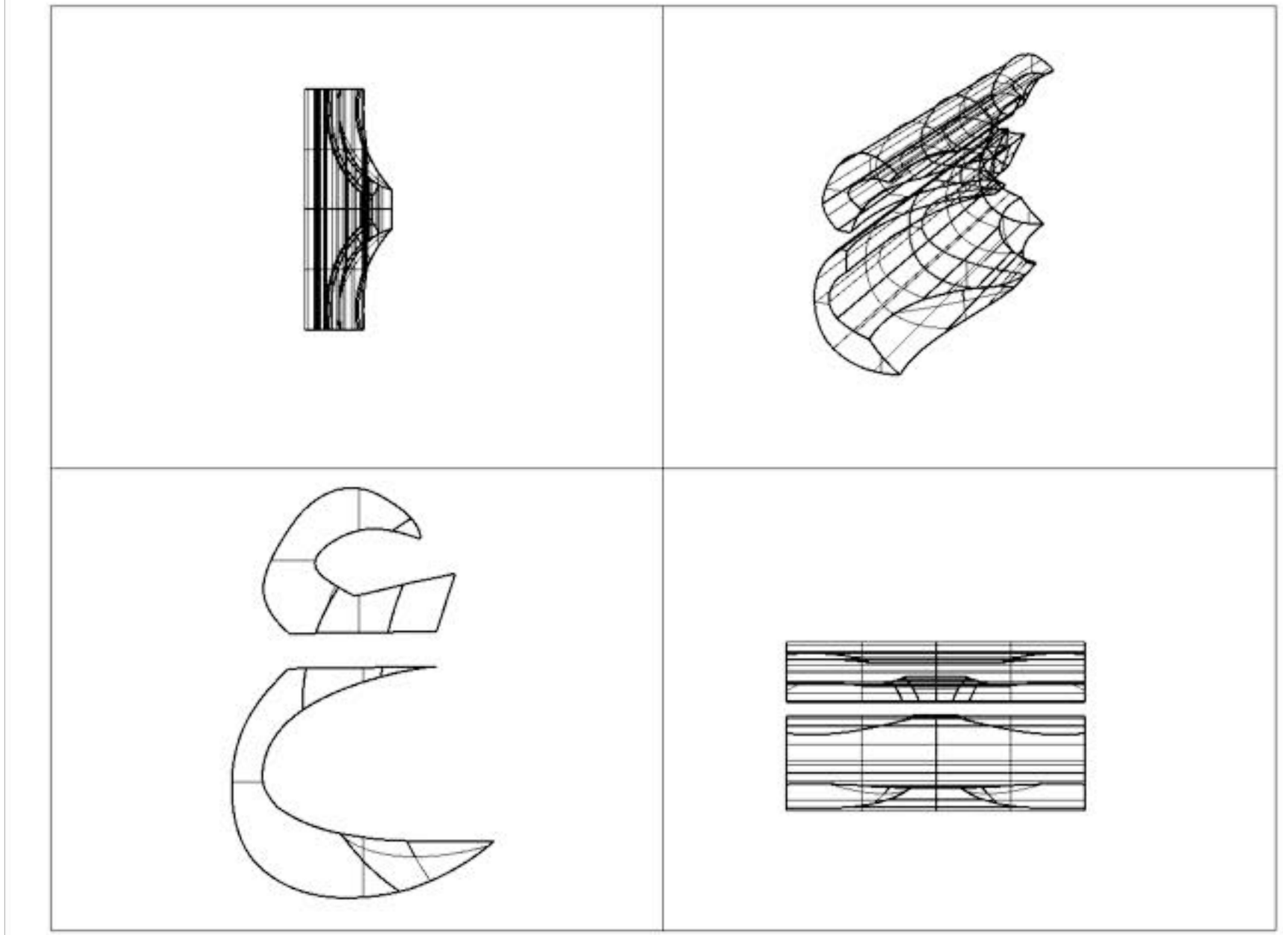

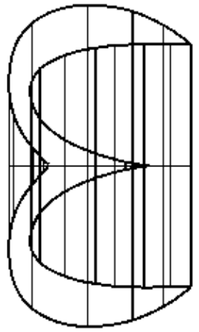

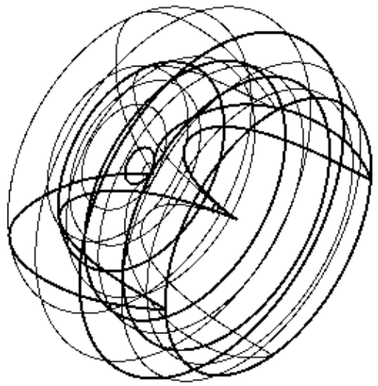

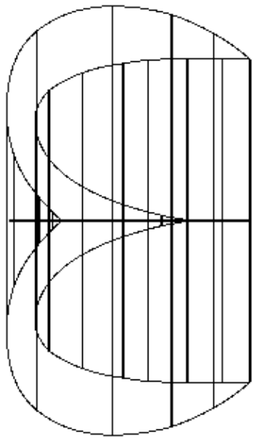

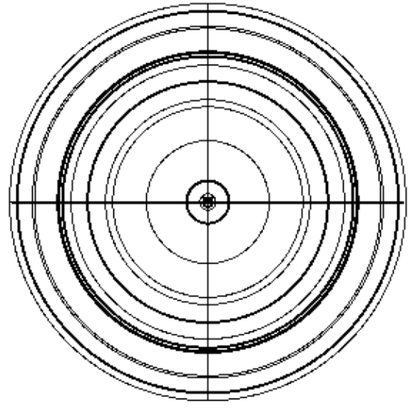

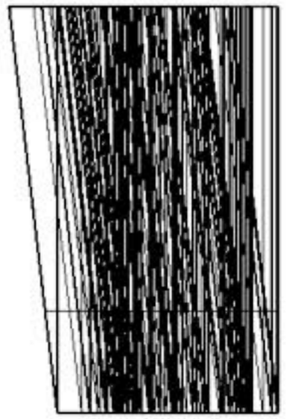

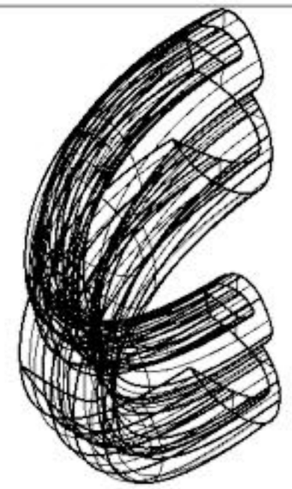

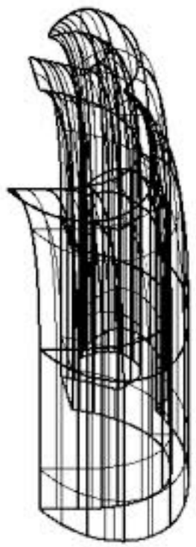

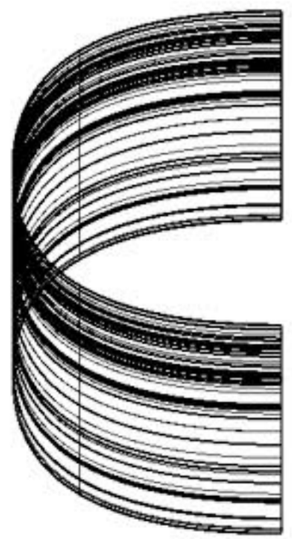

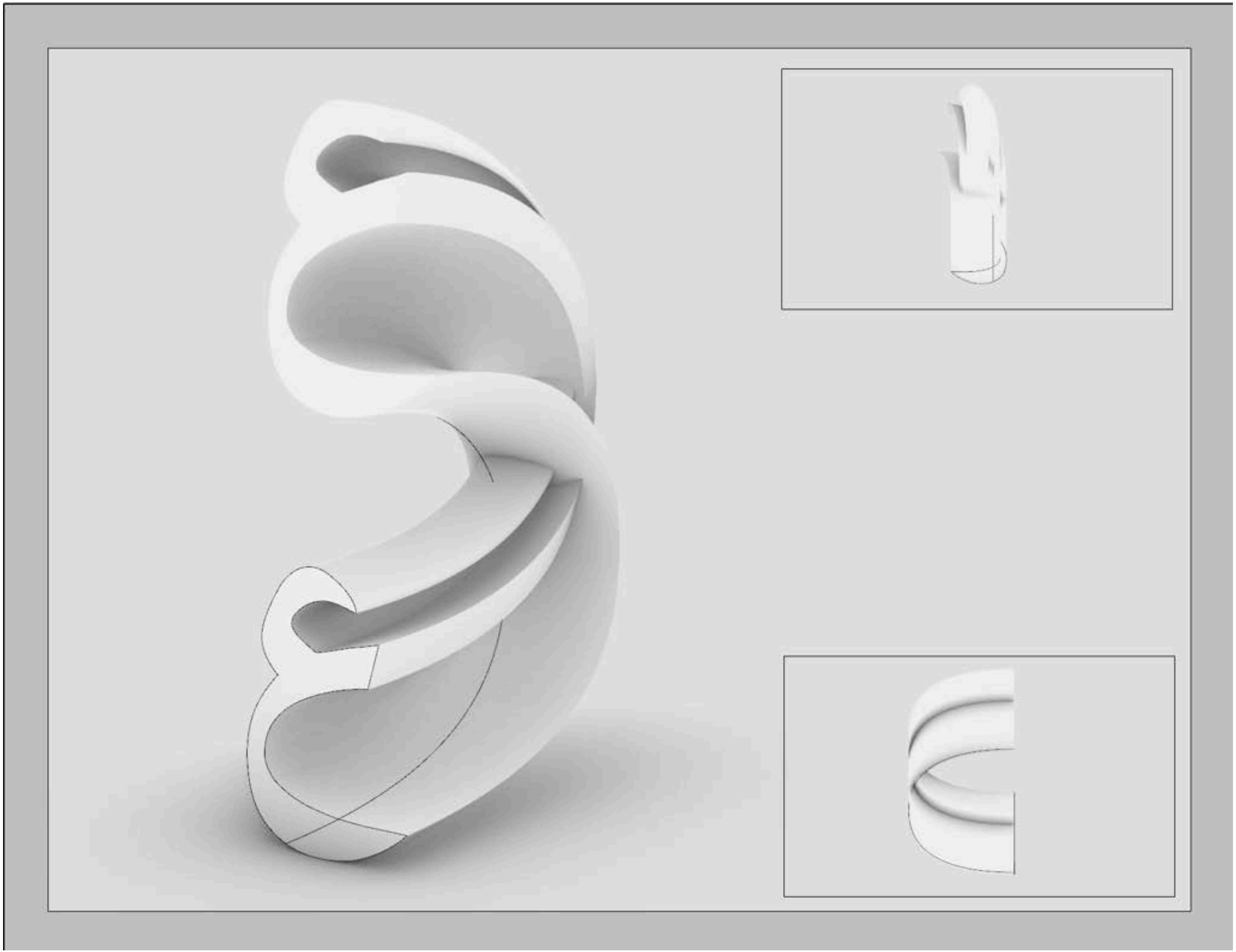

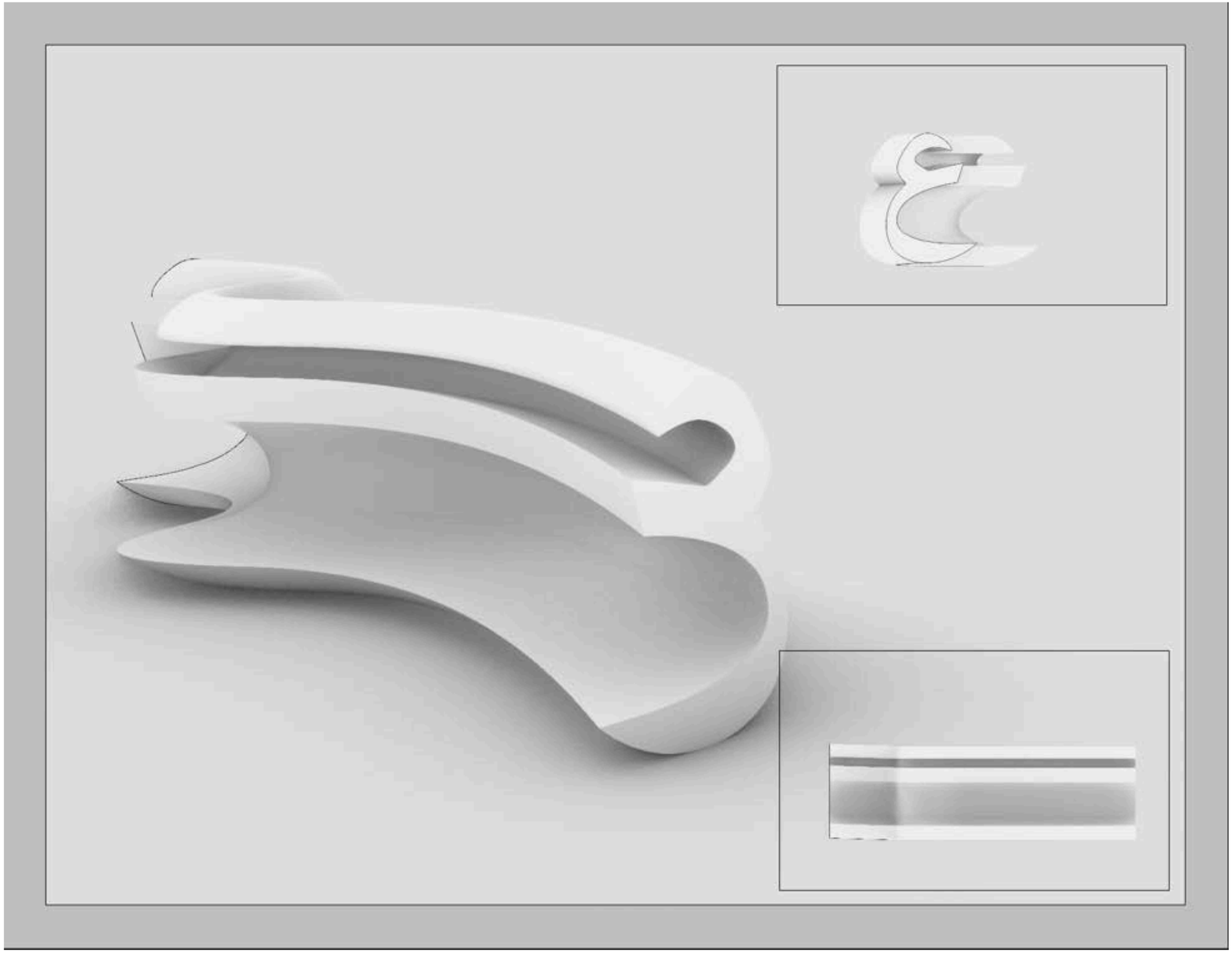

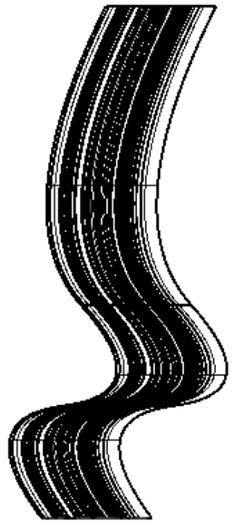

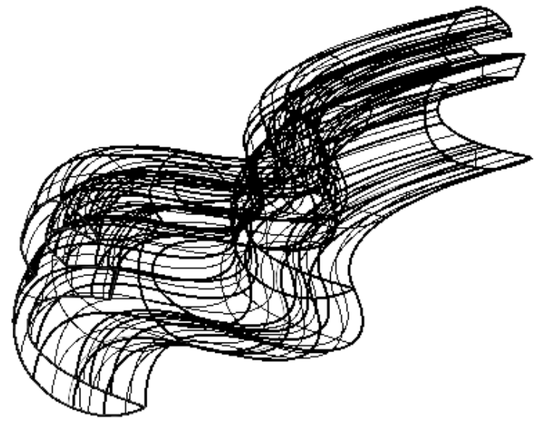

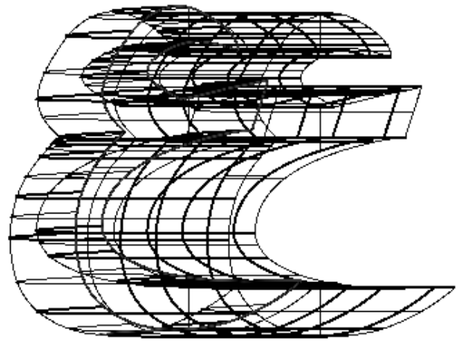

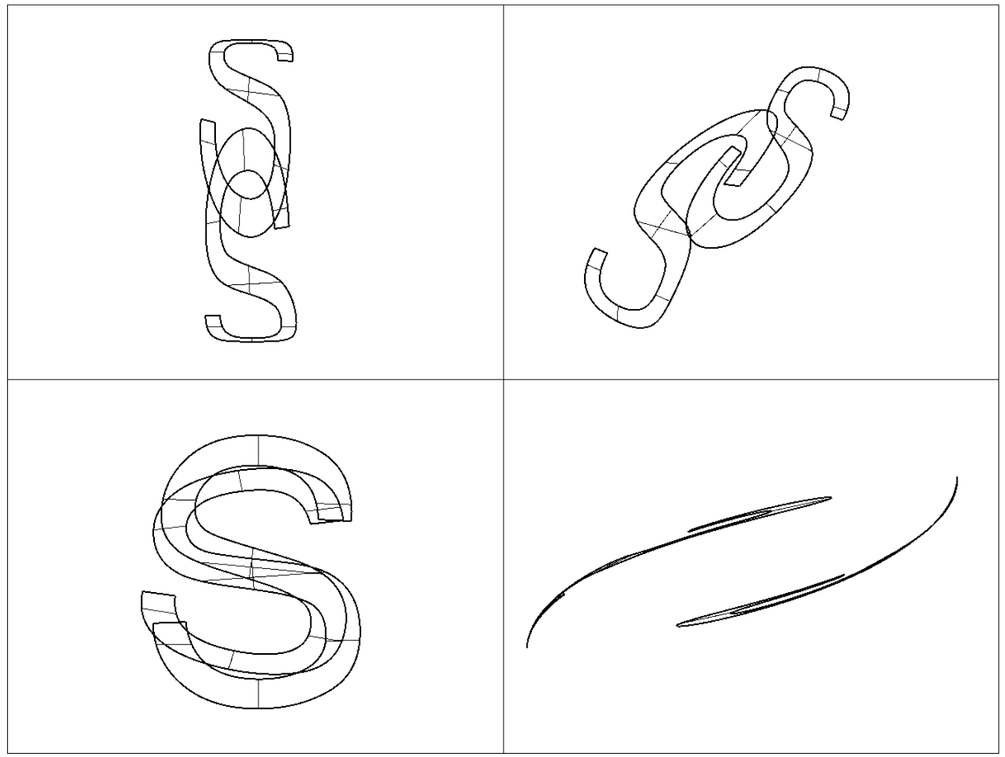

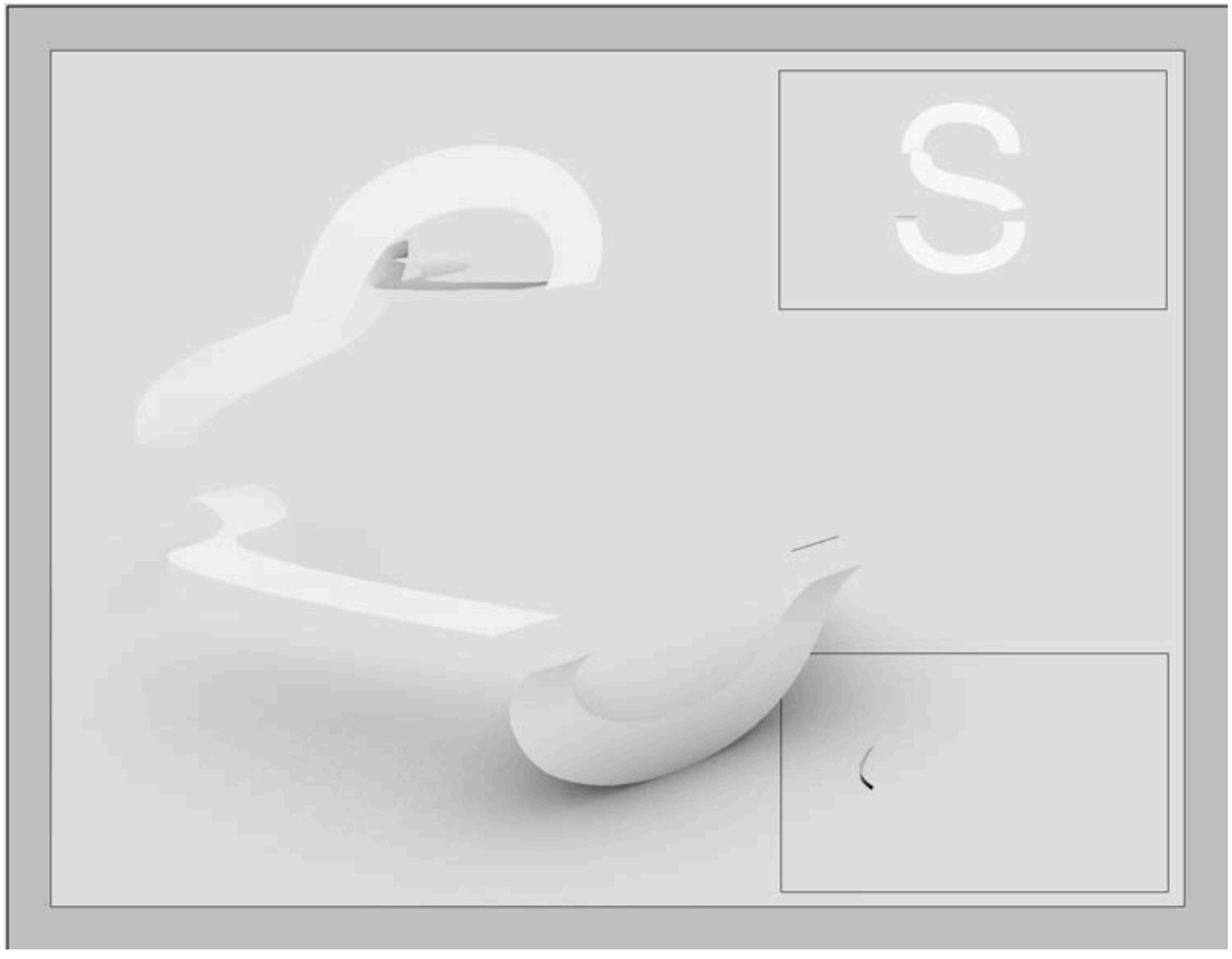

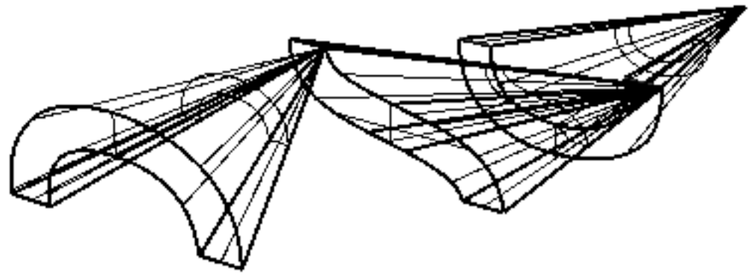

