



Tectonic Inflections: Additions Logic

Citation

Vu, Son. 2021. Tectonic Inflections: Additions Logic. Master's thesis, Harvard Graduate School of Design.

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TECTONIC INFLECTIONS: ADDITIONS LOGIC

A Thesis Submitted to the Department of Architecture
Harvard University Graduate School of Design, by

SON VU

In Partial Fulfillment of the Requirements for the Degree of
[Master of Architecture]

MAY 2021

(Month and Year Thesis Submitted)

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purposes.”**

(signature)

A handwritten signature in black ink, appearing to be 'SV' or similar initials, written on a light-colored surface.

[Son Vu]

(signature)

A handwritten signature in black ink that reads 'Sean Canty' in a cursive script.

[Sean Canty]

tectonic inflections: additions logic

“The multiple narratives that are woven into this single surface describe the kind of phenomena that I like to call *architectural confluence*: the form is not determined by a single alibi, nor a linear form of reasoning, evading simplistic determinisms, whether structural, functional or semantic. Instead, the technique involves something deeply rooted in the architectural discipline: beyond the obligation to solve problems, the elaboration of a tectonic language, the integration of multiple contingencies, and the invariable synthesis of heterogeneous parts...

-Nader Tehrani

... What is extraordinary is that Dieste's functional fragments cannot be seen: the beam, the drainage and the skylight are all absorbed into one formal, spatial and material system suppressing their contradictory functions towards a singular figure.”

-Nader Tehrani



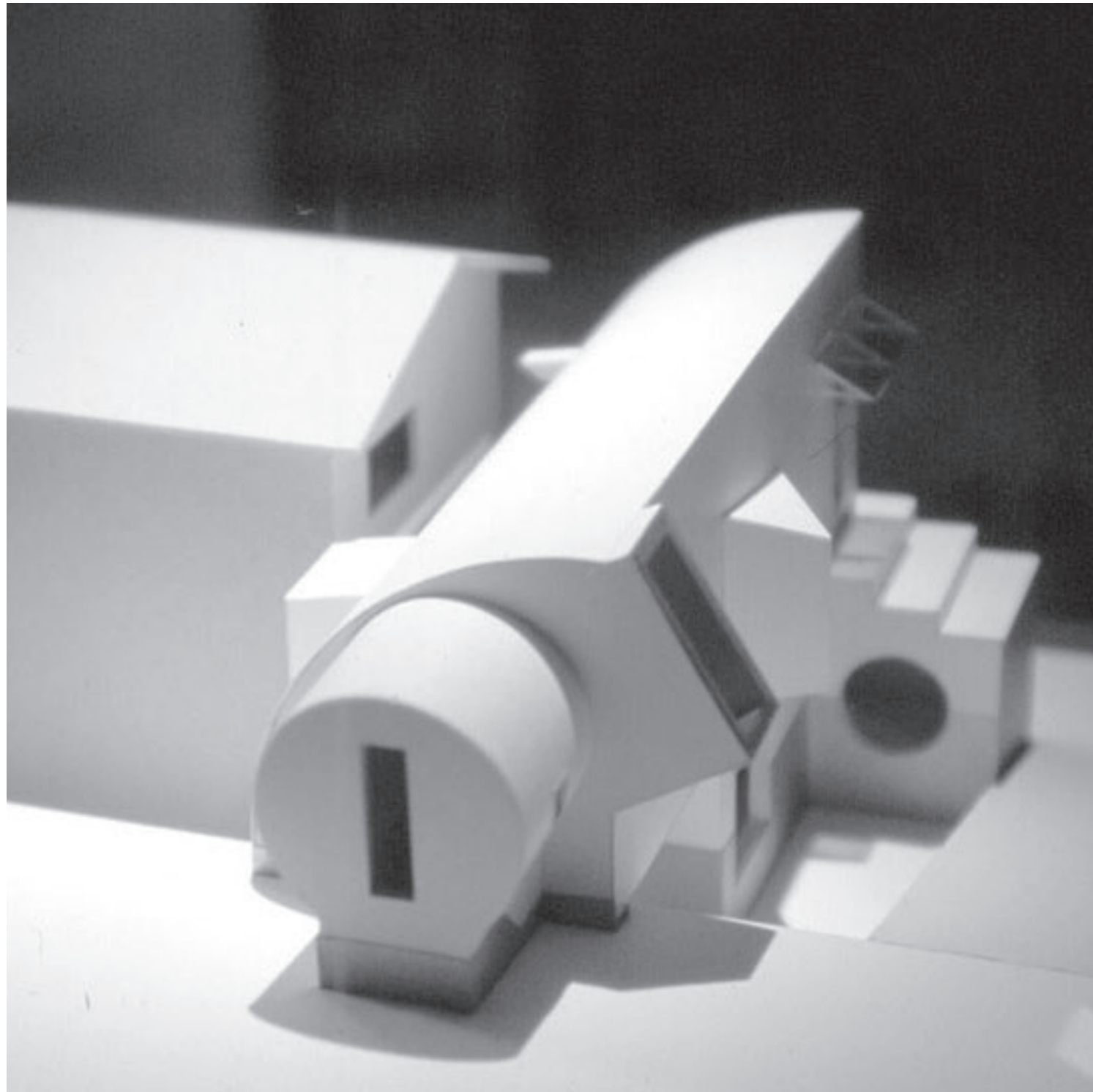
gimnasio y colegio don bosco



iglesia de estación atlántida

“THE HOUSE IS ART”

-Kazuo Shinohara



house in yokohama



higashi-tamagawa complex

chapter 1 three logics:

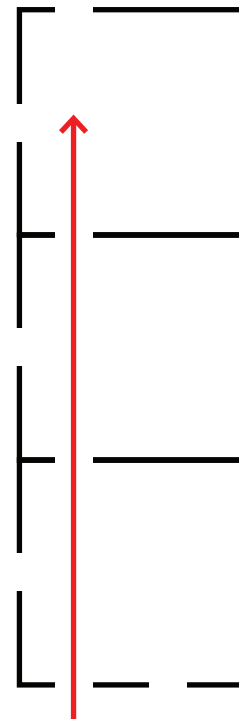
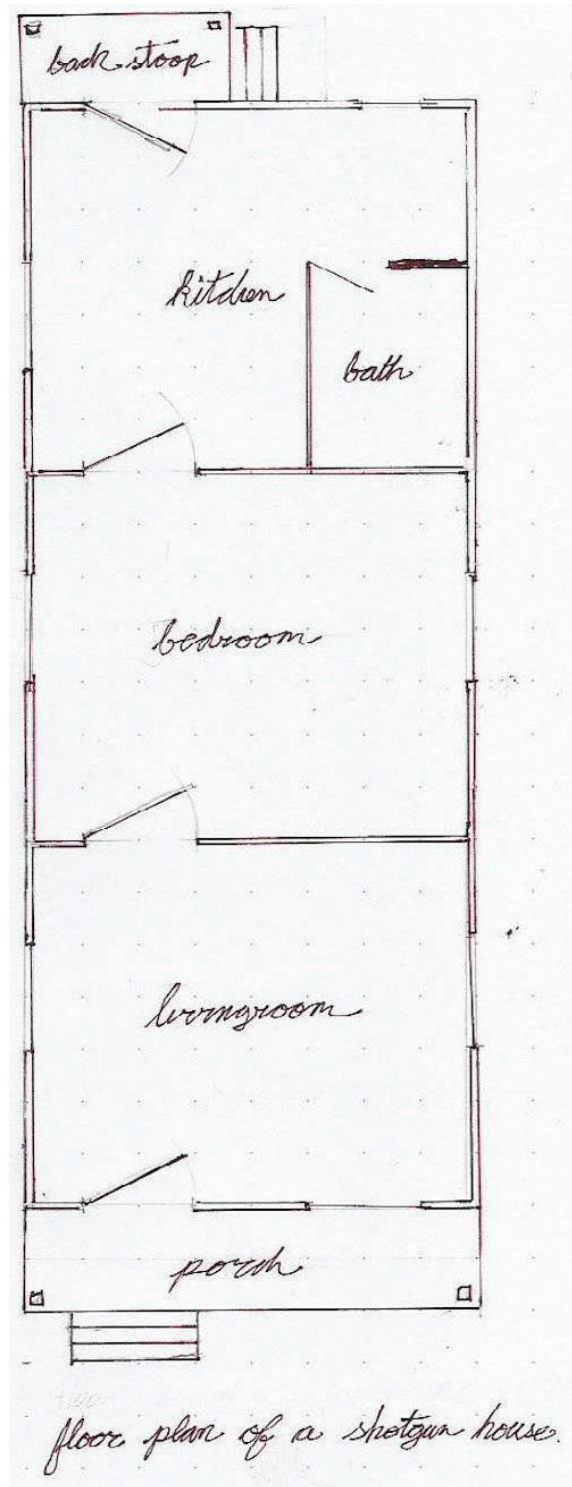
shotgun type

wood framing tectonic

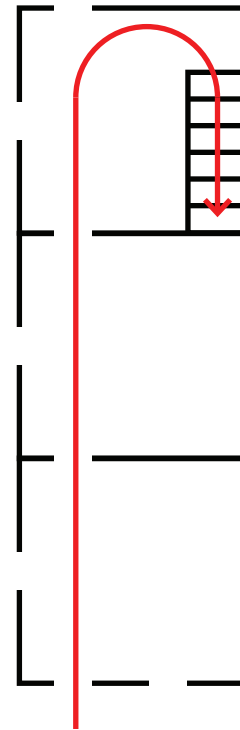
developable surface geometry



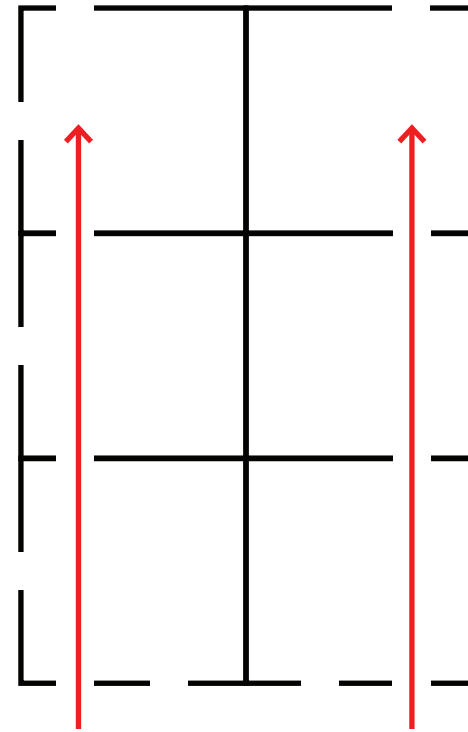
shotgun type



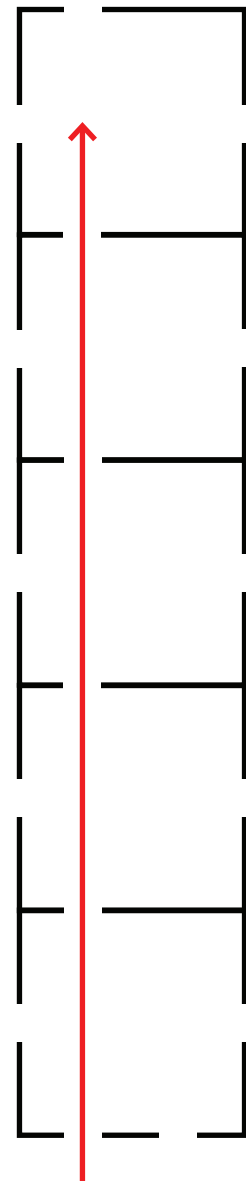
shotgun logic



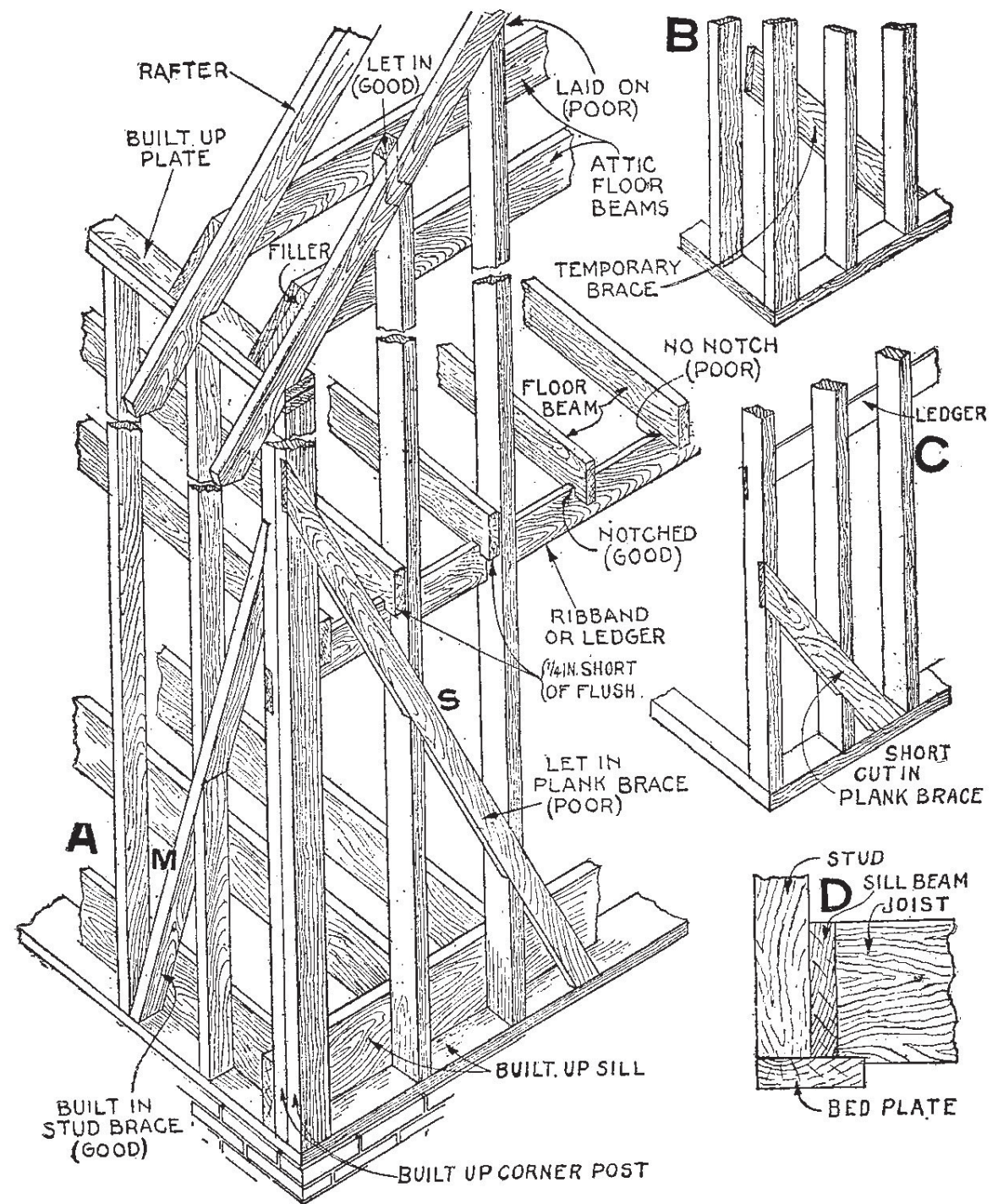
camelback shotgun



double barrel shotgun



extended shotgun

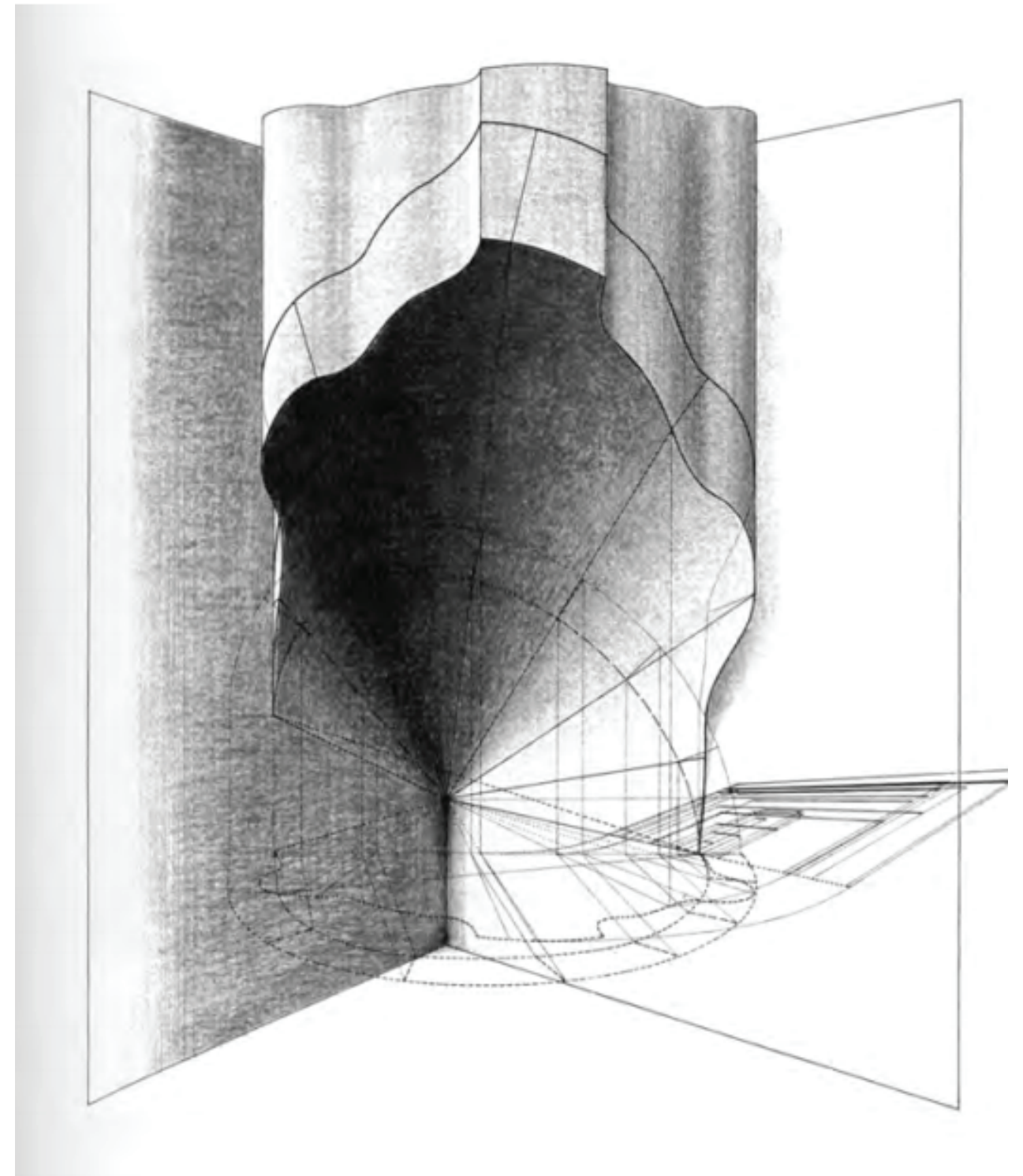
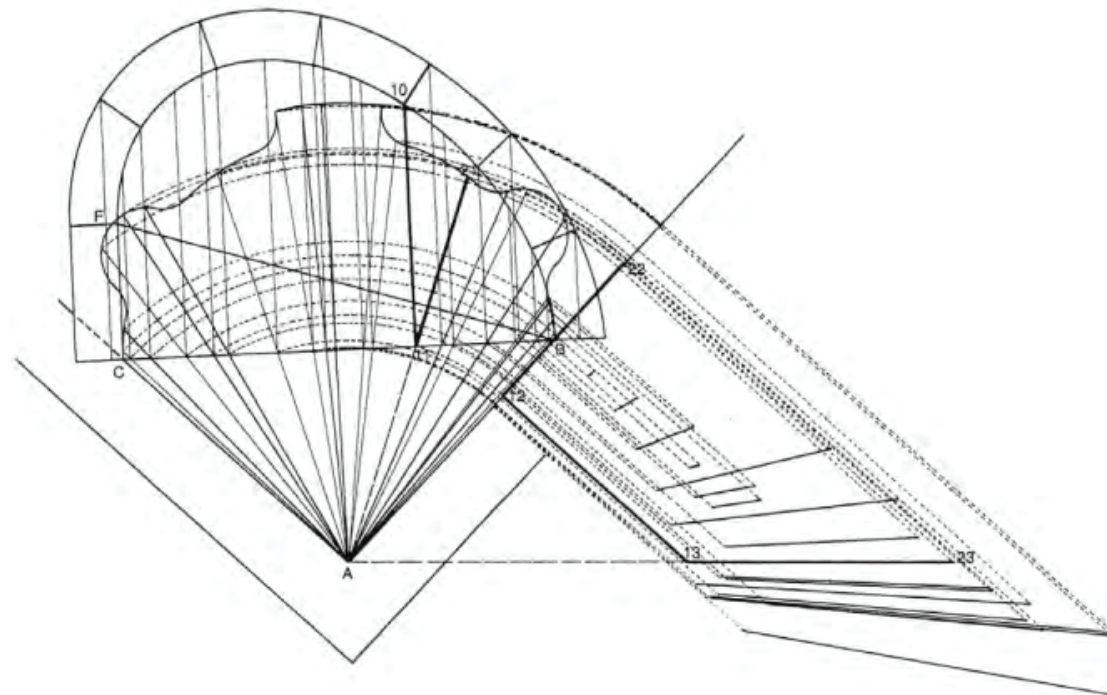


wood framing tectonic

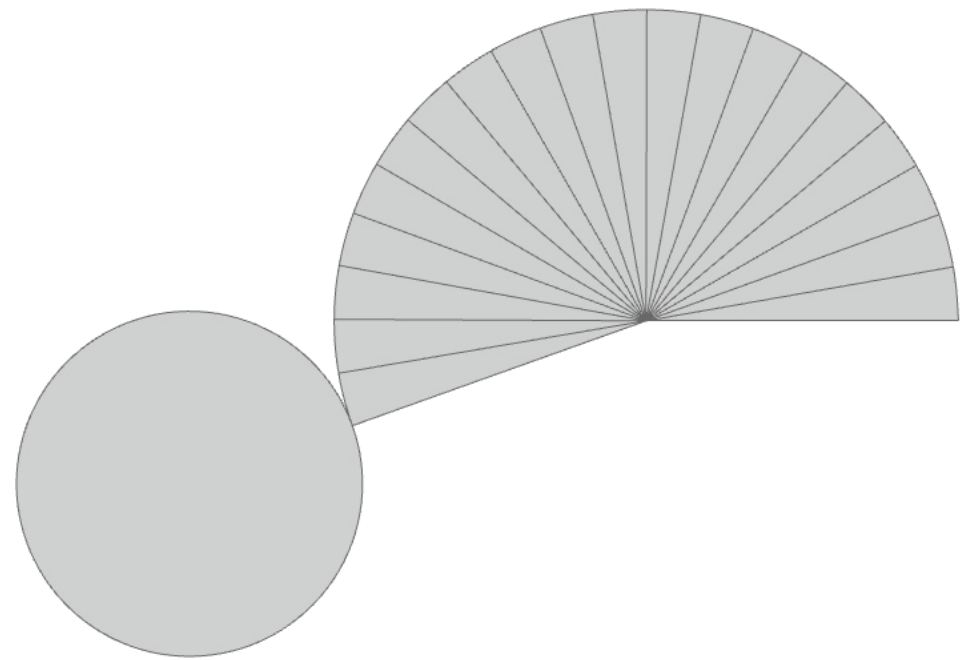
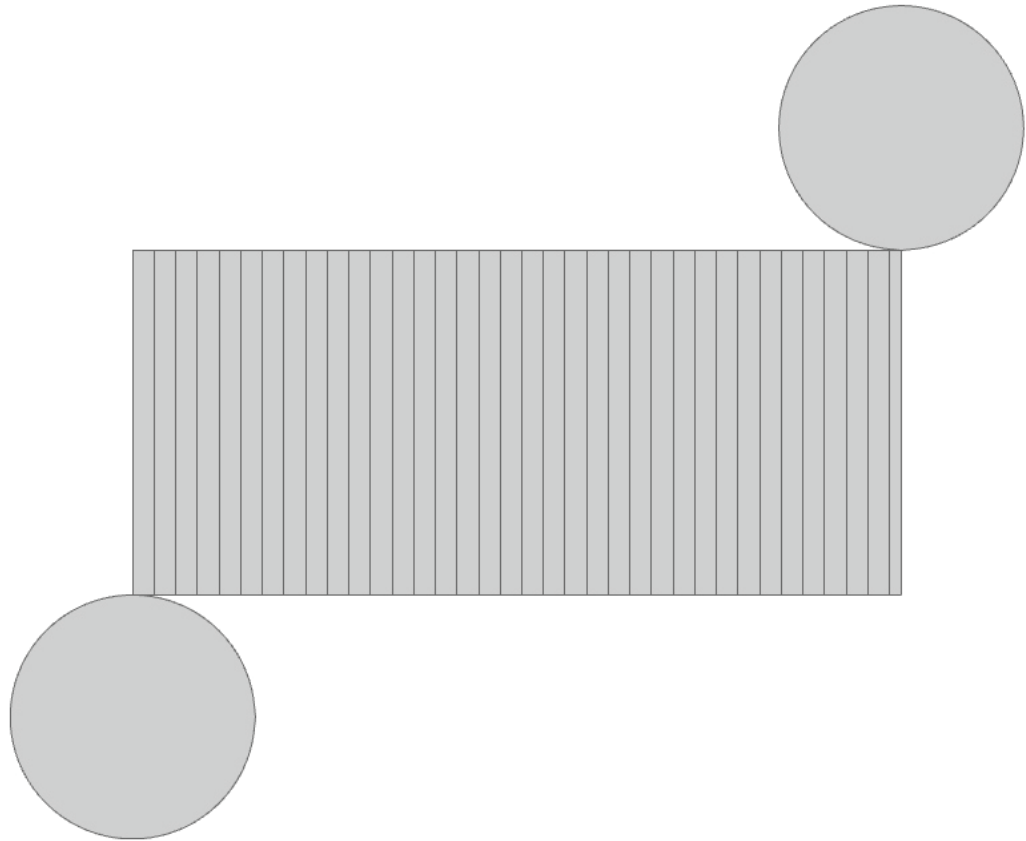
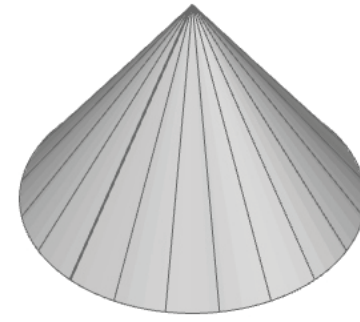
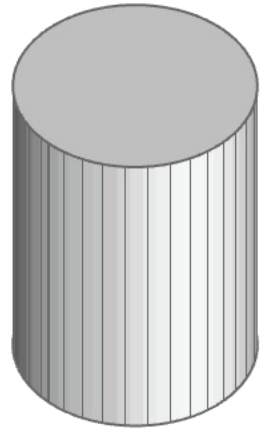


War housing in Erie, Pennsylvania, 1941. Al Palmer

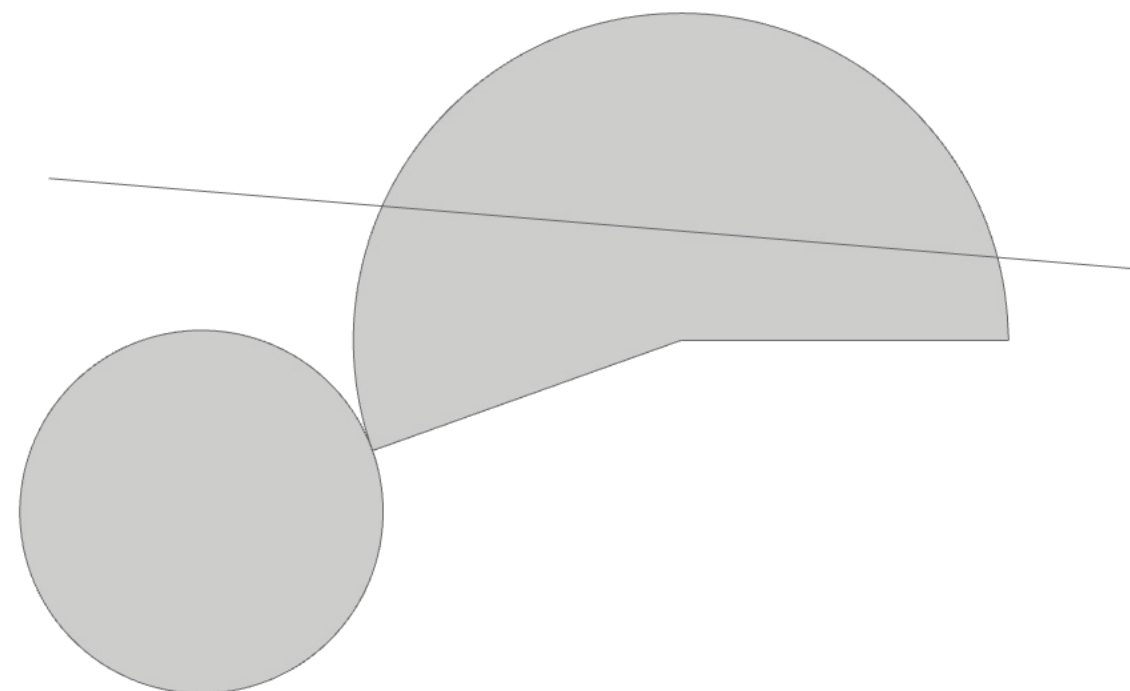
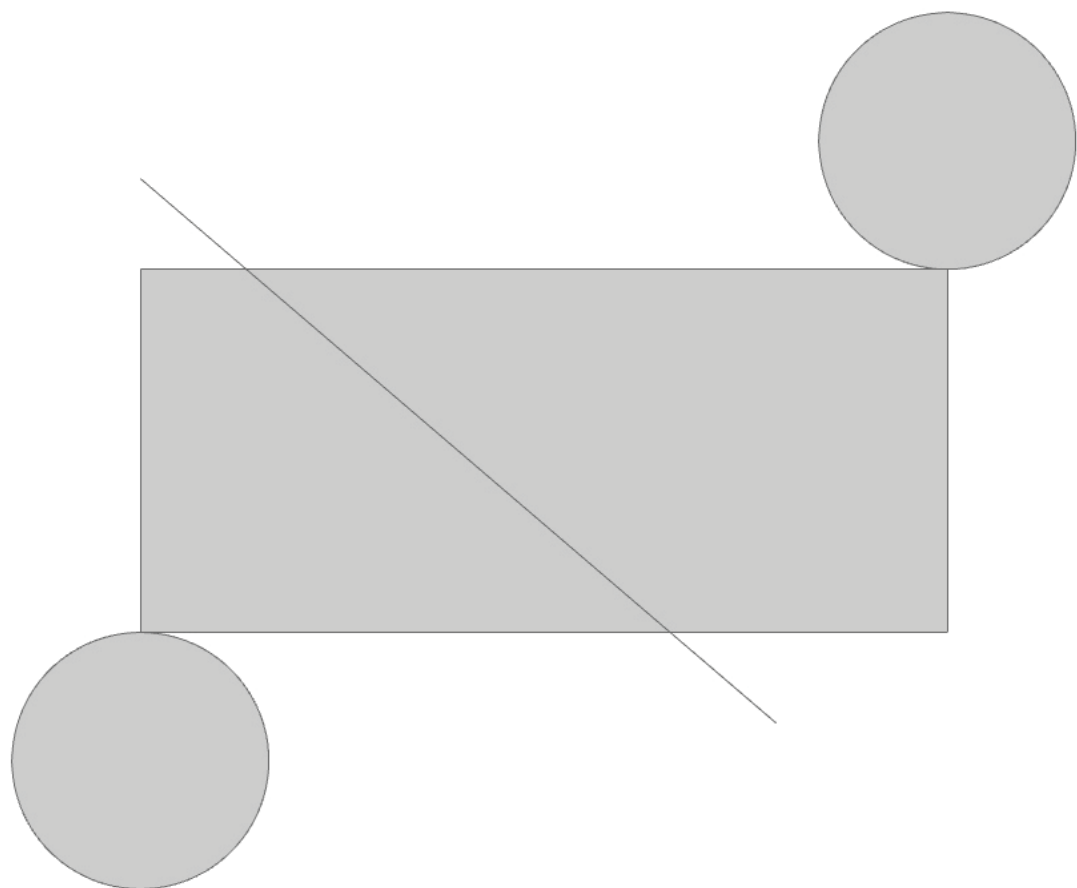
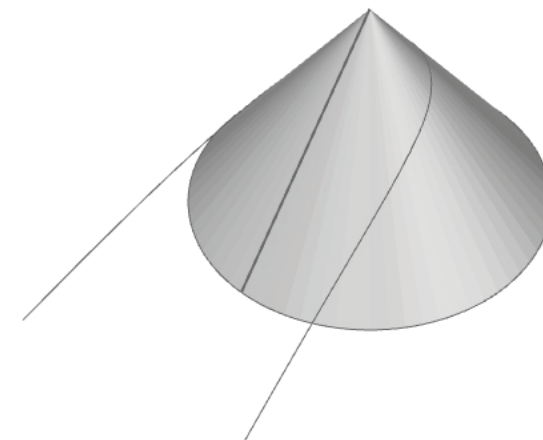
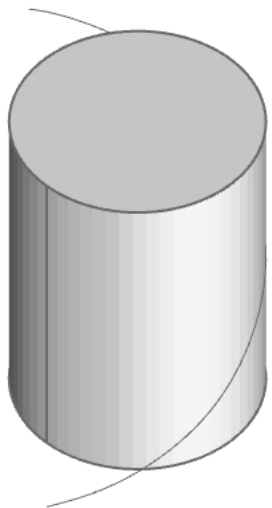
tectonic logic