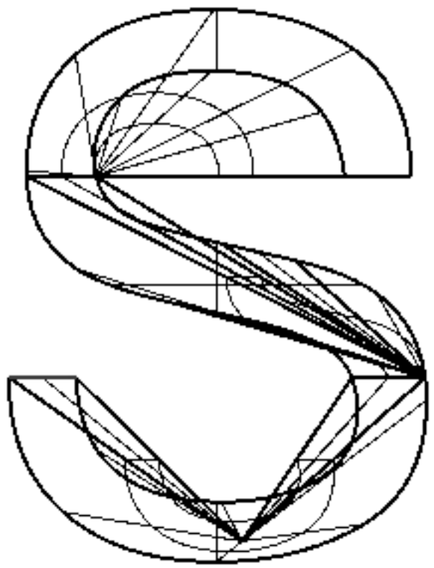

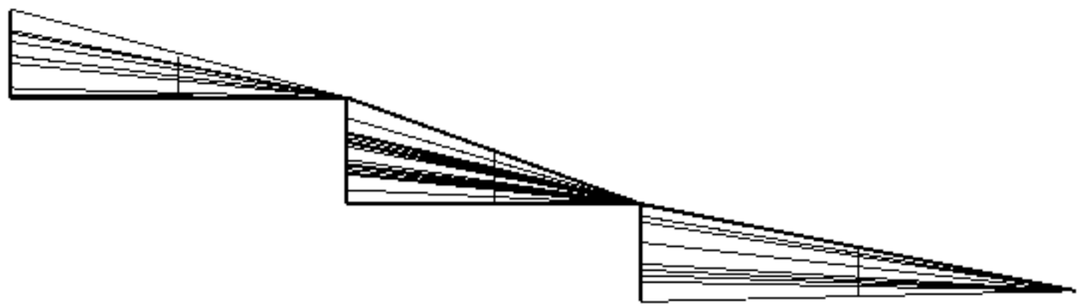

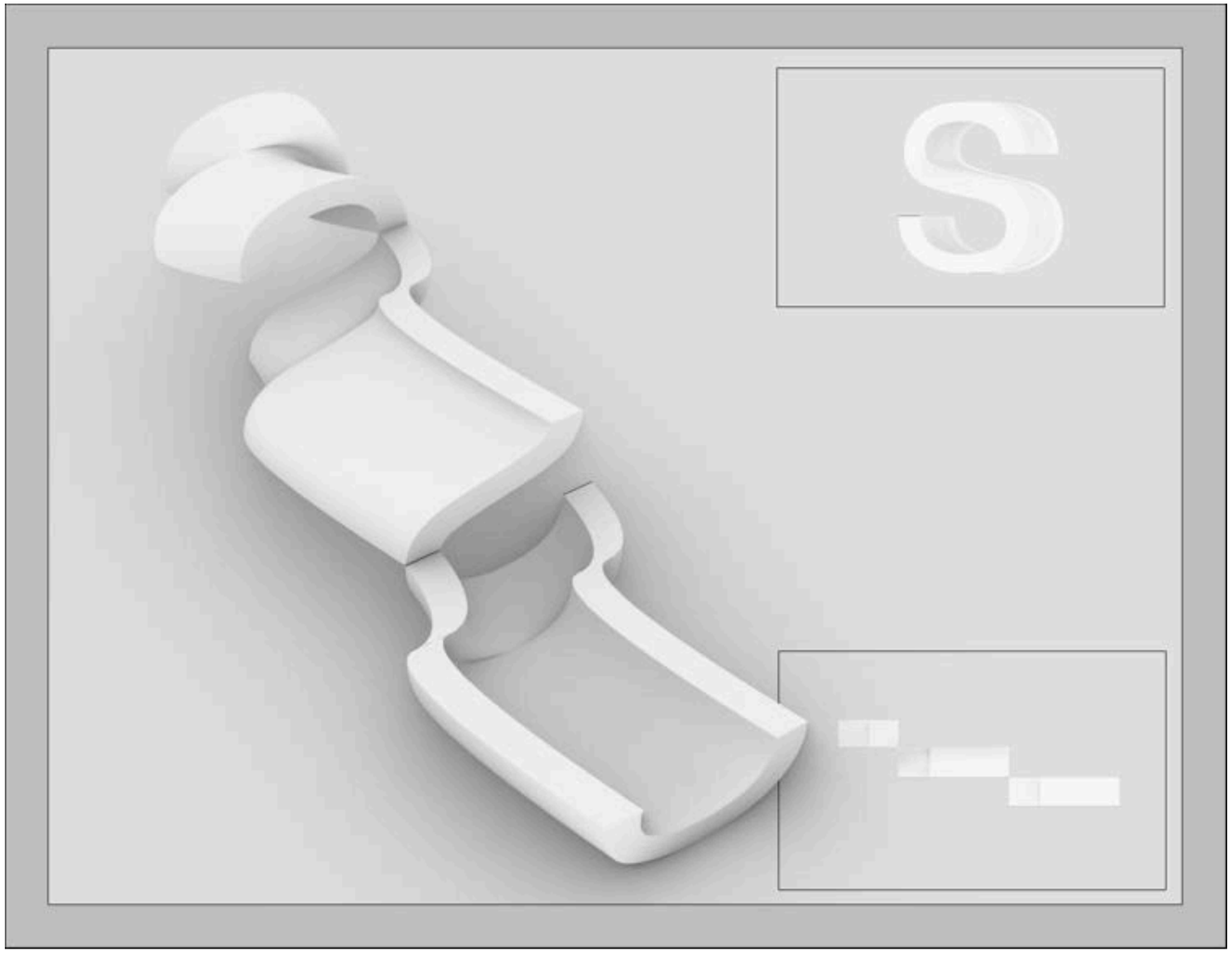
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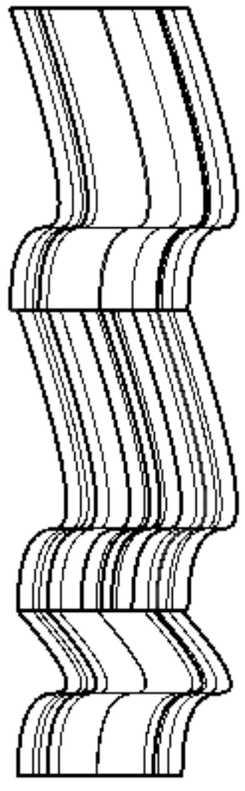

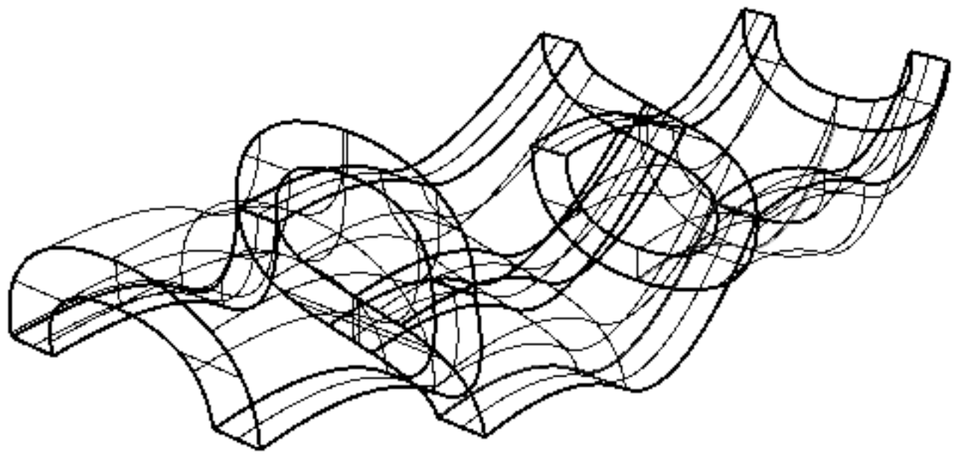

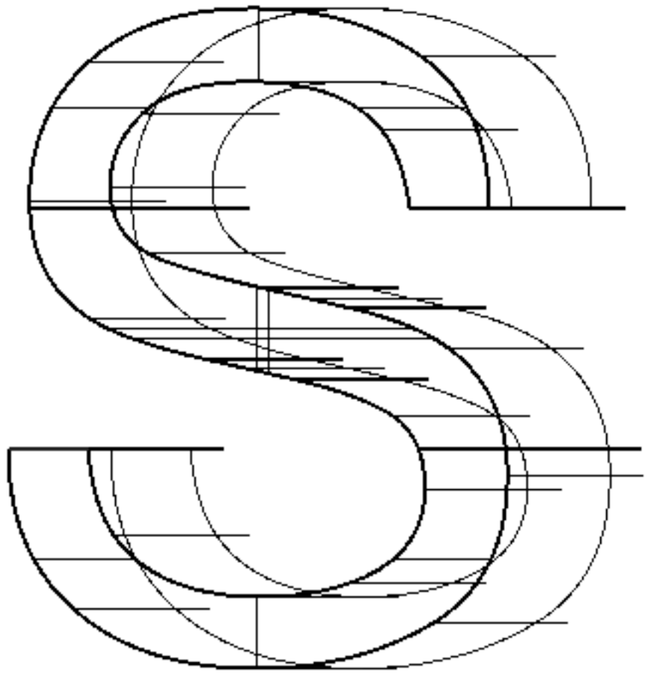

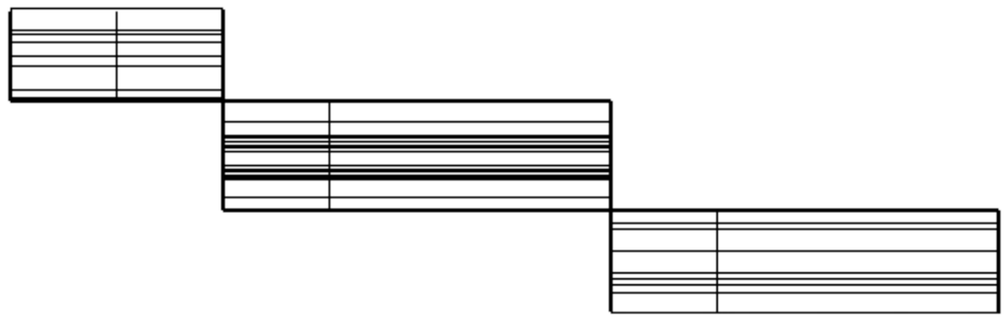

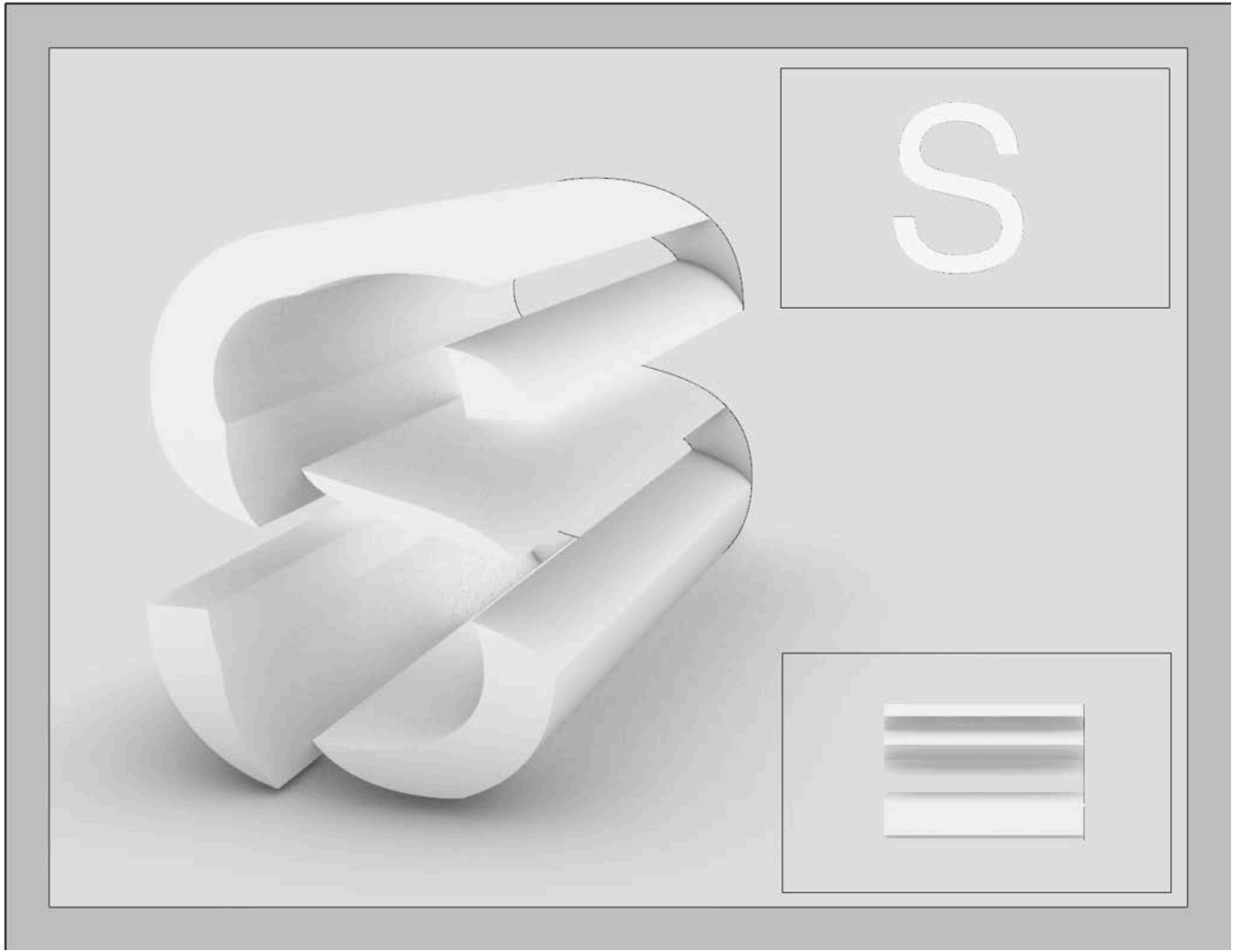
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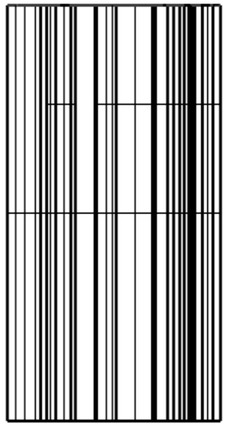

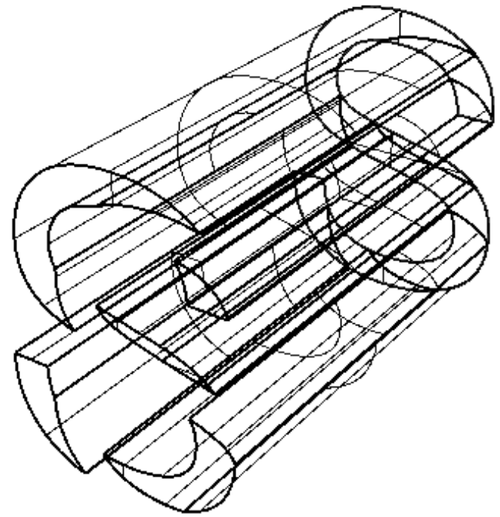

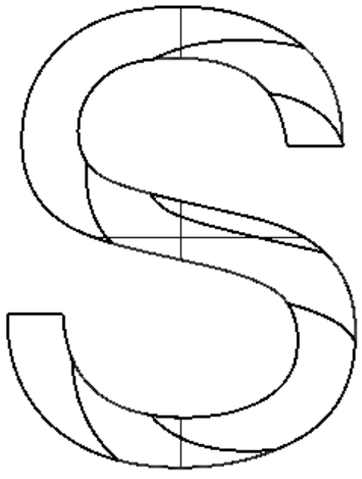

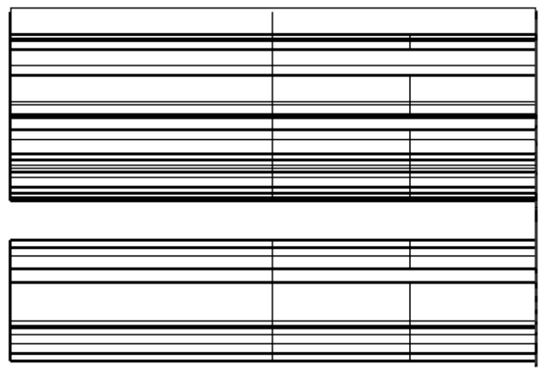


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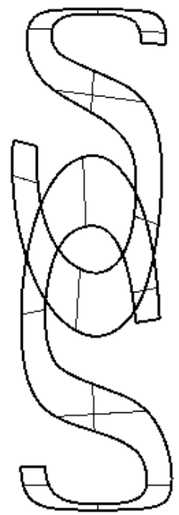

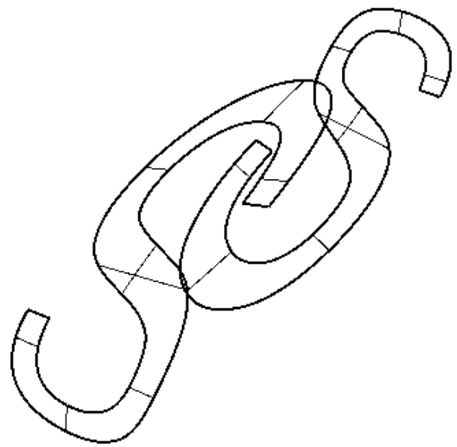

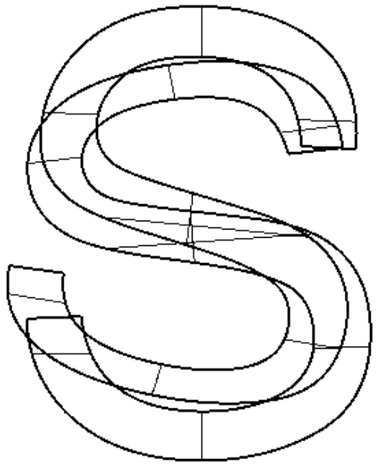

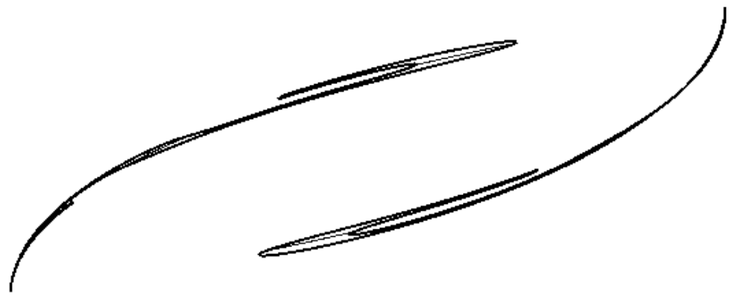

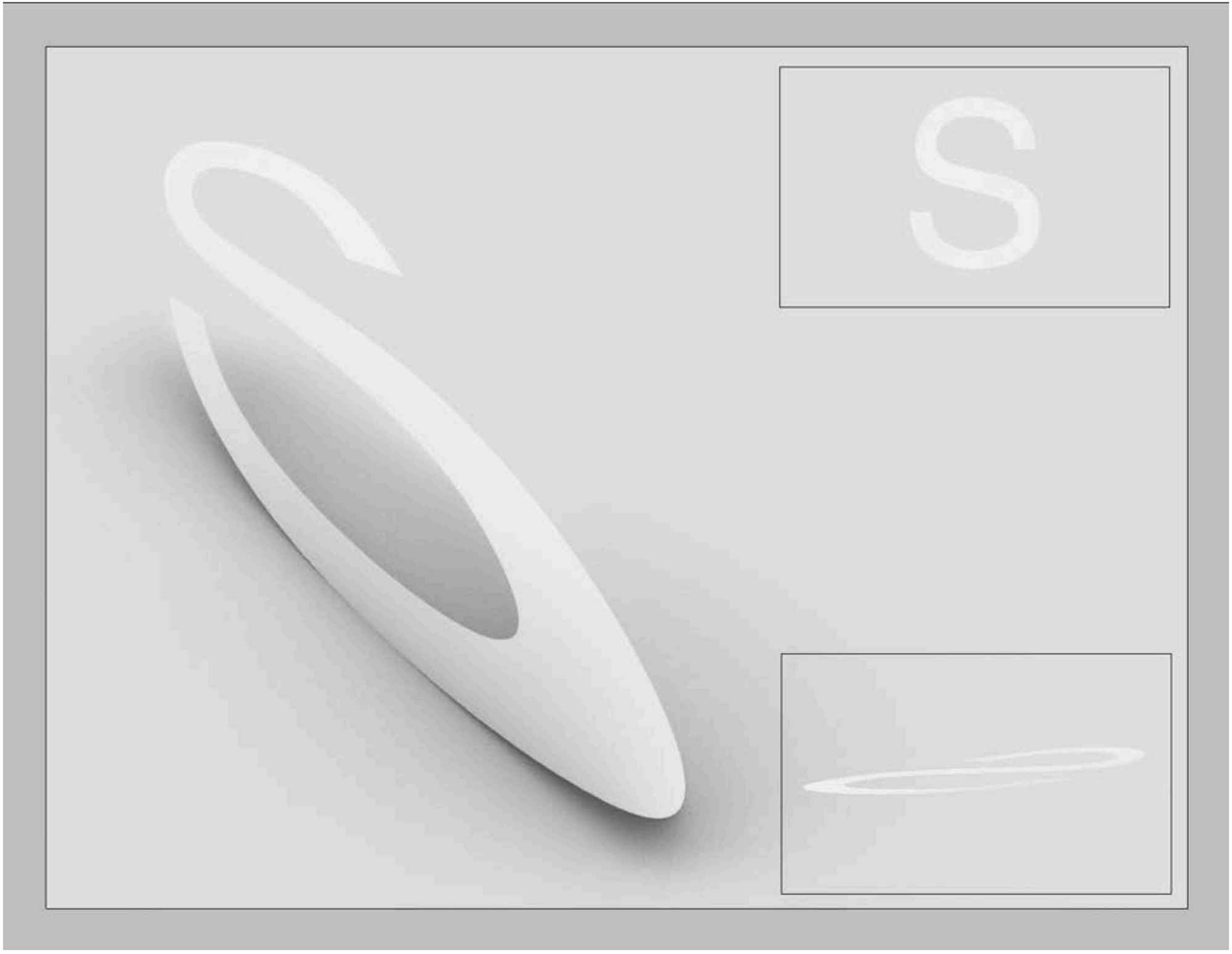
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	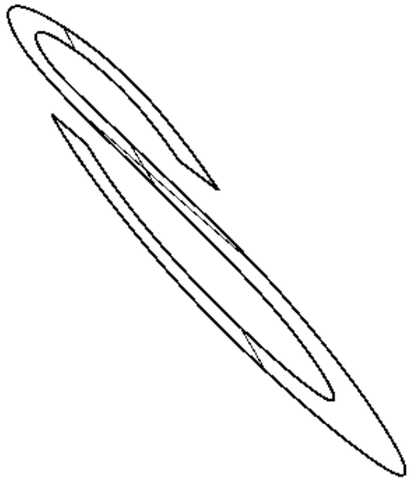
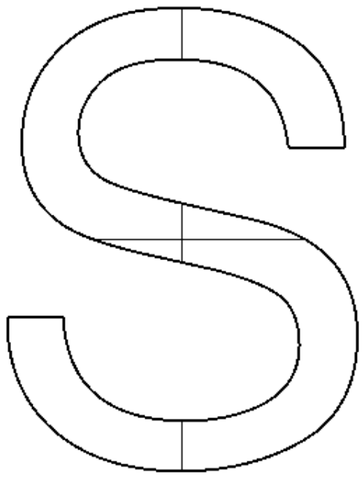	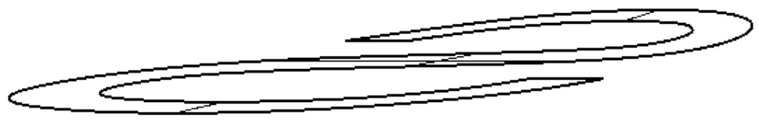

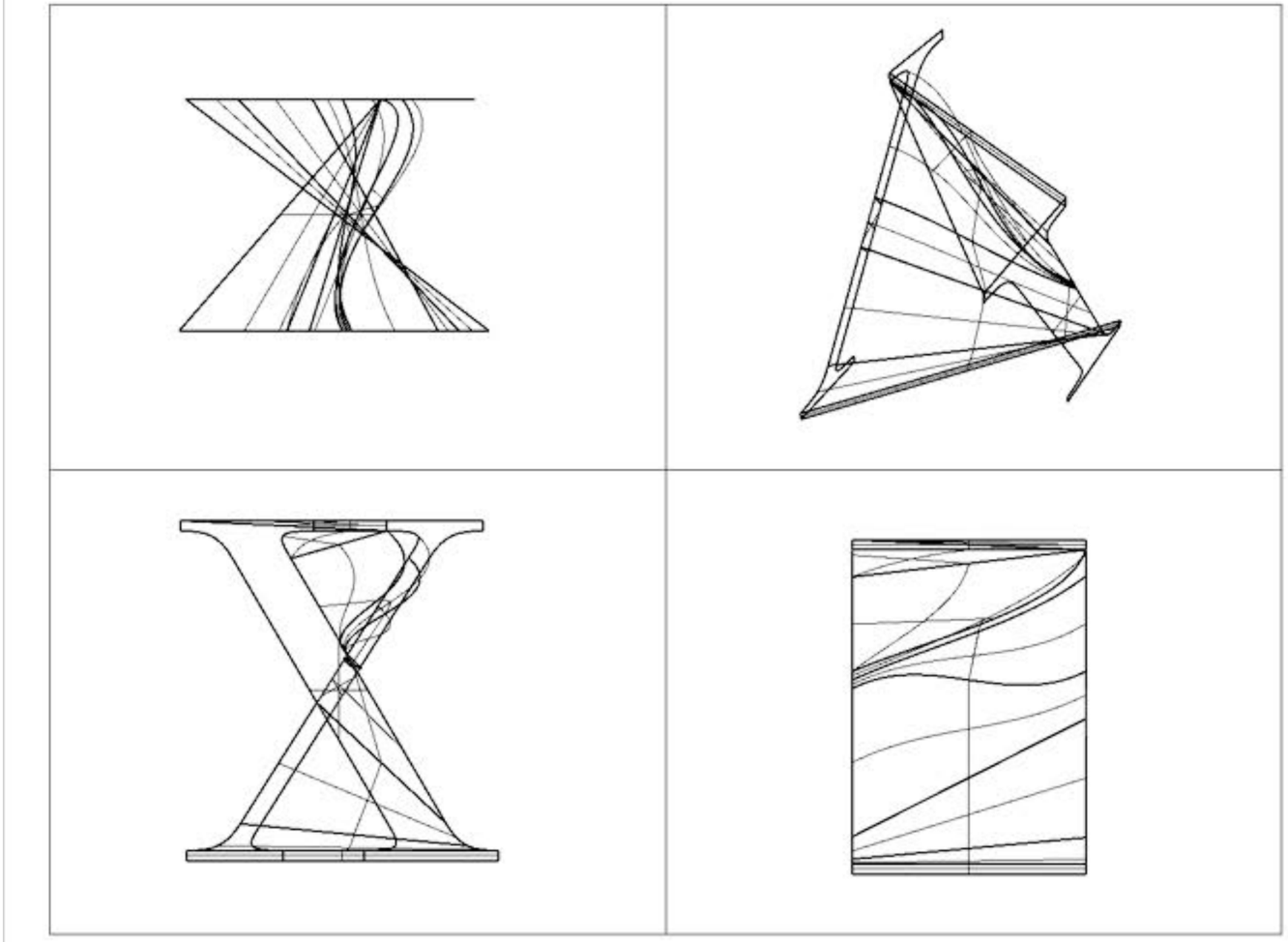

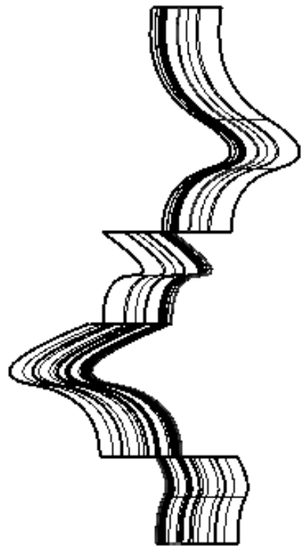

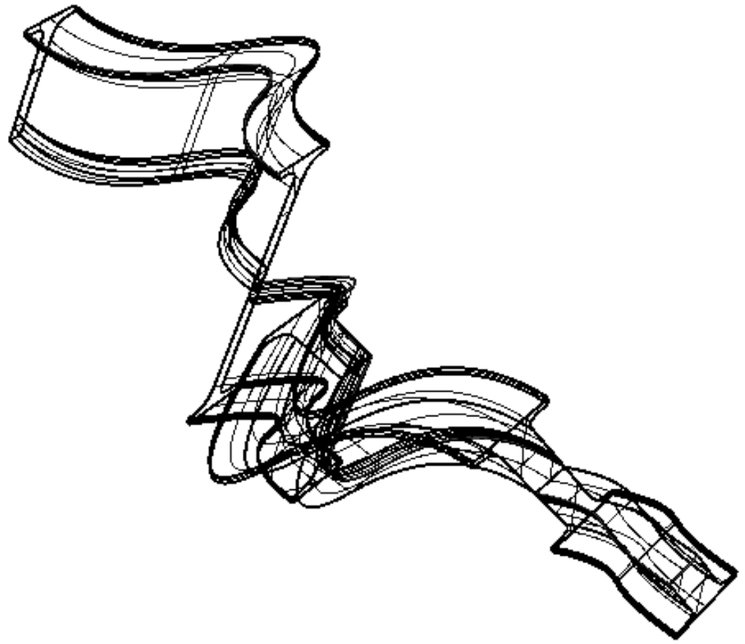

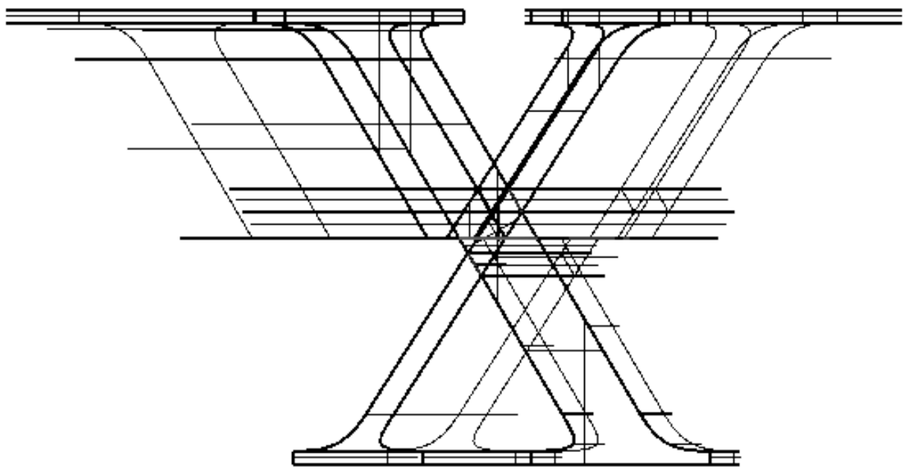

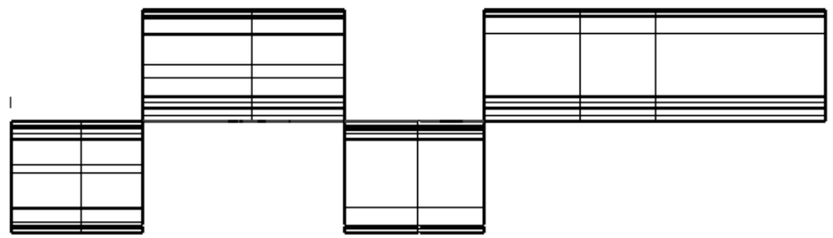

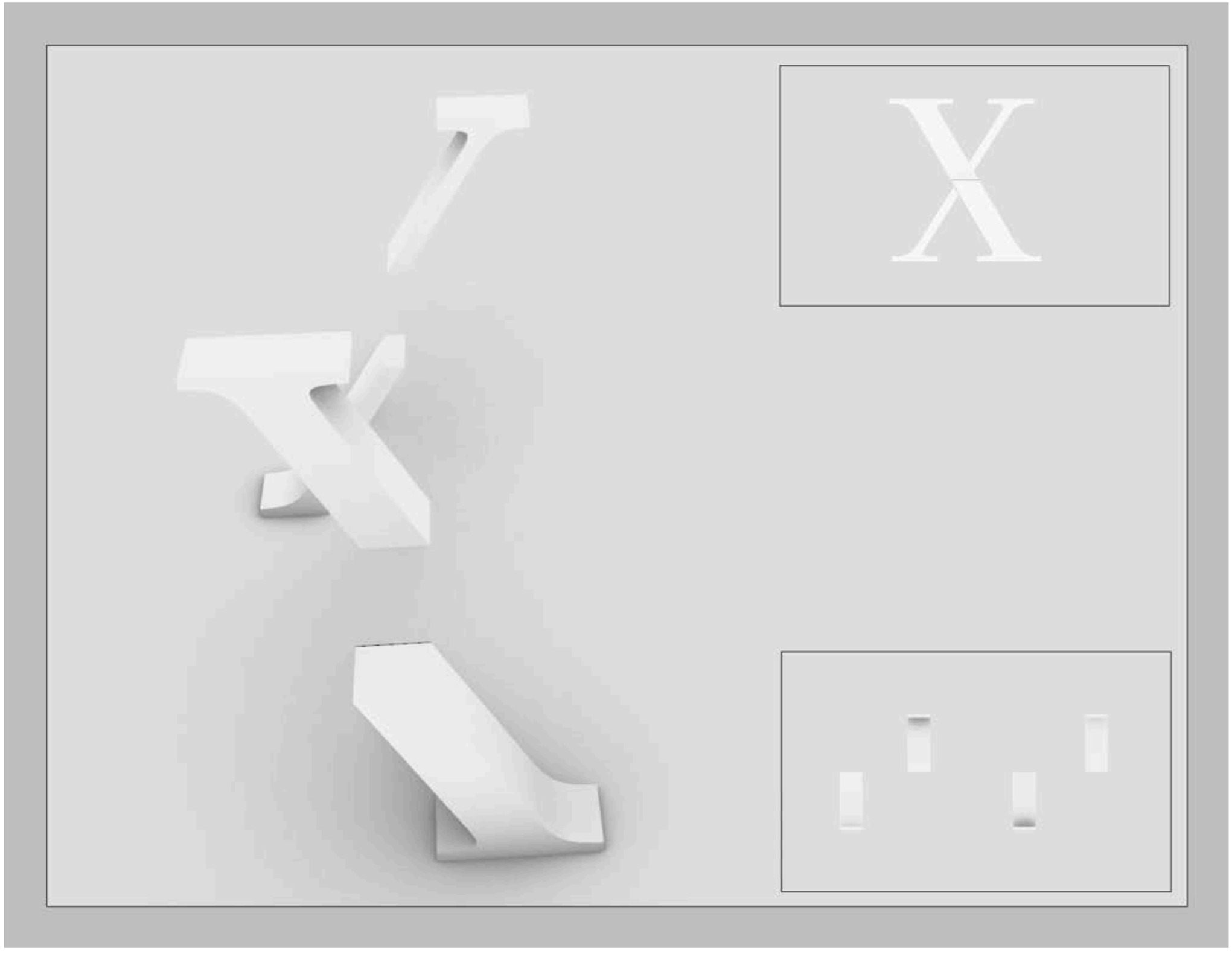
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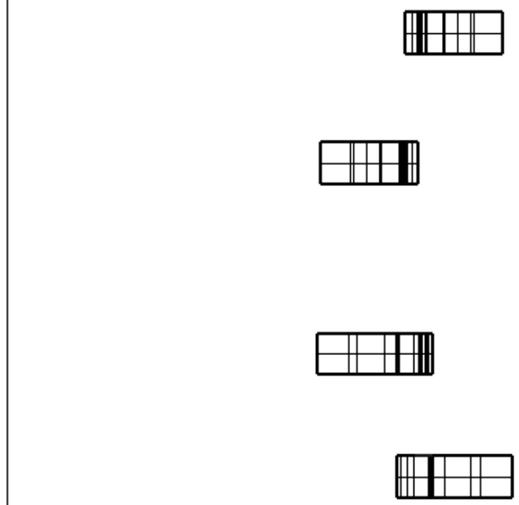