developable surface geometry



ruling logic

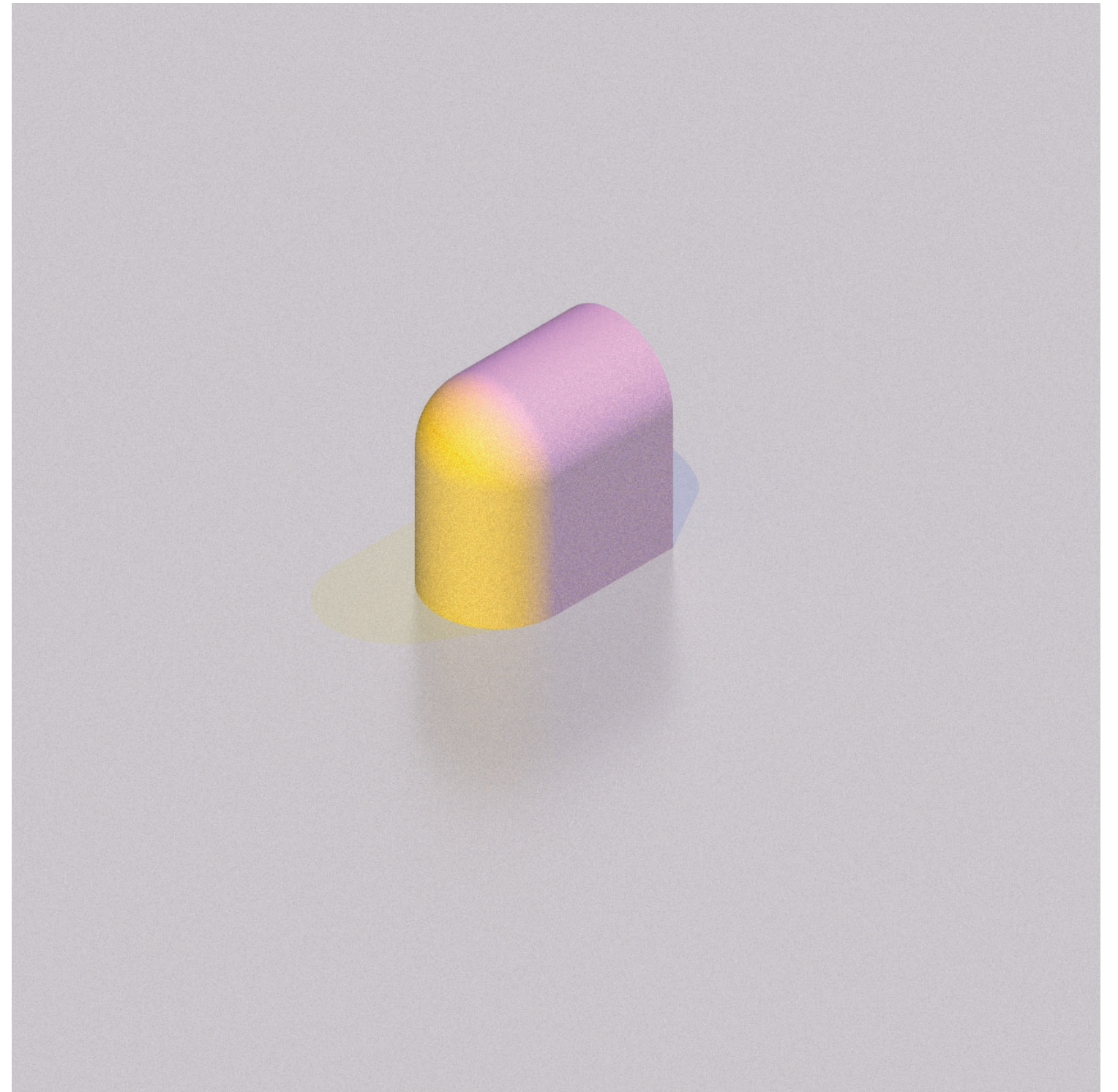
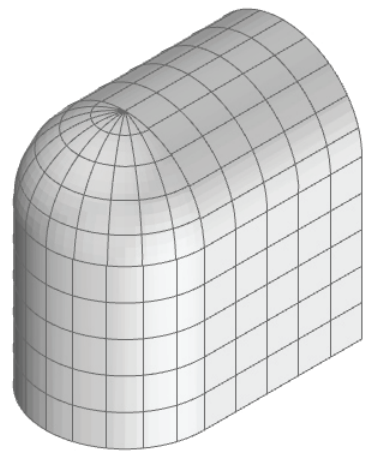


geodesic logic

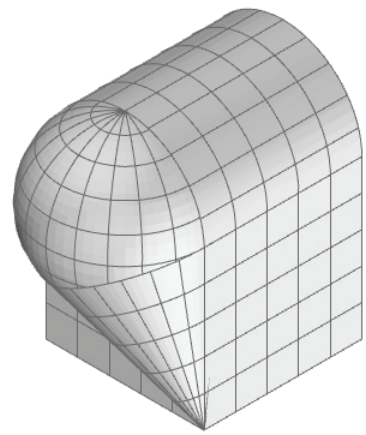
chapter 2 studies:

geometry

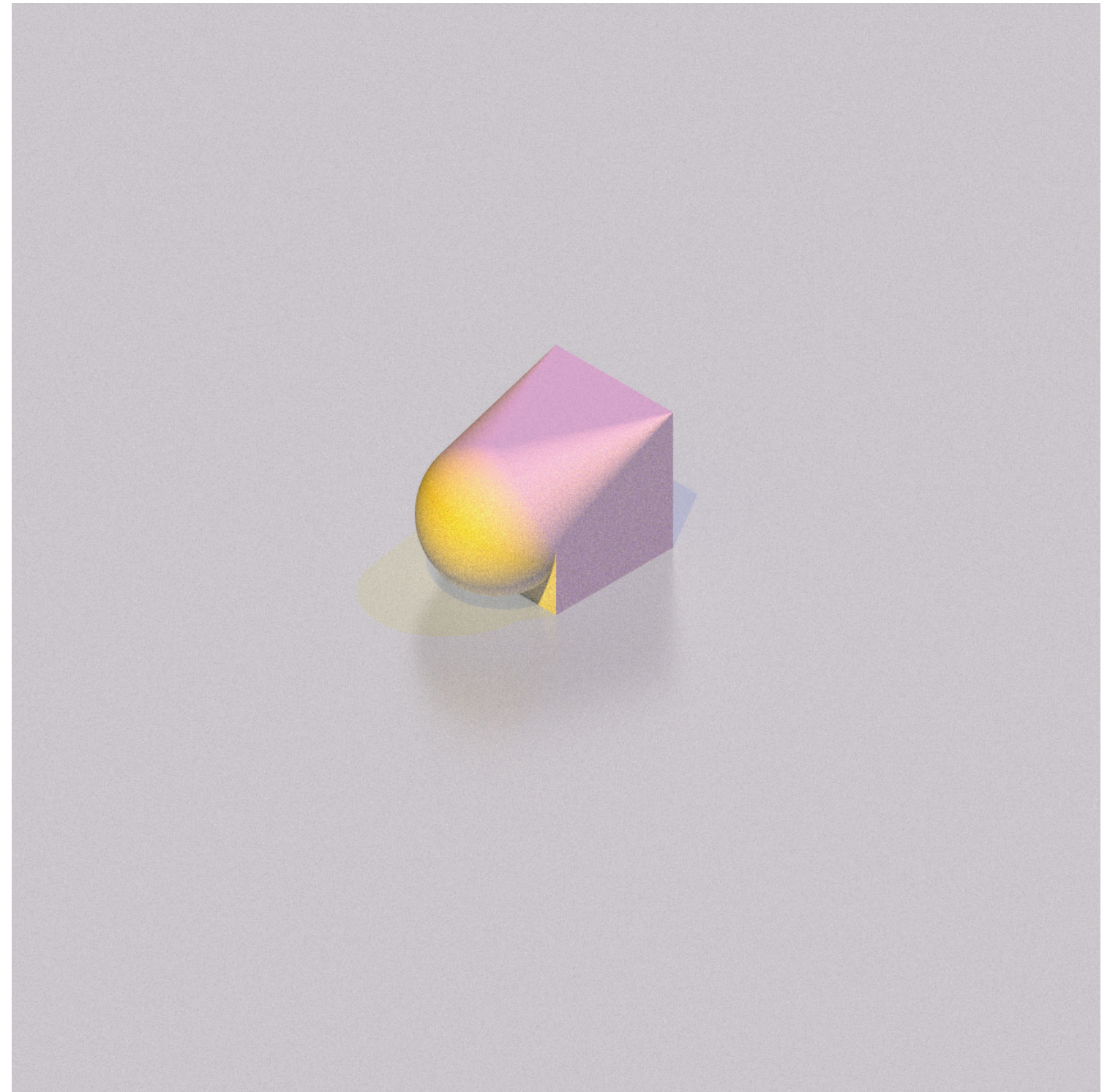
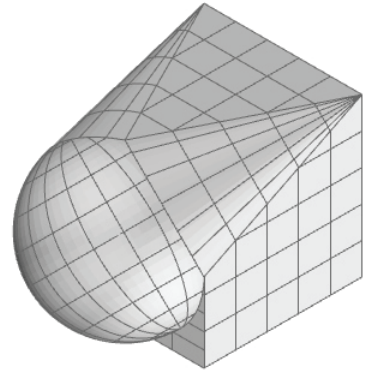
construction



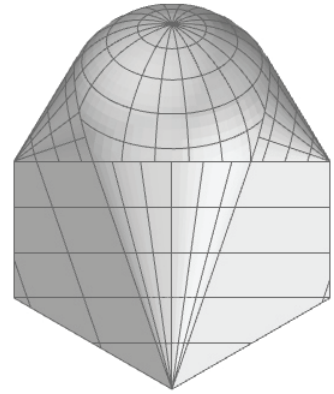
cube & sphere



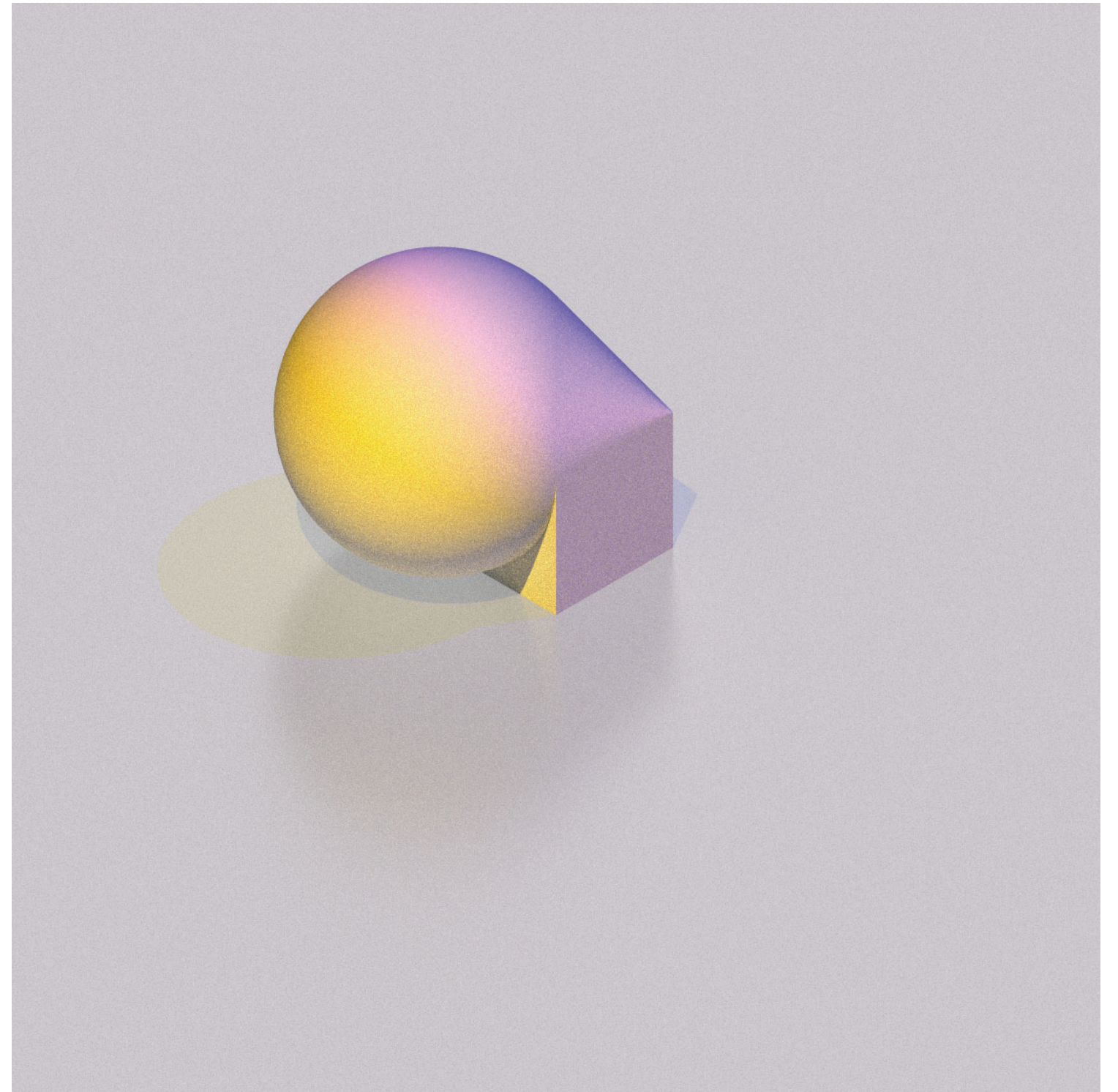
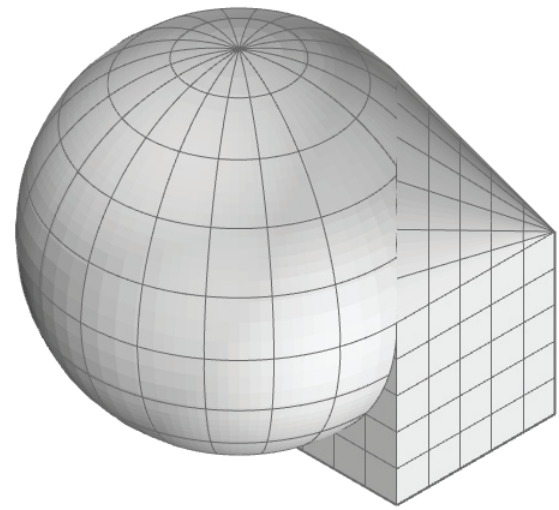
cube & sphere



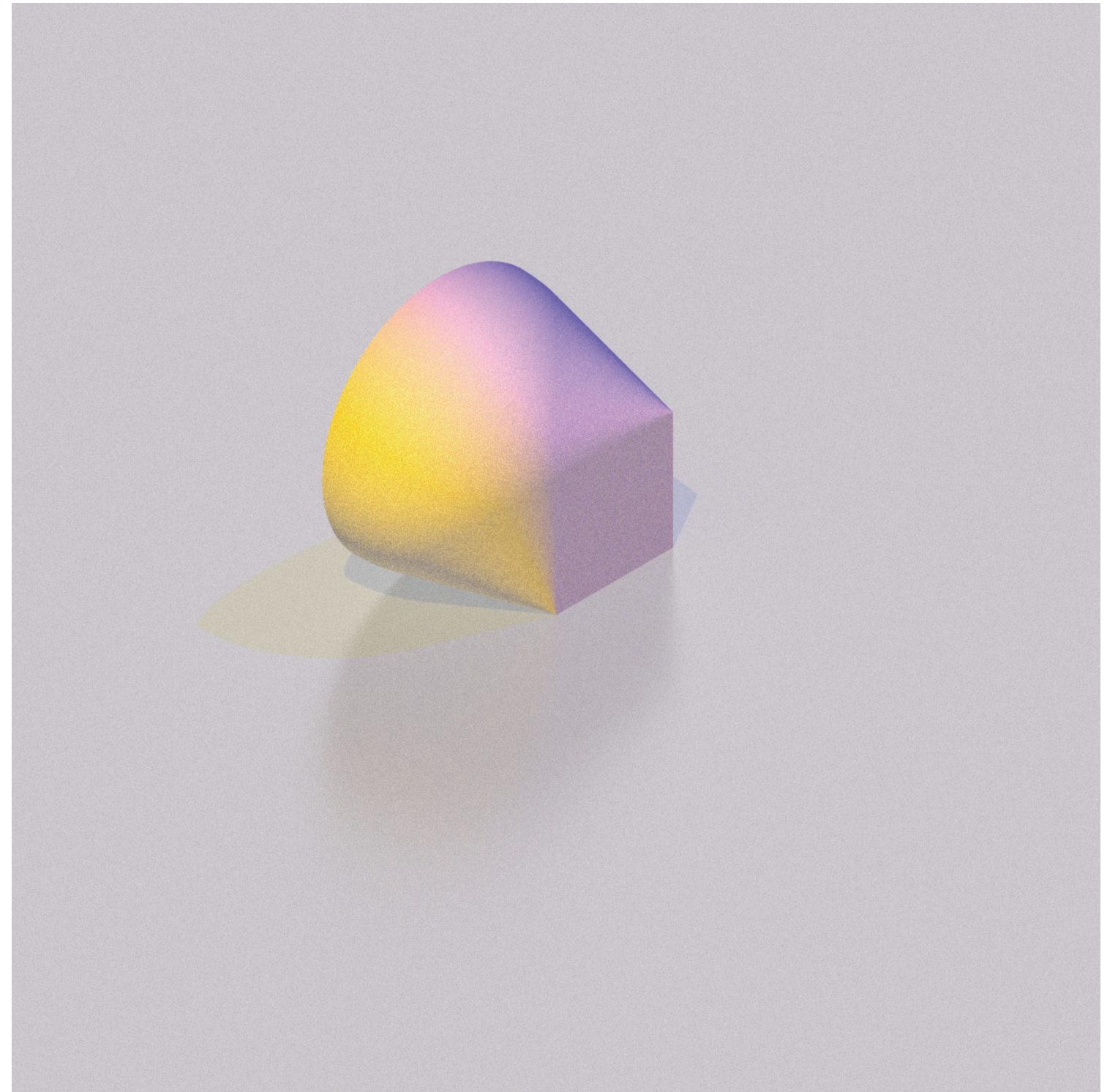
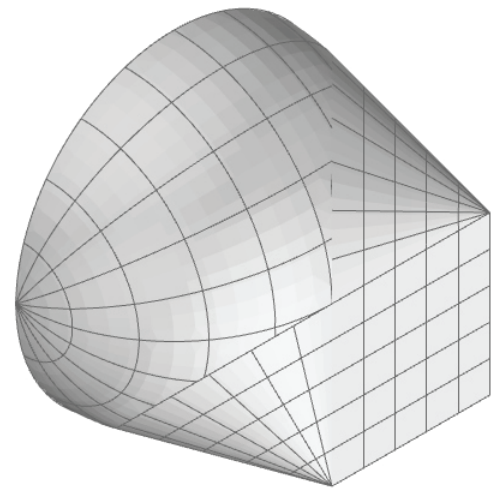
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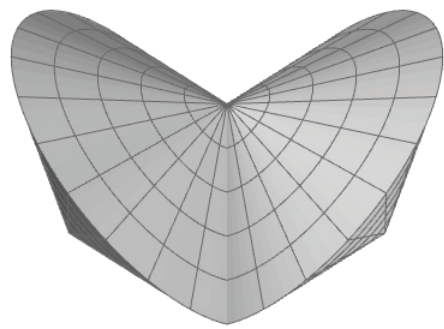
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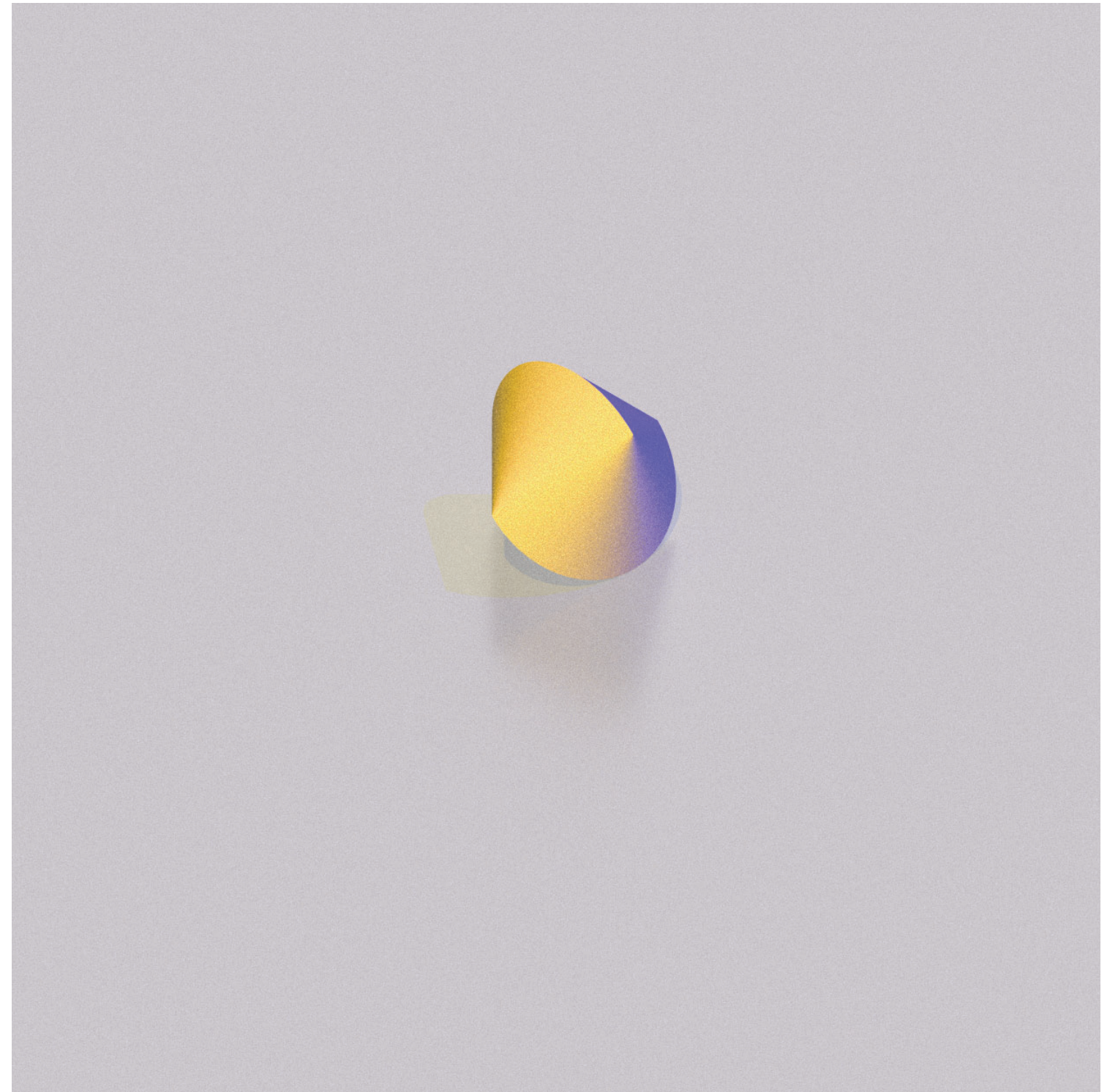
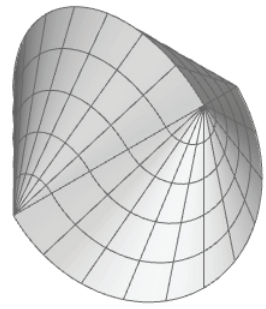
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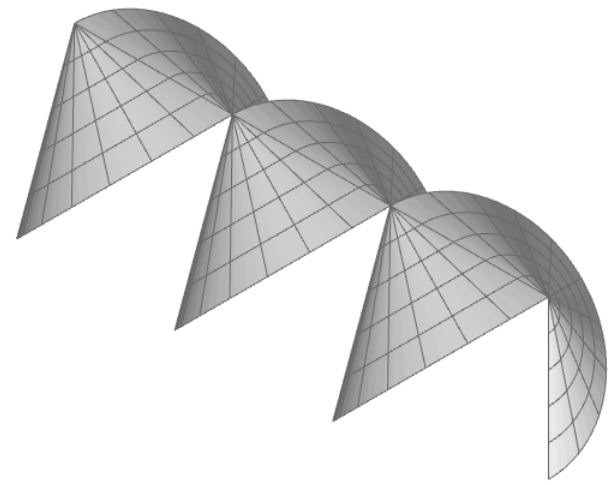
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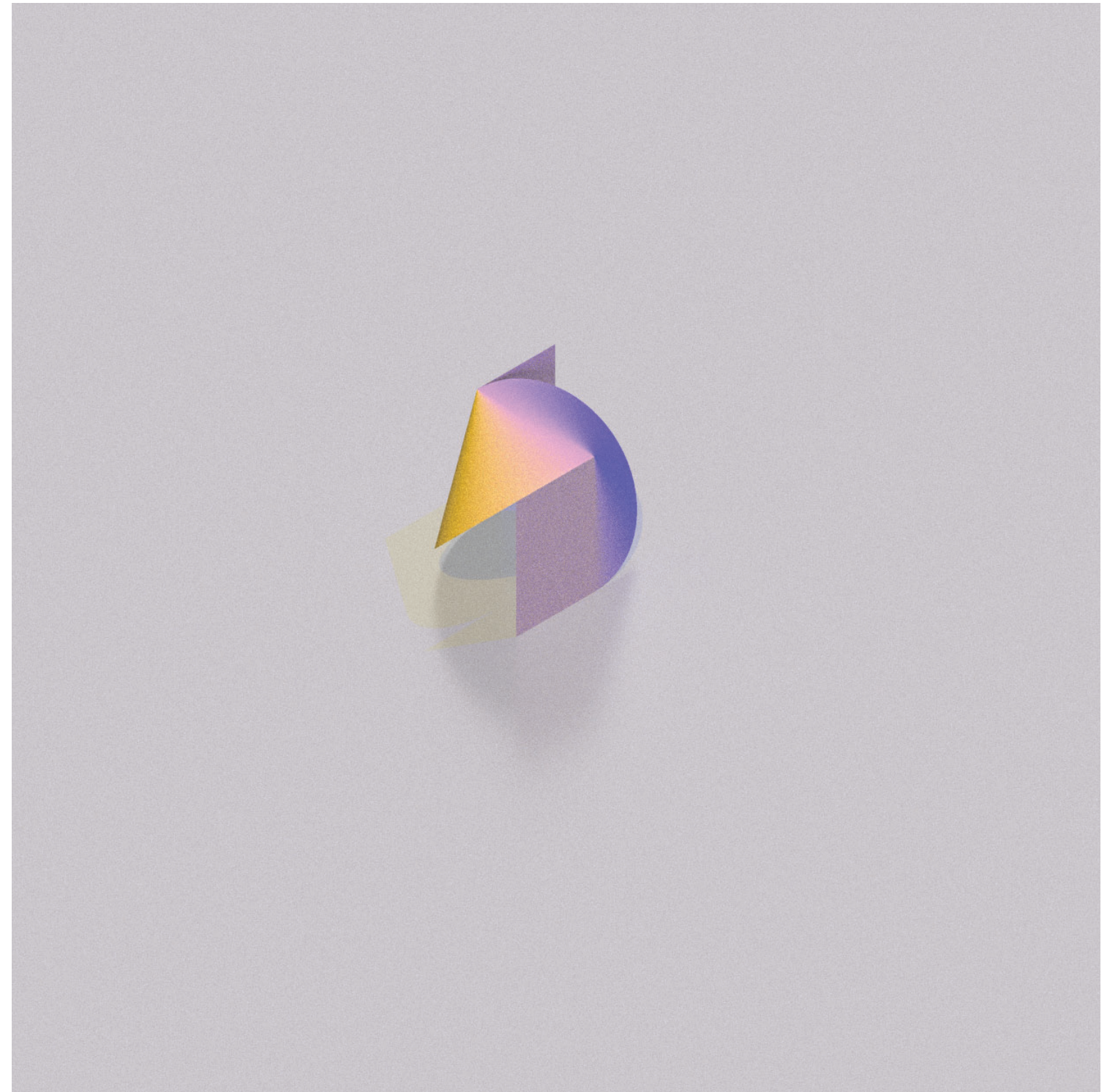
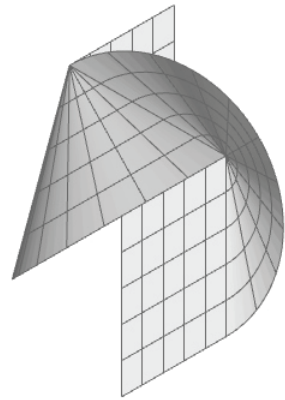
cone & cone



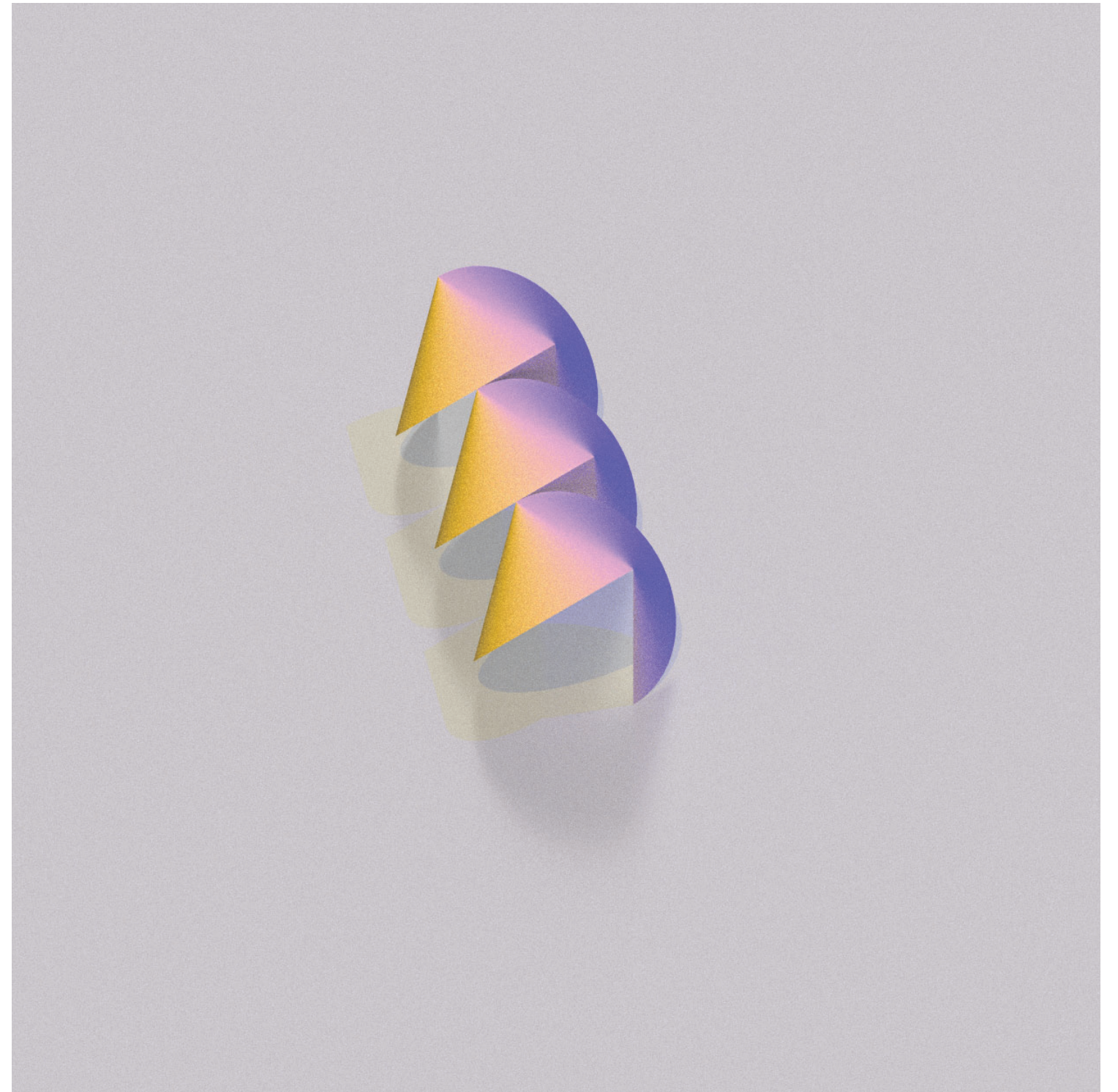
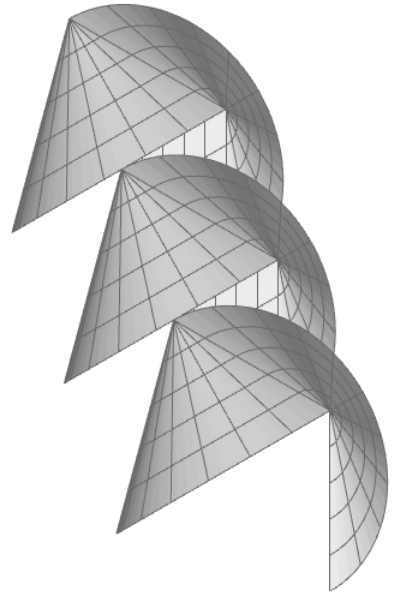
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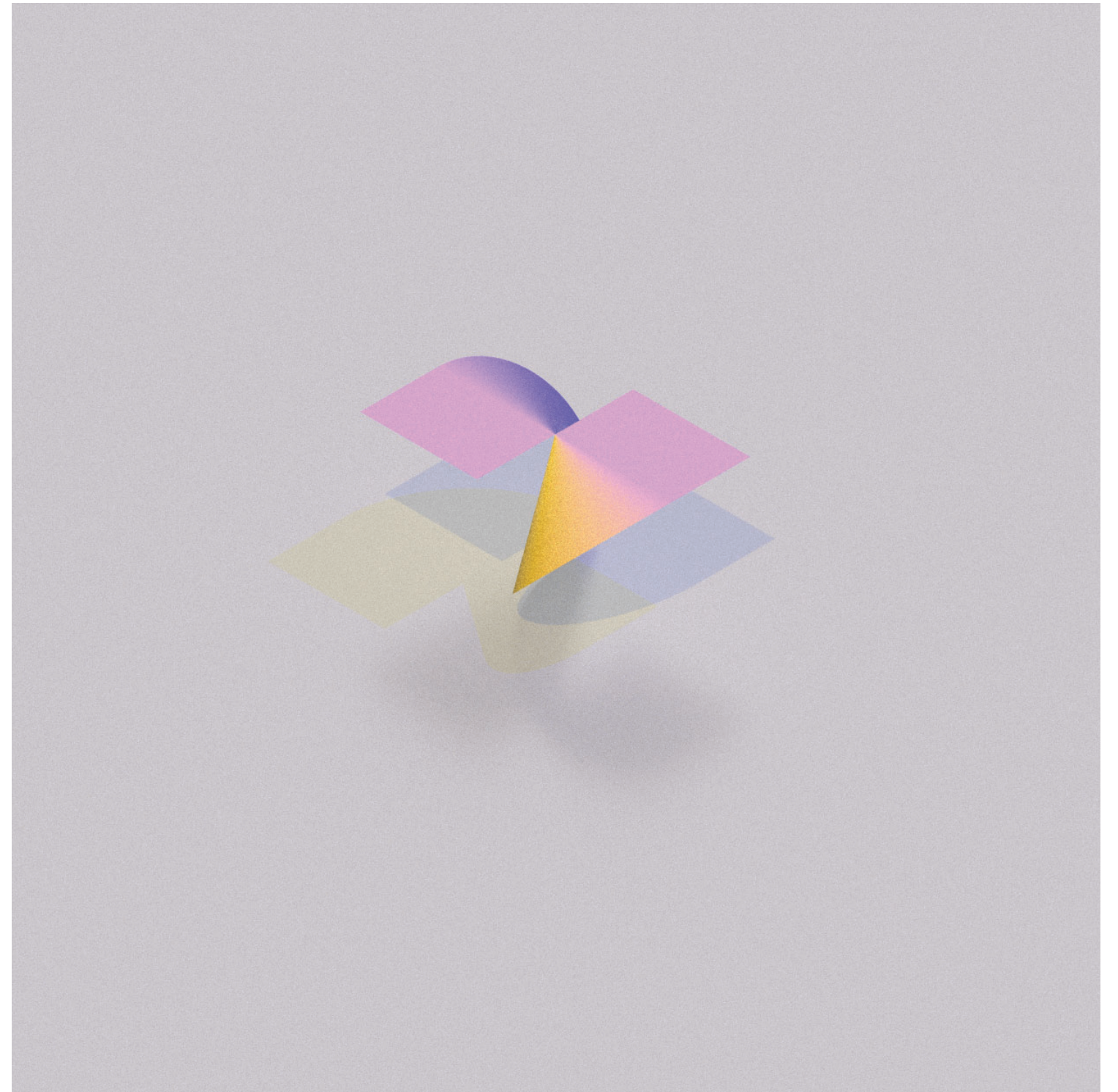
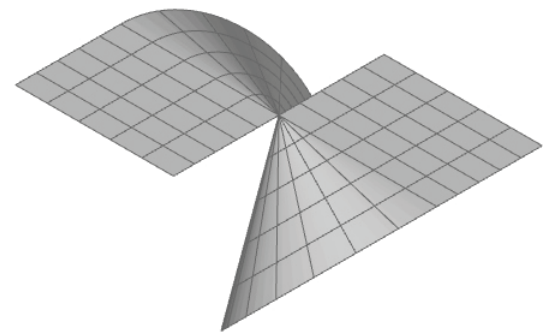
cone & cone