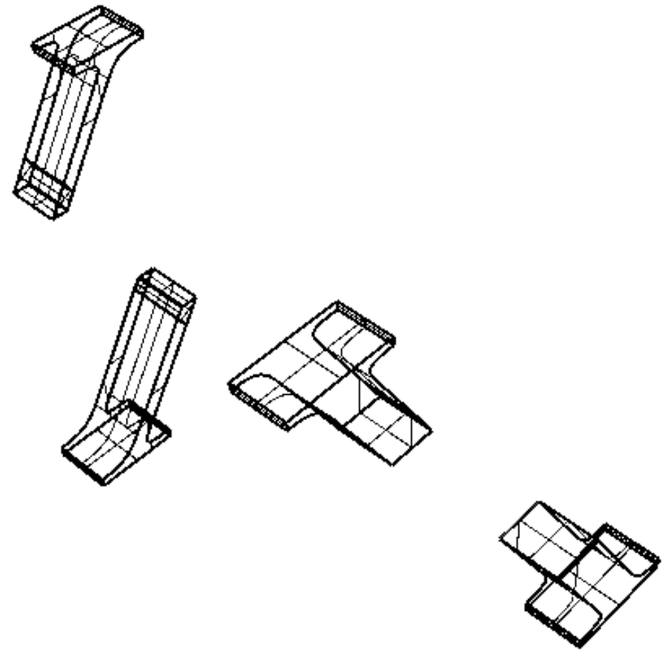

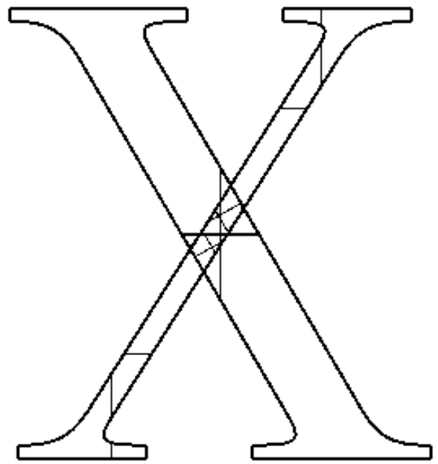

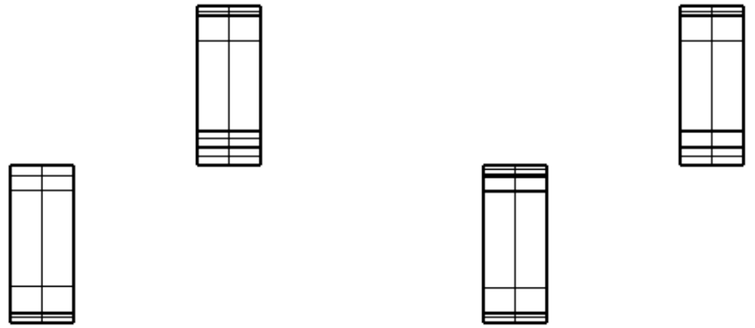

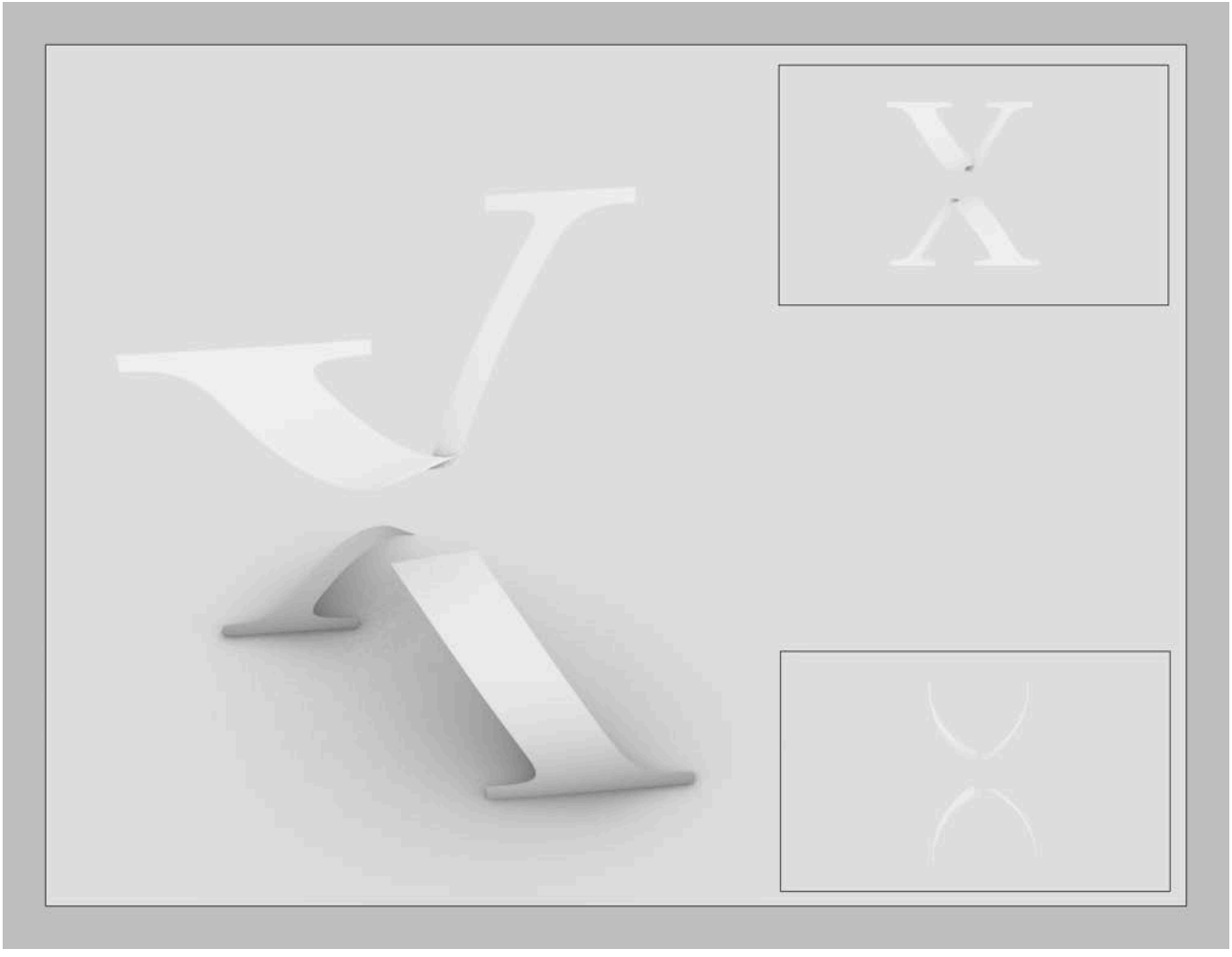

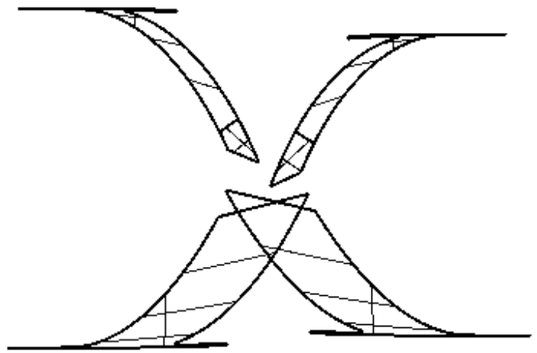

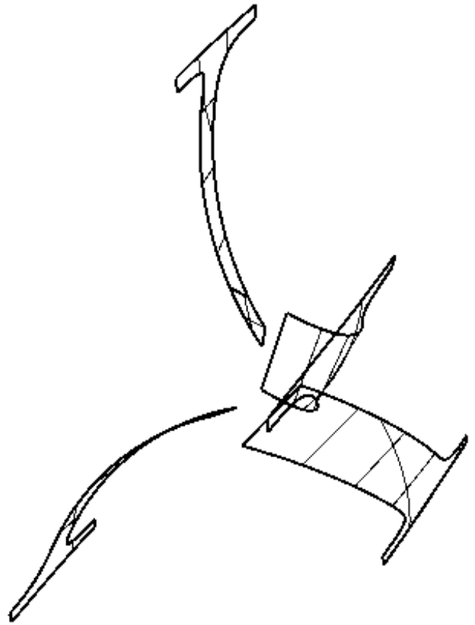

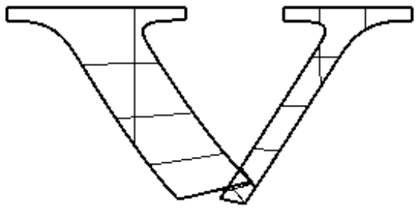

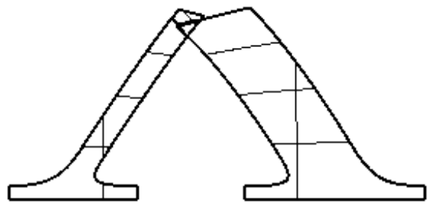

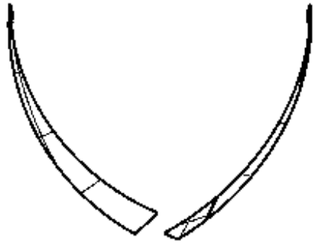

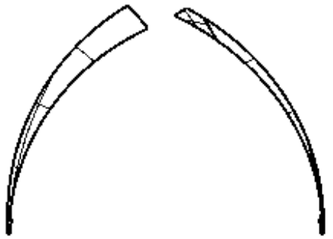

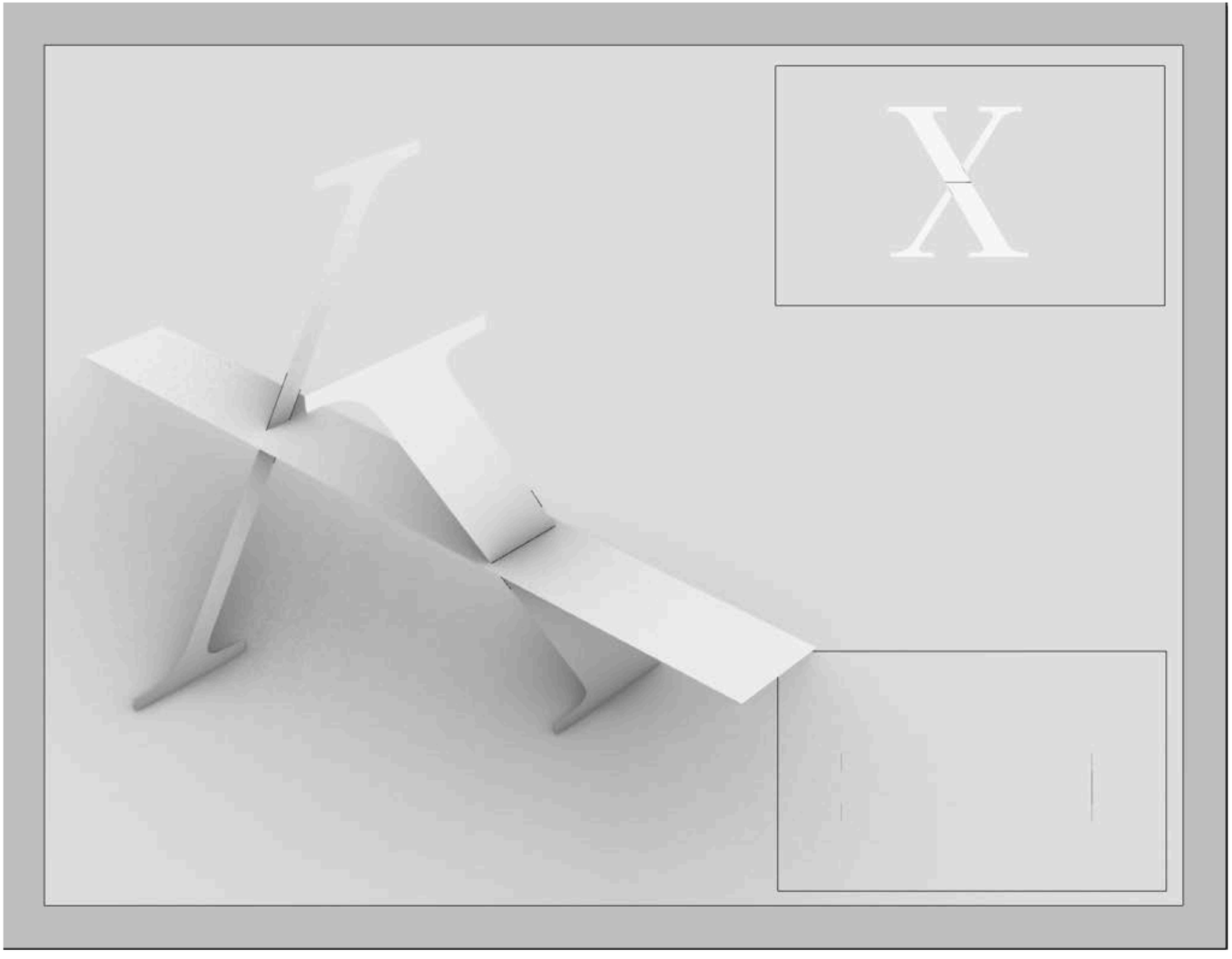
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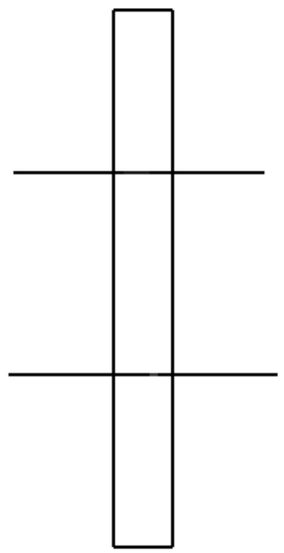