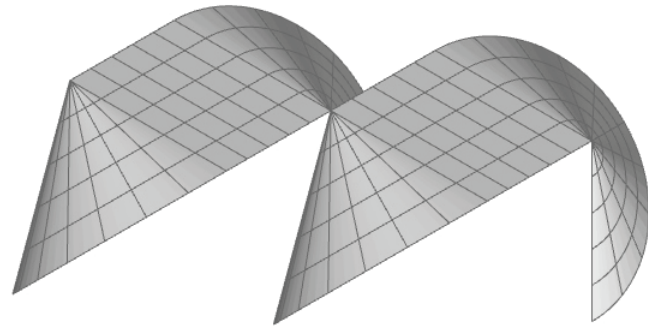
surface & cone



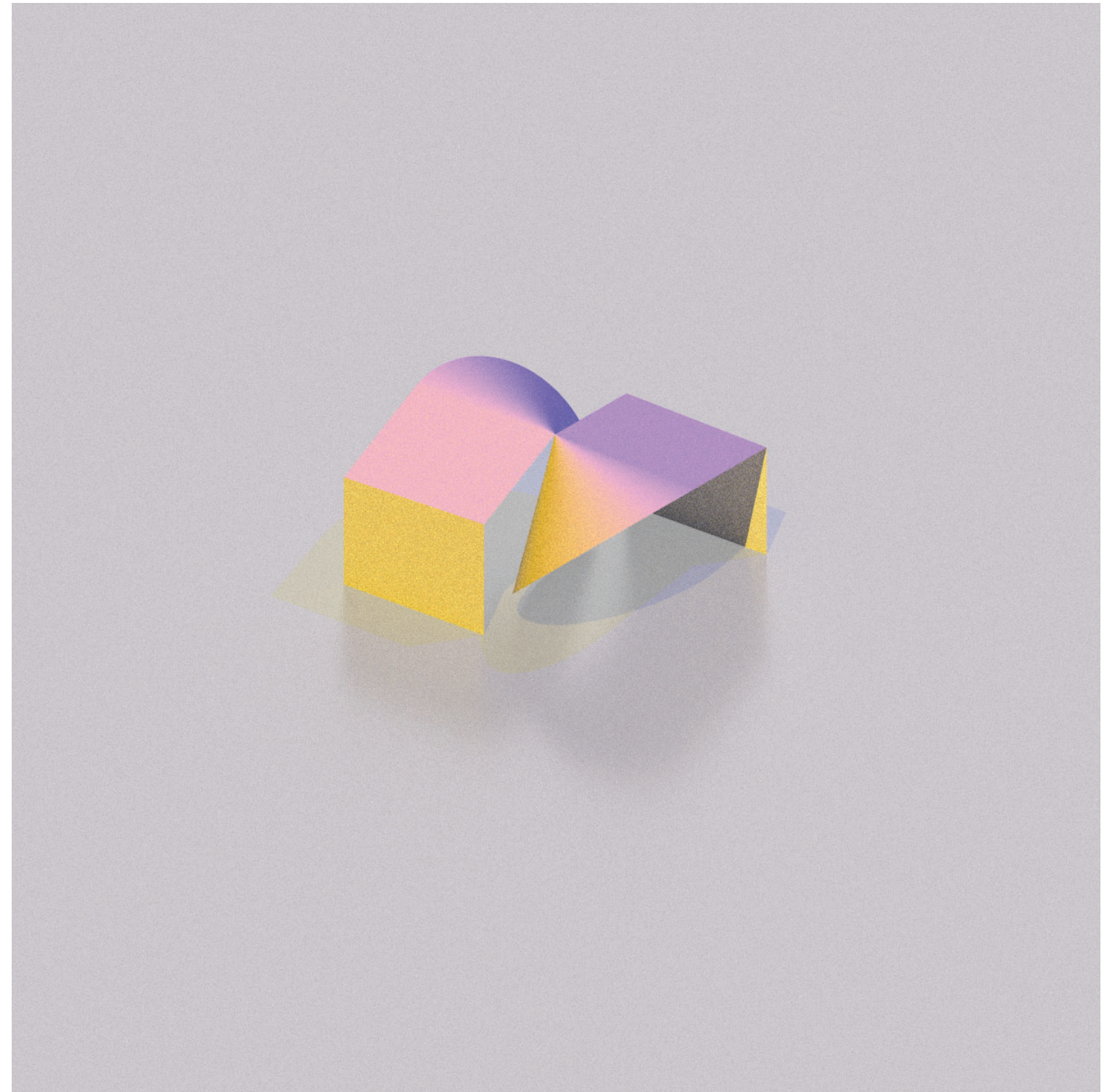
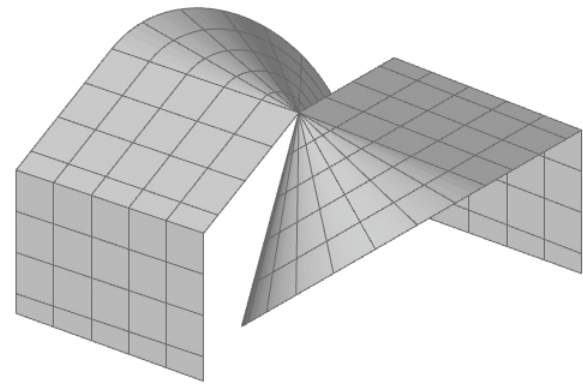
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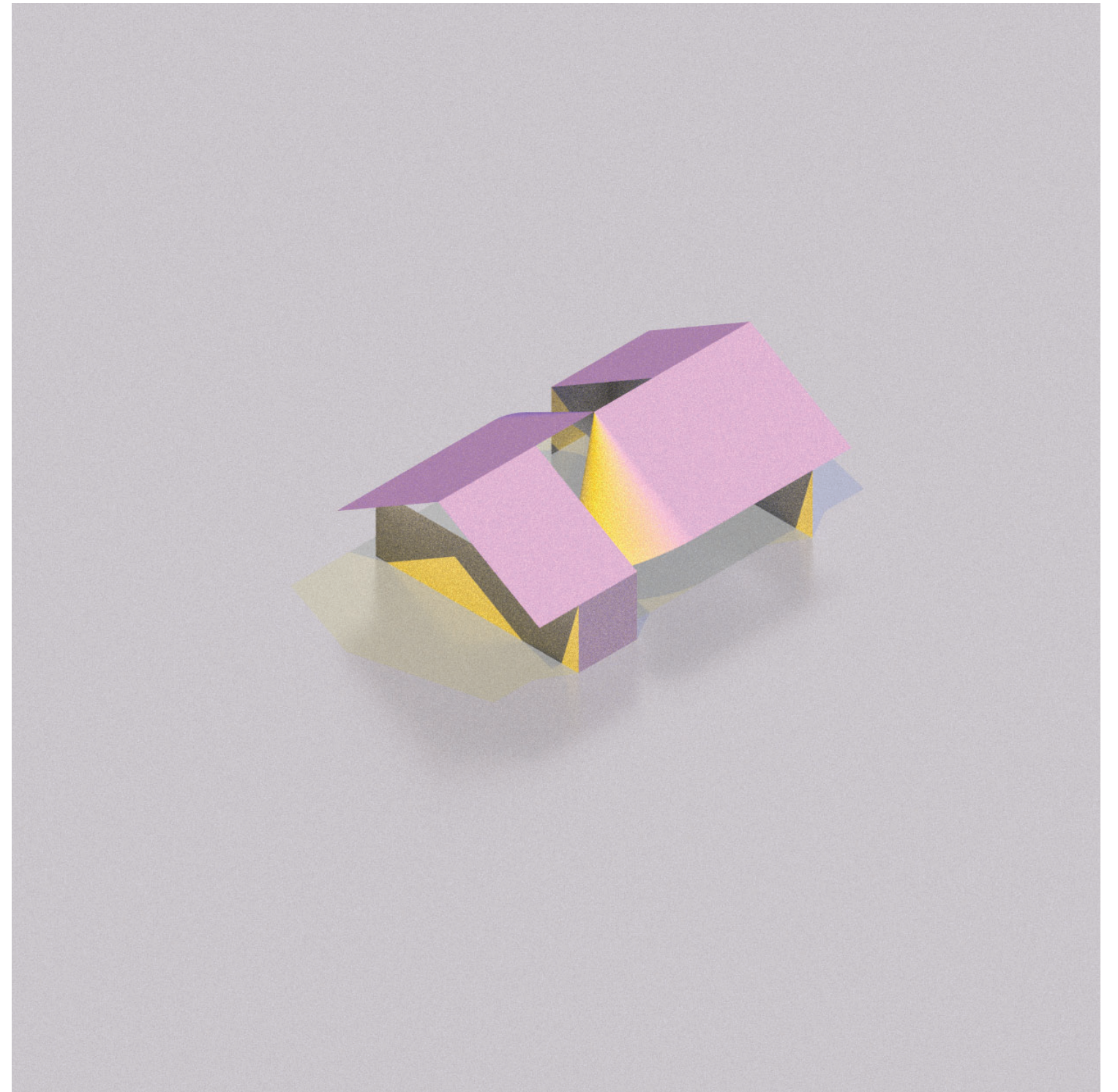
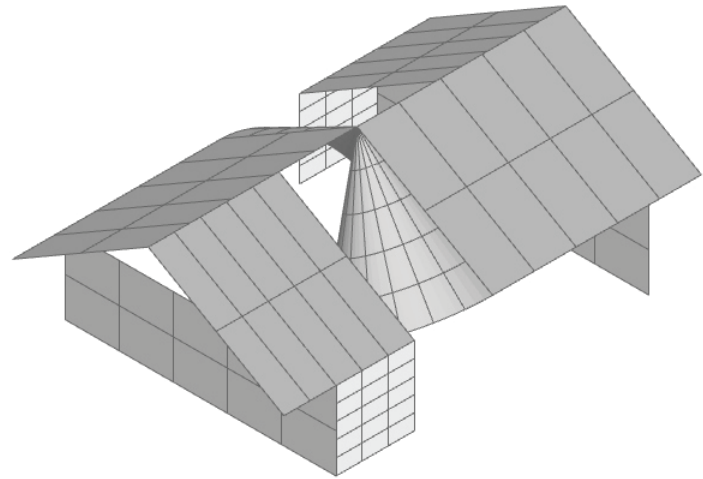
surface & cone



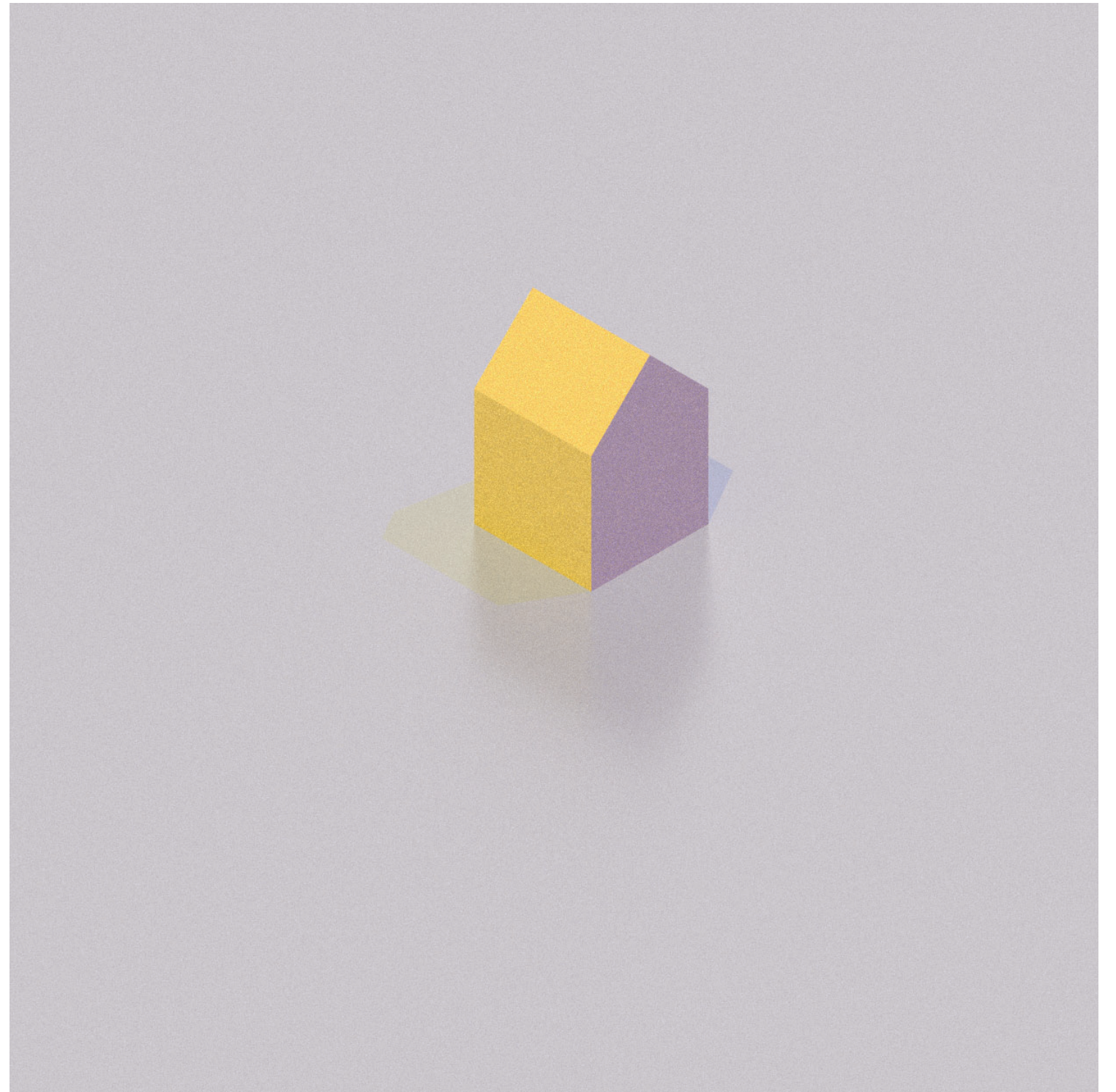
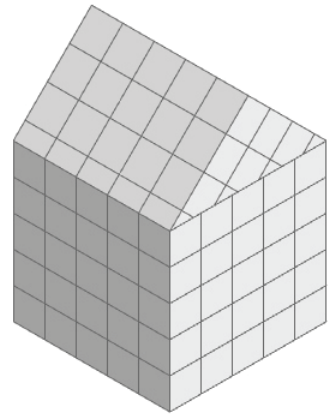
surface & cone



surface & cone

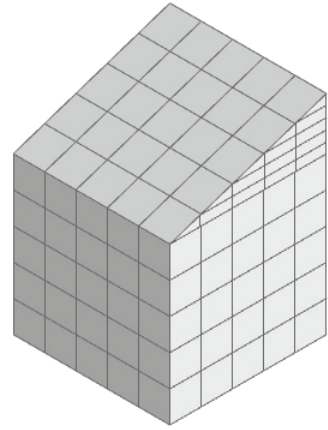


surface & cone



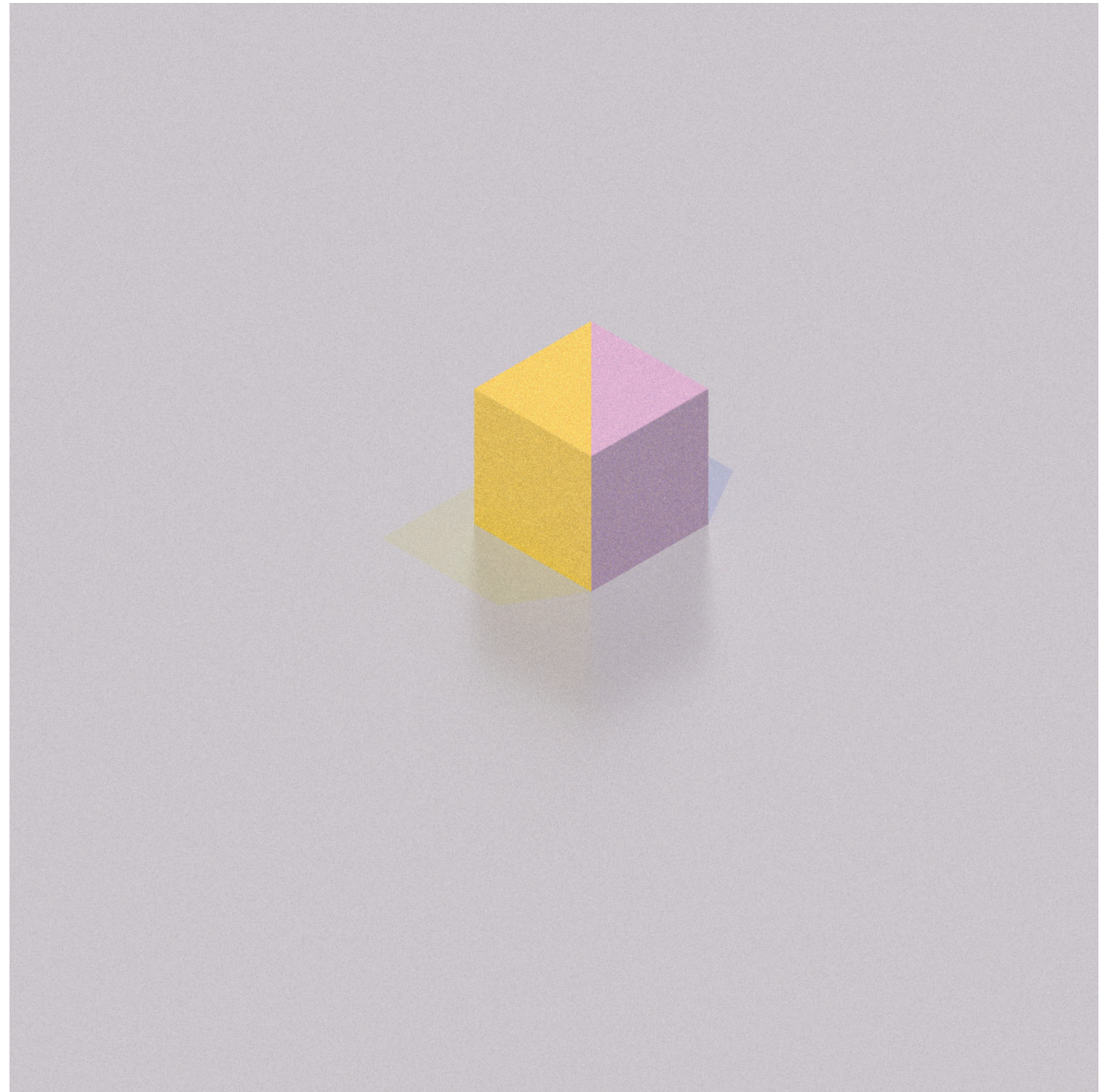
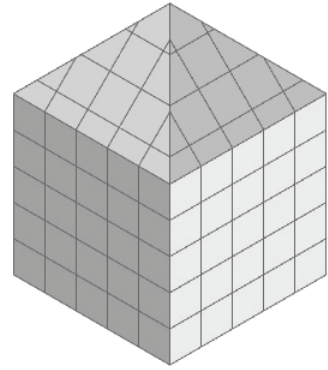
gable

roof typ.



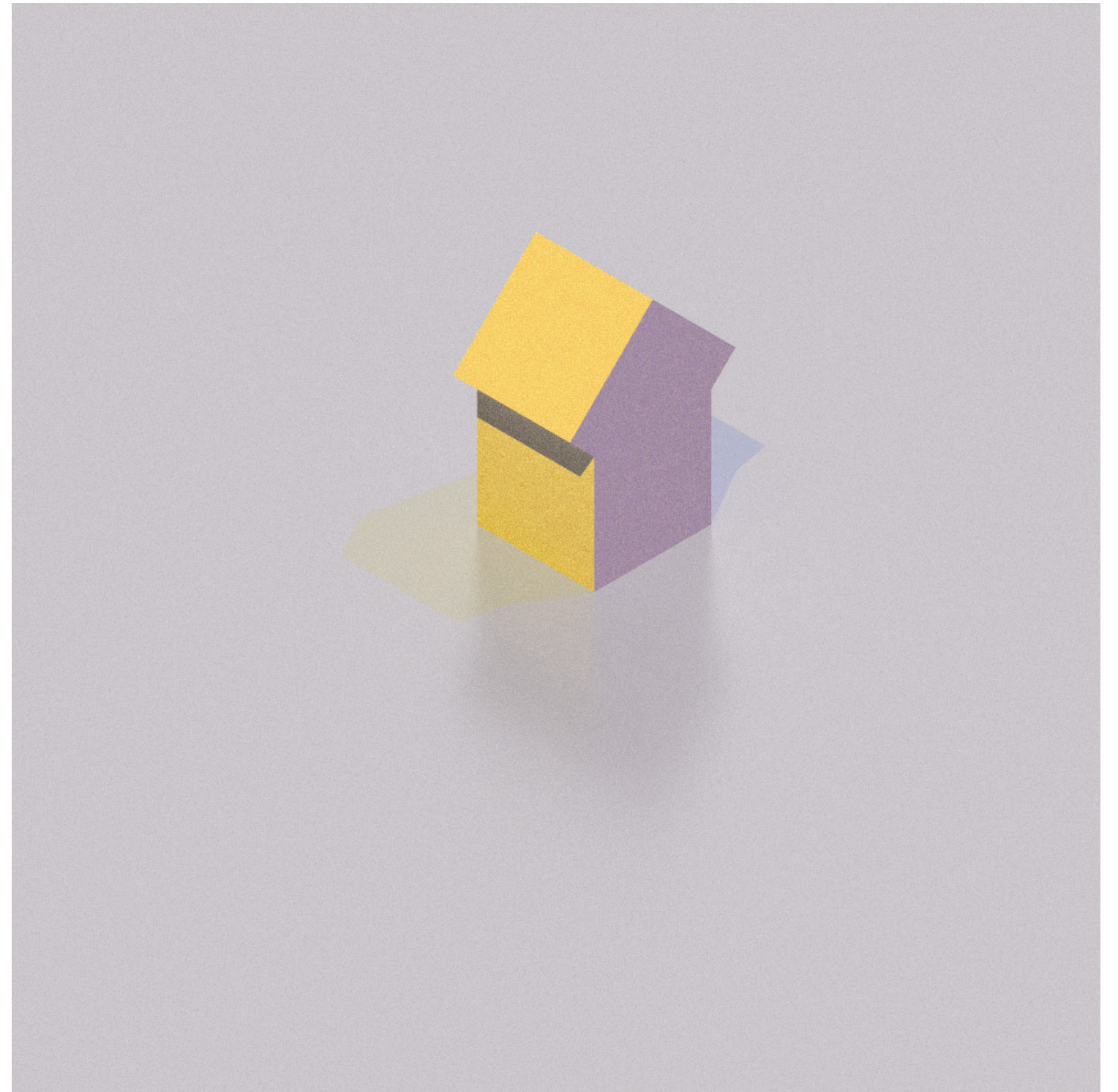
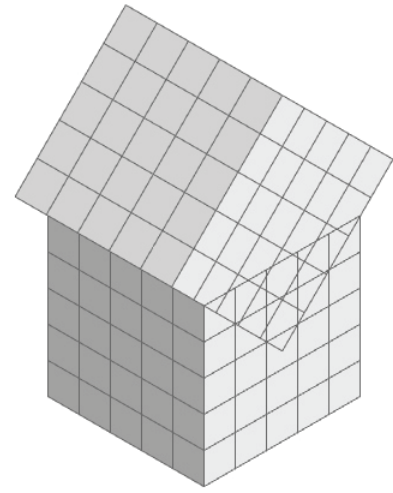
shed

roof typ.



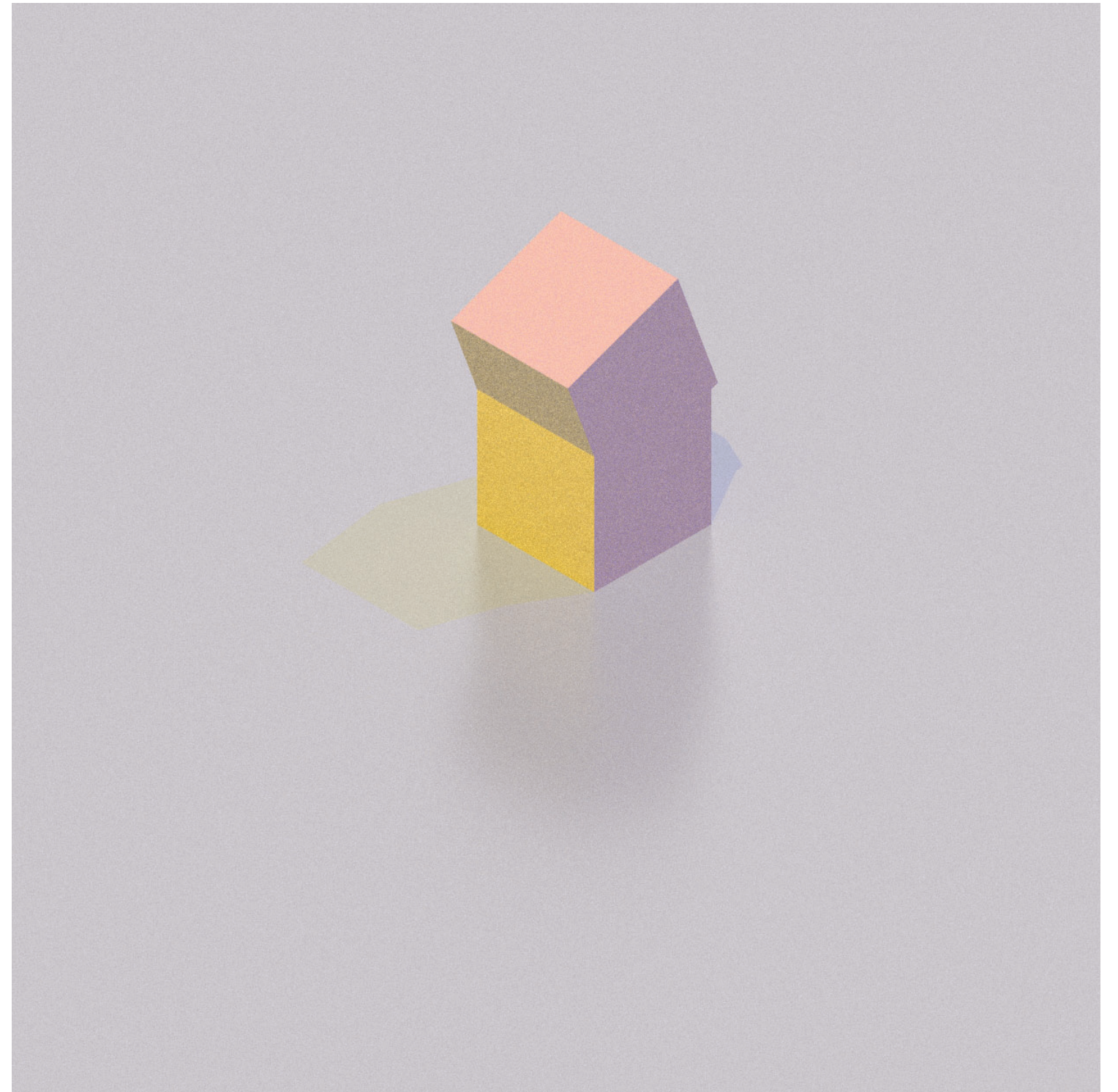
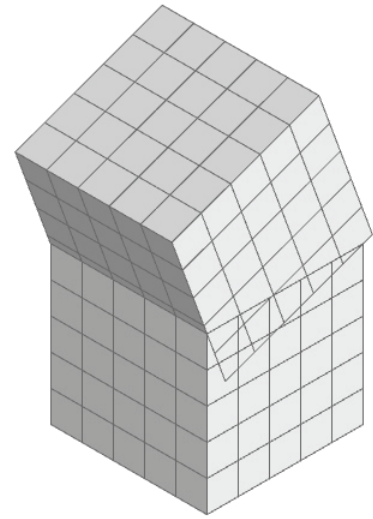
hip

roof typ.