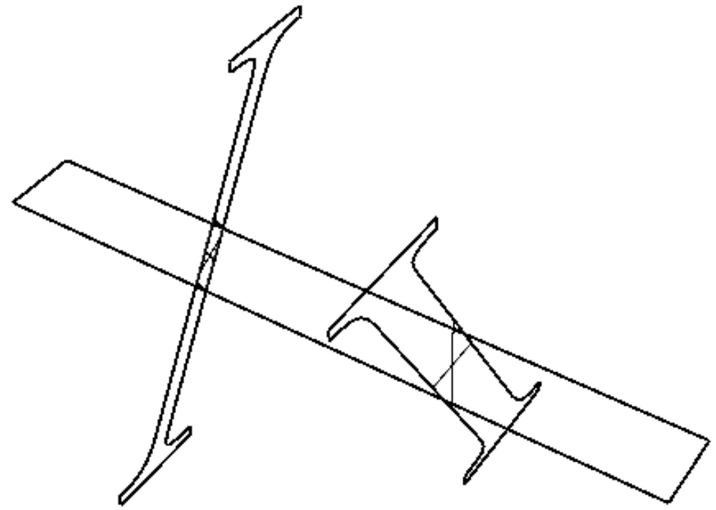

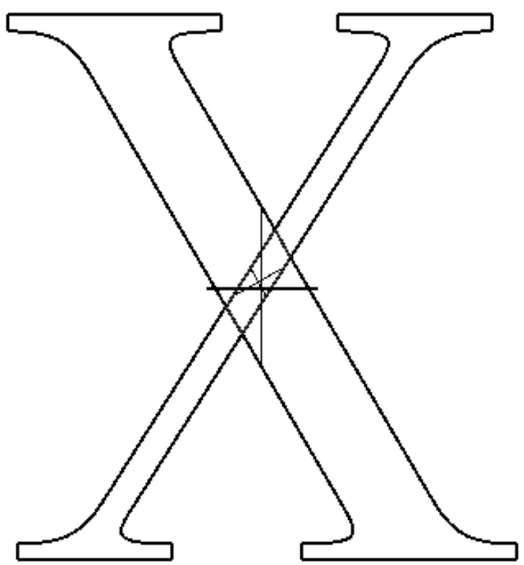

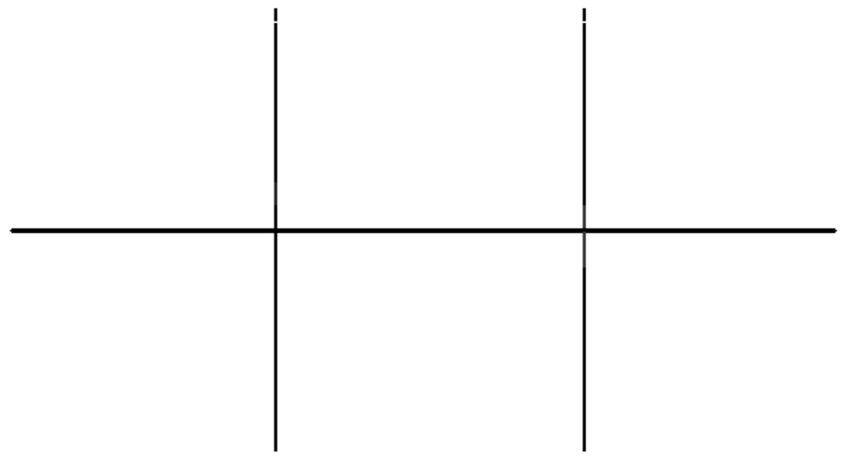

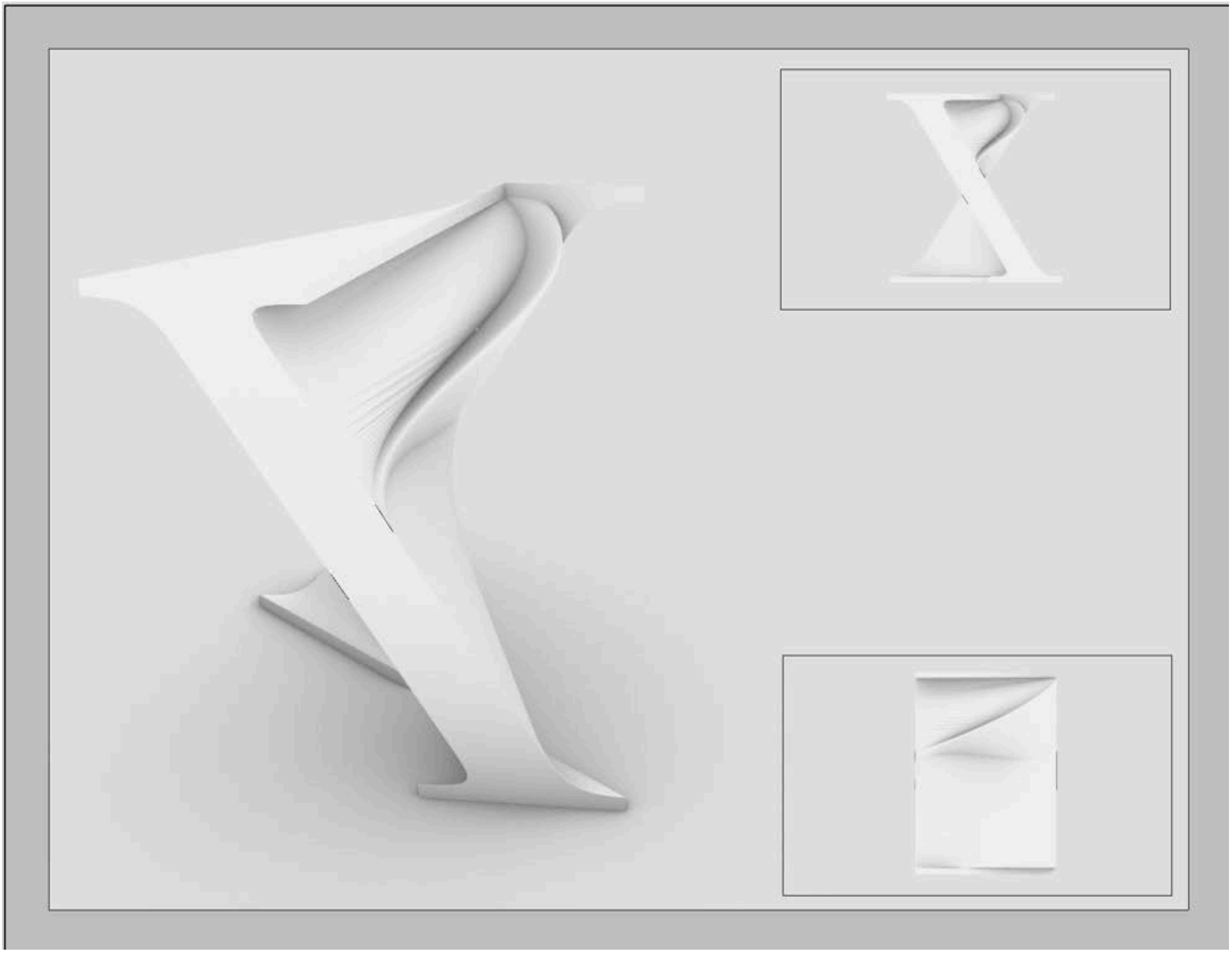

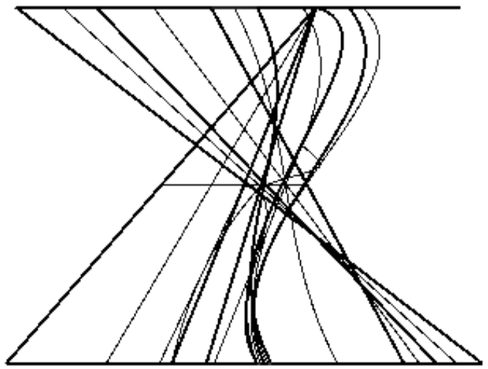

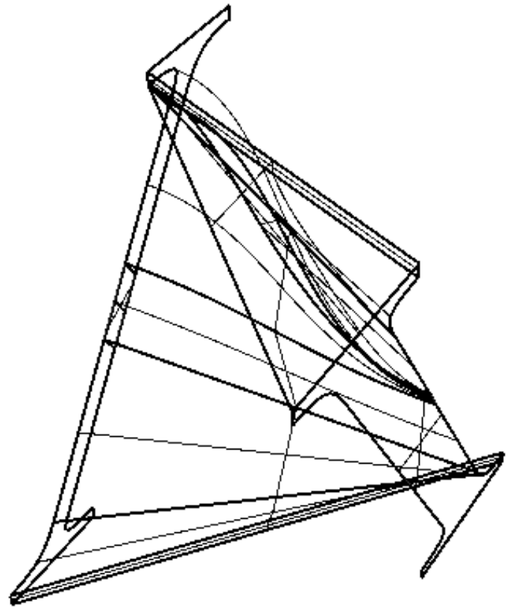

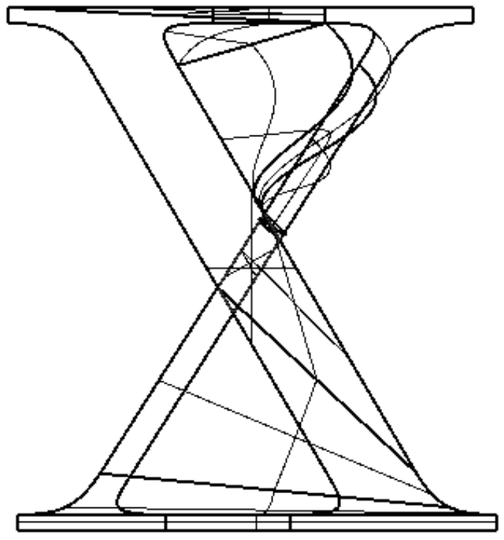

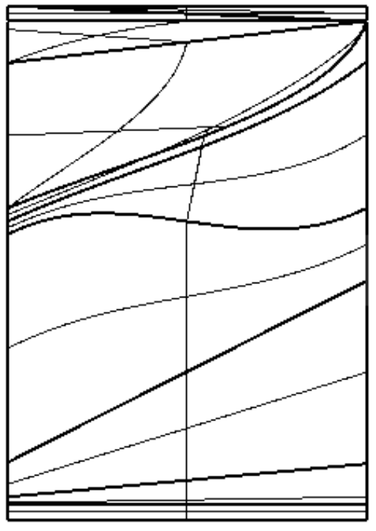

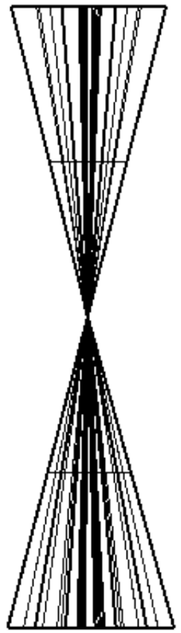

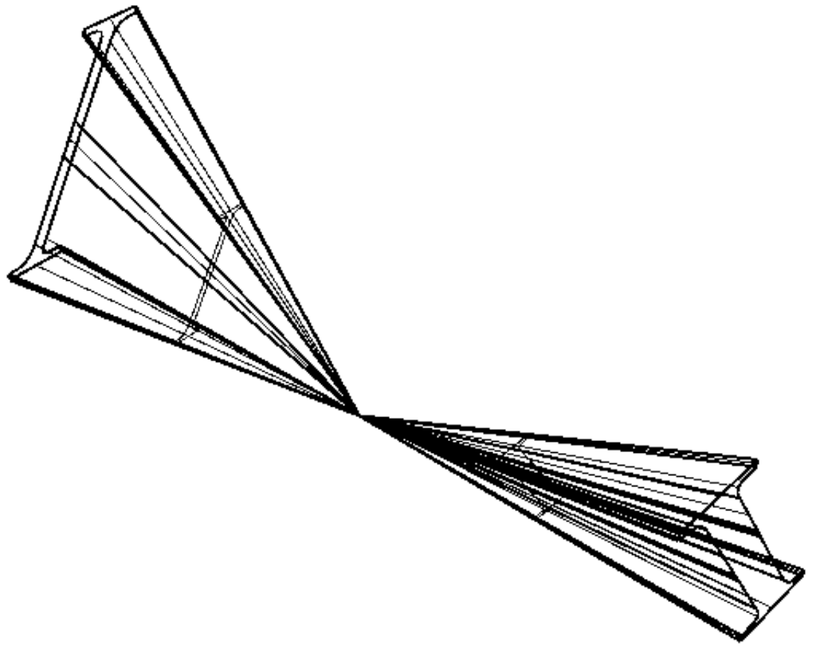

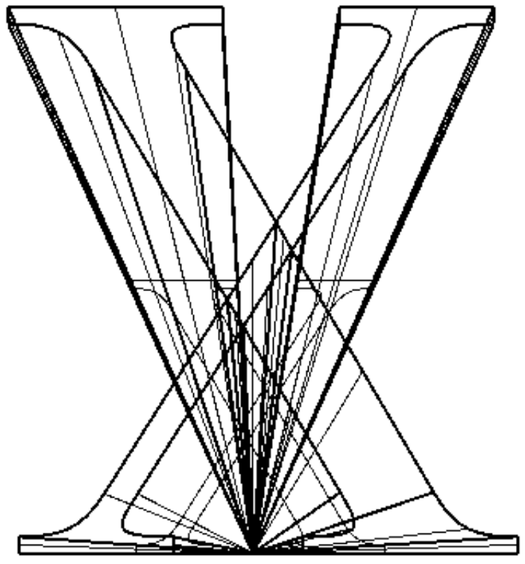

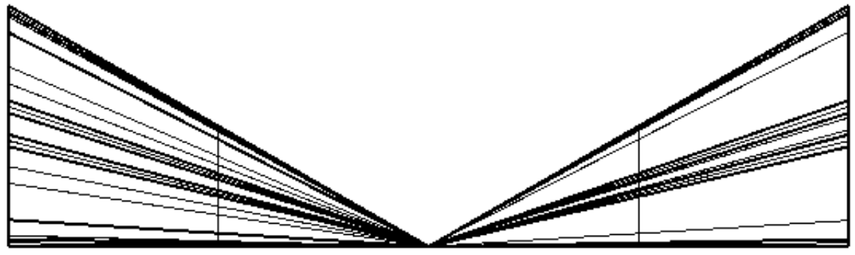

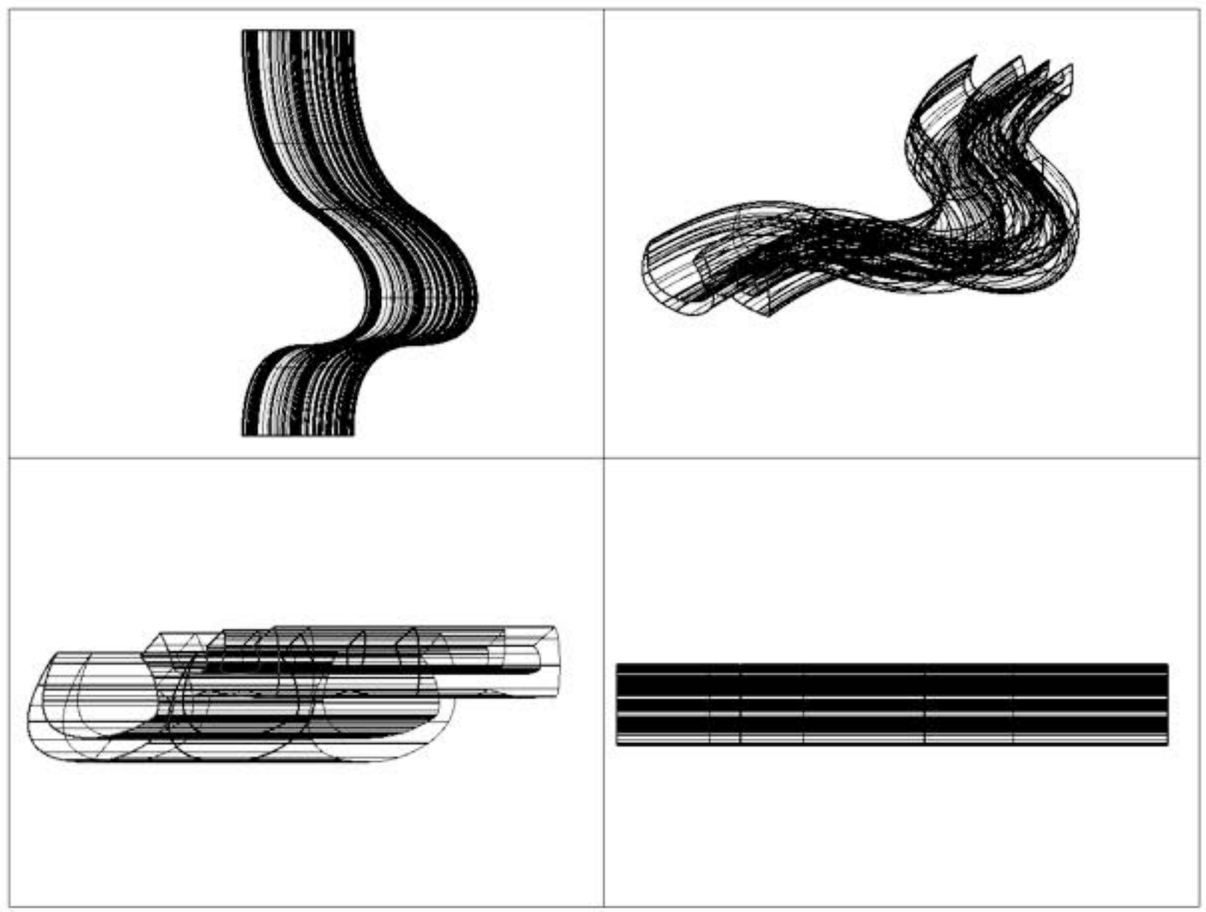

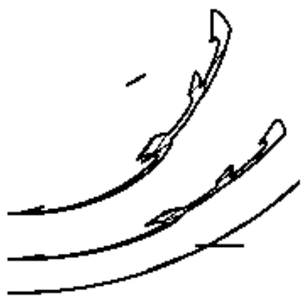

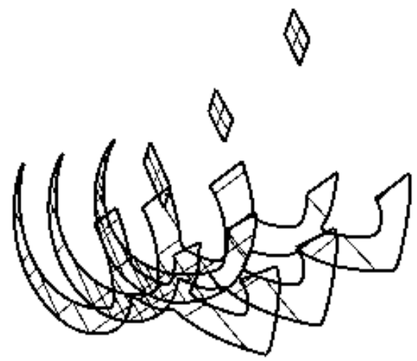

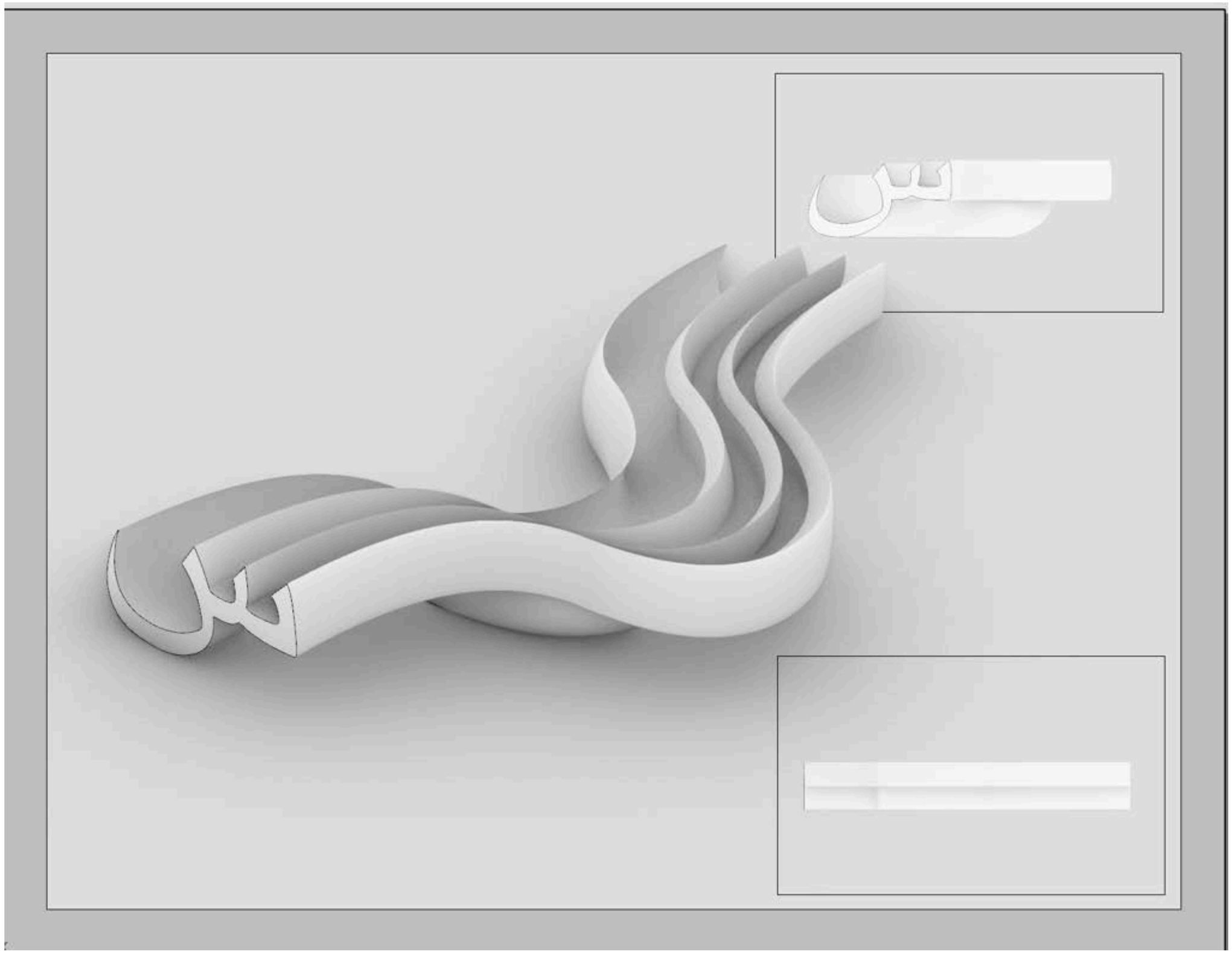
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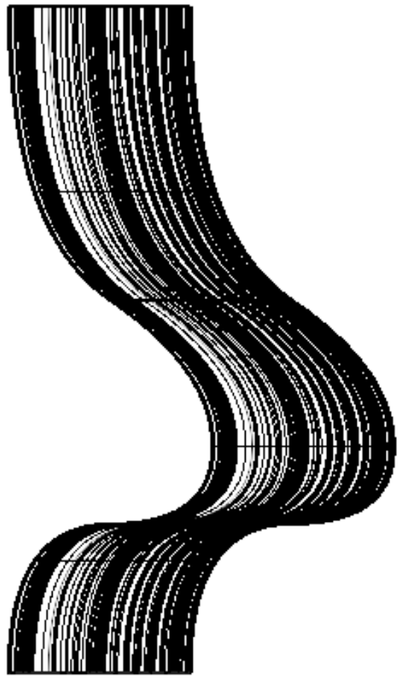