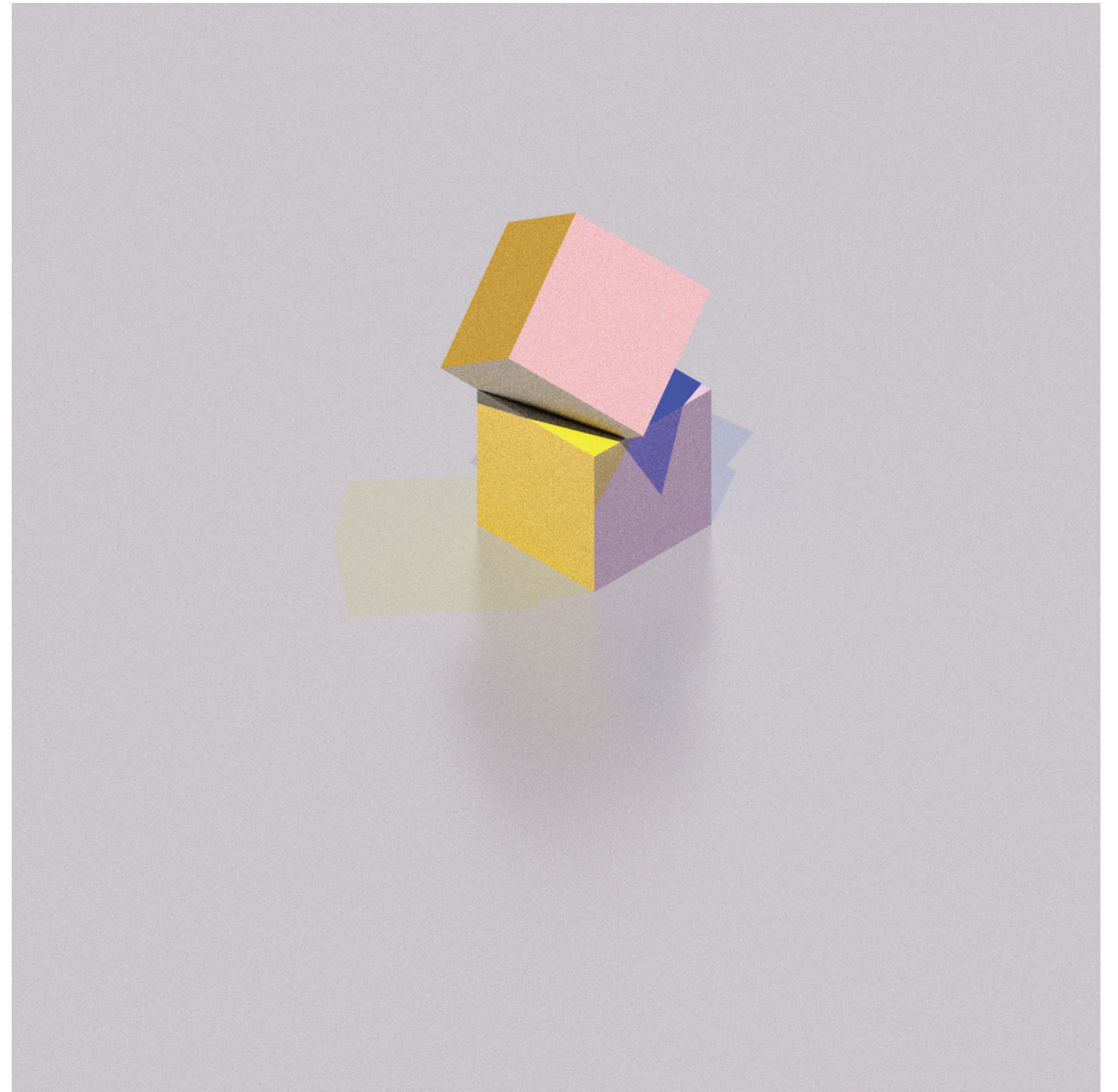
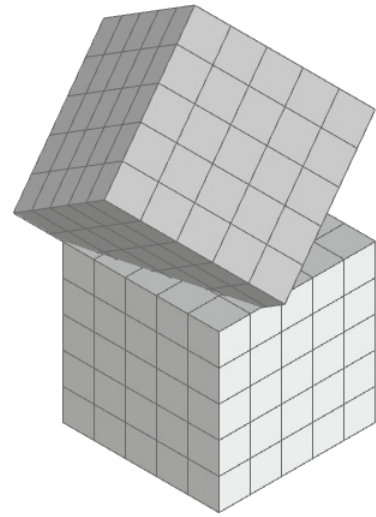
gable

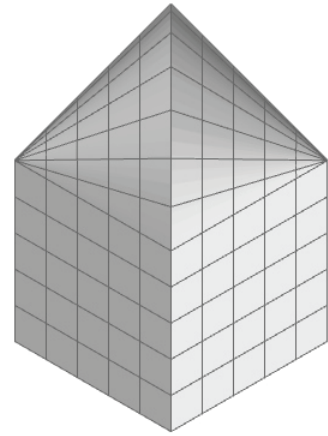
cube abstraction



shed

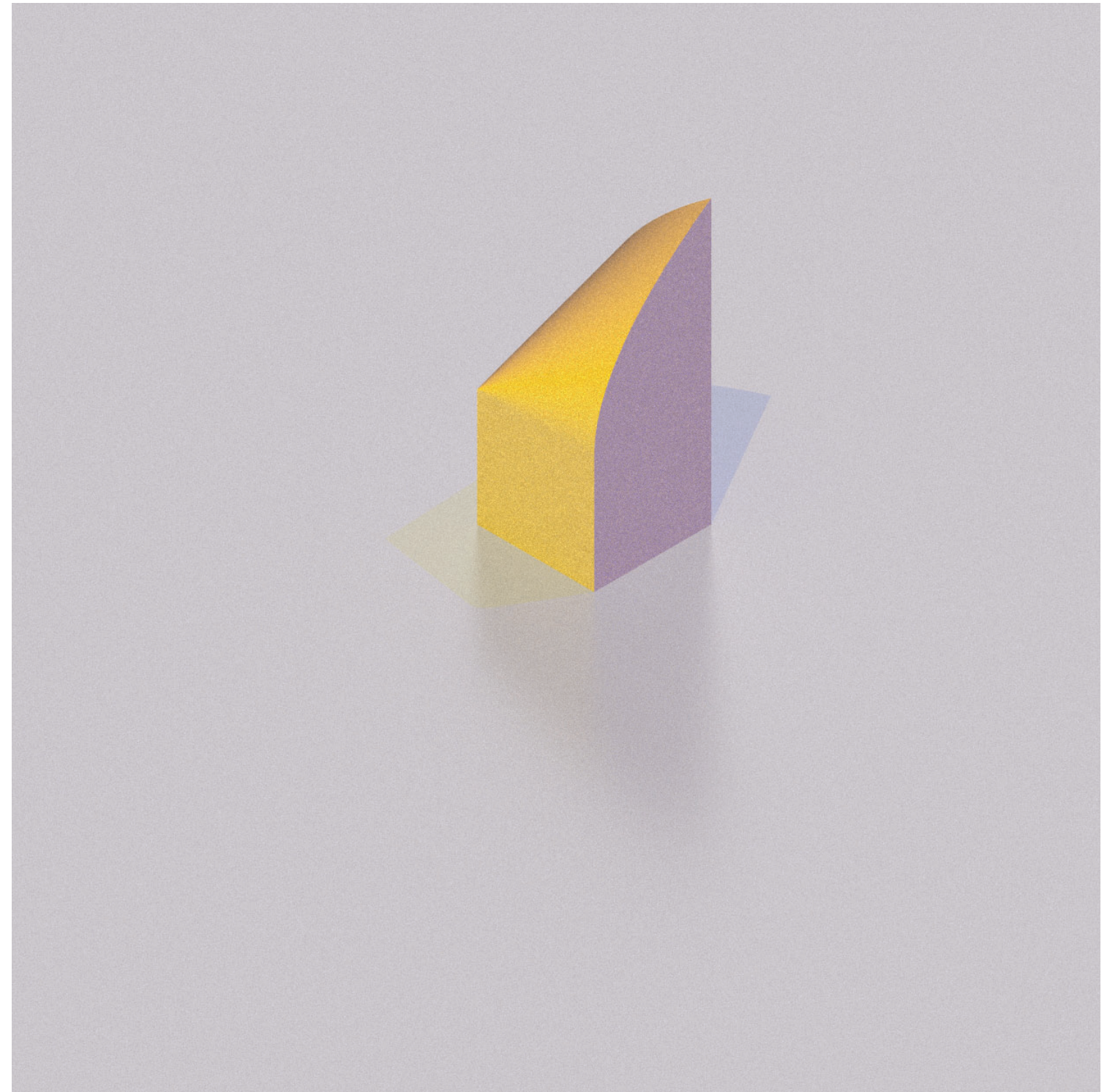
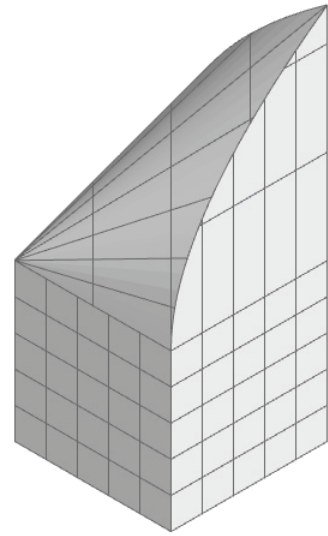
cube abstraction

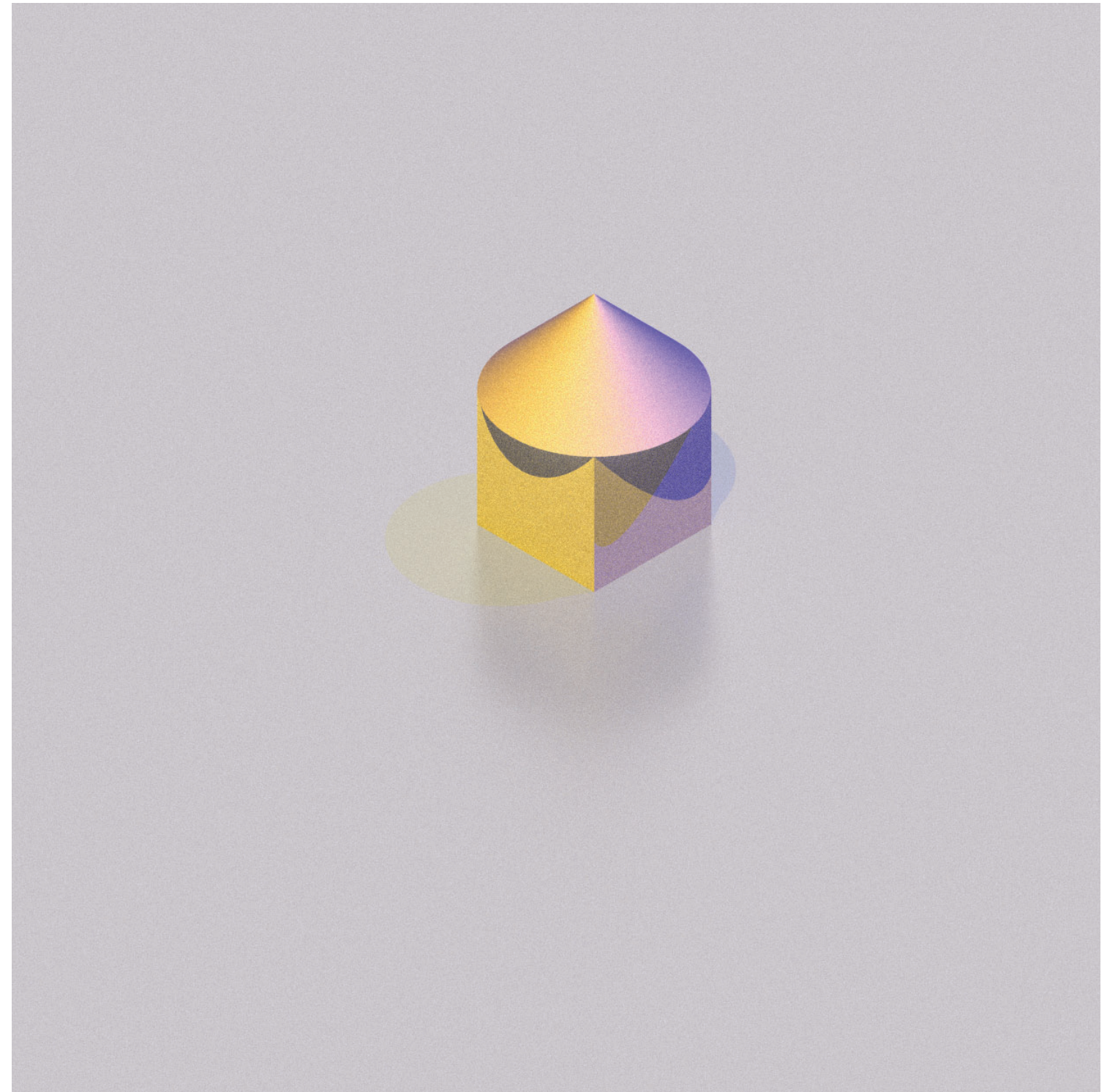
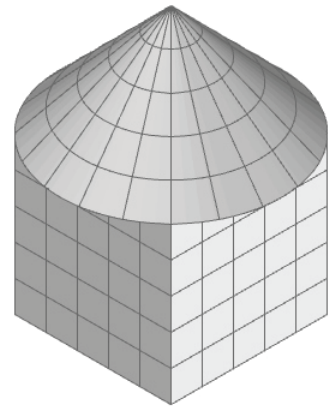


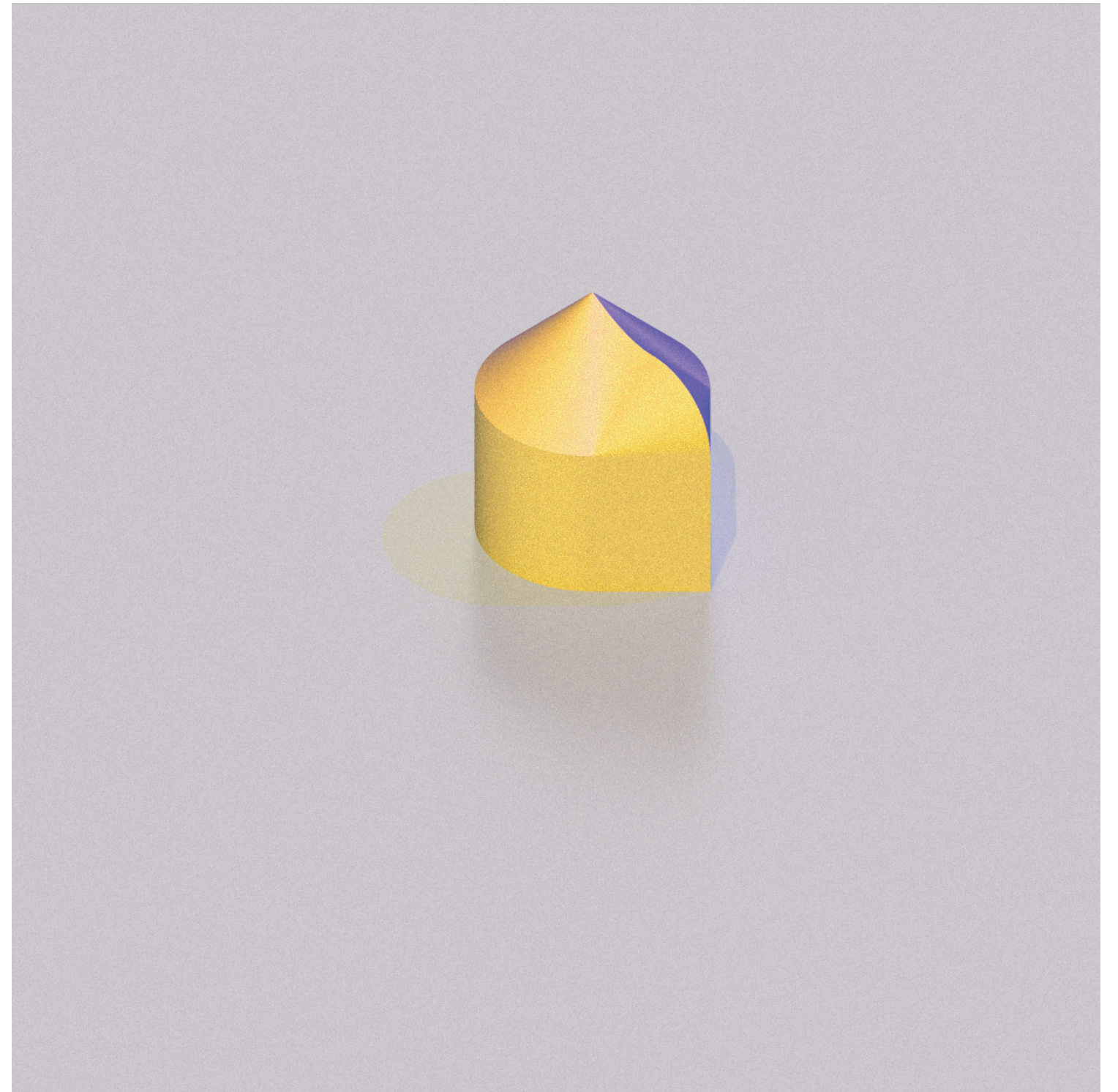
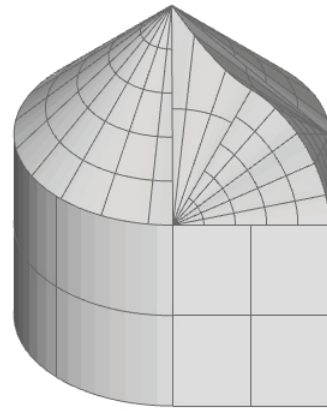


gable

cone abstraction

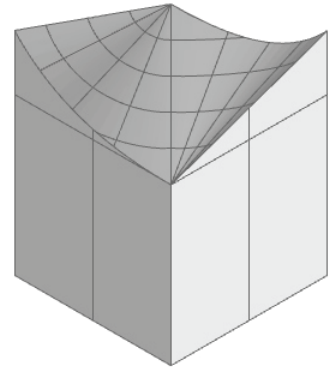






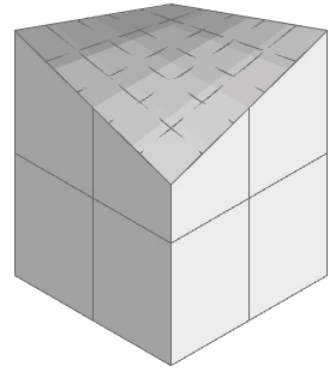
hip + gable

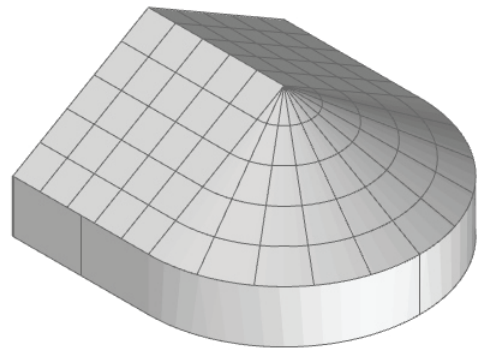
compound conic roof



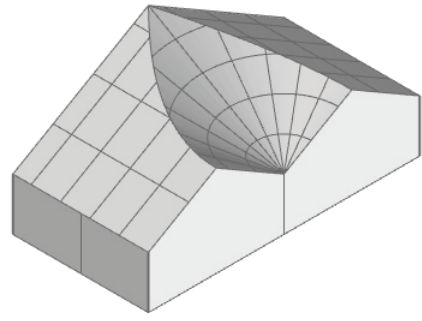
two cones

four sided shed

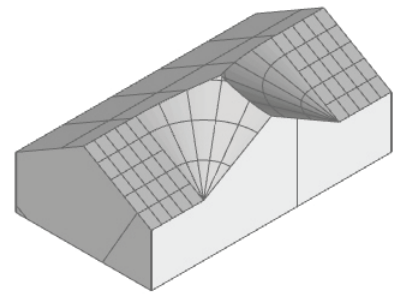




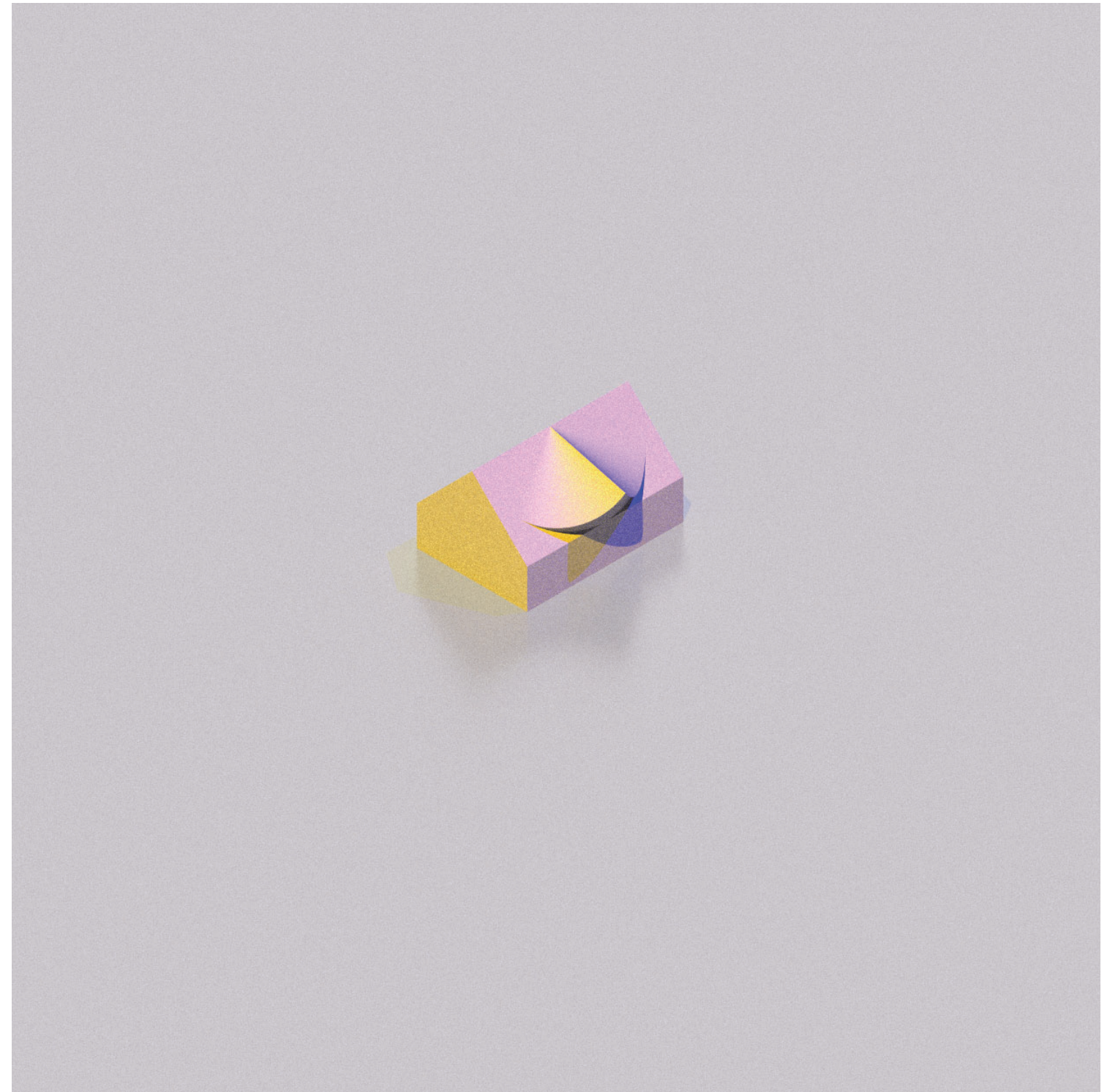
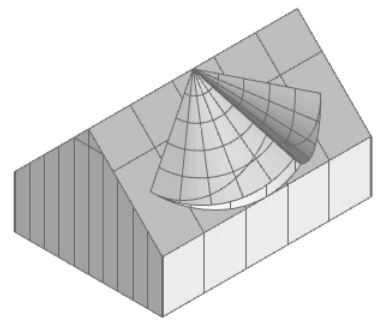
roof & curve



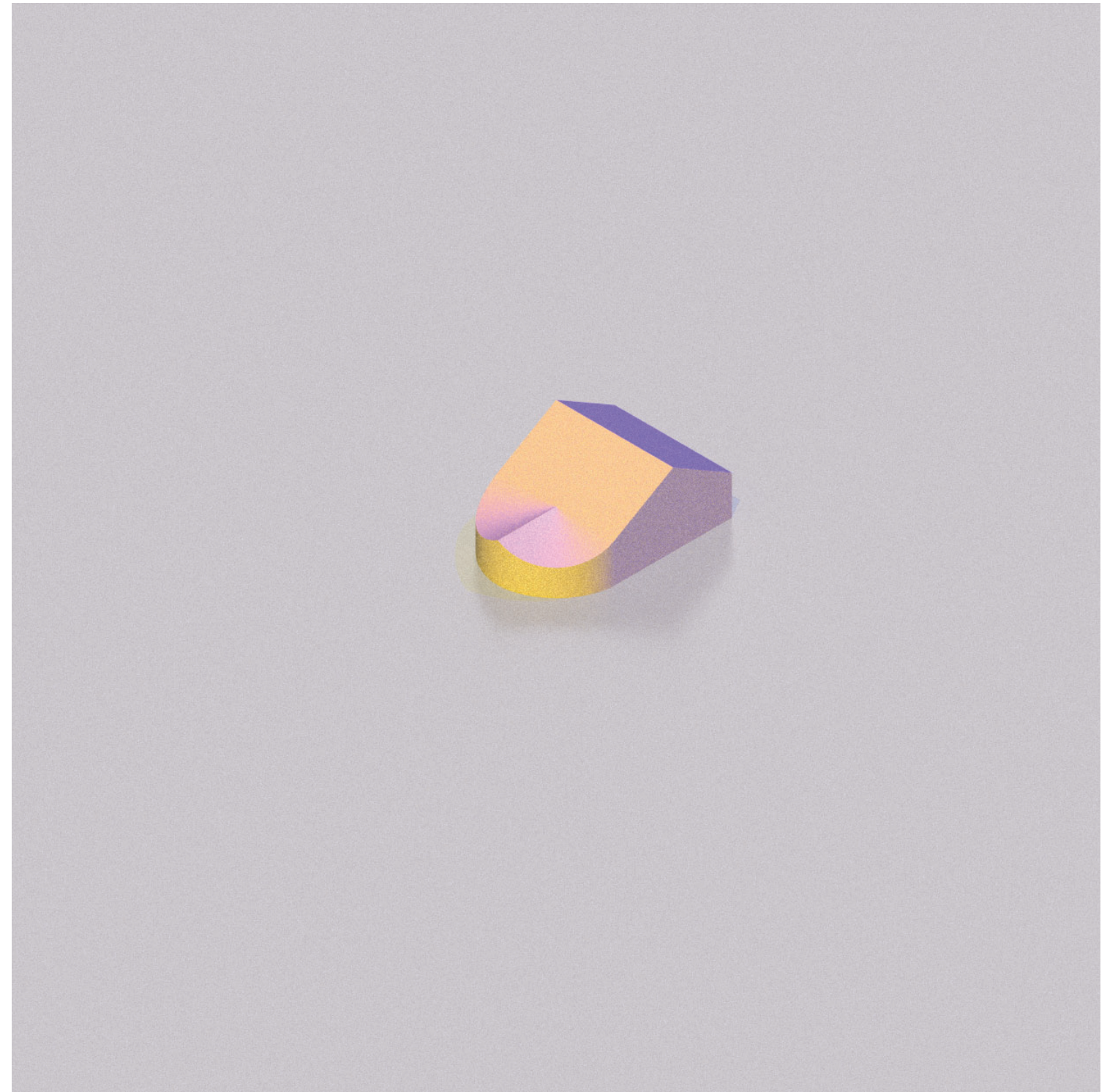
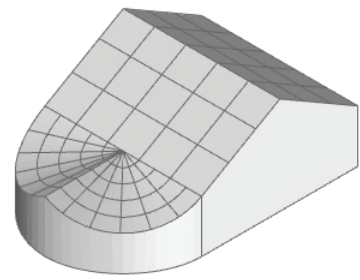
roof & curve



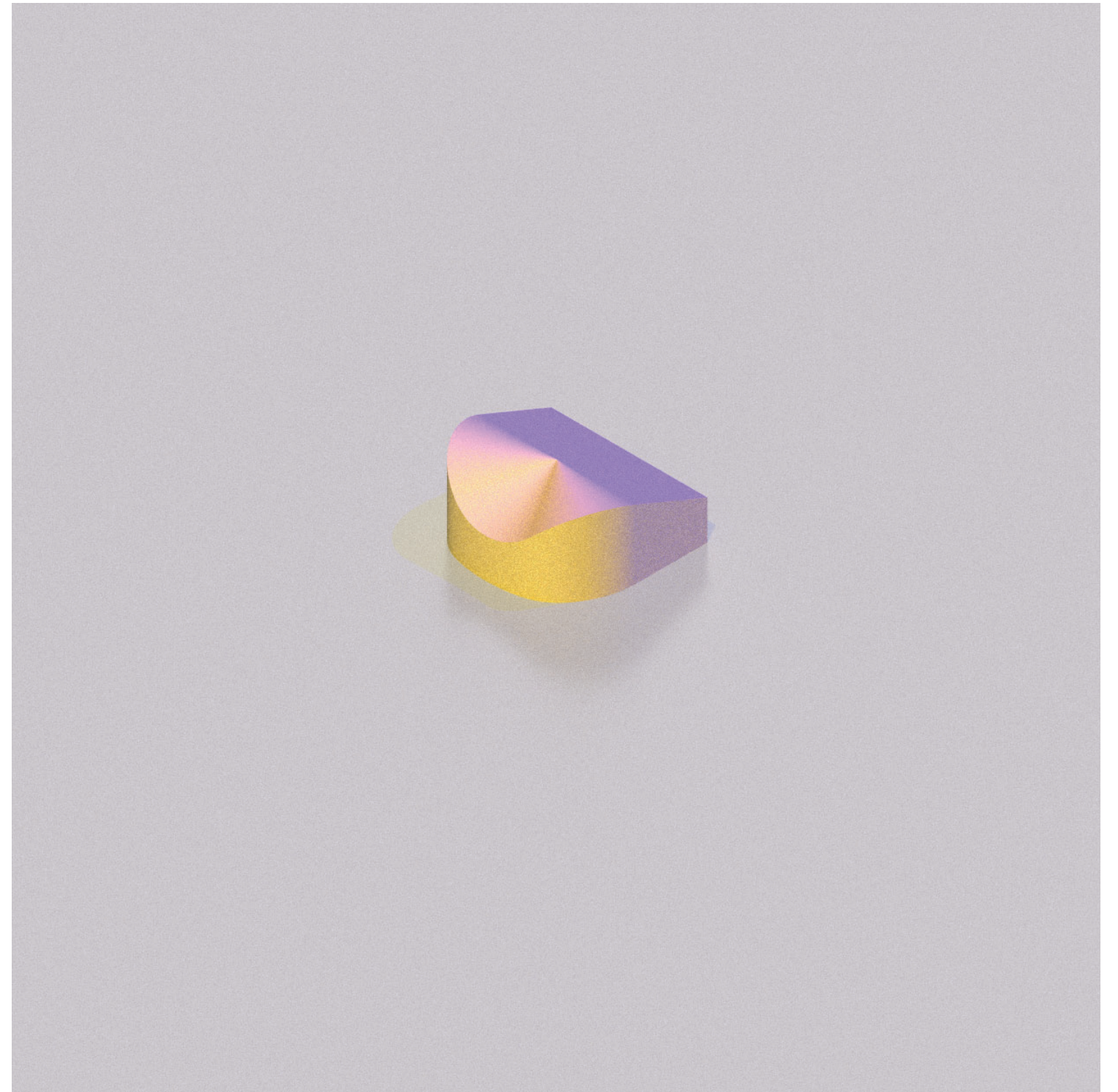
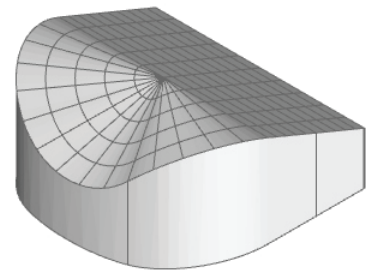
roof & curve



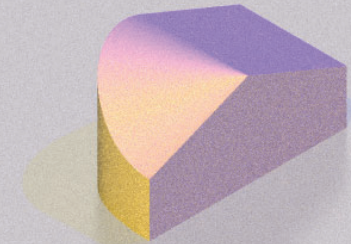
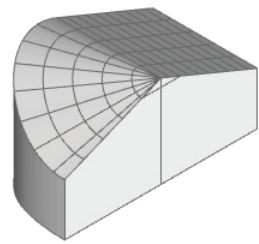
roof & curve



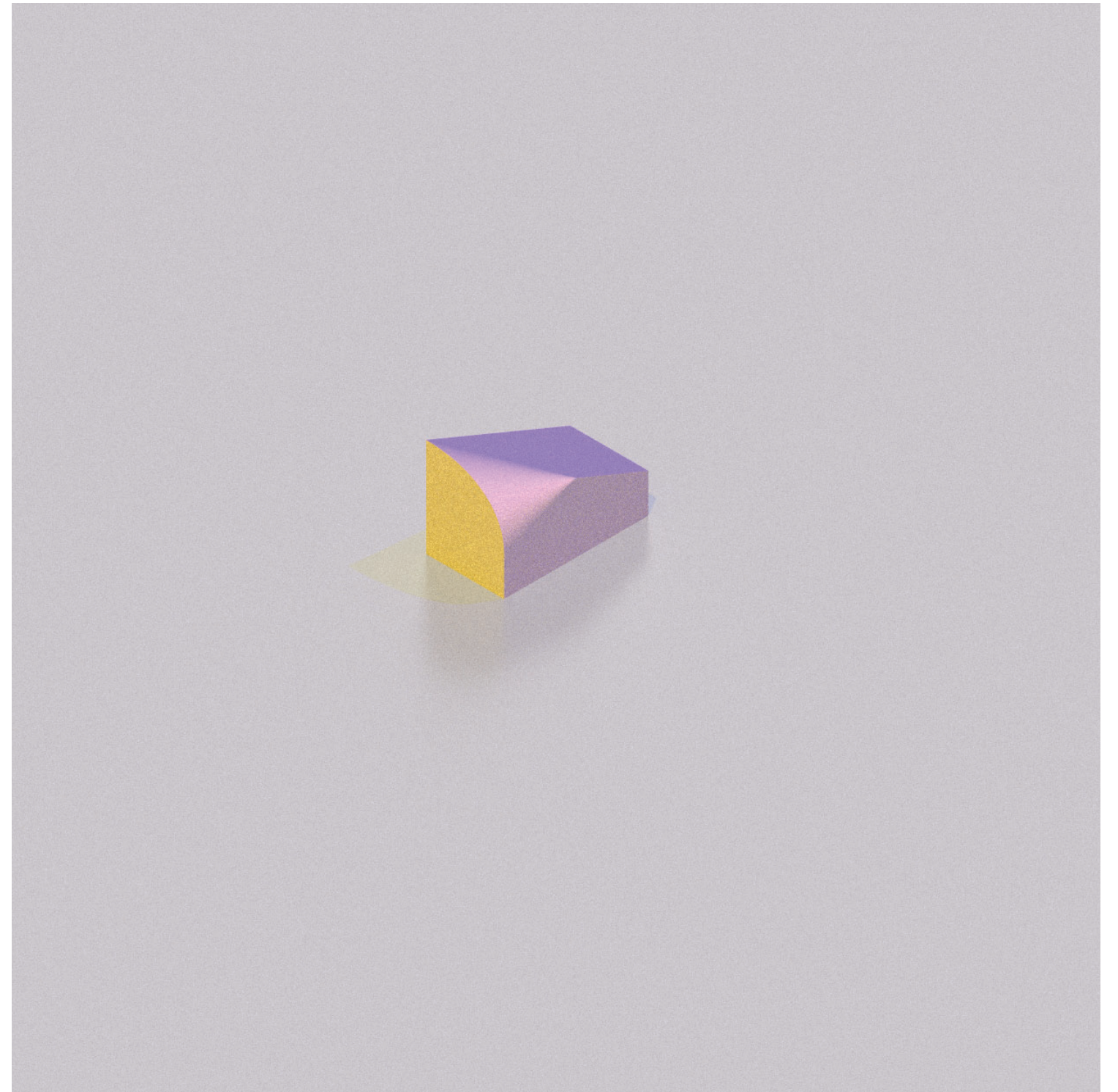
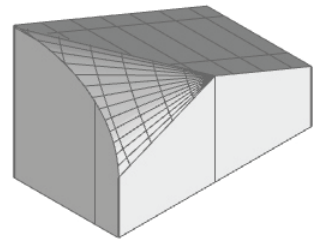
roof & curve



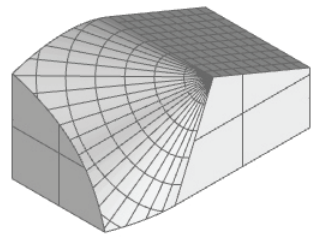
roof & curve



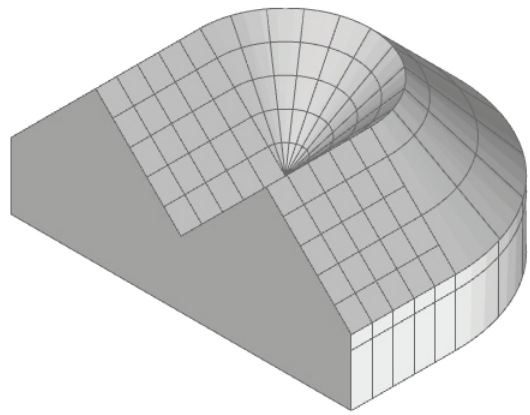
roof & curve



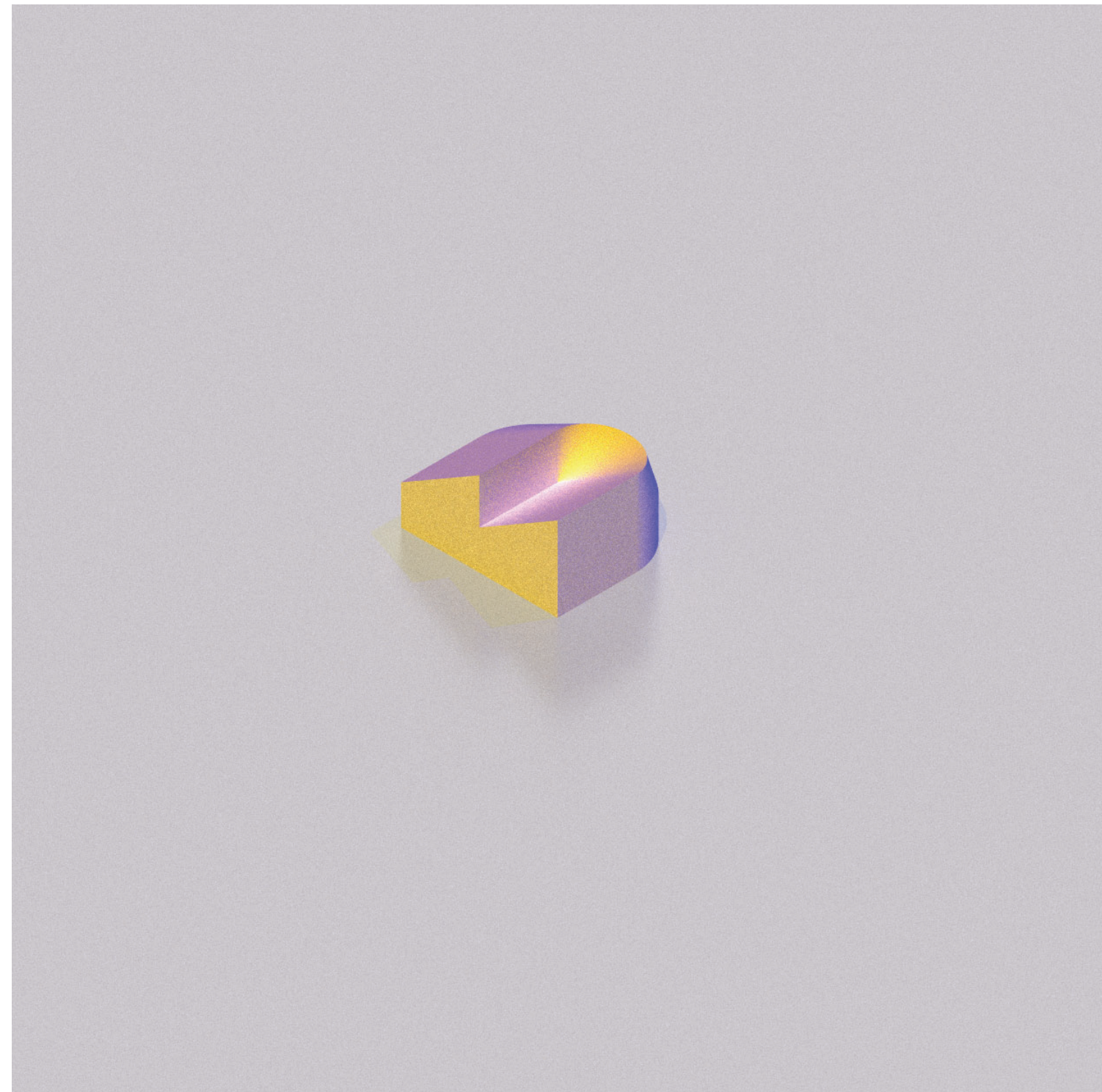
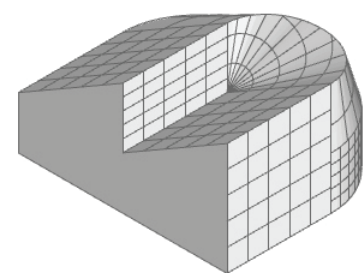
roof & curve



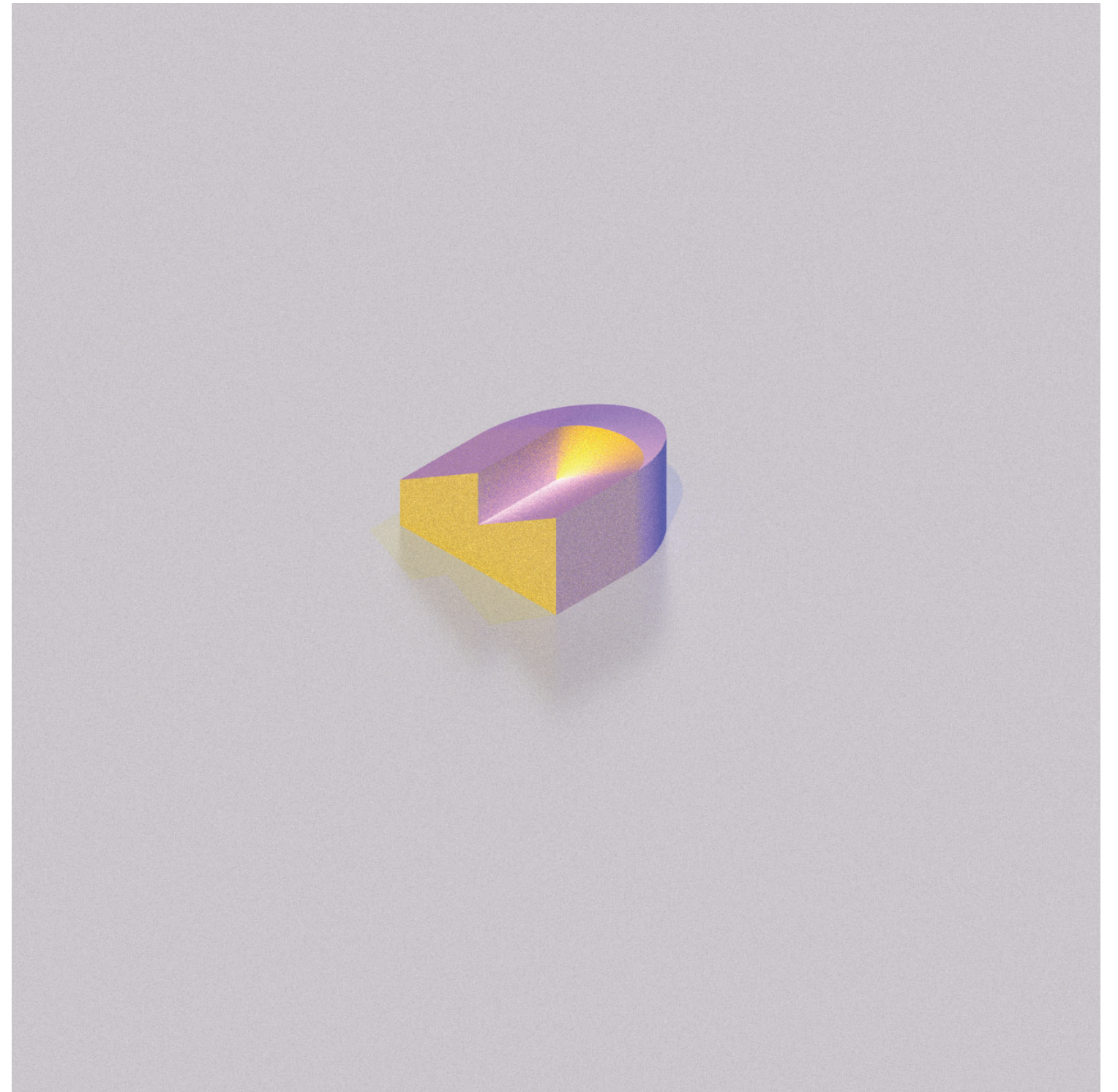
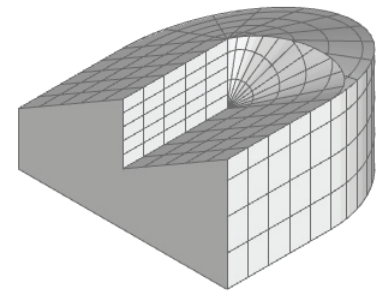
roof & curve



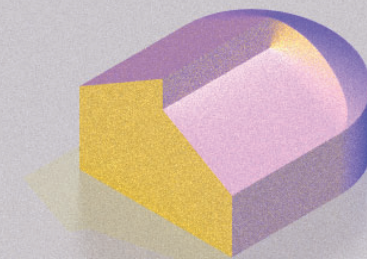
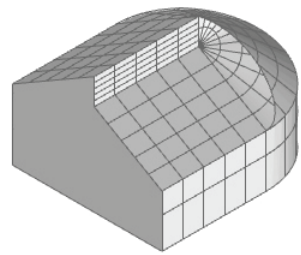
roof angles



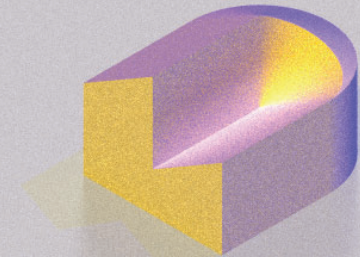
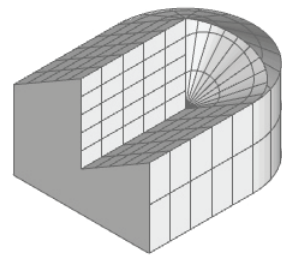
roof angles



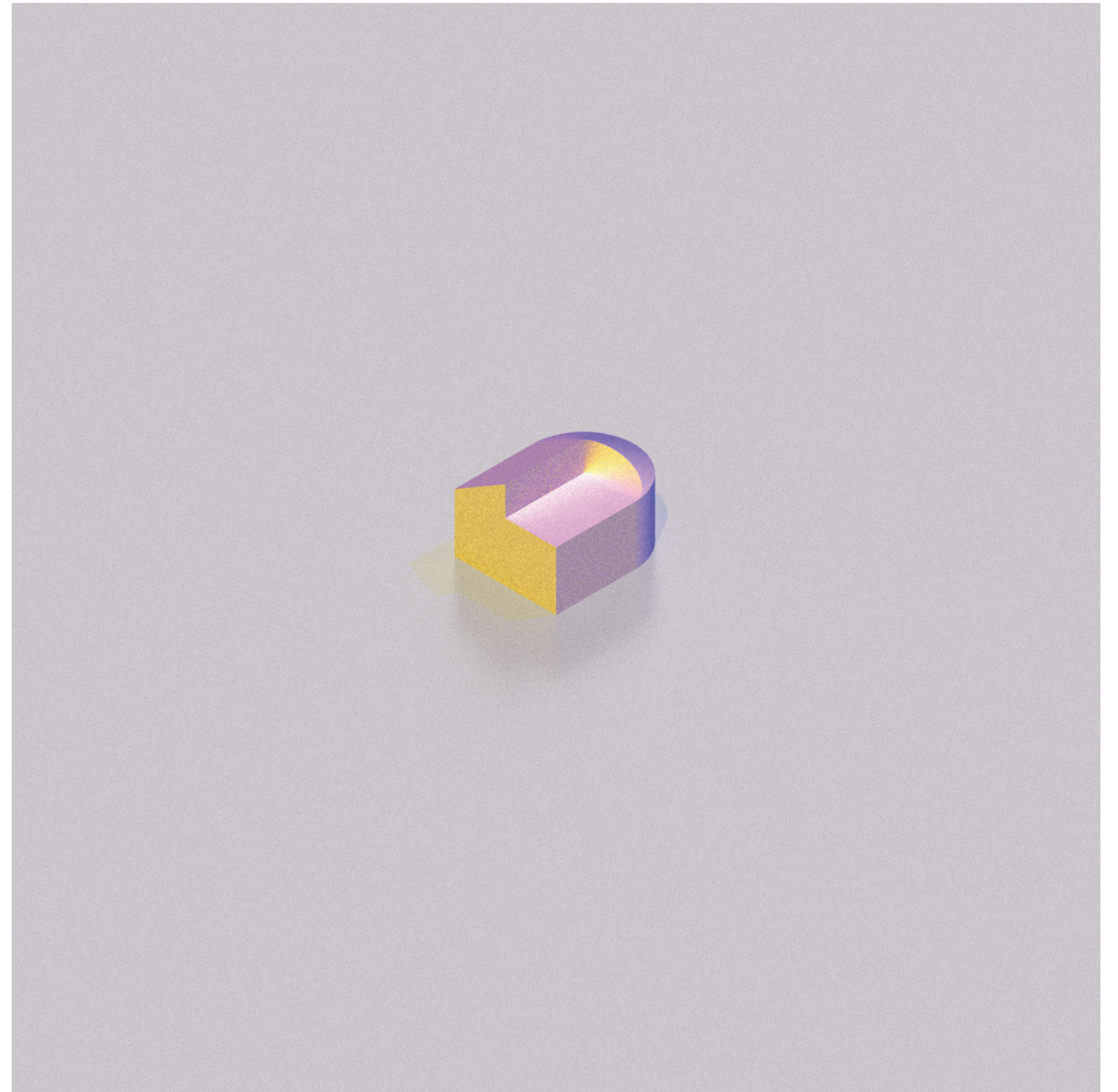
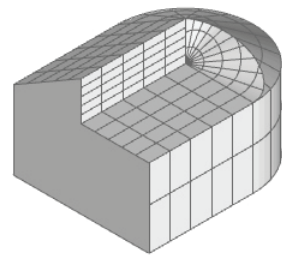
roof angles



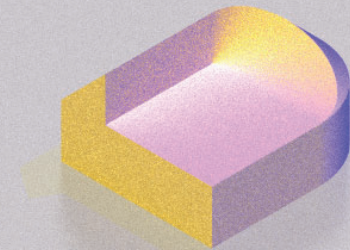
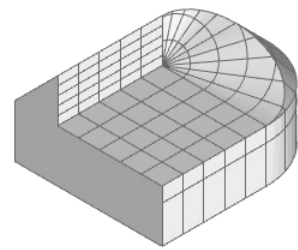
roof angles



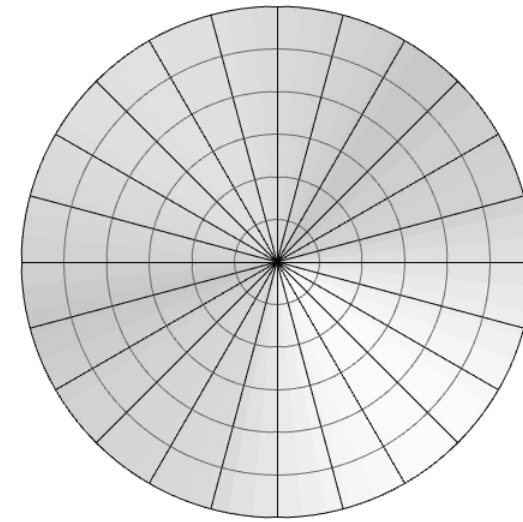
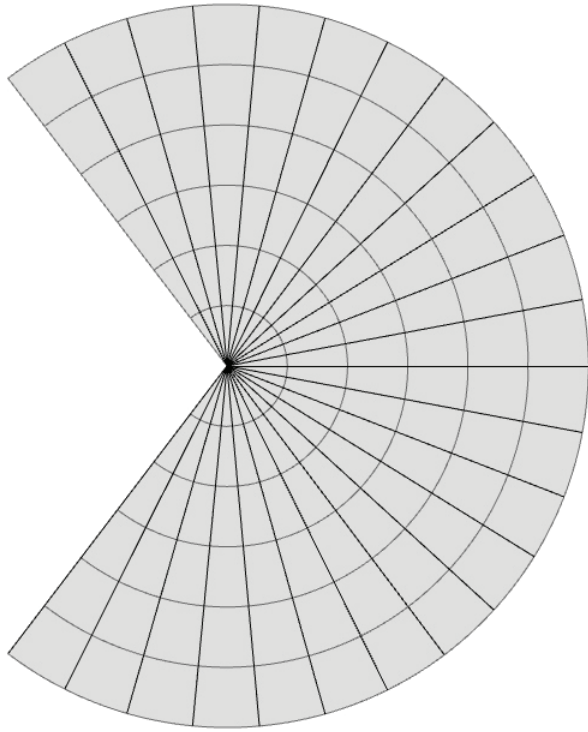
roof angles

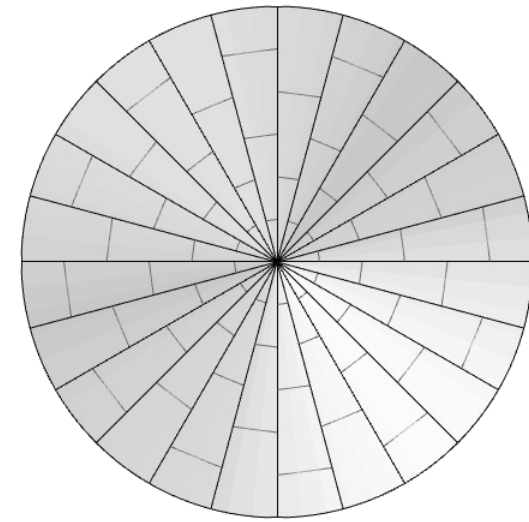
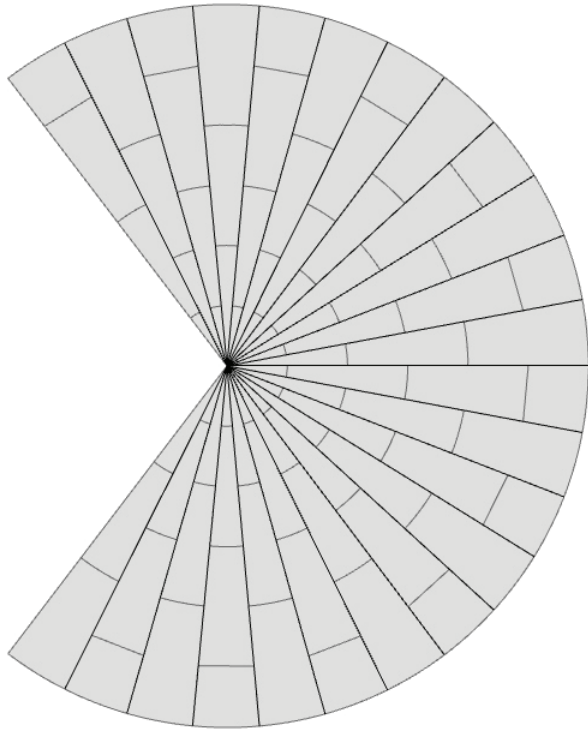


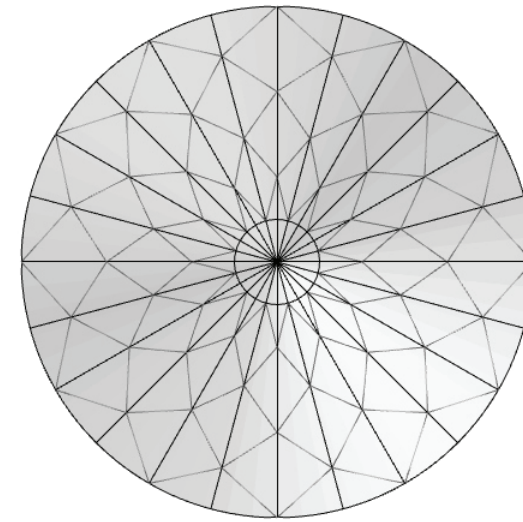
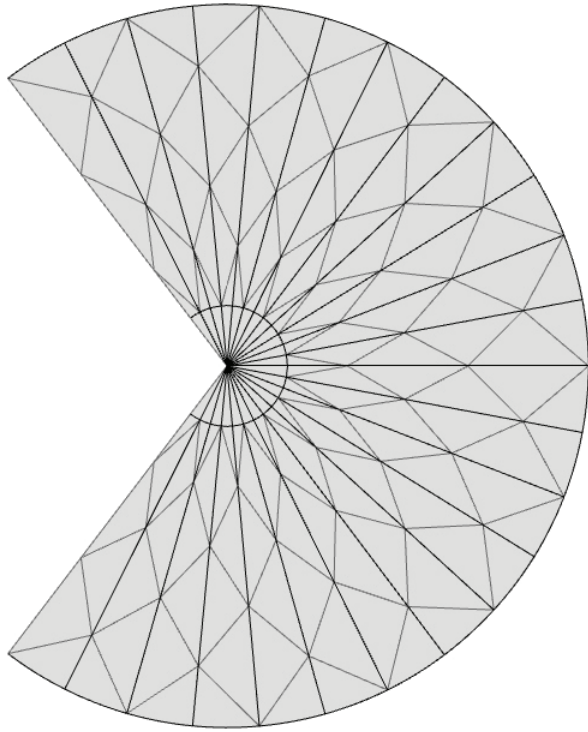
roof angles

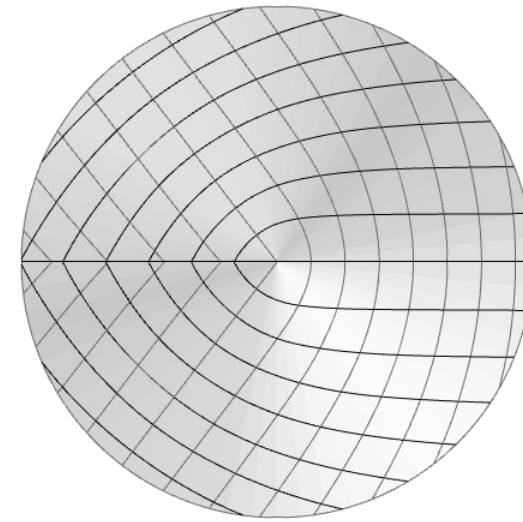
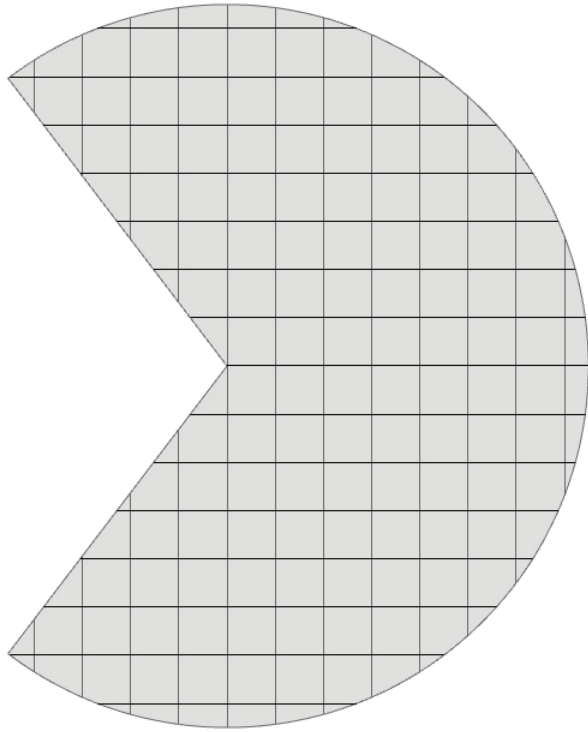


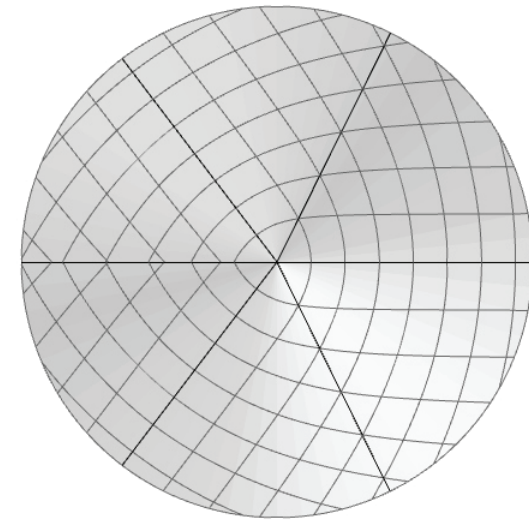
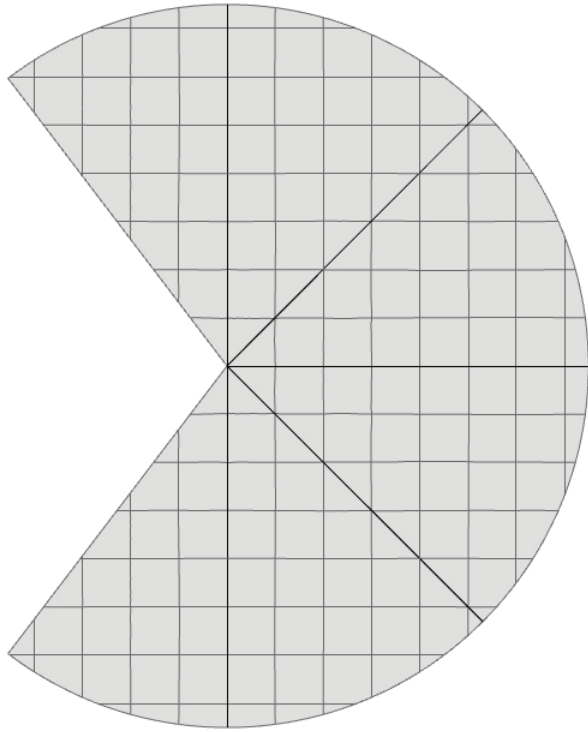
roof angles







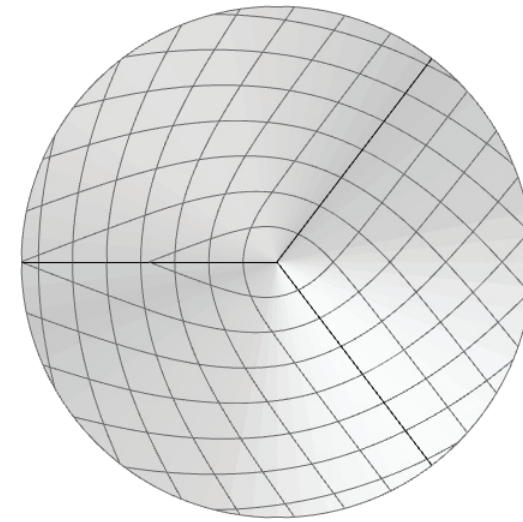
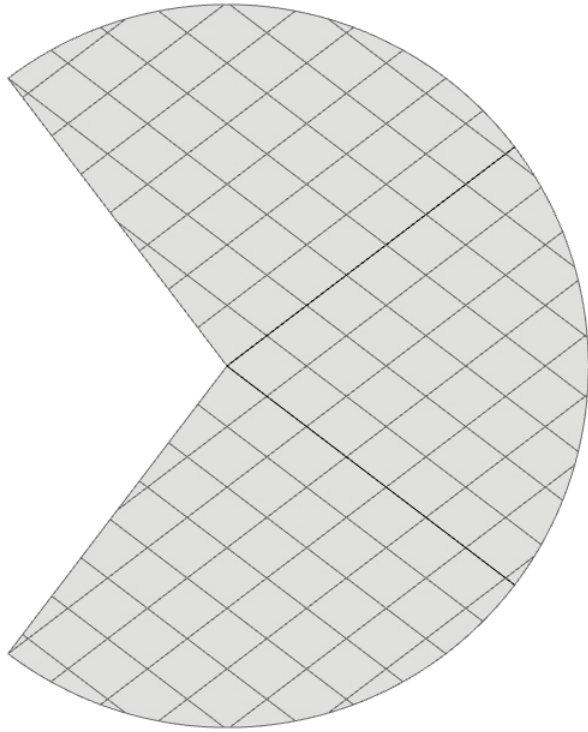




geodesic

cone construction

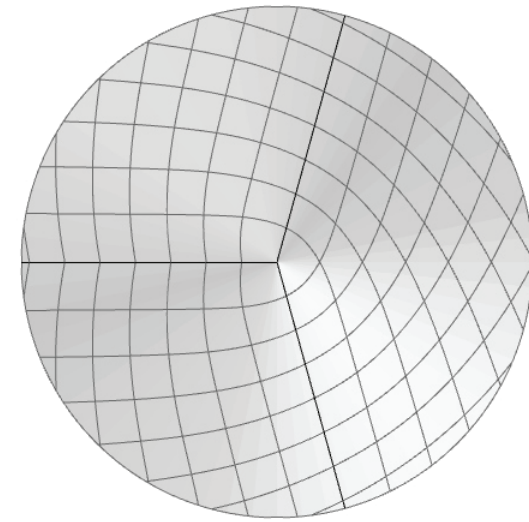
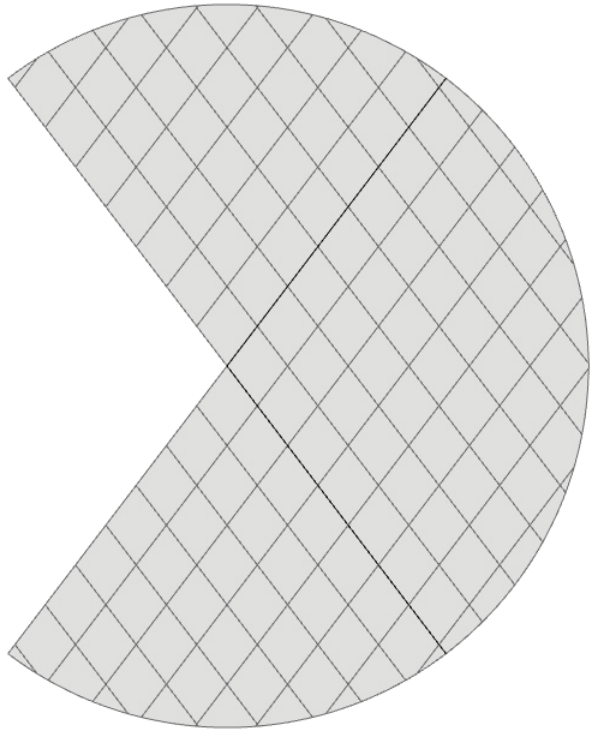
90° vertex

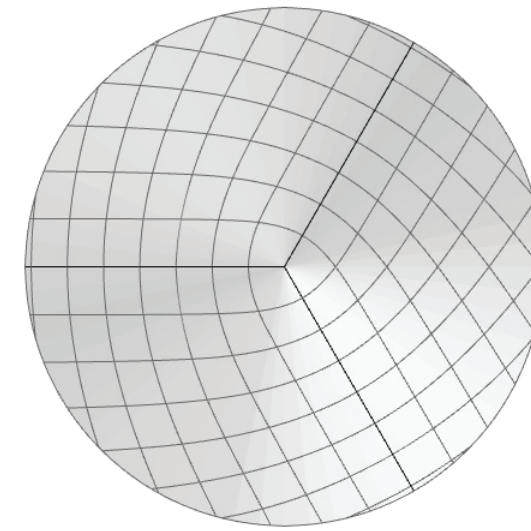
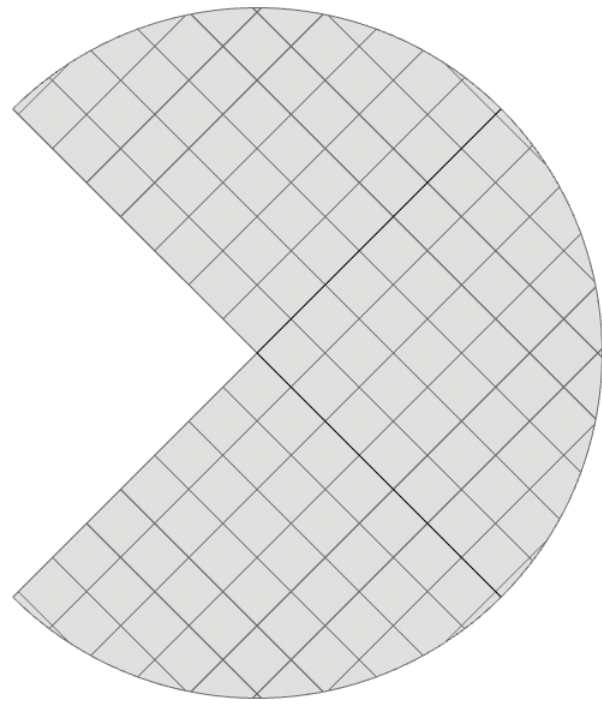


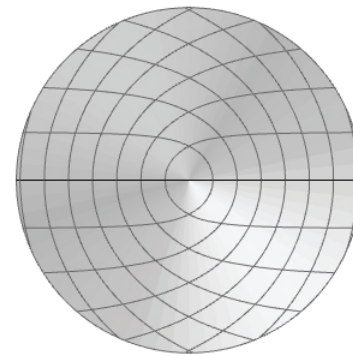
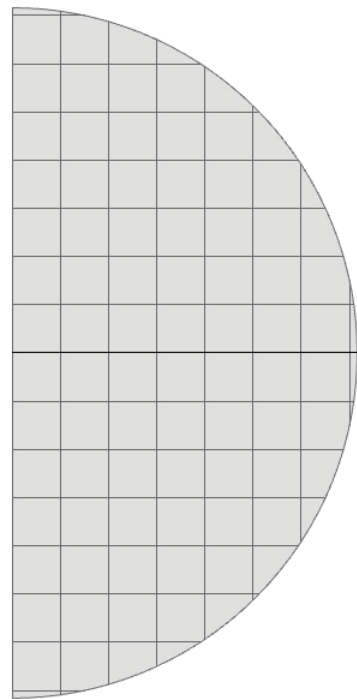
geodesic

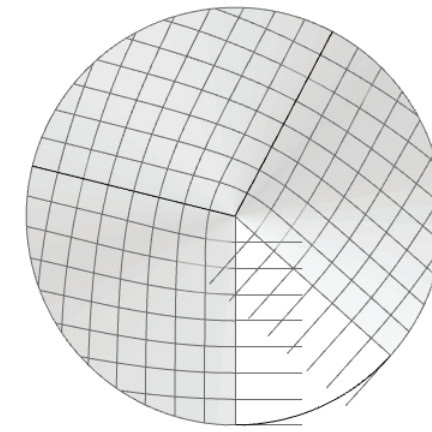
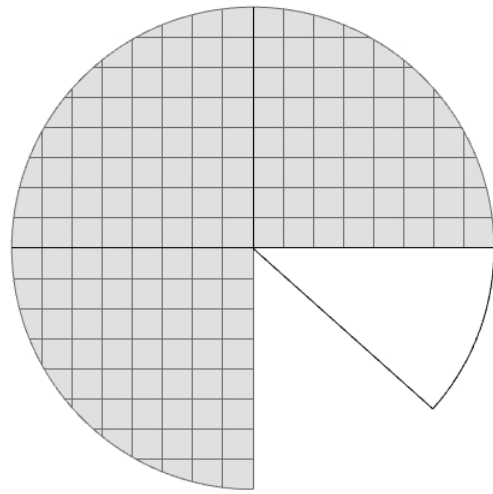
cone construction

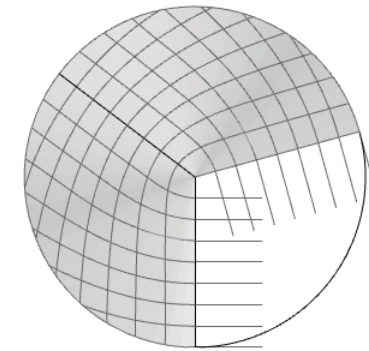
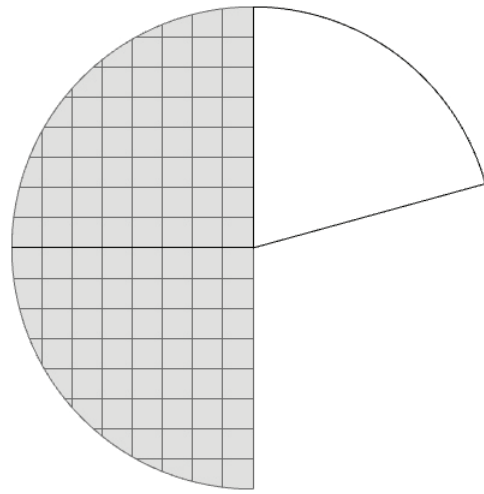
90° vertex