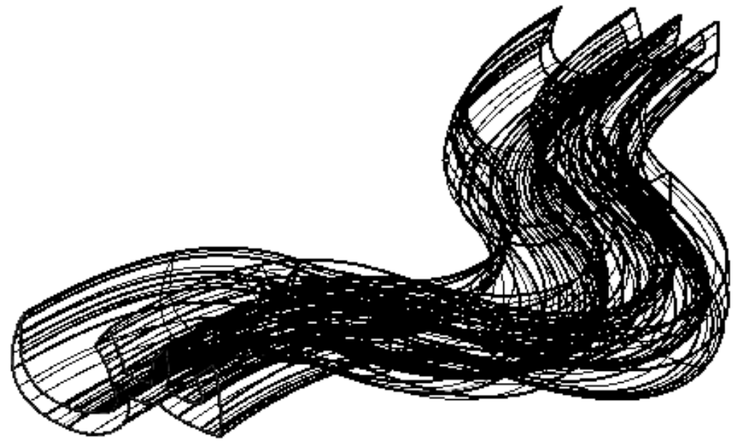

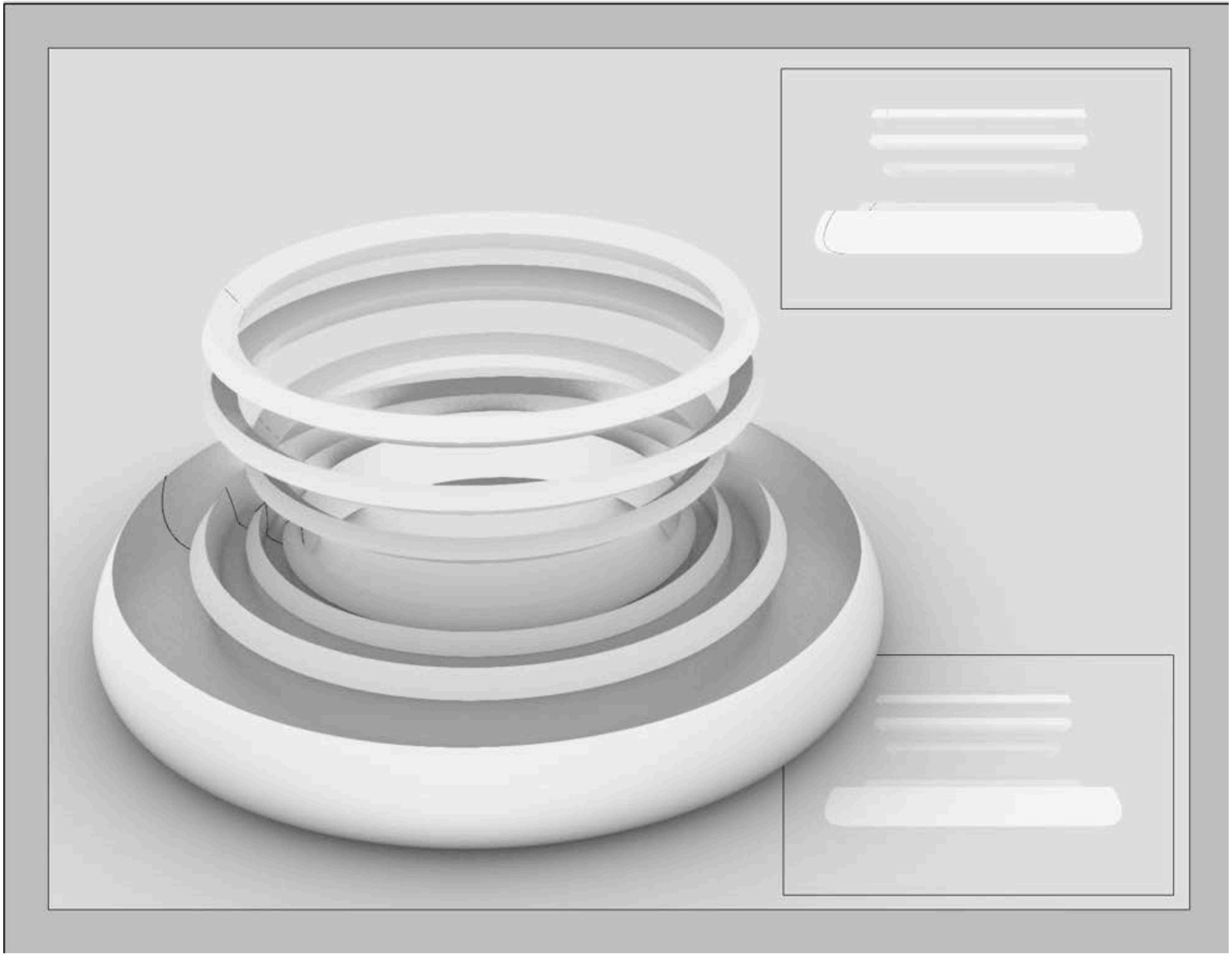

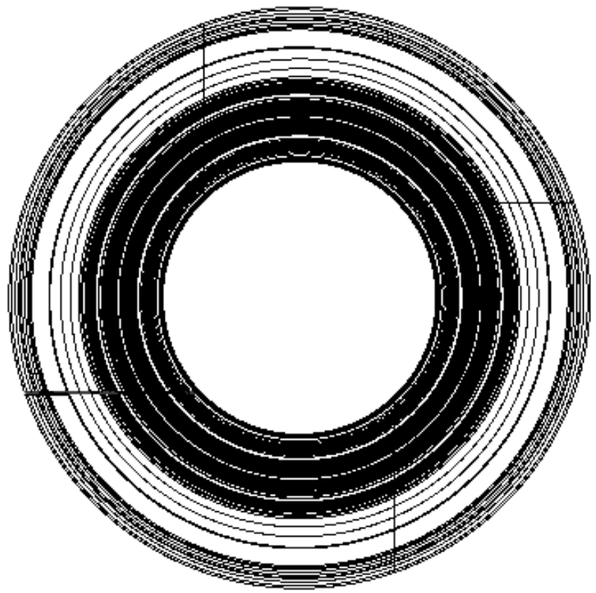

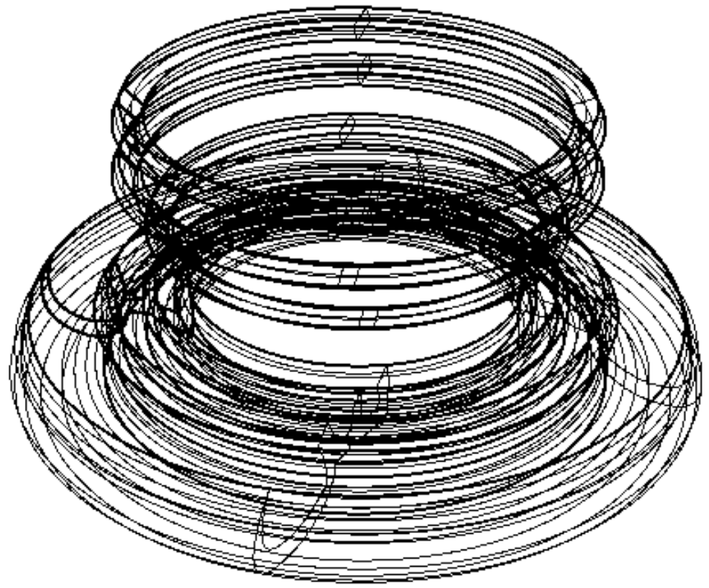

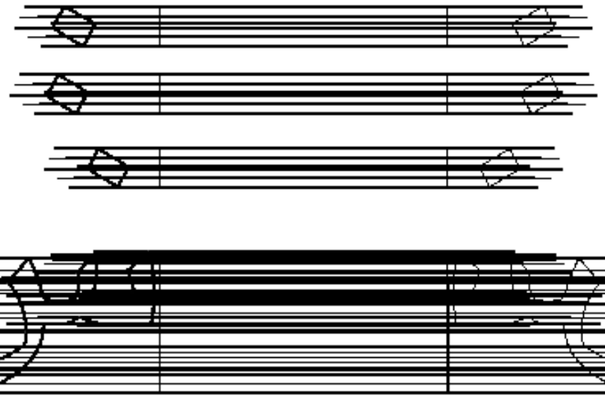

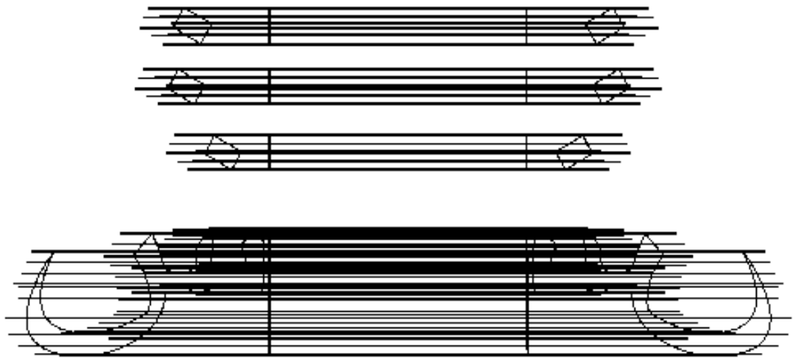

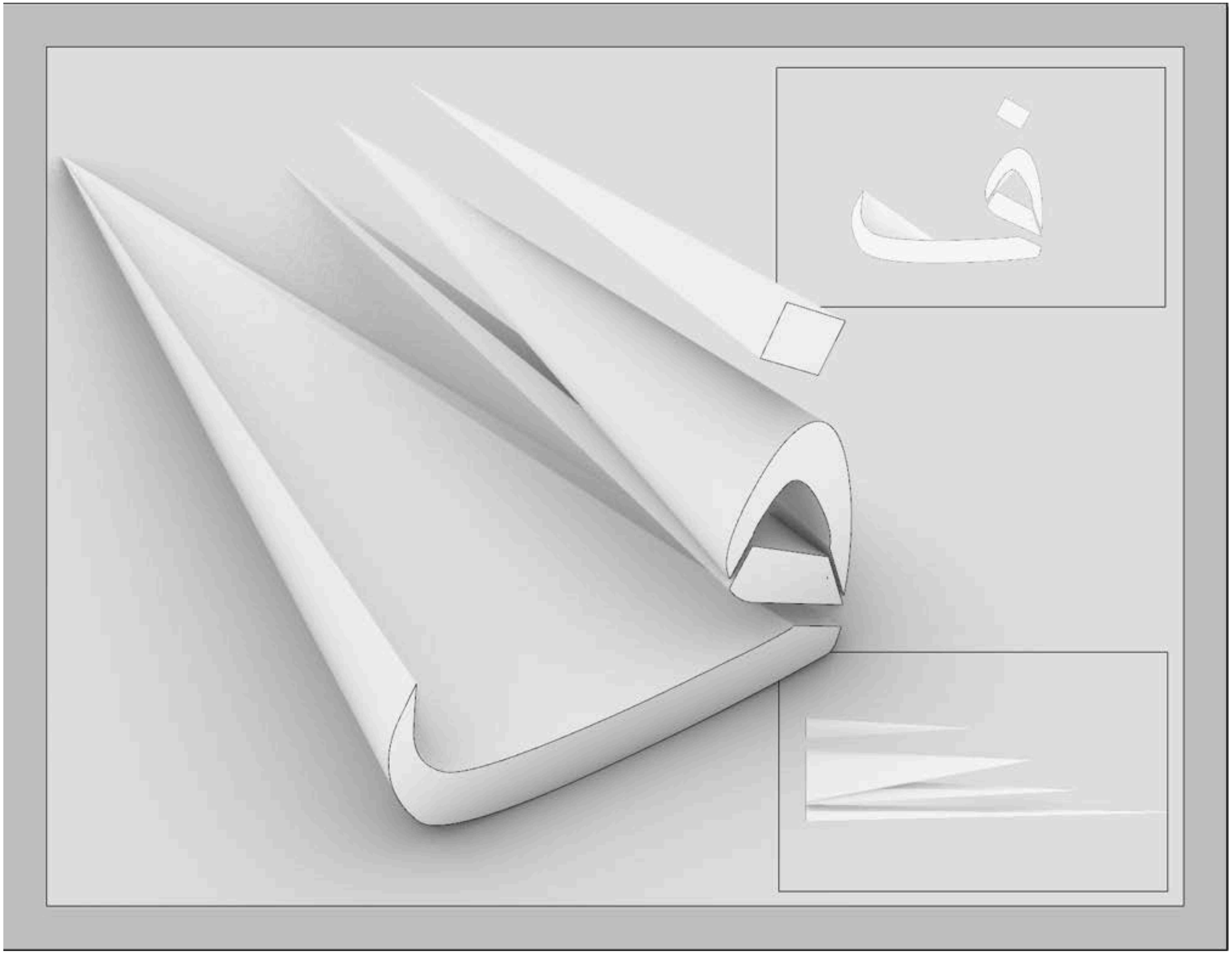
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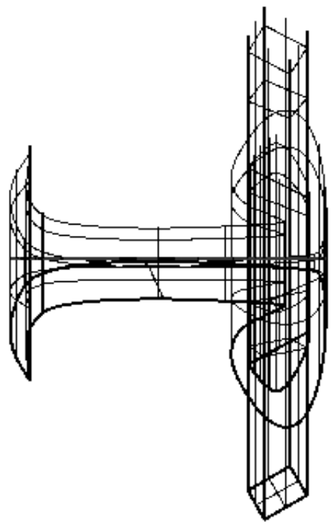

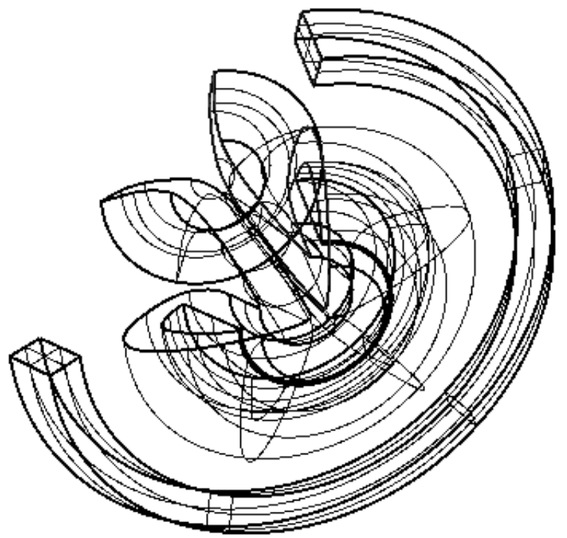

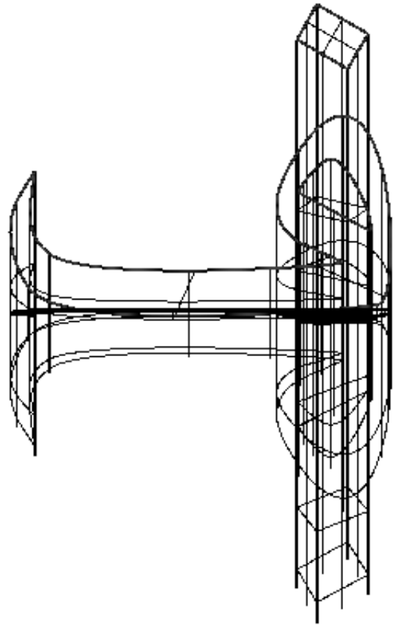

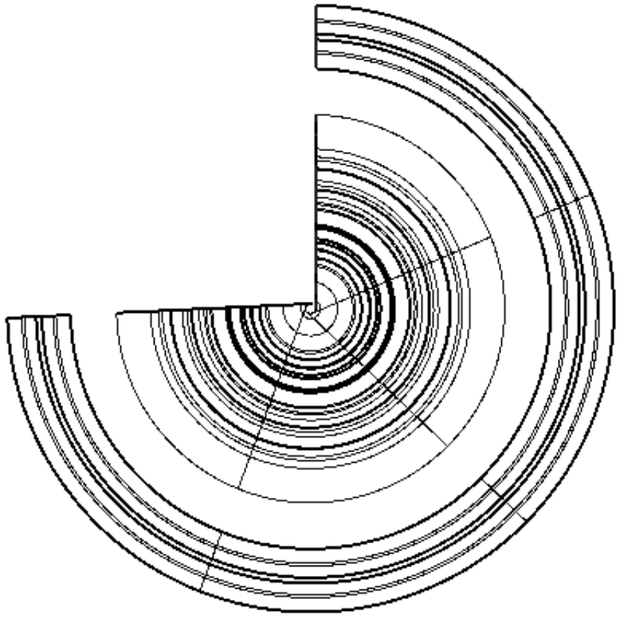

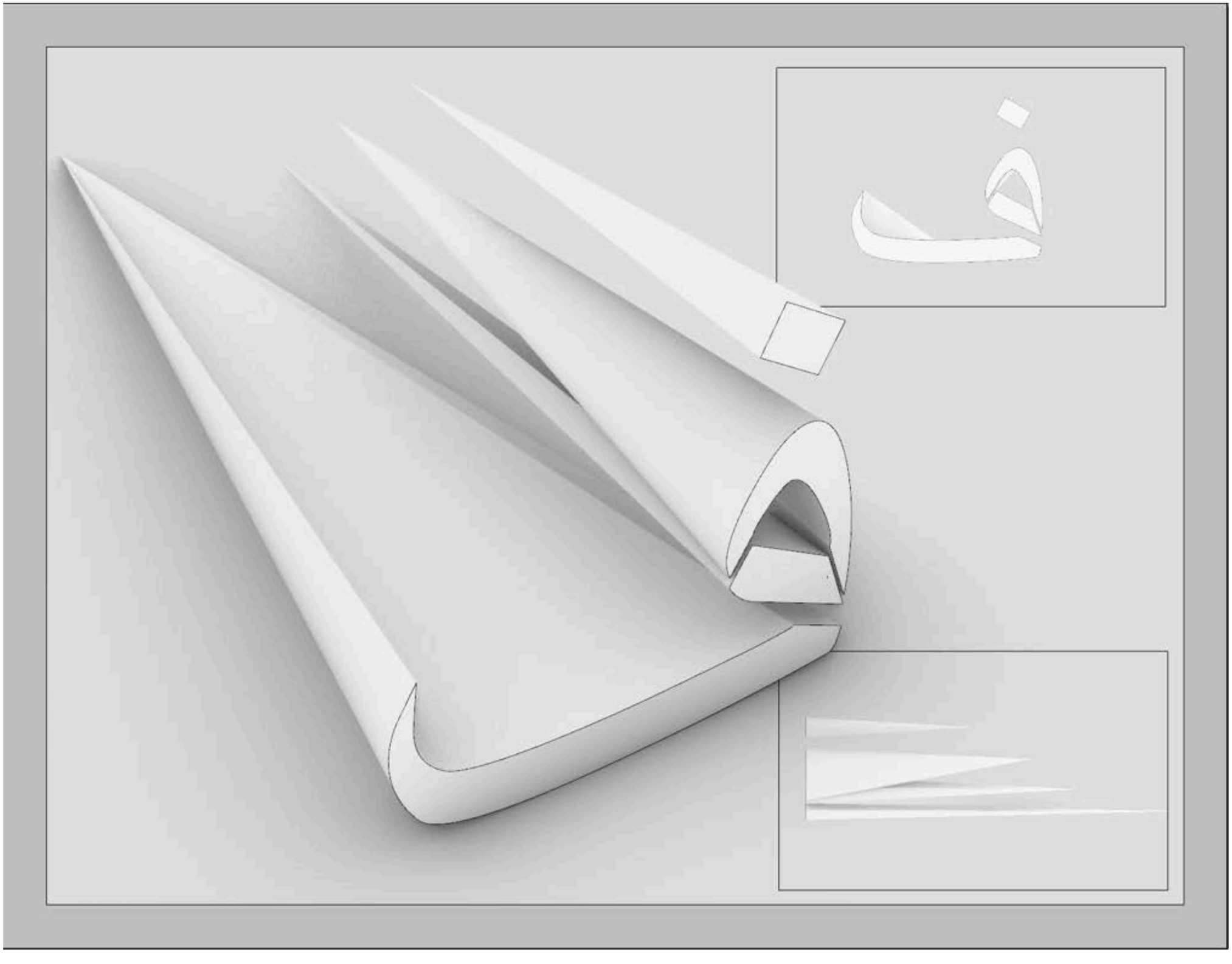
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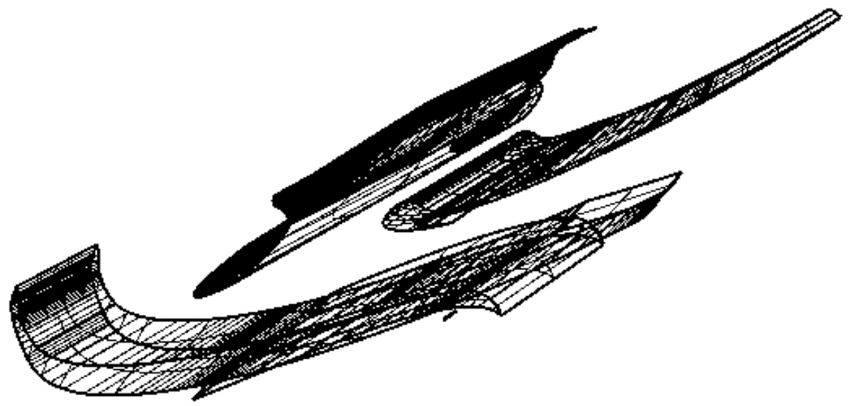

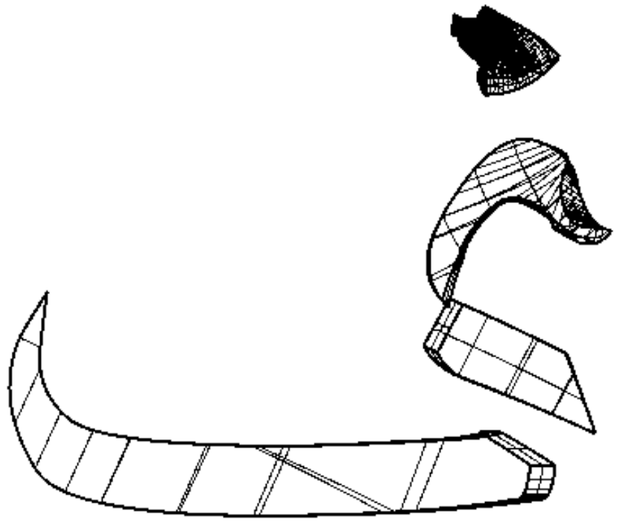


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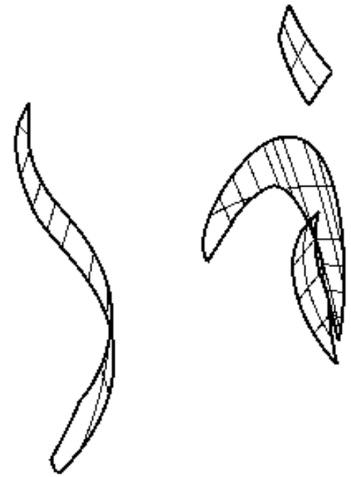

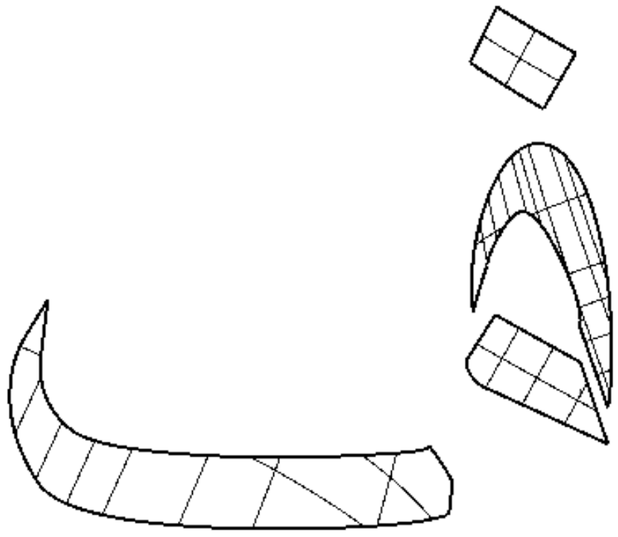

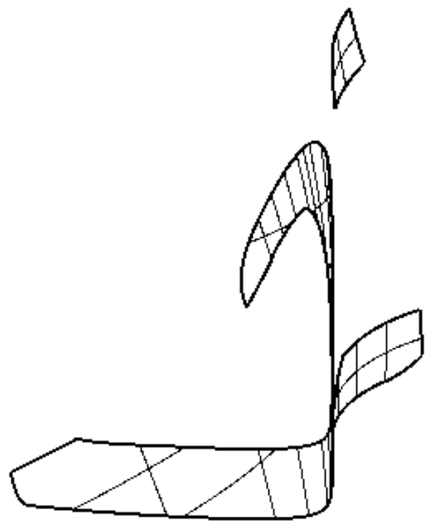

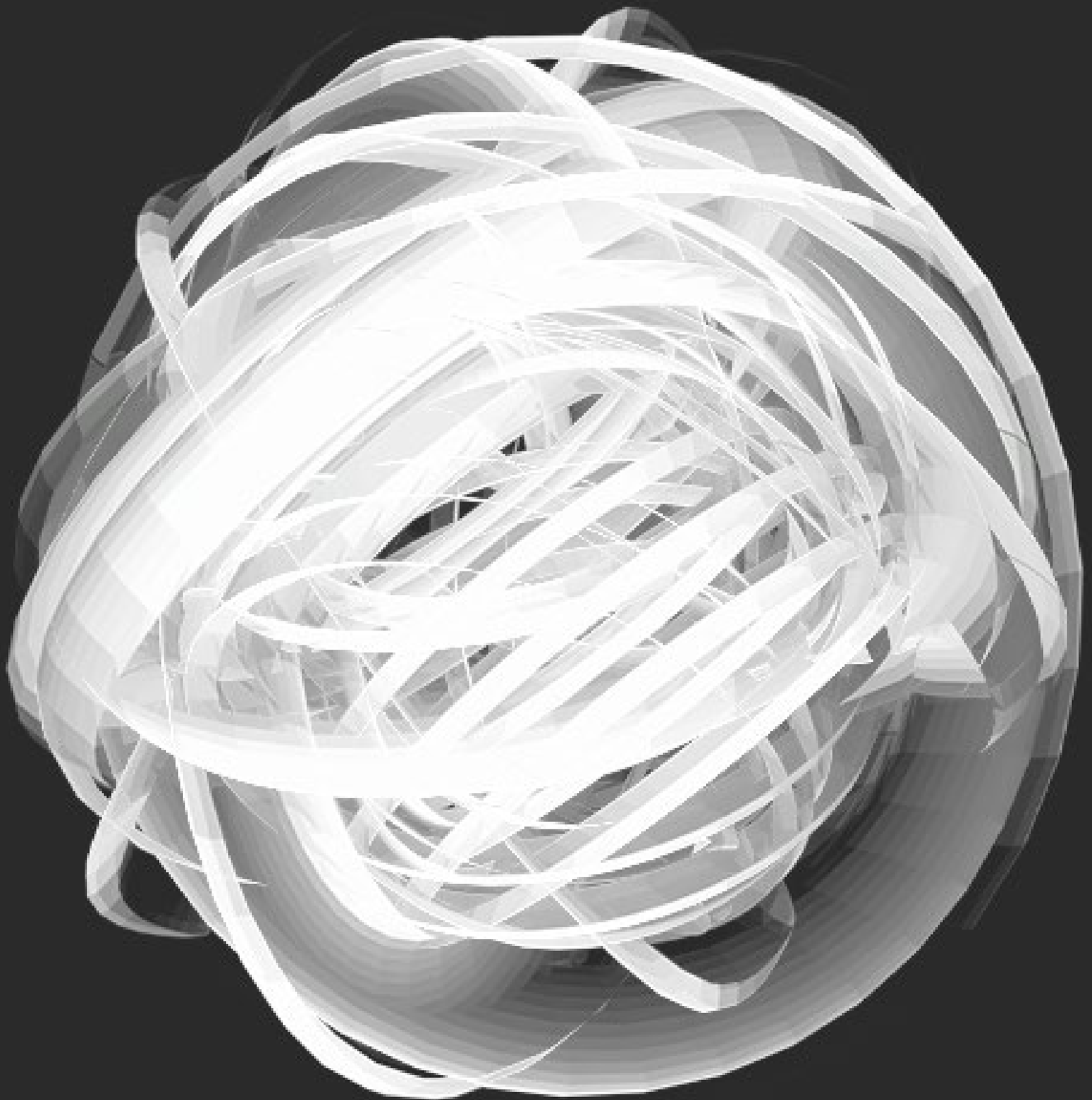

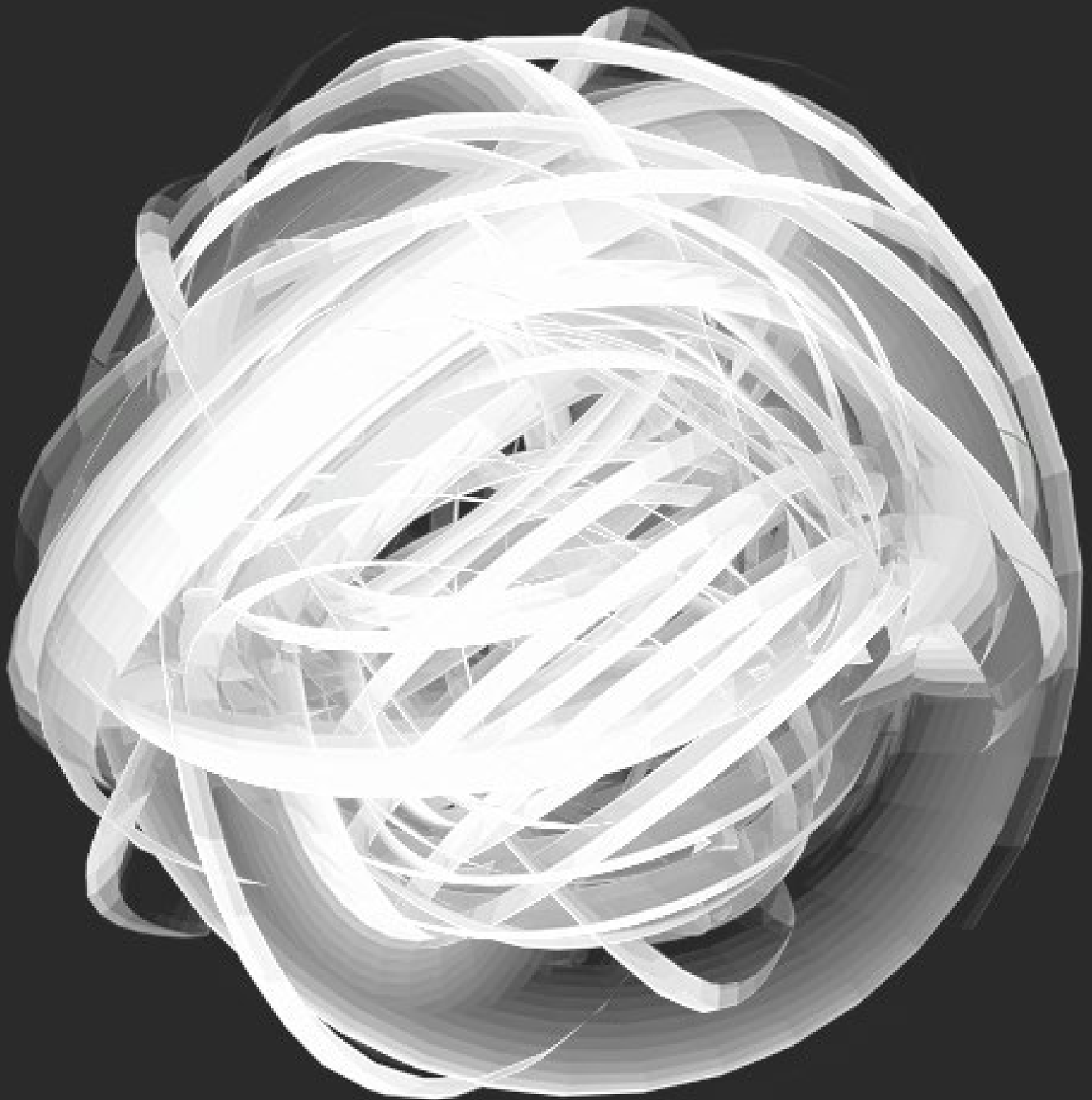

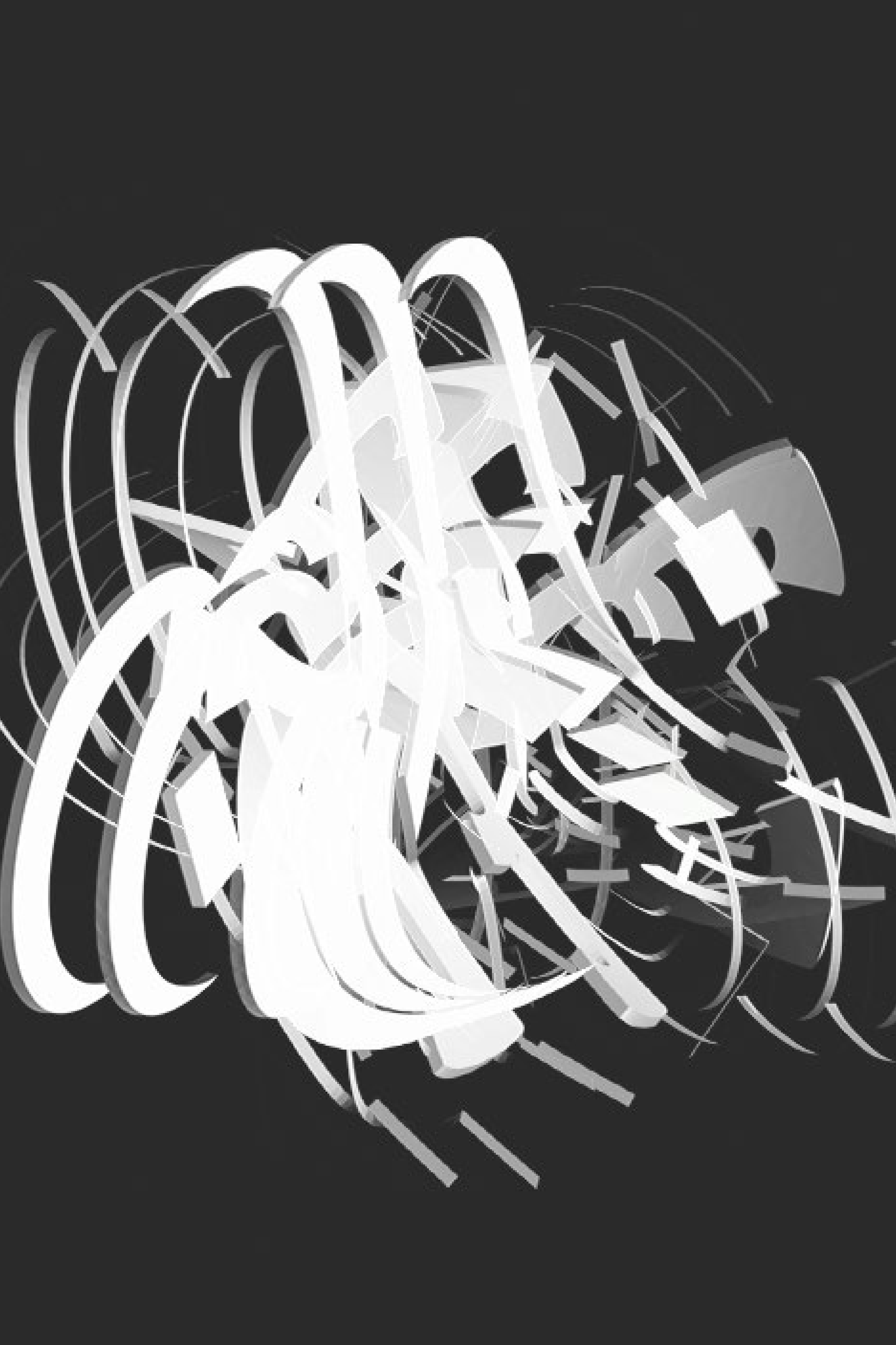

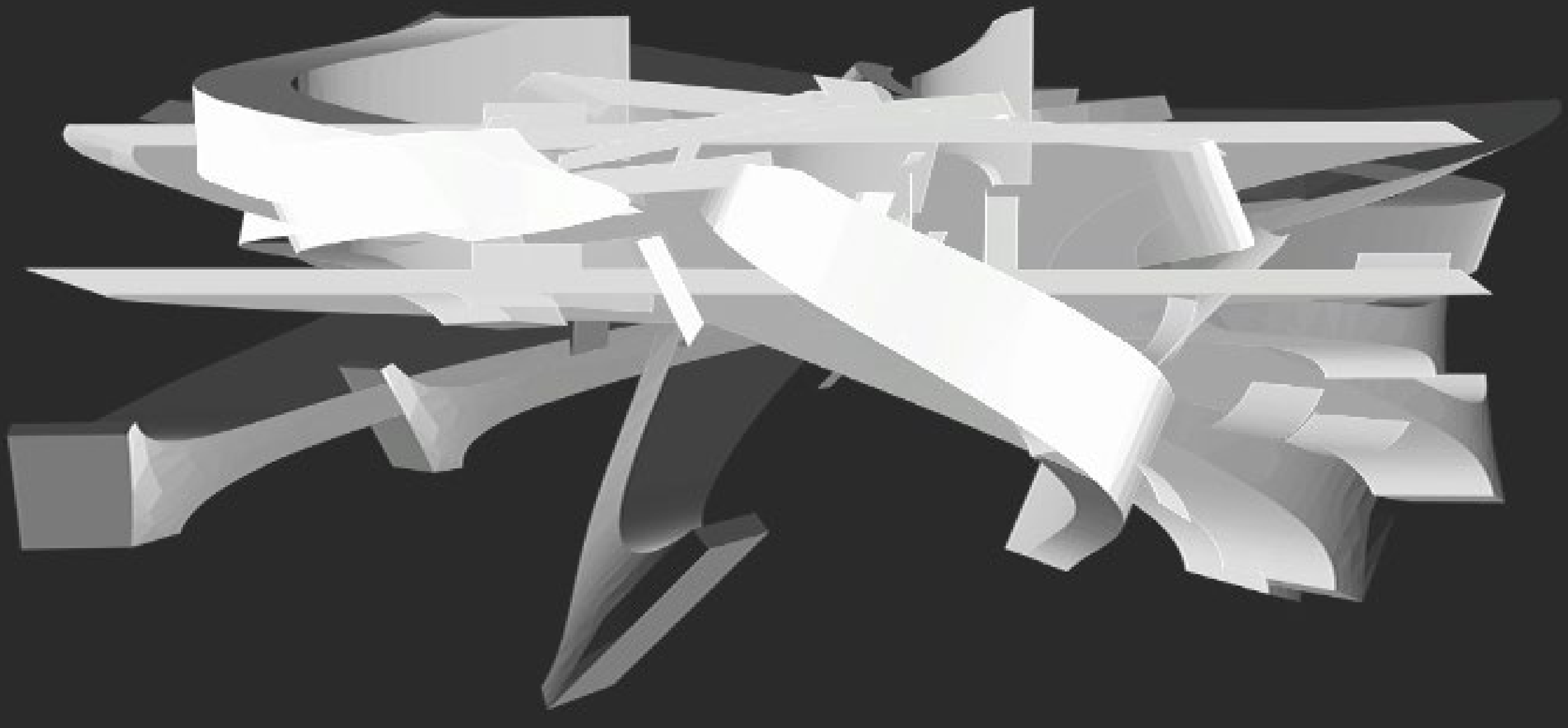

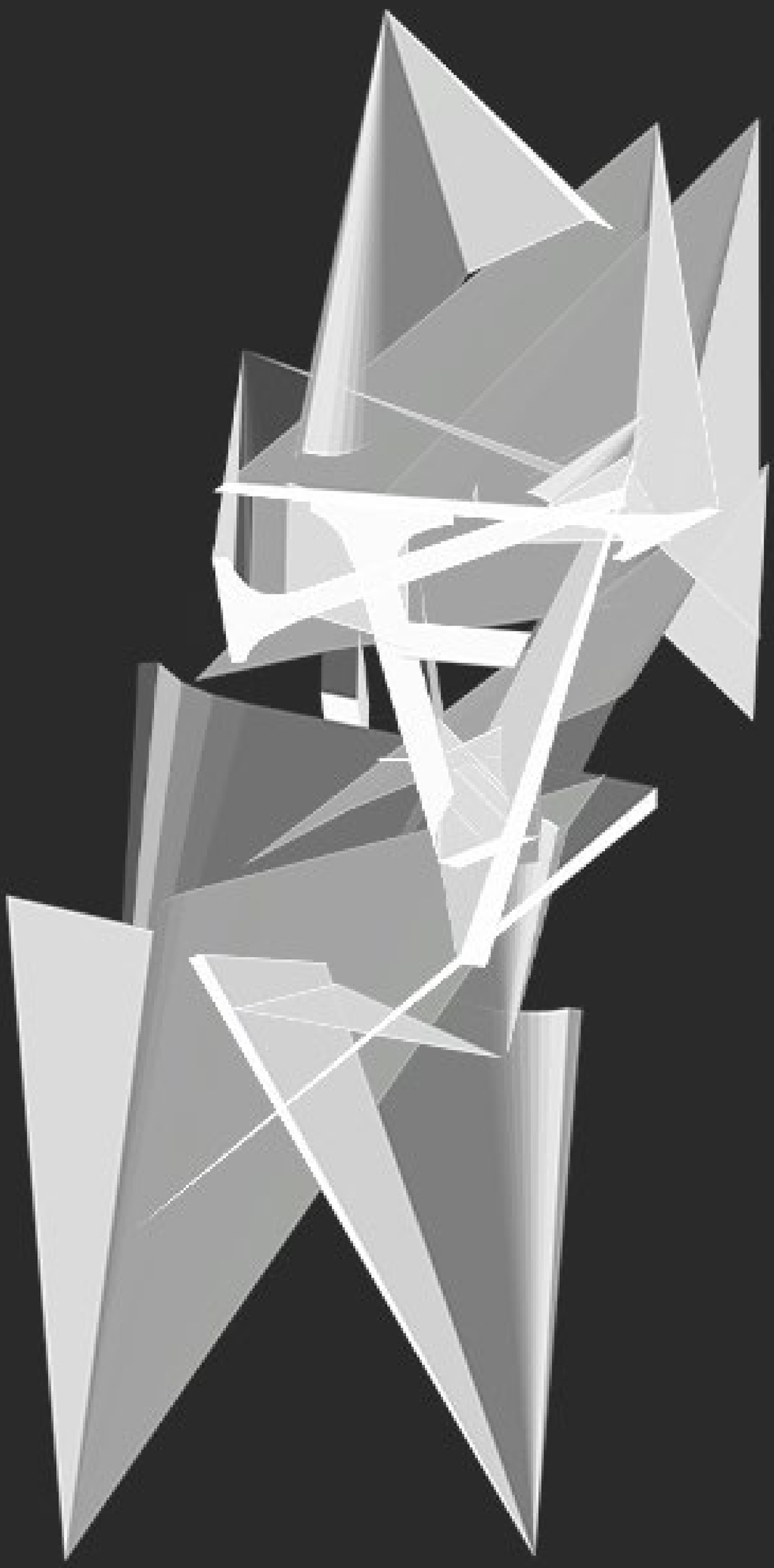

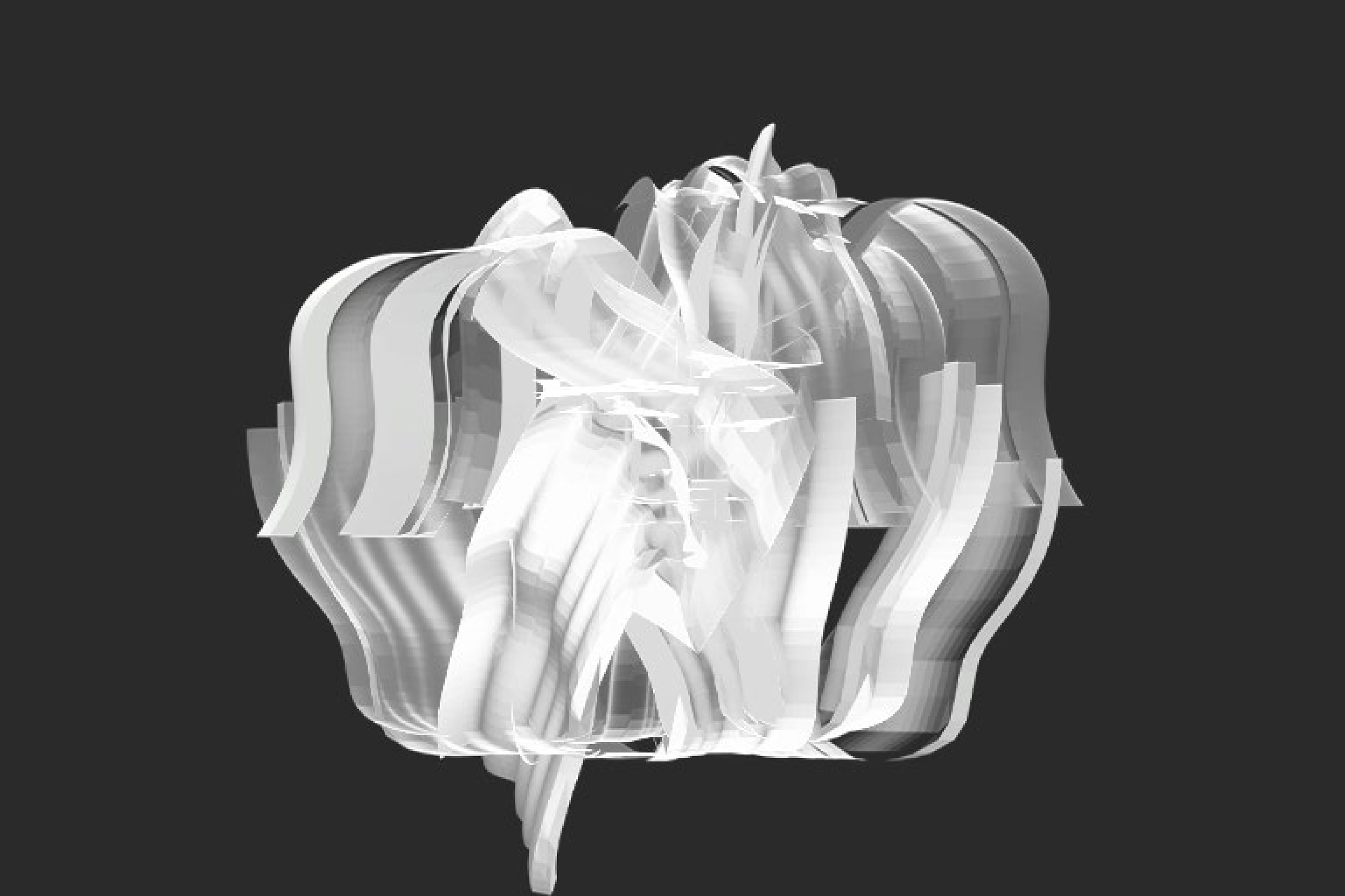

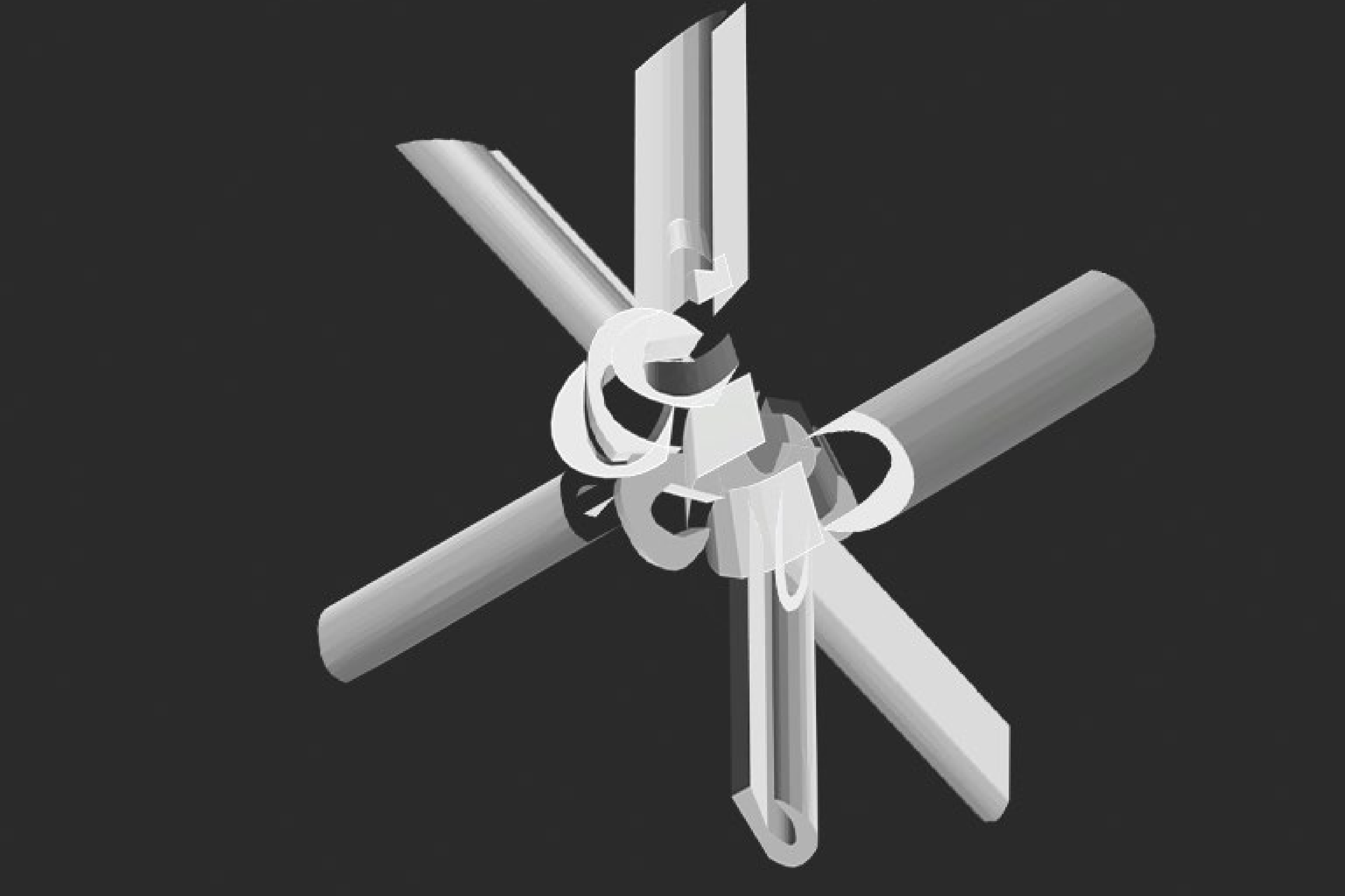

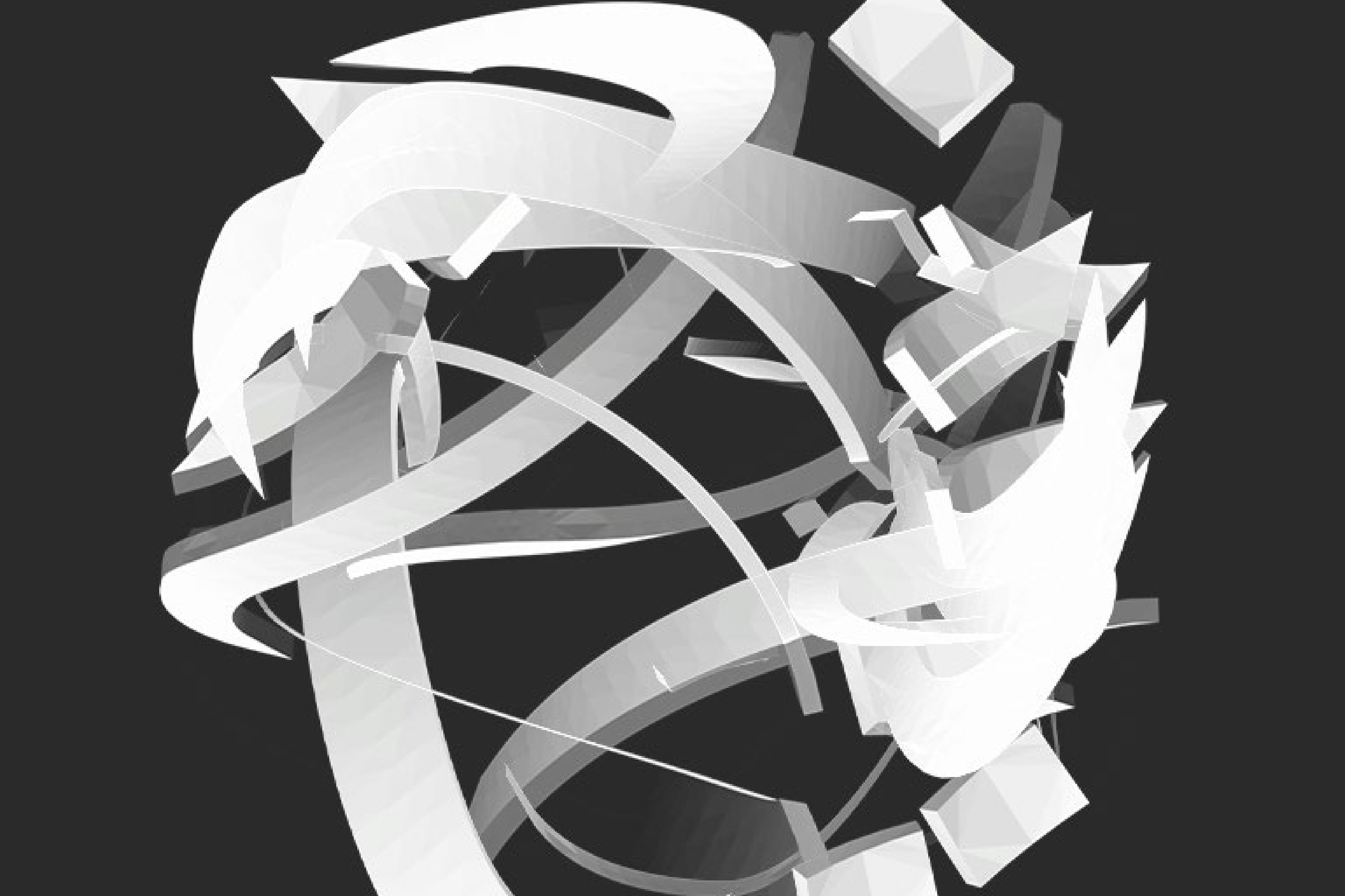

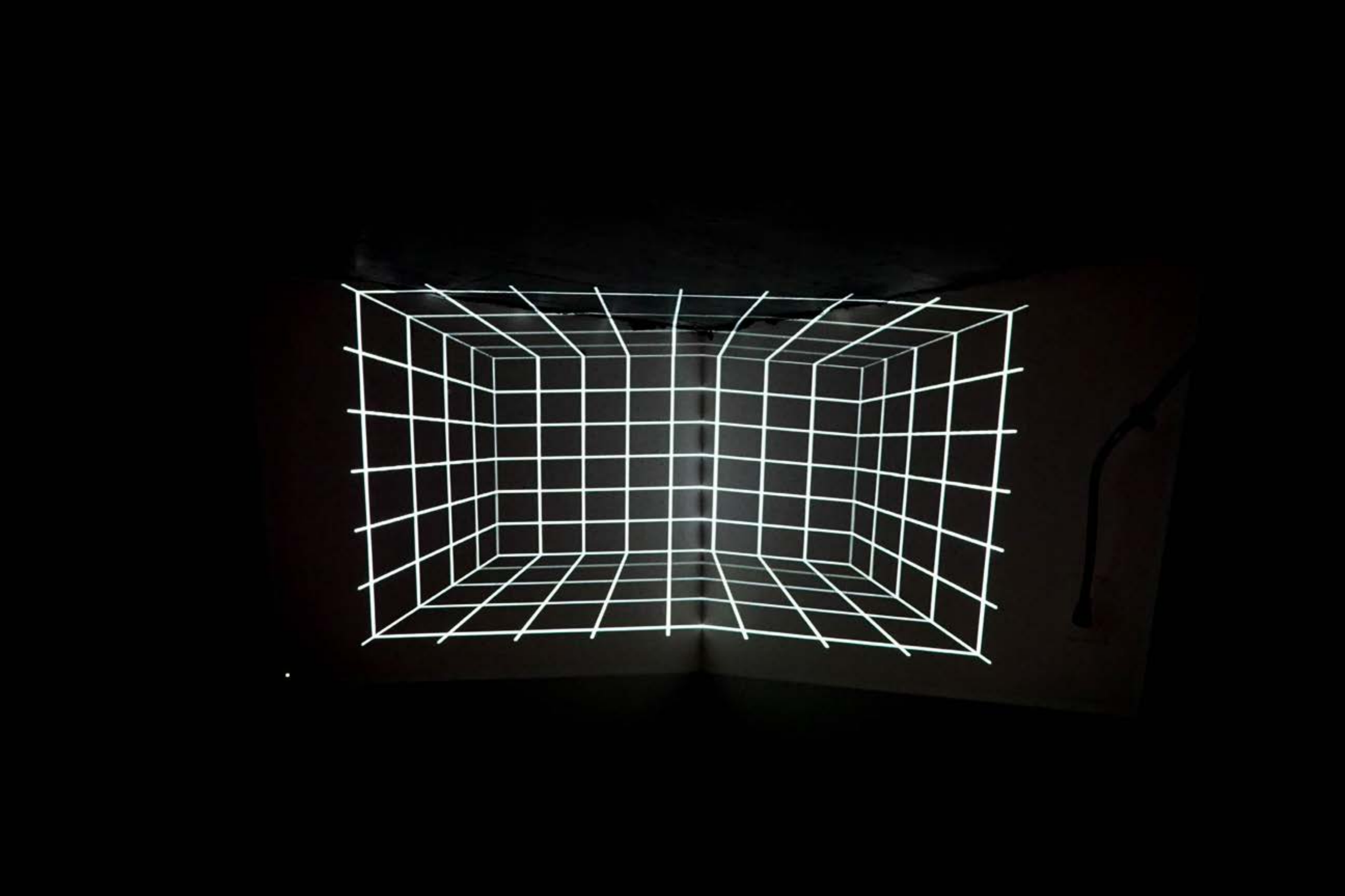

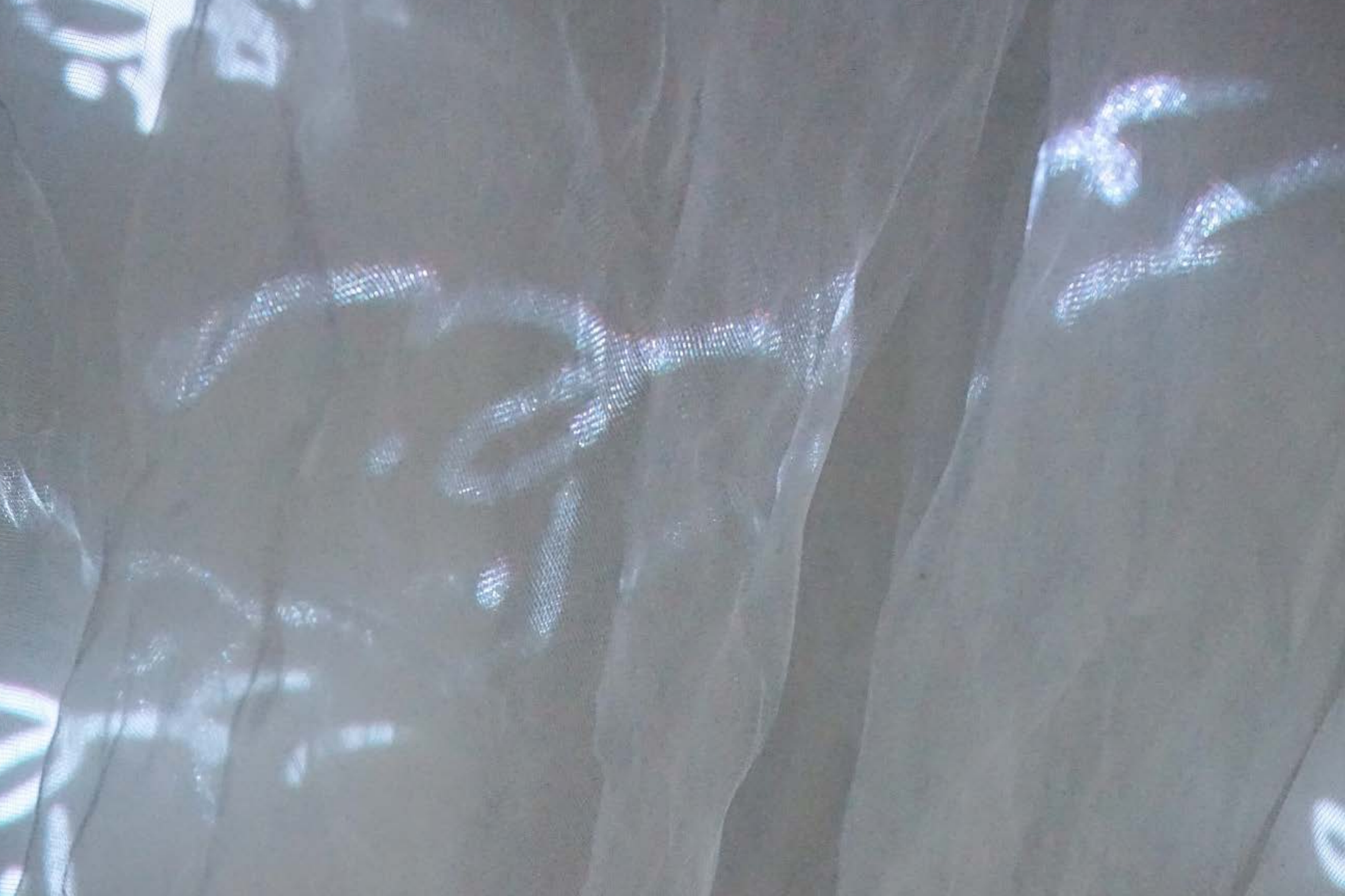

نیند کا غلبہ