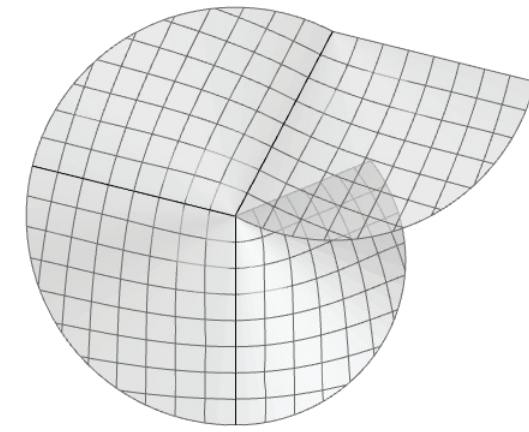
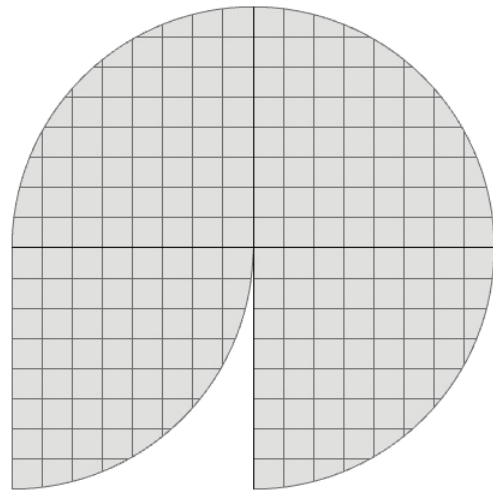




geodesic

unrolled quadrants

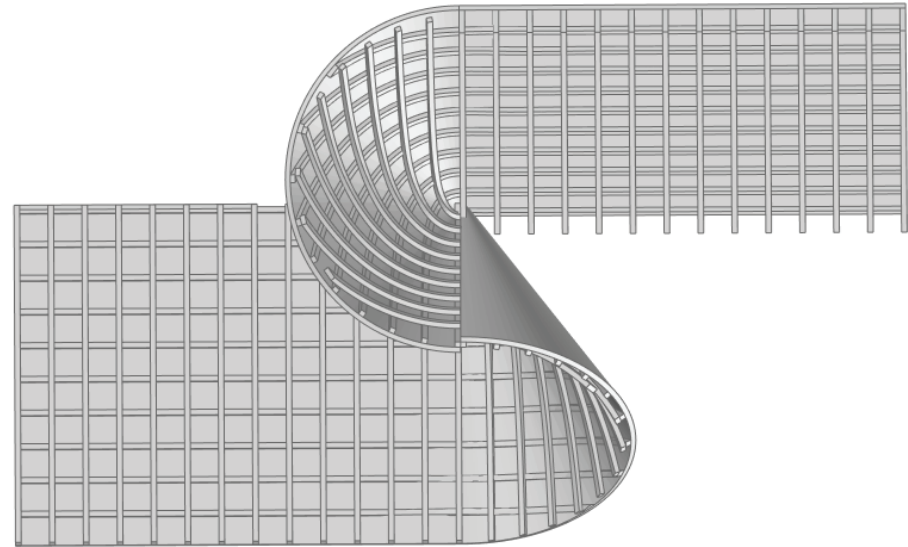
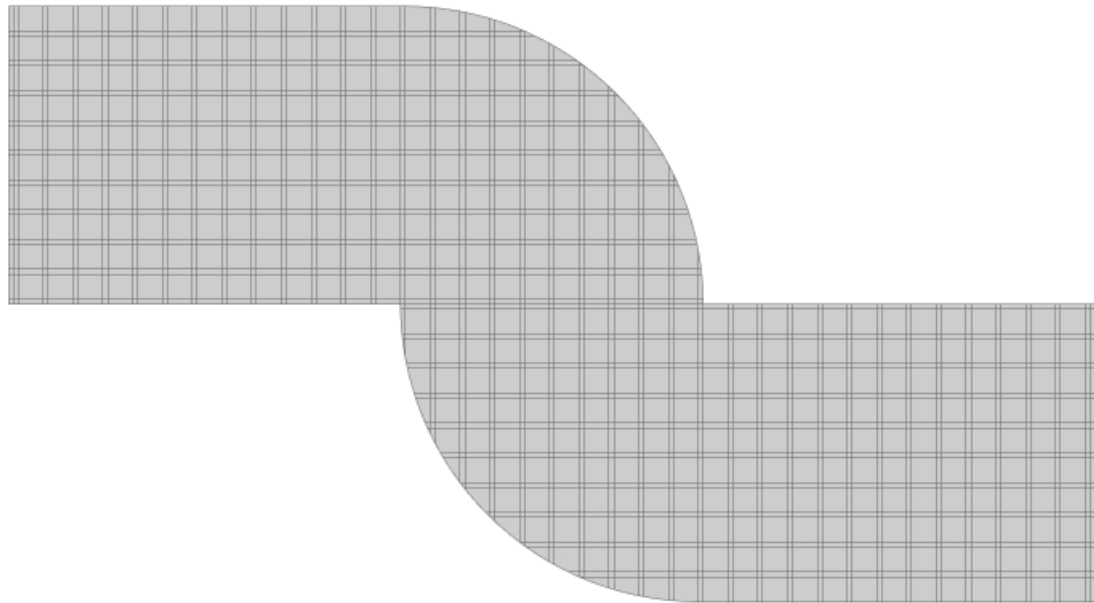
90° vertex

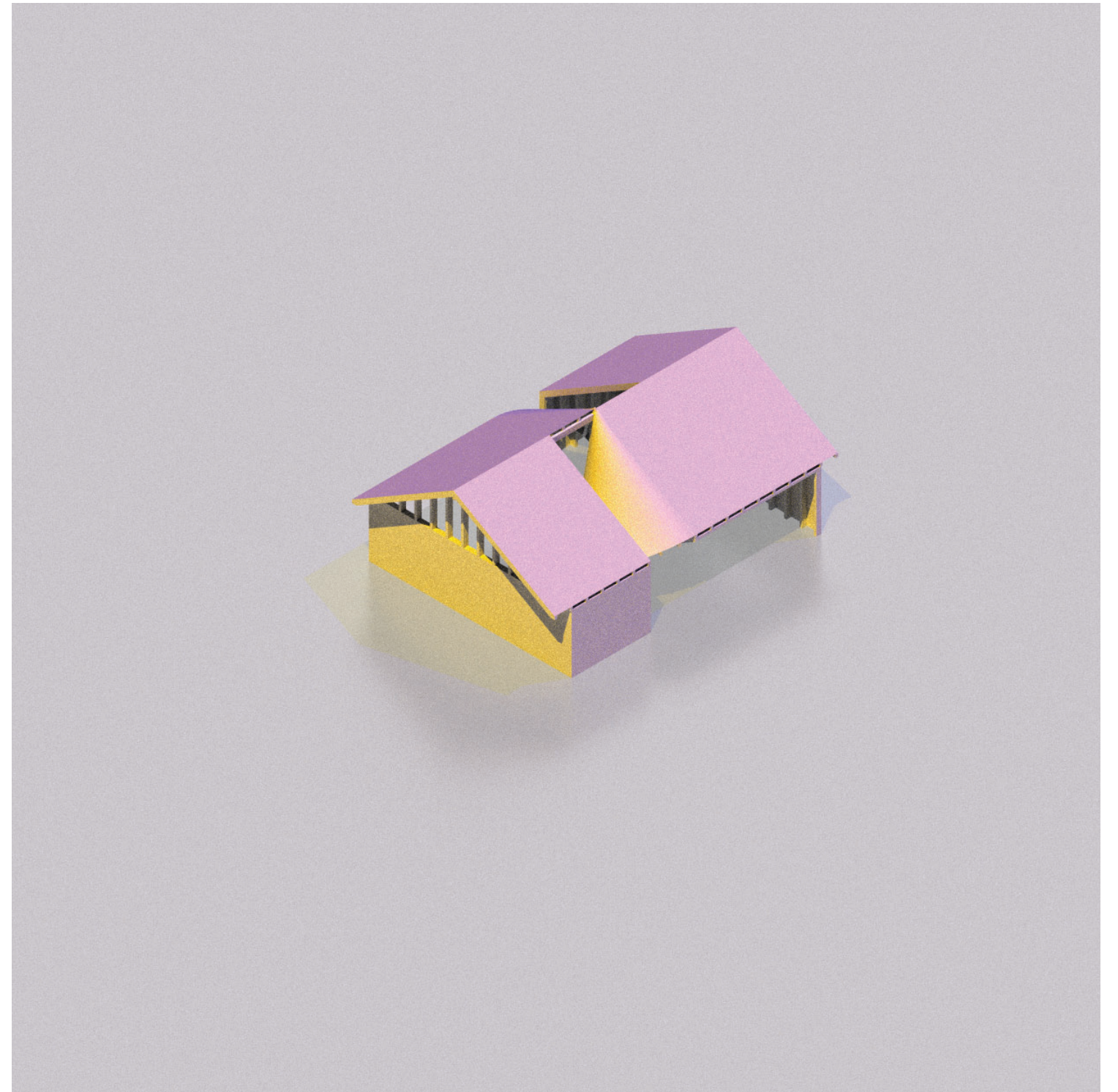
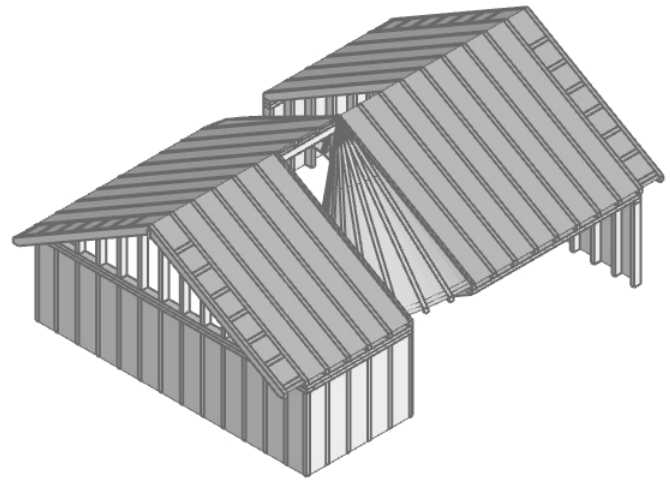


geodesic

unrolled quadrants

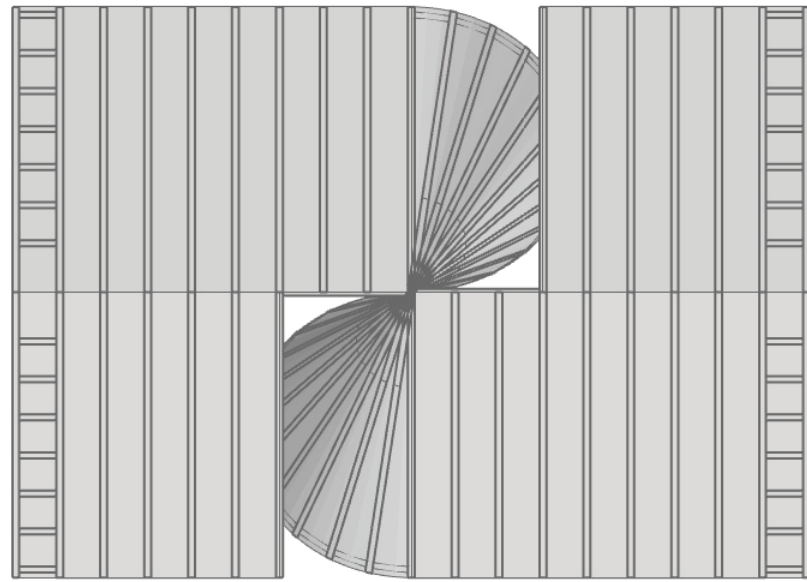
120+90 vertex*



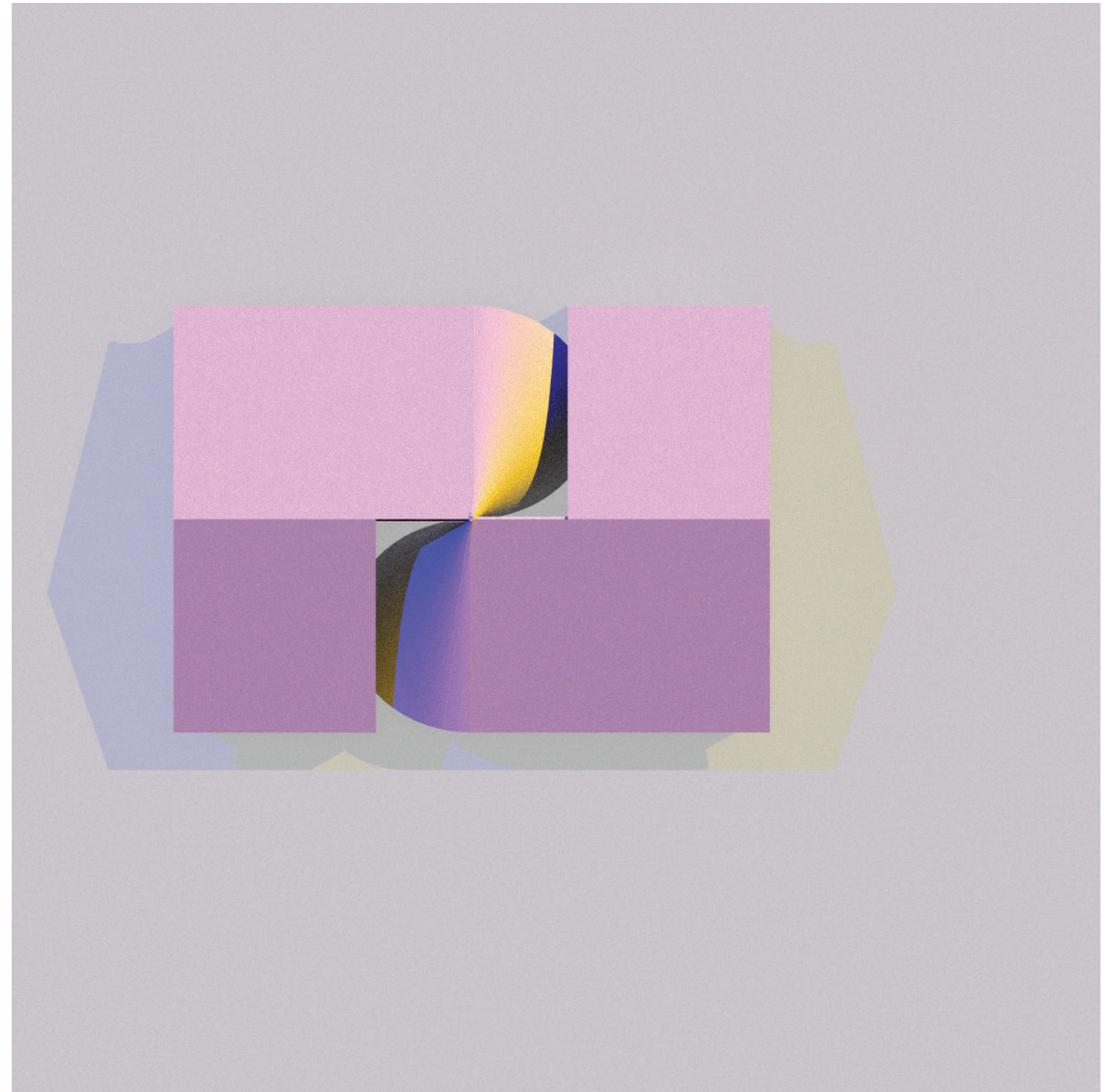


kissing cone pavilion

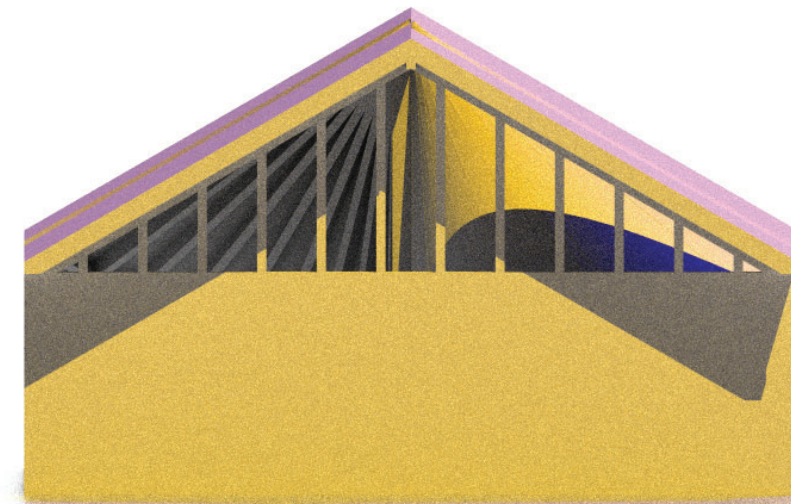
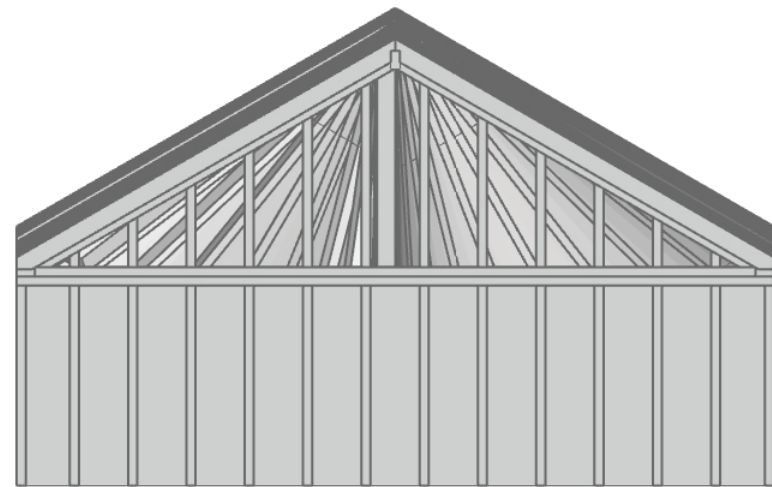
wood framing



kissing cone pavilion

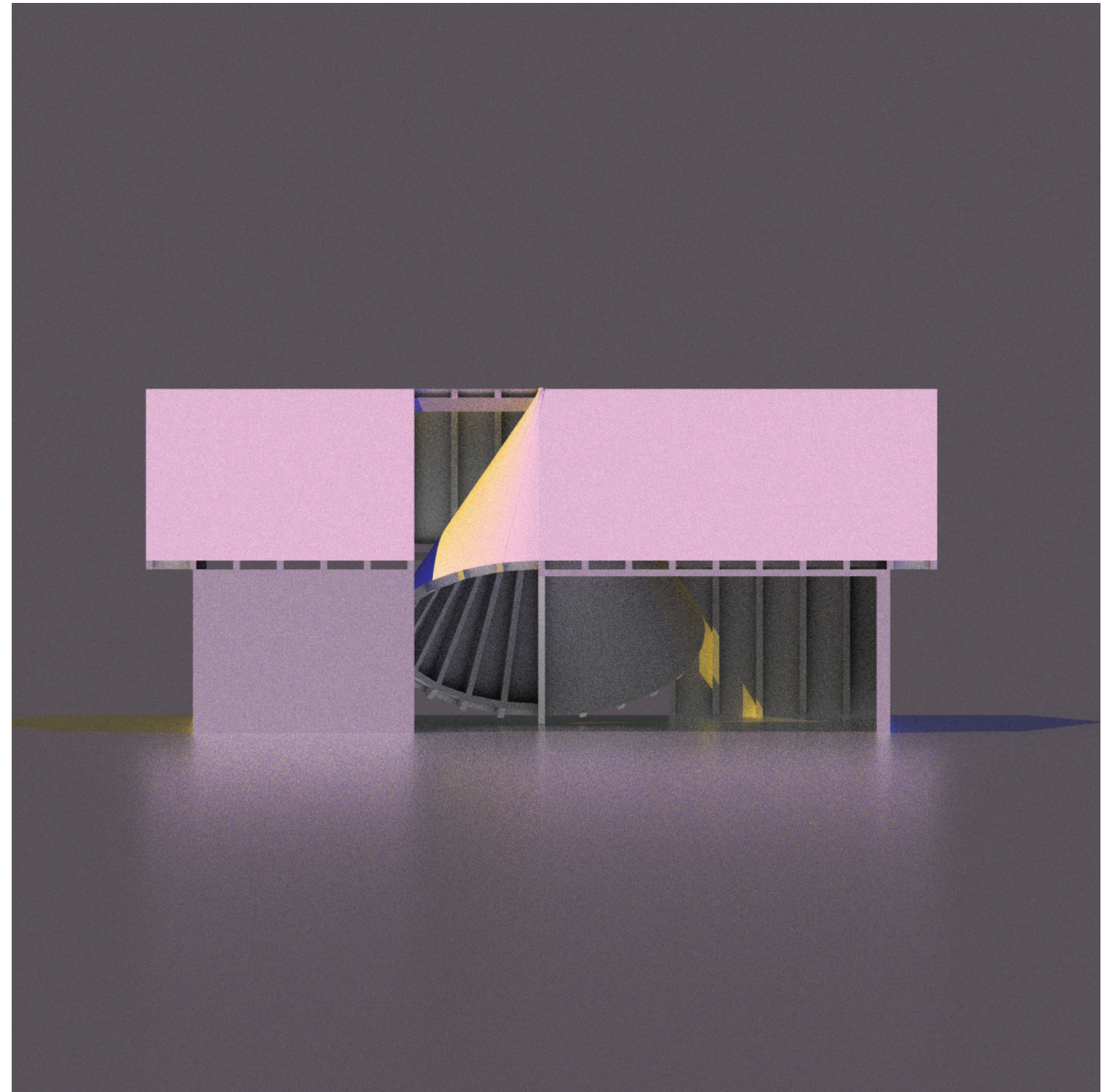
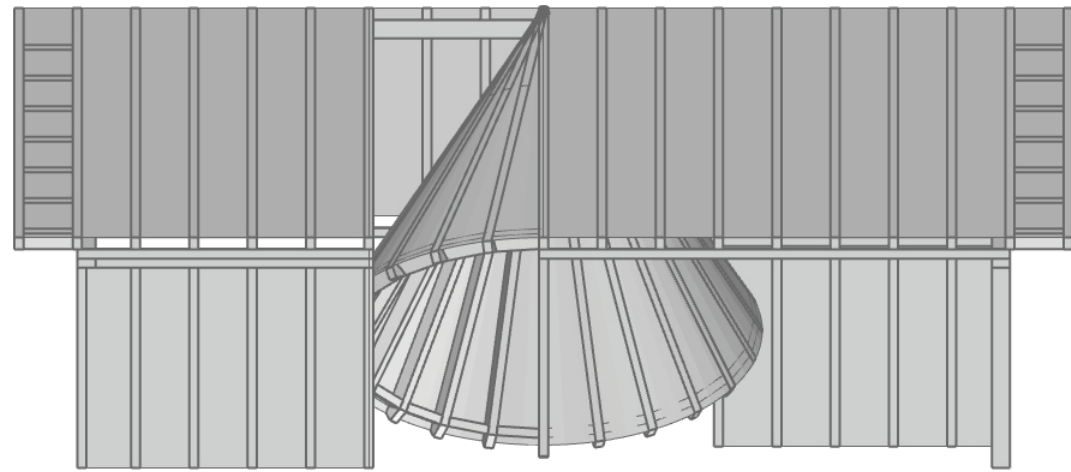


wood framing



kissing cone pavilion

wood framing



kissing cone pavilion

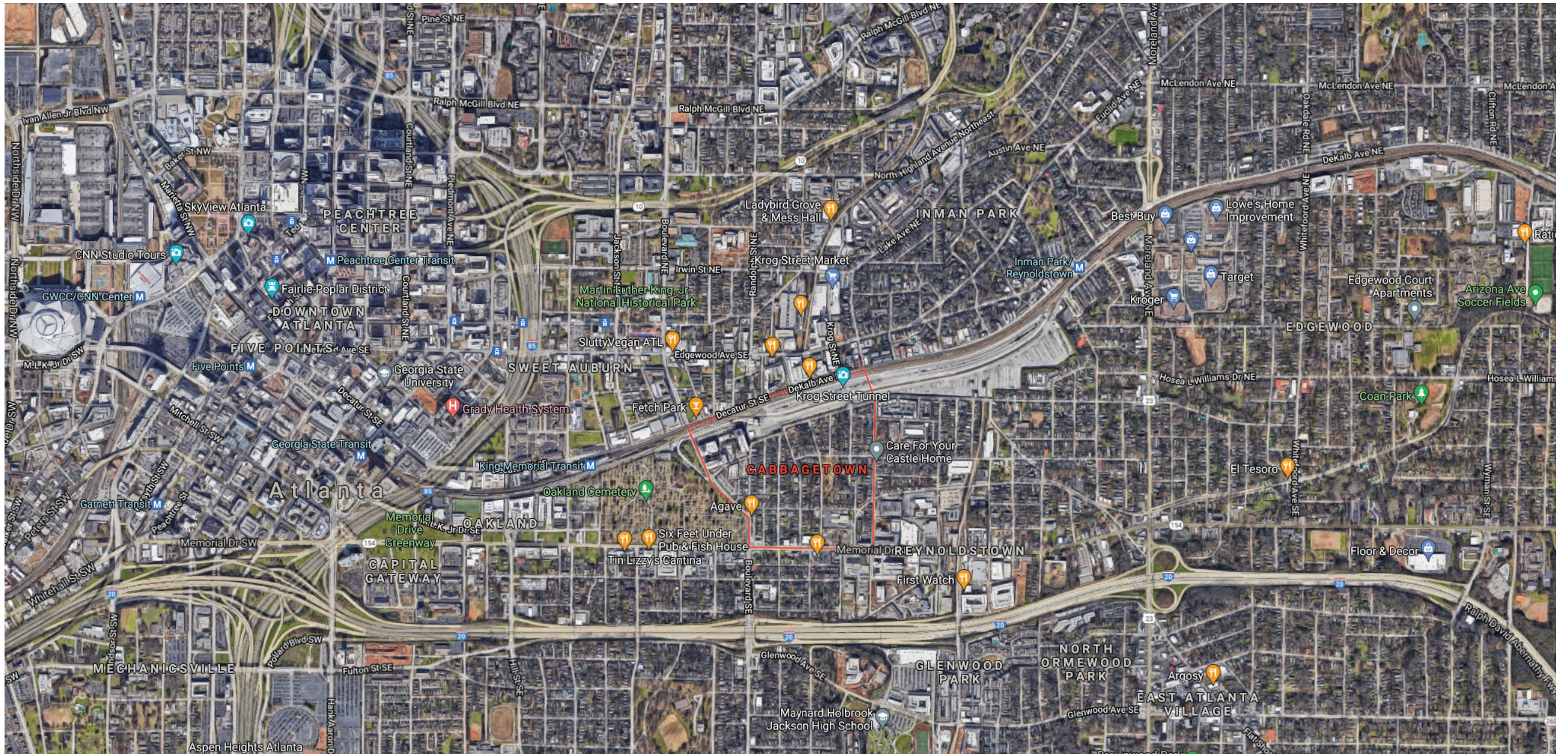
wood framing

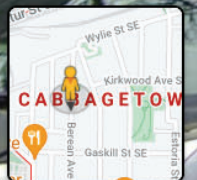
chapter 3 new additions:

interlace

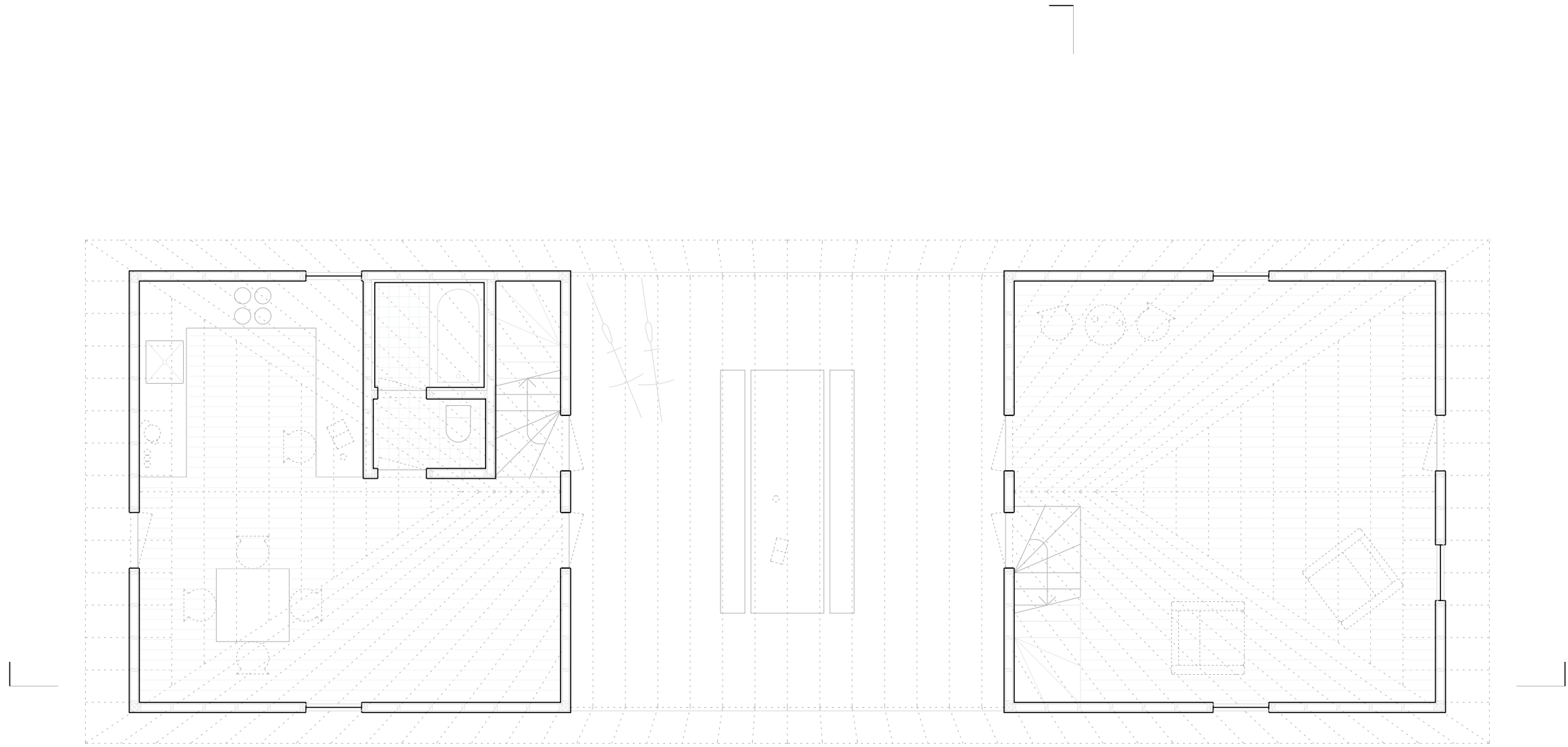
rolling

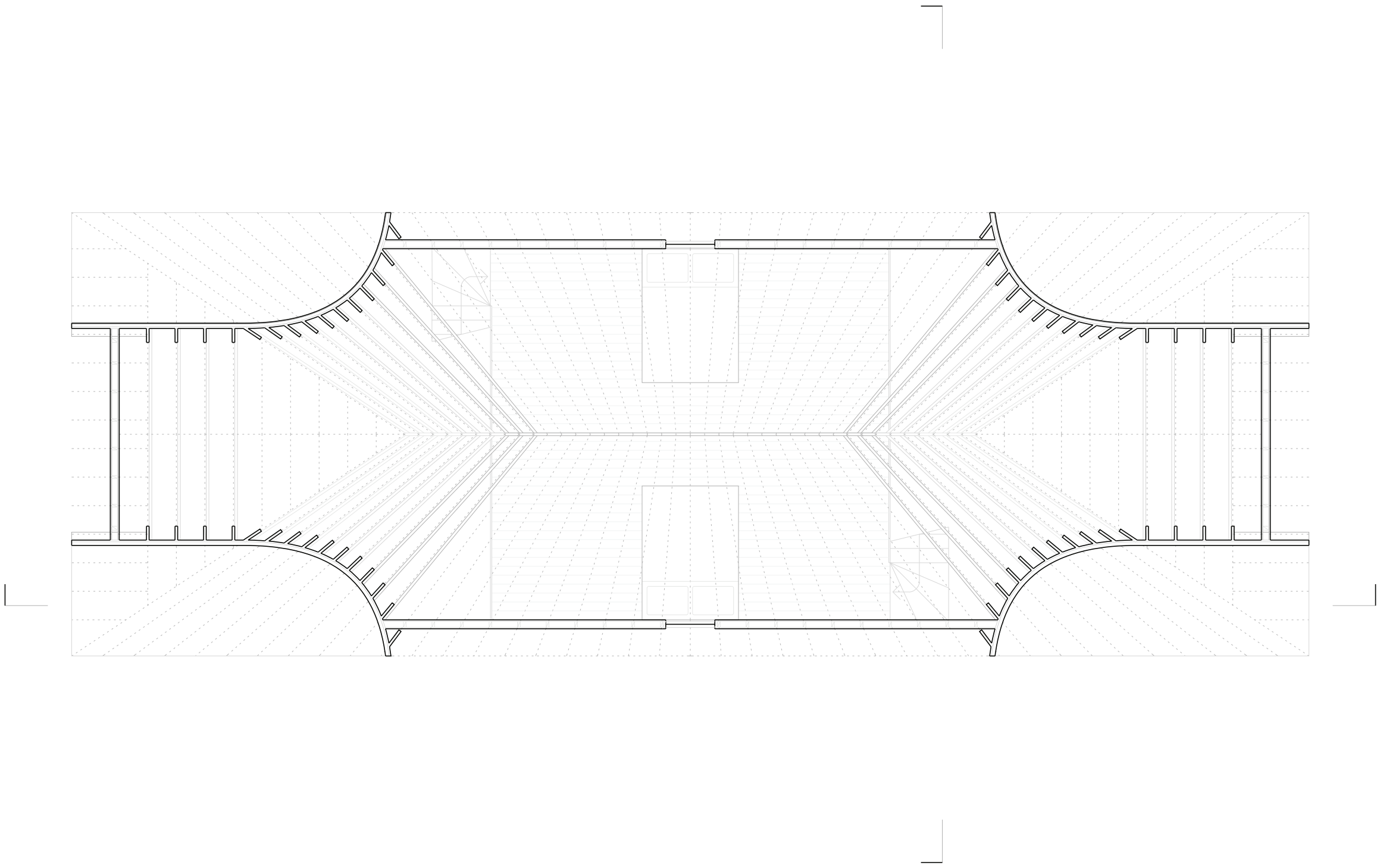
geodesic

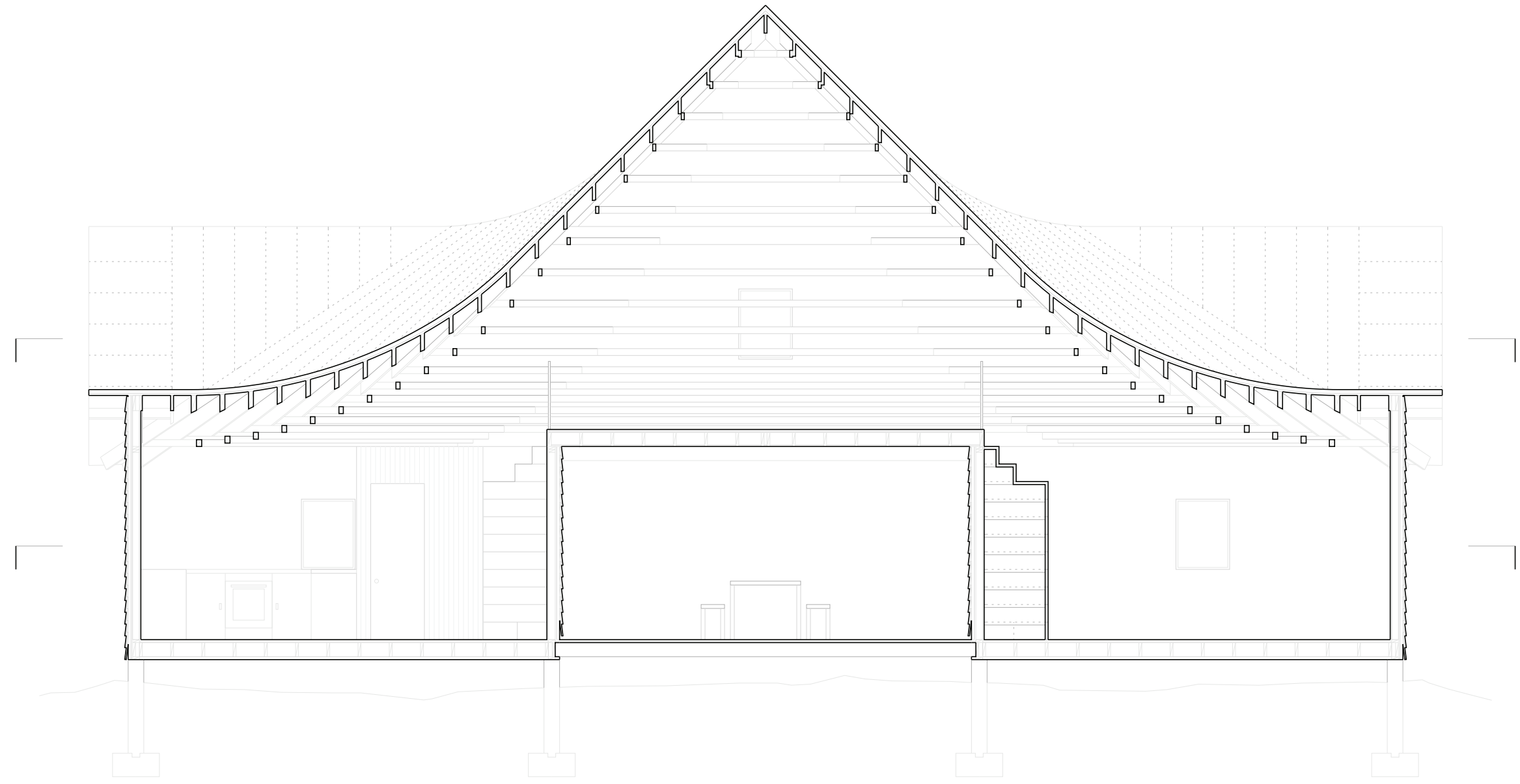


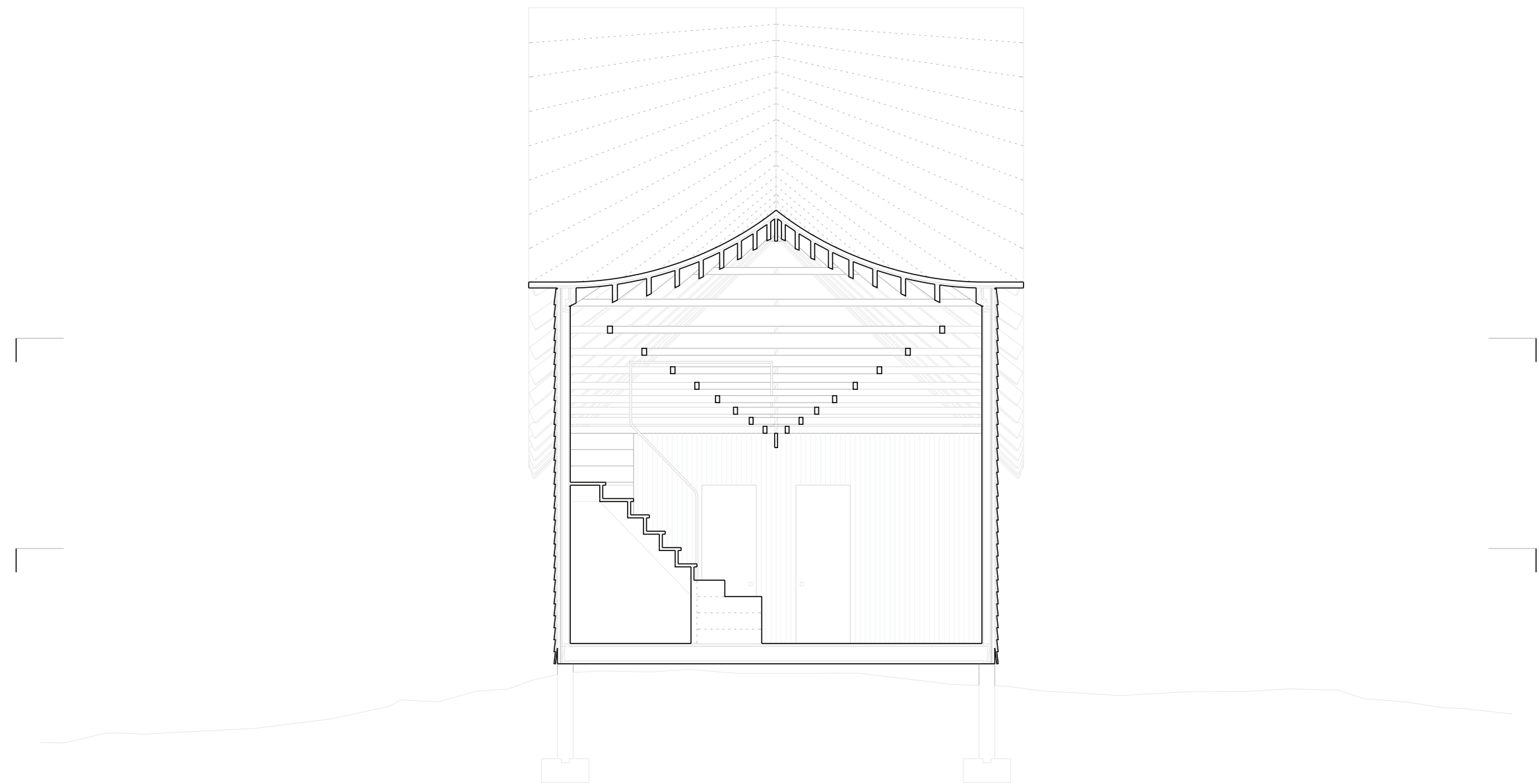


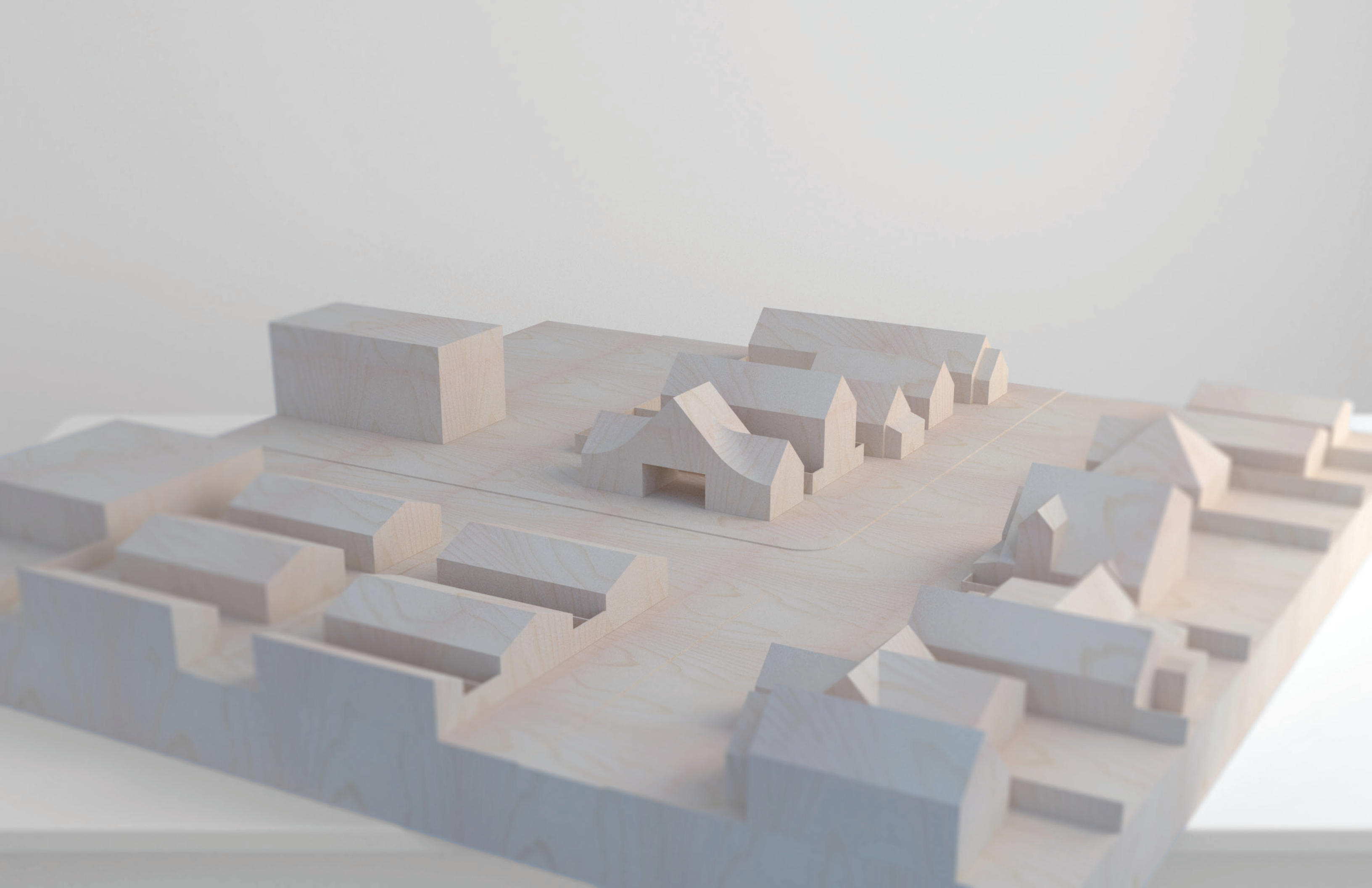








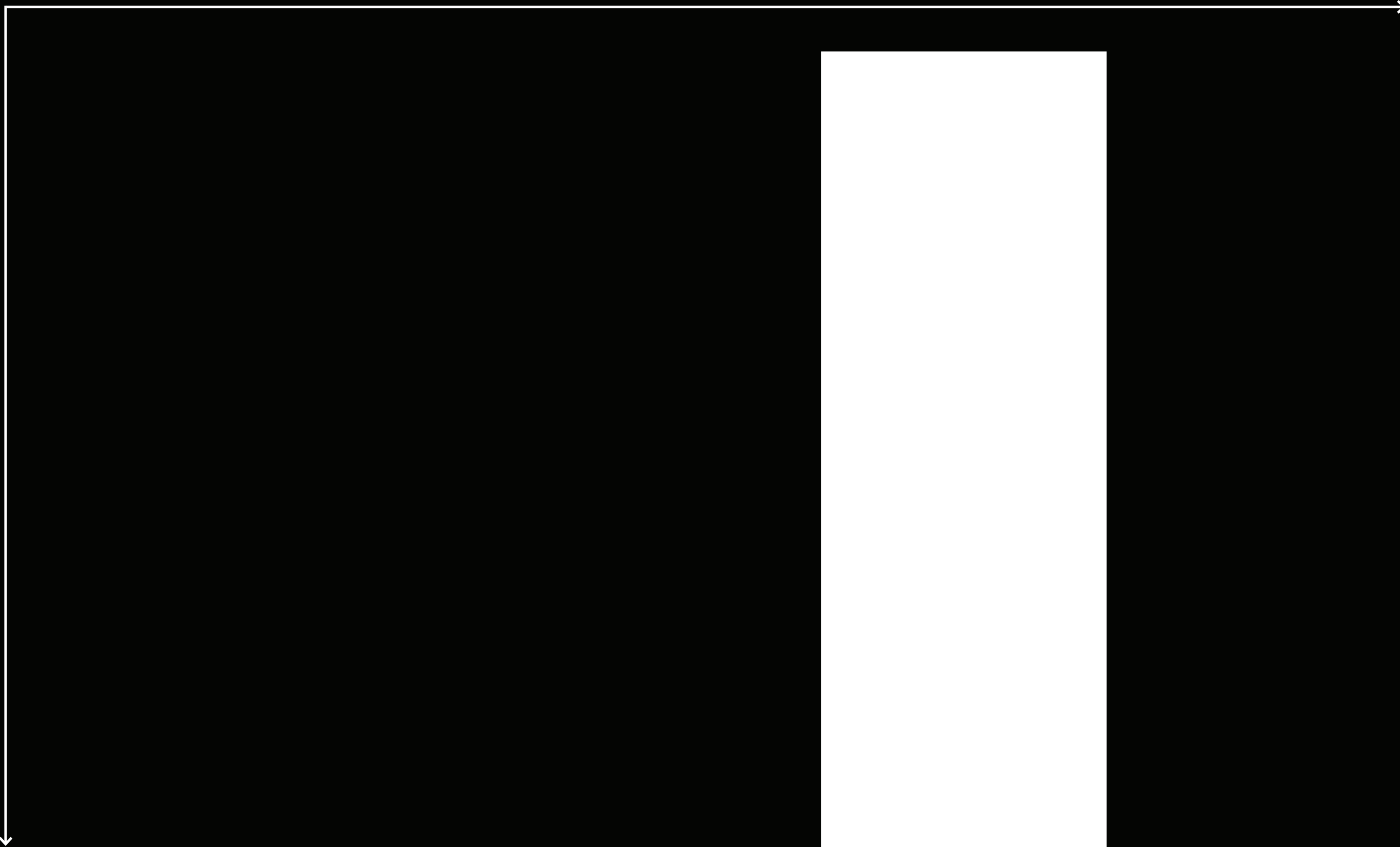


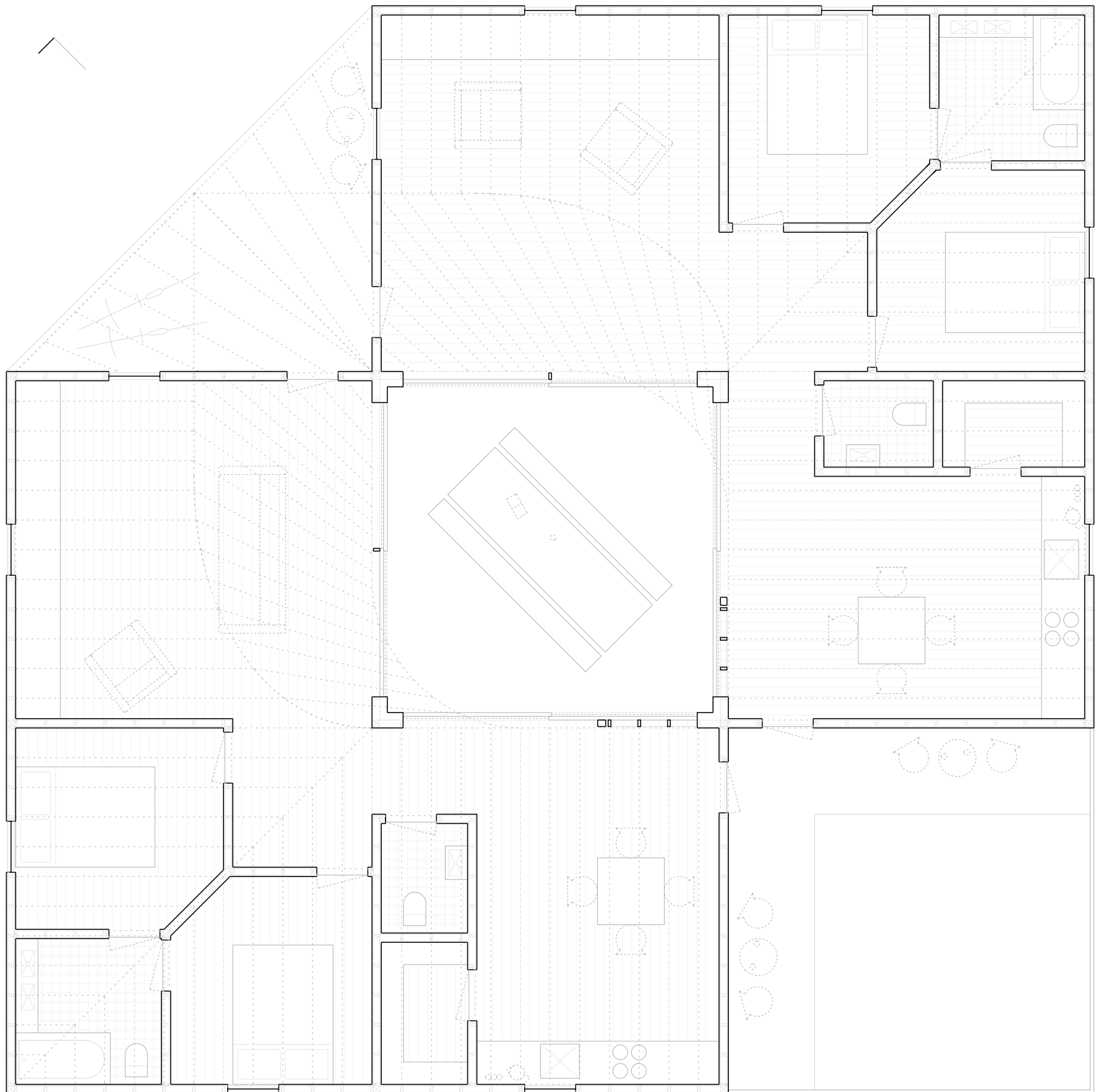


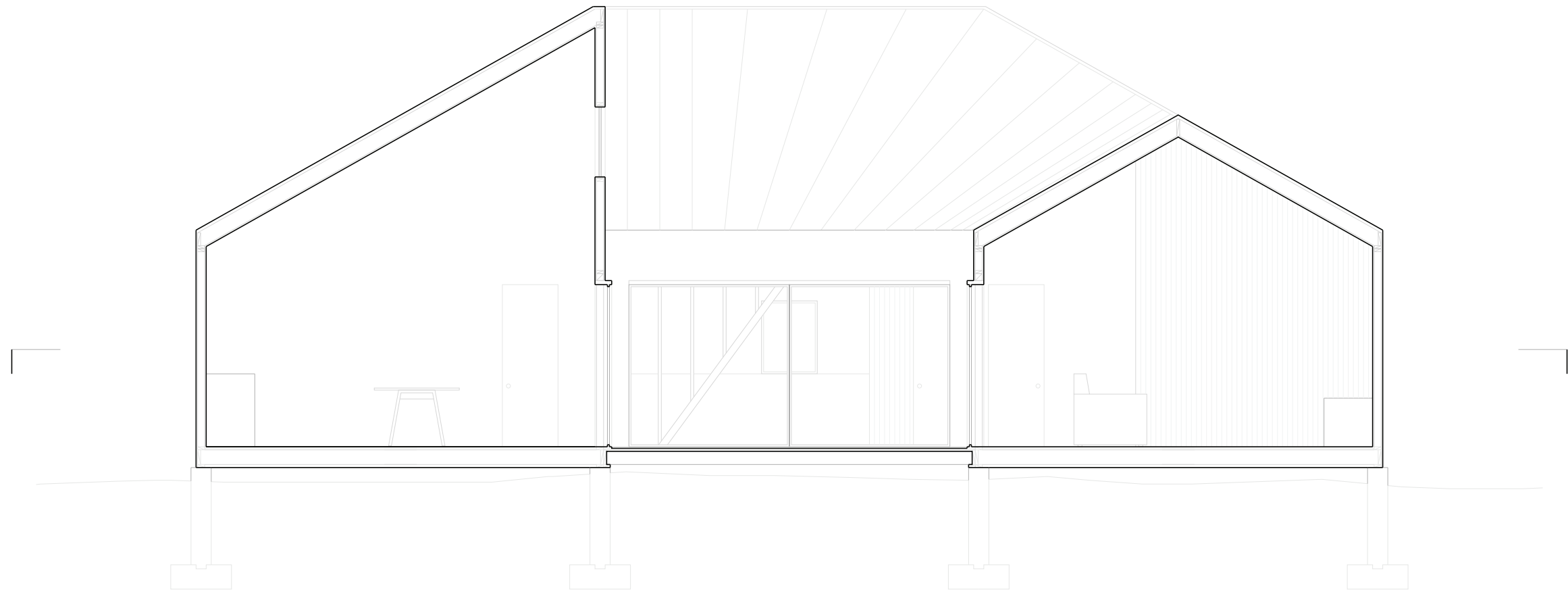


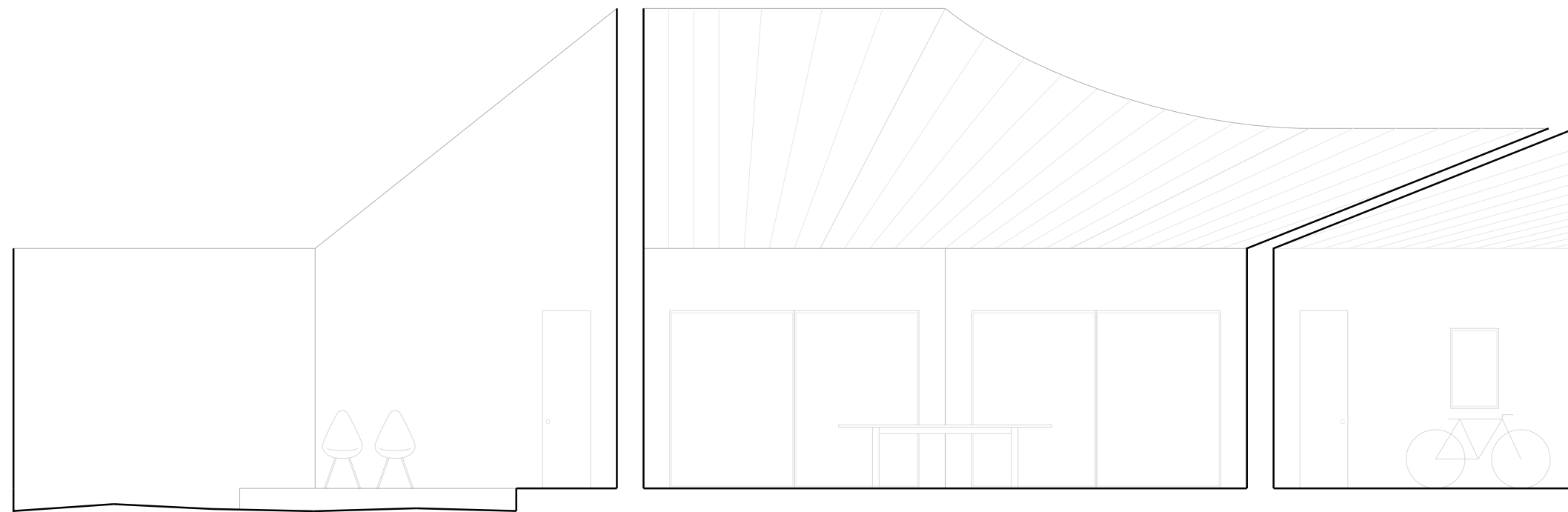




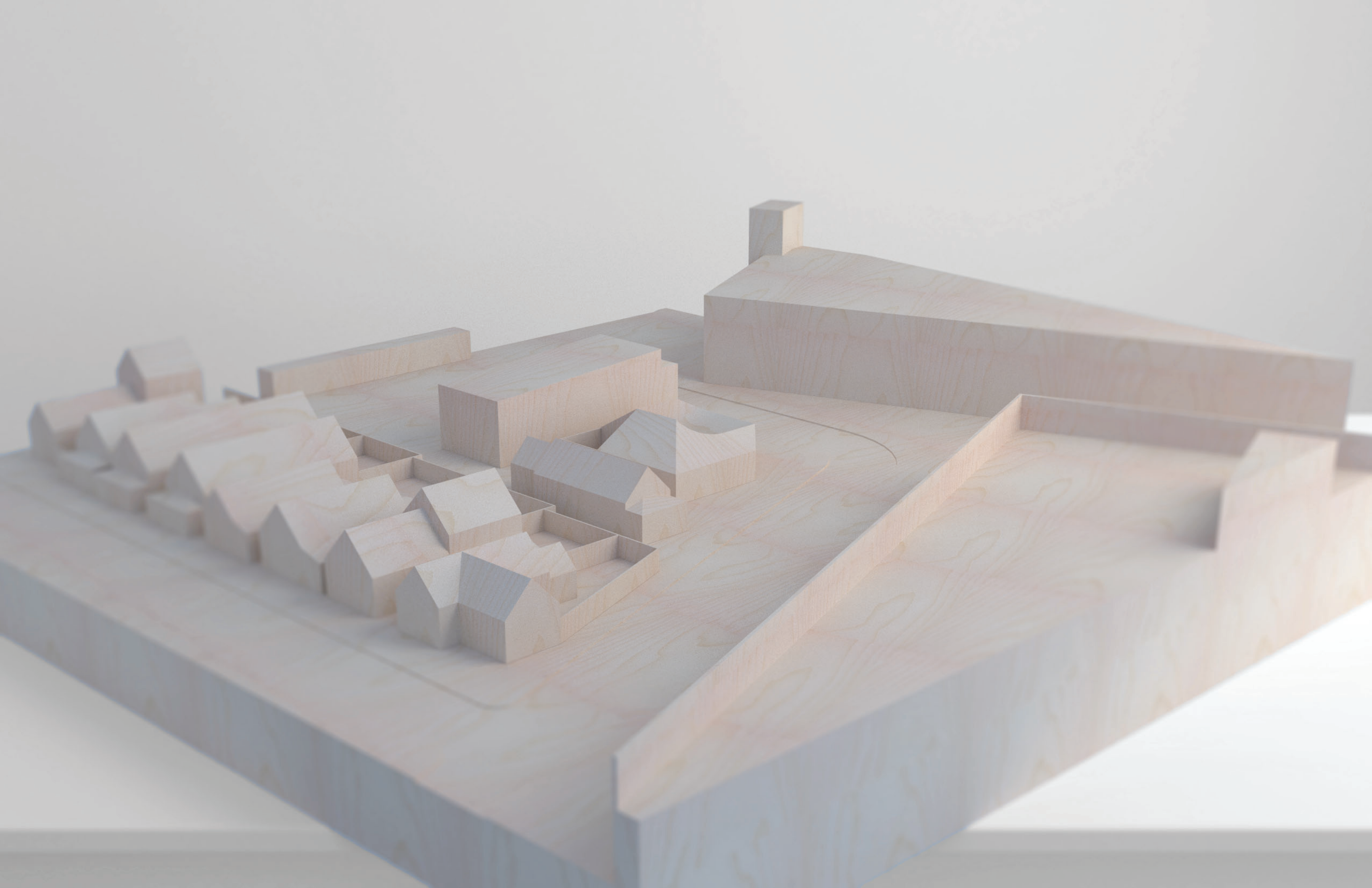








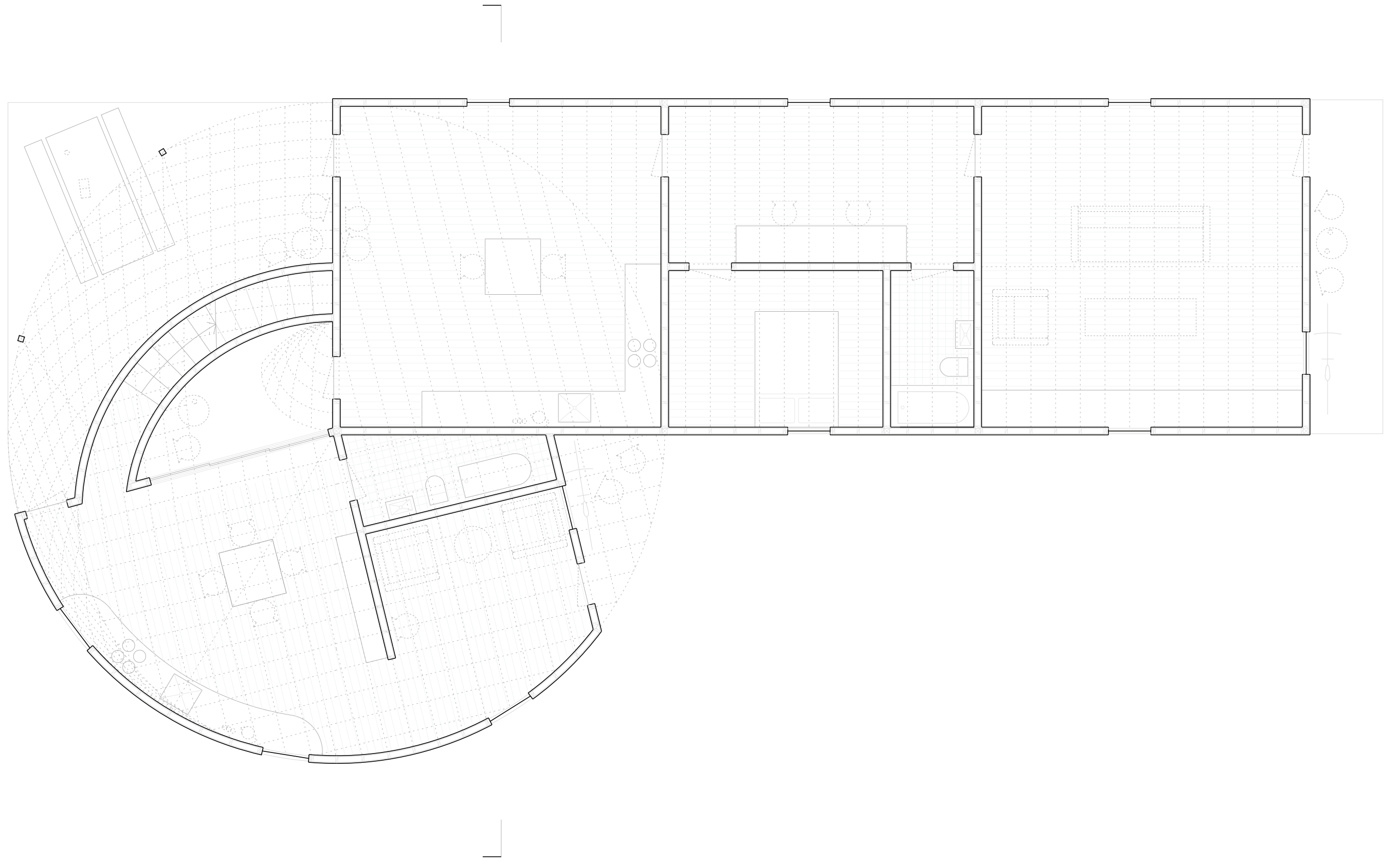


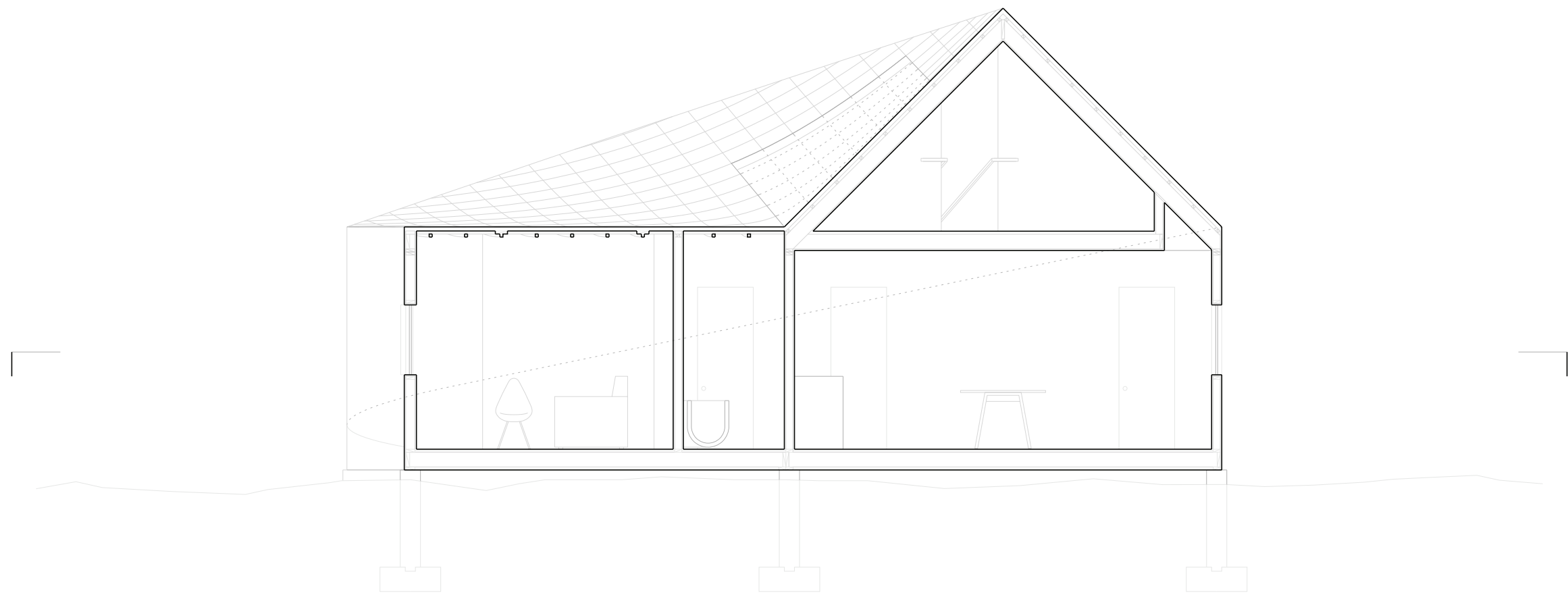


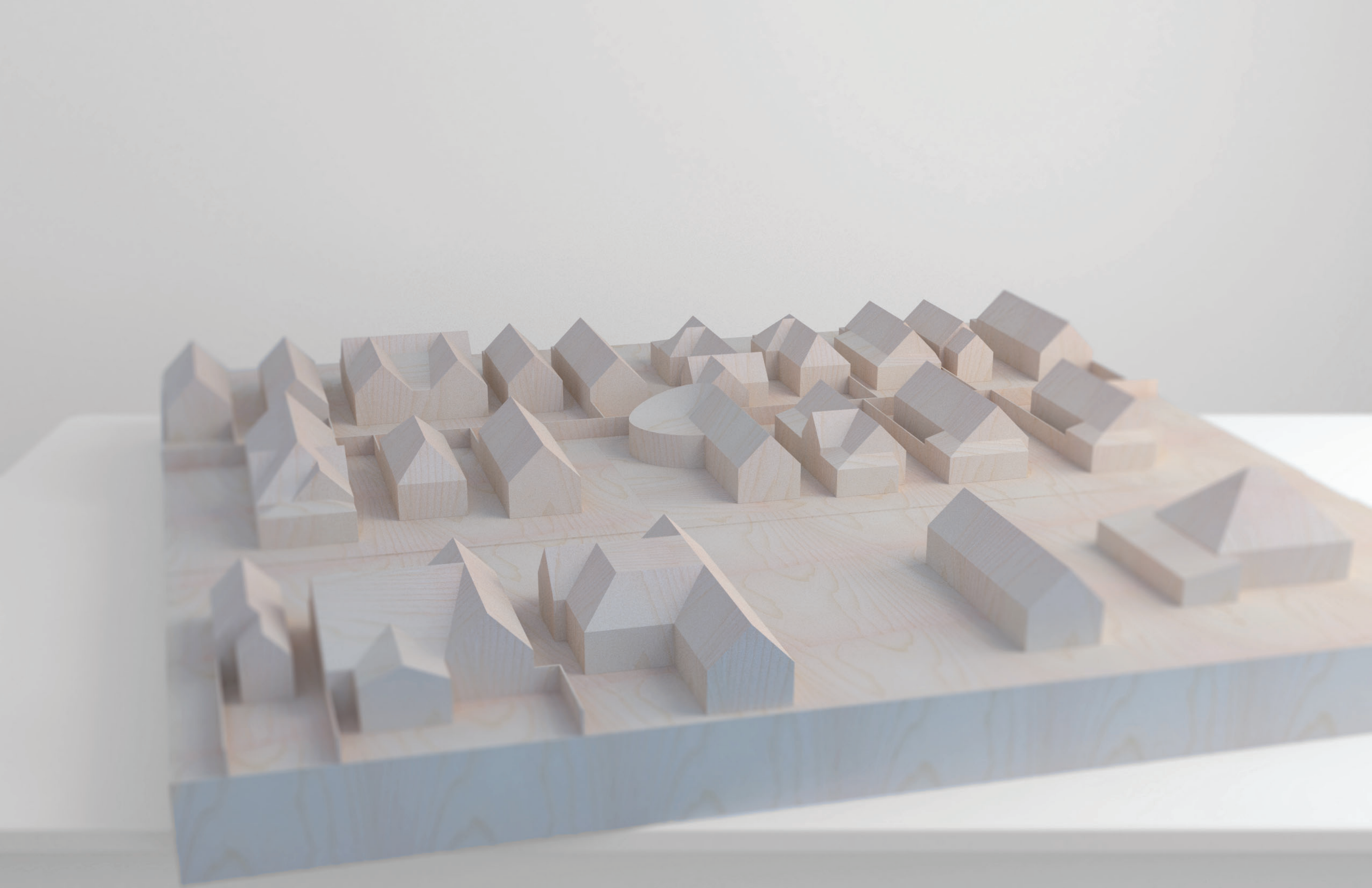


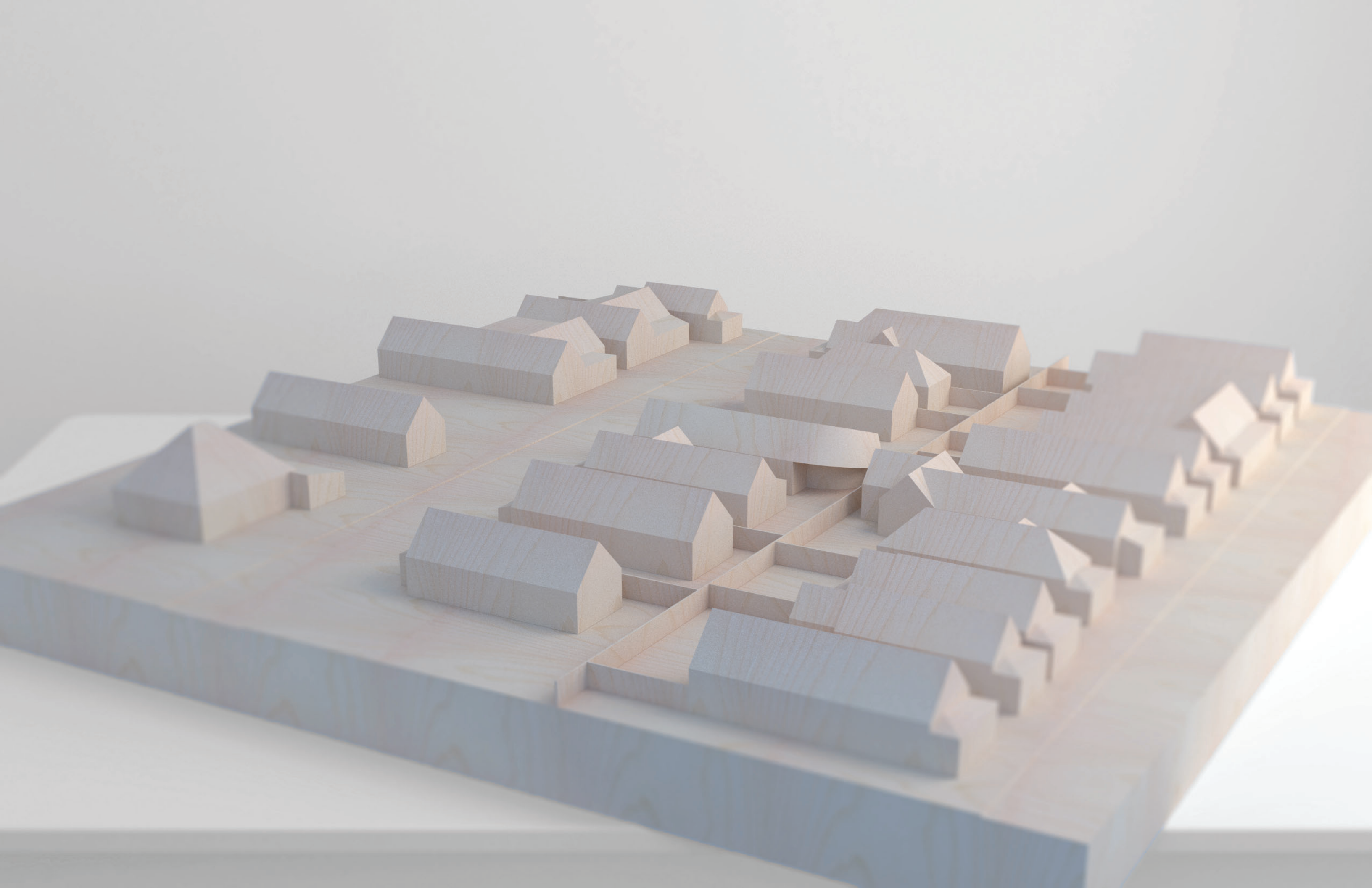




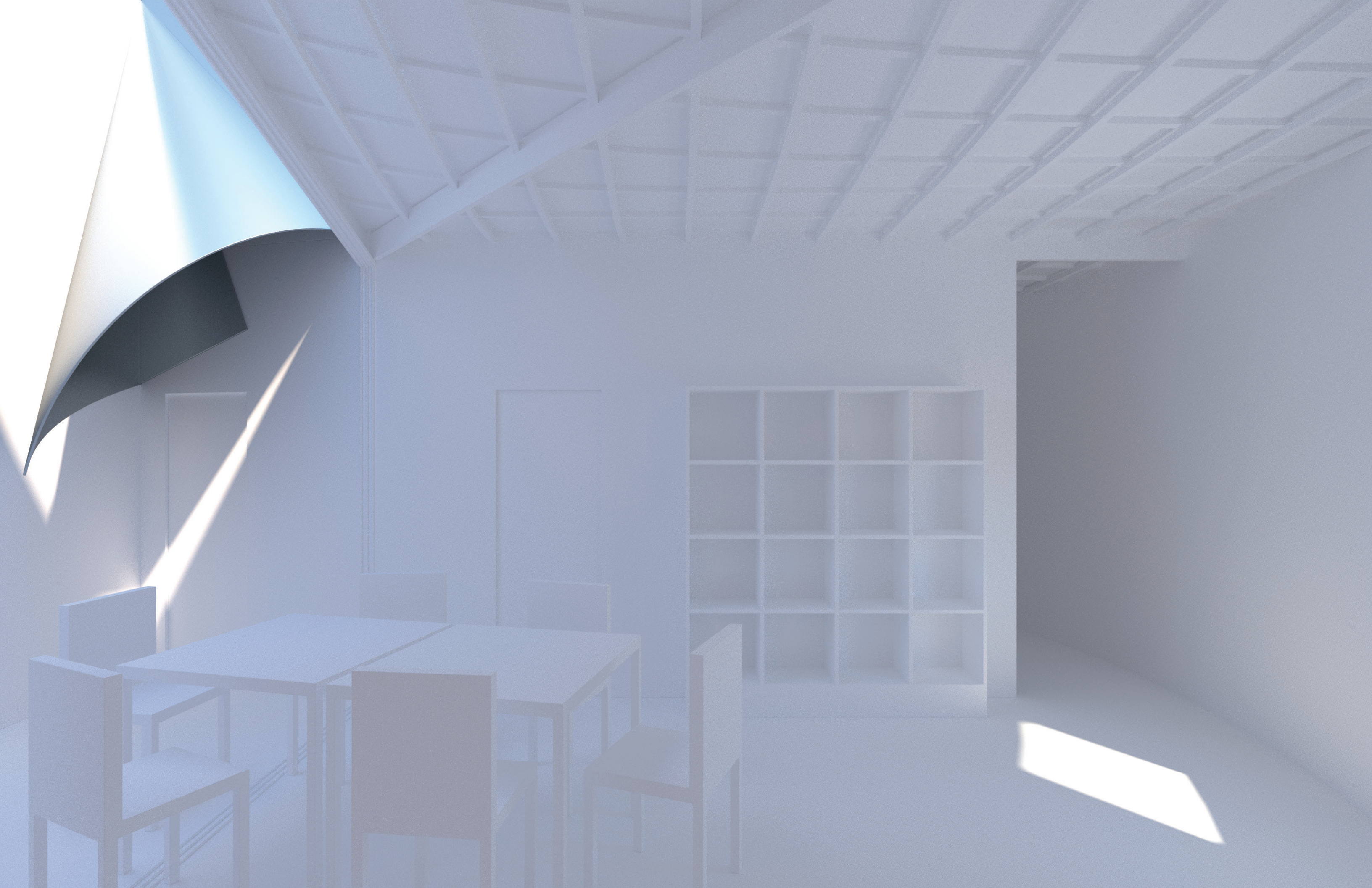


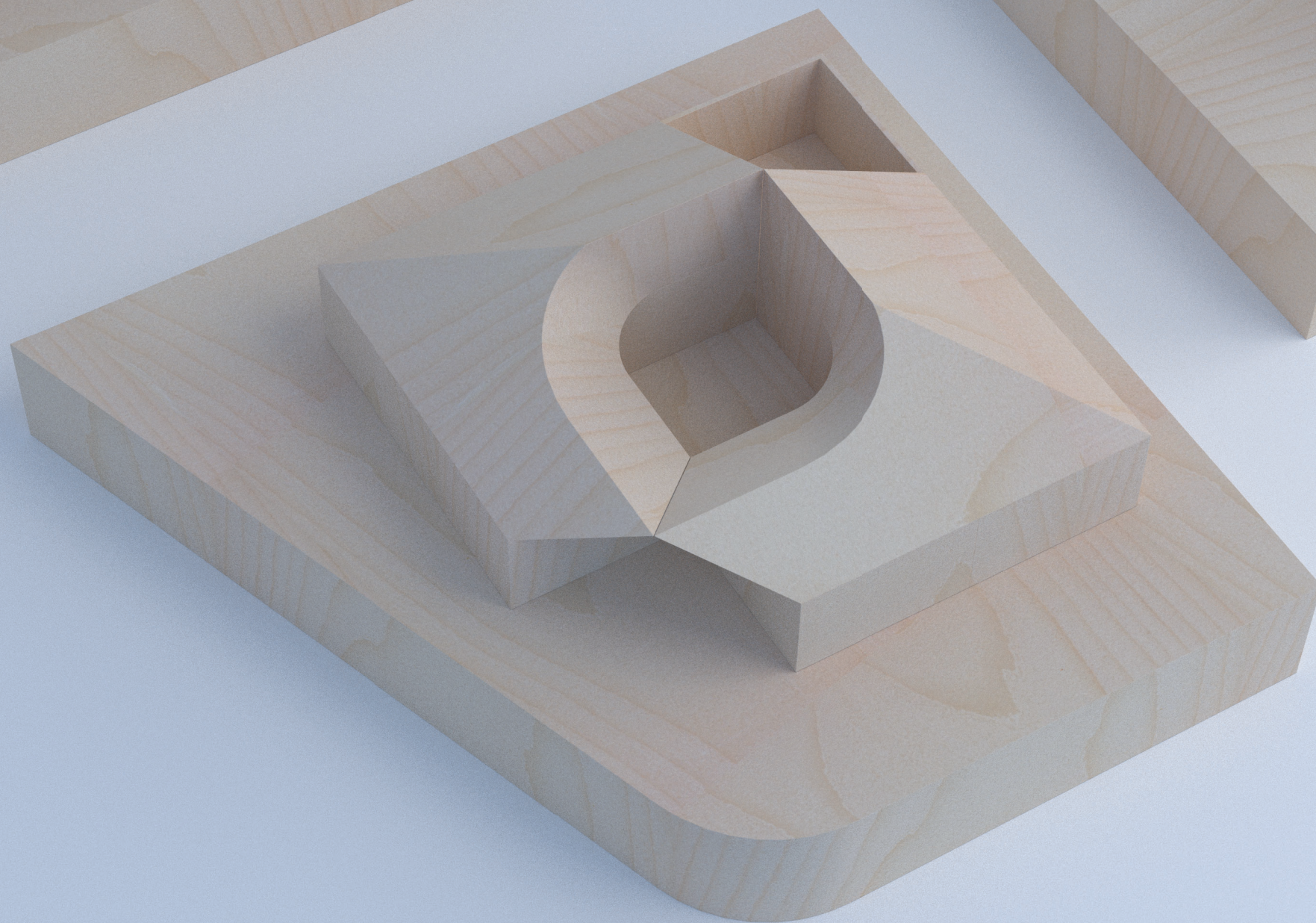
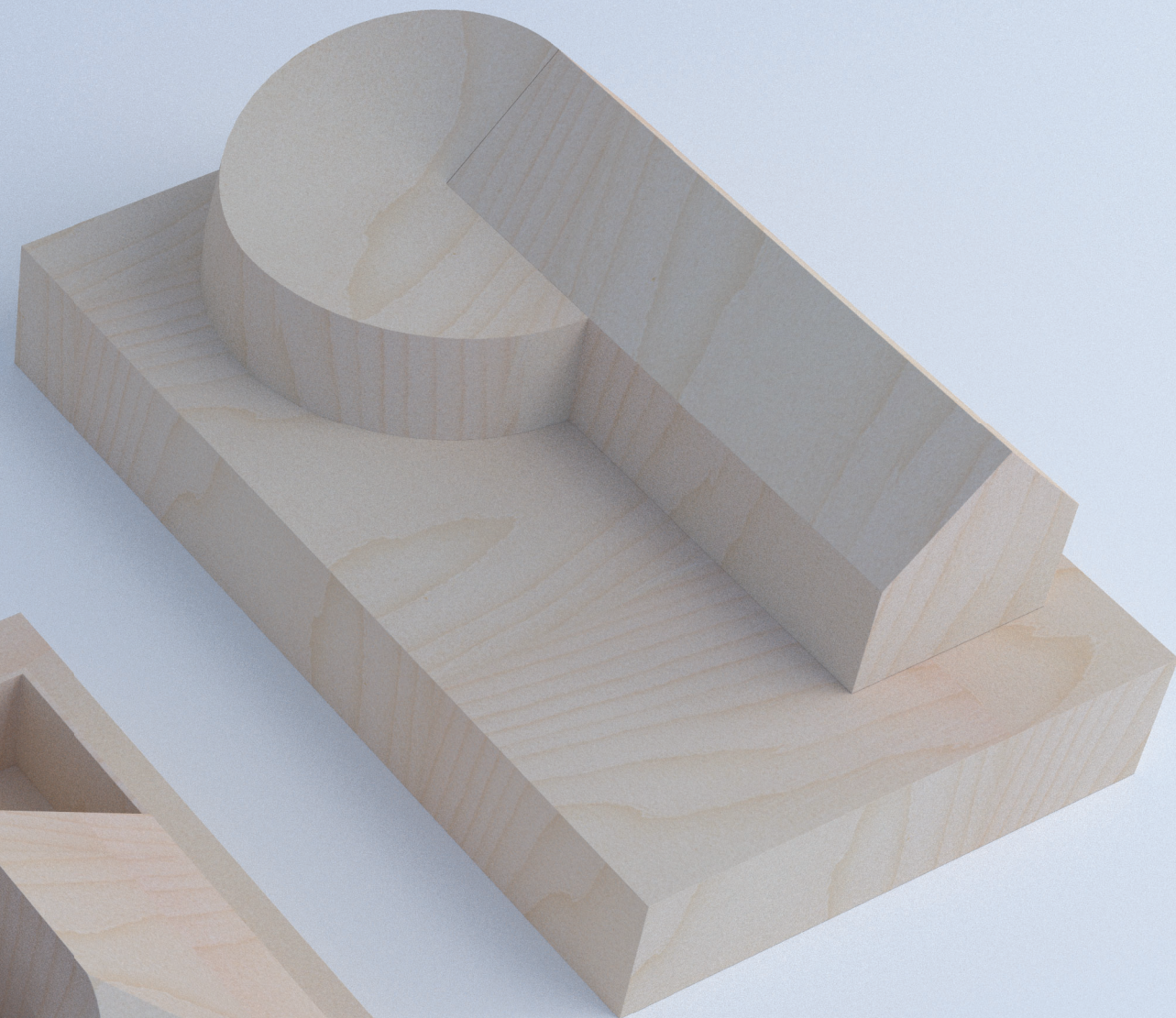
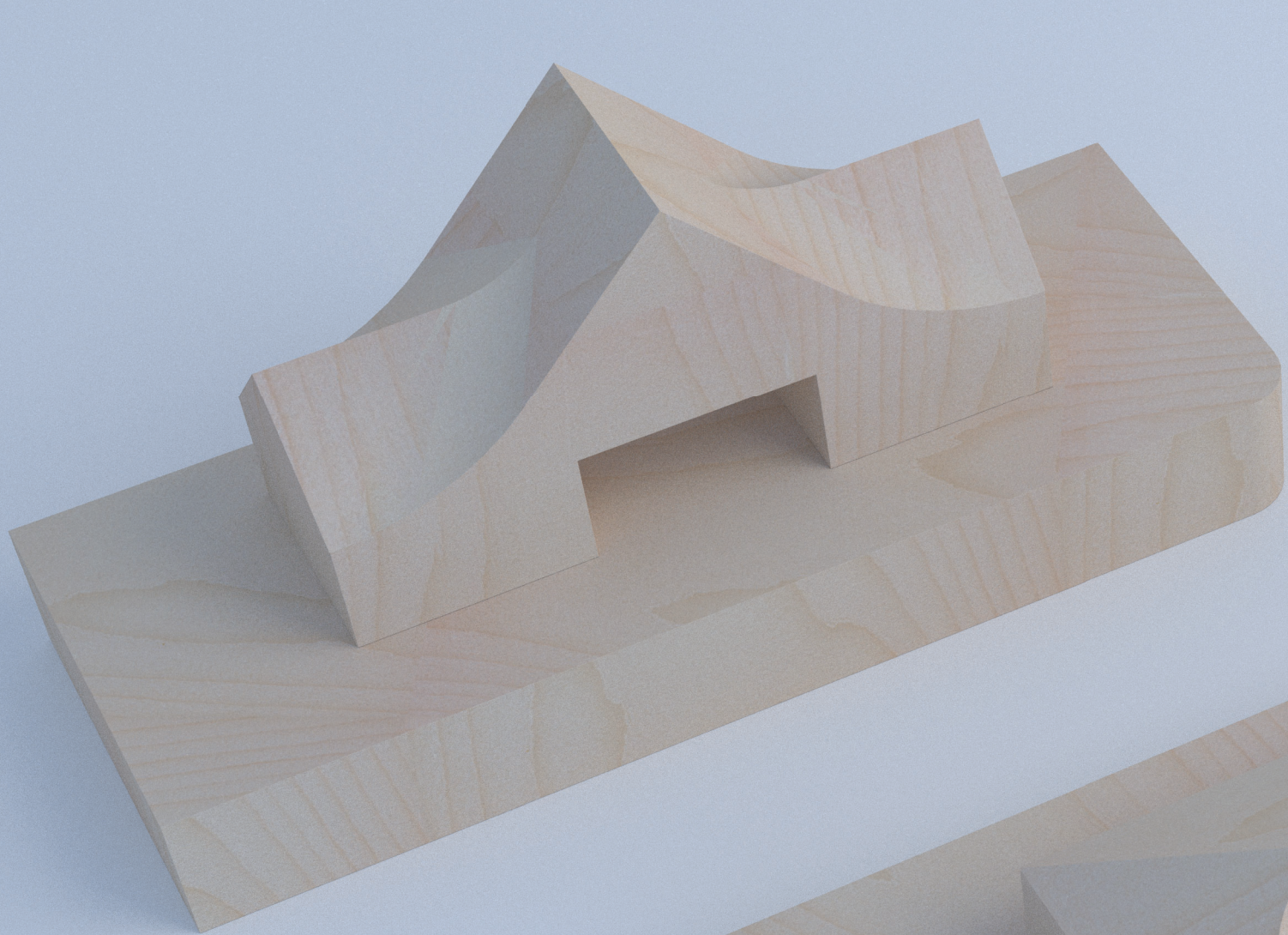


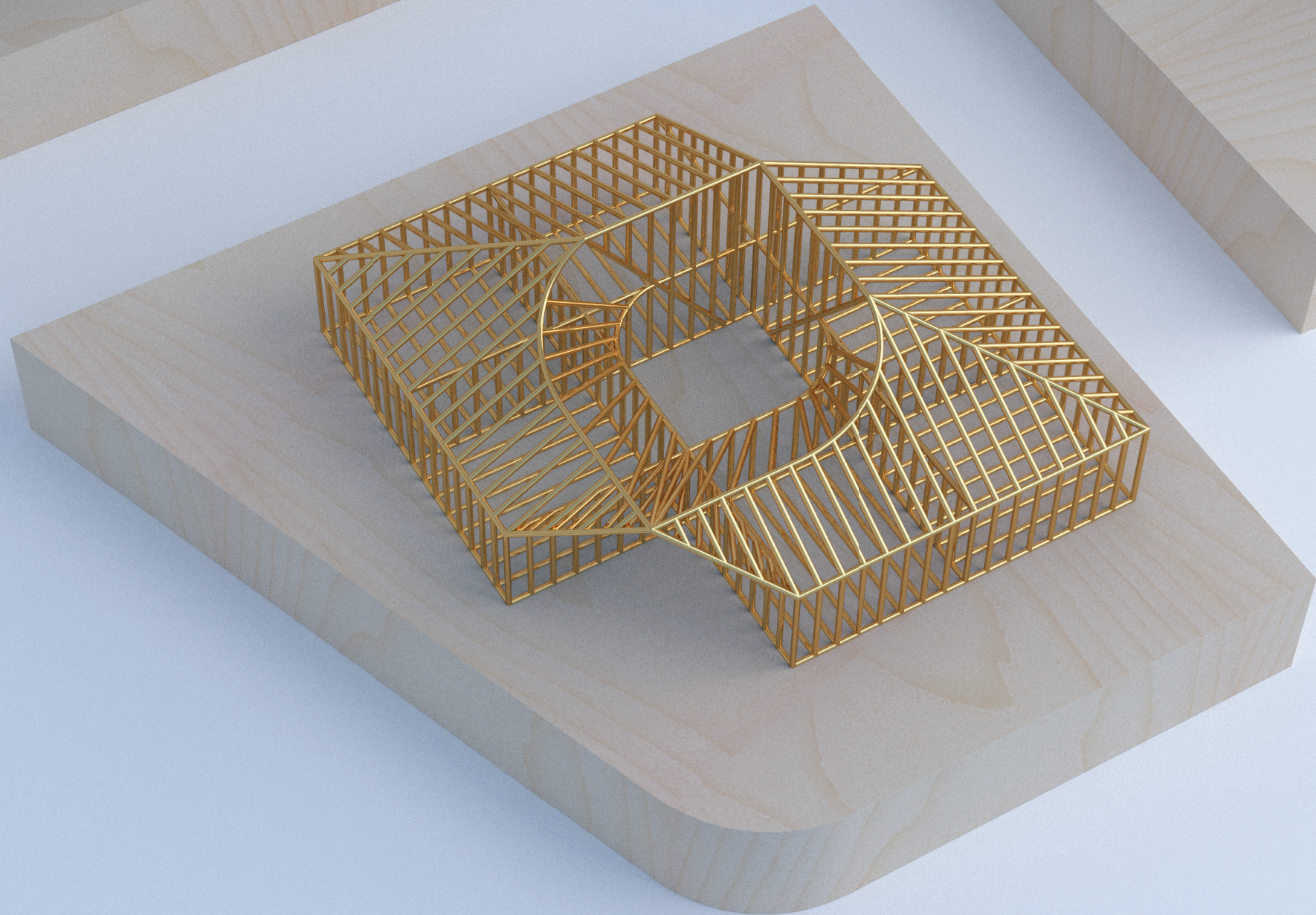
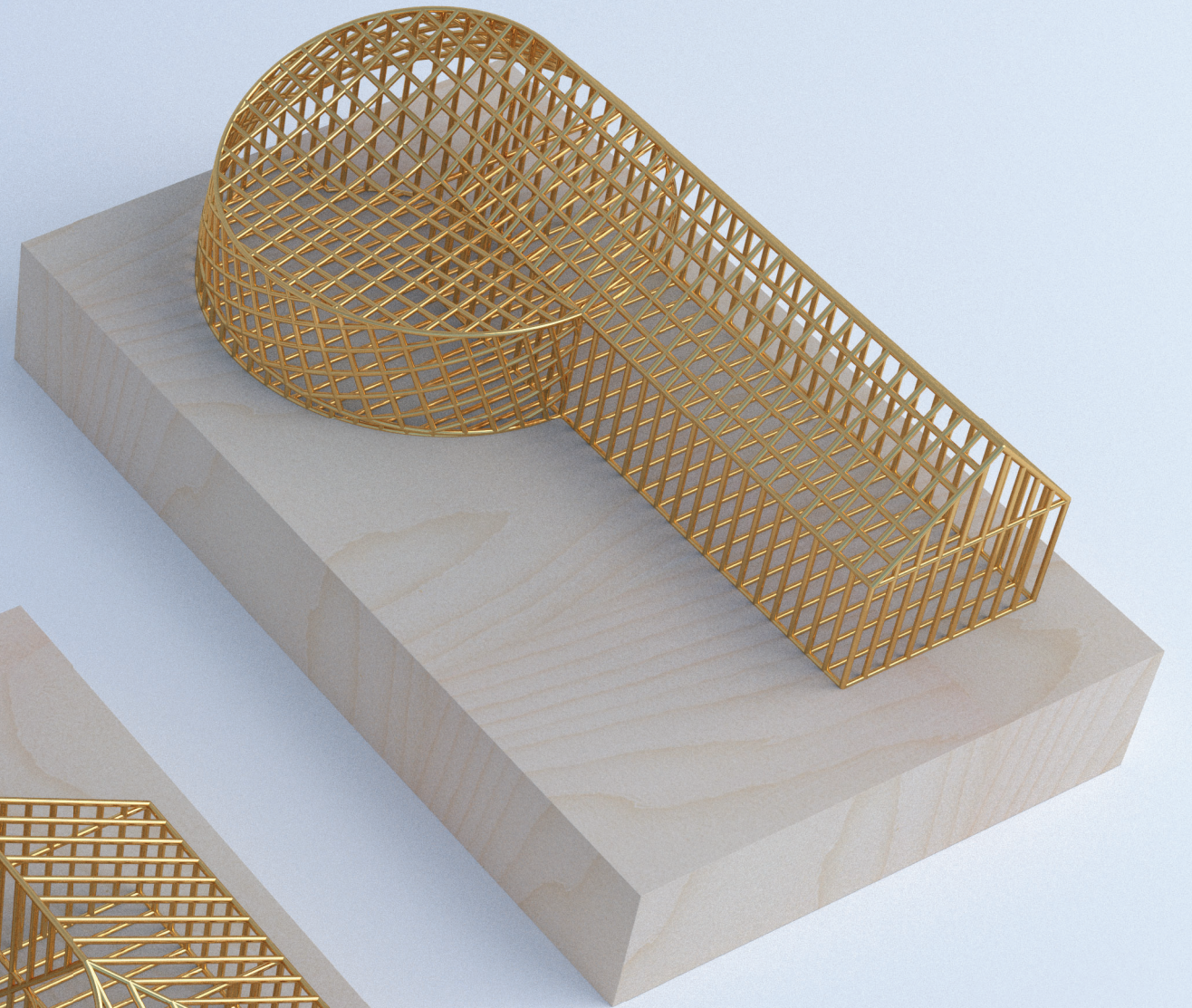
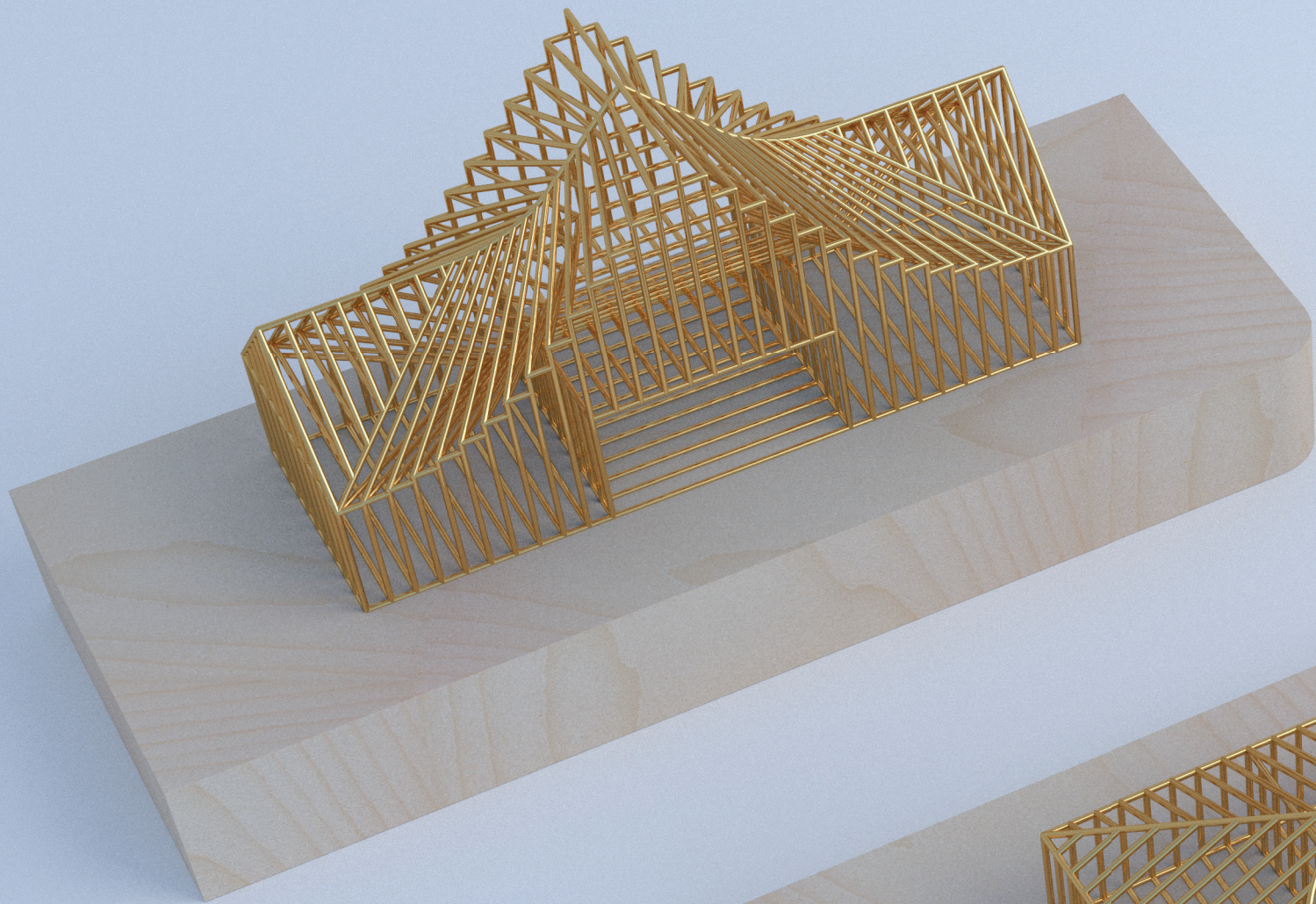












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Spring 2020

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Images of wood framing take from US Pavilion at the 17th International Architecture Exhibition la Biennale di Venezia. American Framing. Accessed May 13, 2021.
<http://americanframing.org/>.

Quote on confluence take from an essay by Nader Tehrani. Tehrani, Nader. 2020. Probable Architectures of Improbable Reason. <http://www.nadaaa.com/blog/nader-on-confluence-in-the-work-of-eladio-dieste/>

Labor: