

APEX



EXPRESSION BEYOND THE MUSIC

SABINA CLODGO

Apex is an accessory designed to modernize the artistry of carrying the violin for passionate performers. It is informed by the intersection of fashion and material technology for a more tailored wearing experience.

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Musicians in urban environments traverse the city with their violin case on a daily basis. As such a frequently worn accessory, the case should be an extension of their personal style.

1680



mid 1700s



Present



Loss of expressiveness over time



GEWA Standard

- Fiberglass exterior scratches easily
- Tips backwards when held by side handle



BAM Classic 3

- Exterior shoulder rest compartment
- Canvas and leather exterior lining



Mustafia Enigma

- Inaccurate and unnecessary hygrometer
- Outdated style

LATCHES TO SECURE
BOWS

FOAM BUFFER

FOAM SUSPENSION FOR
THE BODY OF THE VIOLIN

STORAGE

STRAP CONNECTION
POINT

VELCRO STRAP
SECURING VIOLIN NECK

METAL LATCH
CLOSURE

HARD SIDE HANDLE





If you are carrying an instrument right now,

tell me about your case in this brief survey:



SABINA CLODGO
PARSONS PRODUCT DESIGN
CAPSTONE 2024

If given the chance, what would you wish to improve about your case's functionality:

"None of the cases I've had were balanced properly in the handle which is a big problem. The cases always tip forwards or backwards"

"The straps often twist around and the upper ends"

"It's clanky when I walk. (when your product is designed pls advertise bc I WILL buy it)"

"If I was flying with the case I would want something that was smaller and still had room for my shoulder rest"

"Doesn't regulate temperature as well as Musafia but really great for travel"

"The buckles are not always the easiest to open and I know of people with the same case whose buckles have broken."

What are the aesthetic reasons for which you chose your instrument case:

“Looks matter in this industry”

“It’s simple and slender”

“It needs to be pretty! And I don’t like it to clash with what I might be wearing”

“It is not the typical black case. It sort of looks like a saxophone case. I like how it is minimalist”

“Red case stands out in a pile of cases so it’s easier to find in a group of musicians”

“Funny & unique”

“Solid in appearance”

If given the chance, what would you wish to improve about your case’s appearance:

“More avant garde”

“I would’ve gotten it in a different color if they offered it”

“It’s really battered. Also I like the fun colored ones other people have”

“The scratches on it :(”

“it looks too plasticky”

“I would like it to be more fun, like not too busy but relatively expressive of myself”

“I would like to have more options of cases with a subtle pattern on the outside”



Although the survey's respondents described their personal styles as “modern, colorful, eclectic, casual, timeless”, 63% of them reported having a black case.



“You have to have it sealed up since airplane travel is super dry. Usually we recommend that if you're traveling overseas, to let it acclimate before you open it. Like on cold days we say to give it a few minutes to warm up, you don't want to shock it going from 20 degrees outside to room temperature around 68.”

- John Becker of John K. Becker & Co. Experts in Rare Stringed Instrument Restoration



JOHN K. BECKER & CO.
LUTHIER & RESTORATION STUDIO



1611 GUARNERI VIOLIN
ORIGIN: CREMONA, ITALY



EARLY 1800S VIOLIN CASE
ORIGIN: UNKNOWN



“You always pick your case separately when buying a violin, even if it comes with a standard one. It’s like shopping for handbags.”

- Elise Dalleska, Professional Violinist

Looking to fashion for innovative uses of material:



Prada's elevated use of regenerated nylon



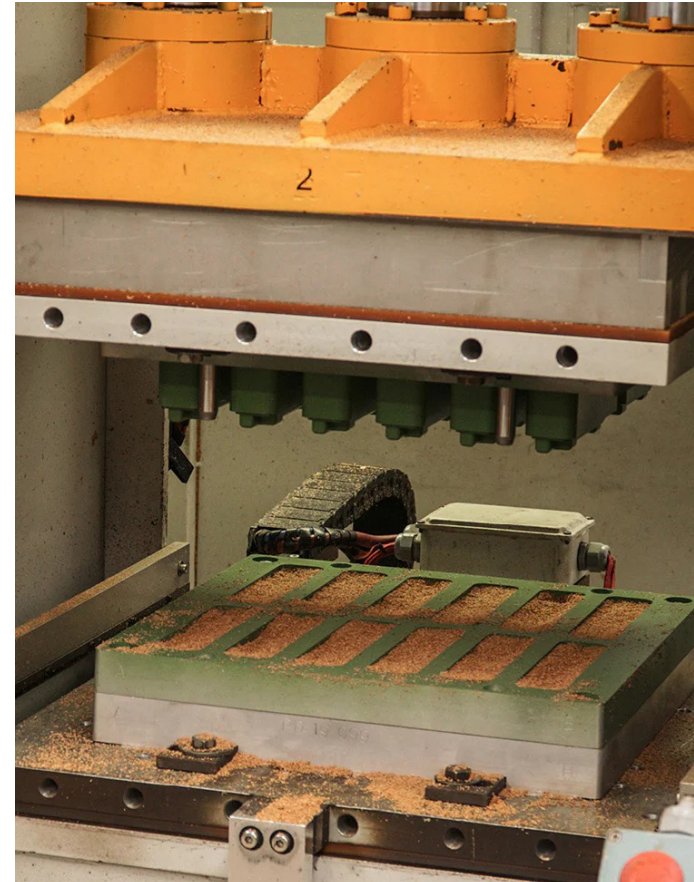
Freitag's use of discarded truck tarps for uniqueness and customizability

CORK CNC



- Zero waste

CORK MOLDING

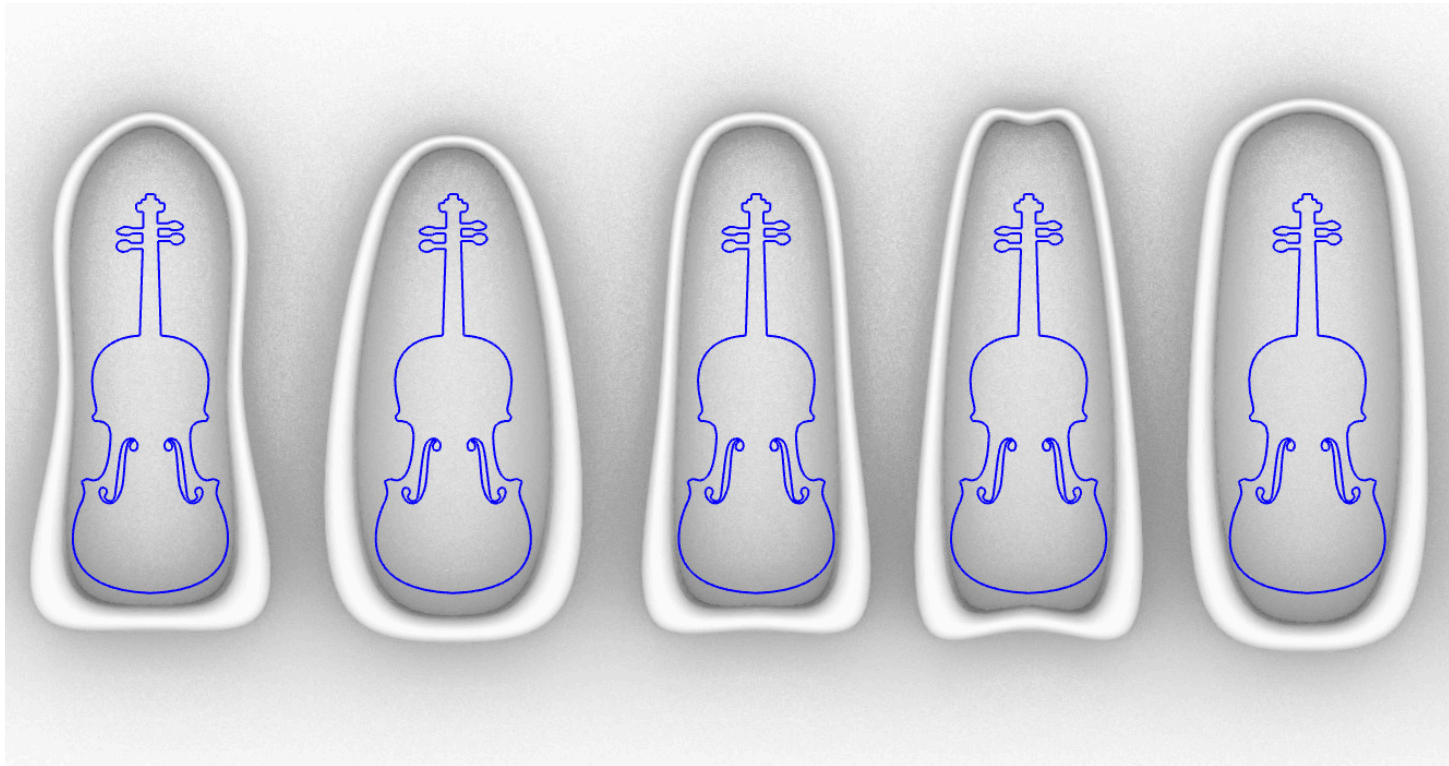
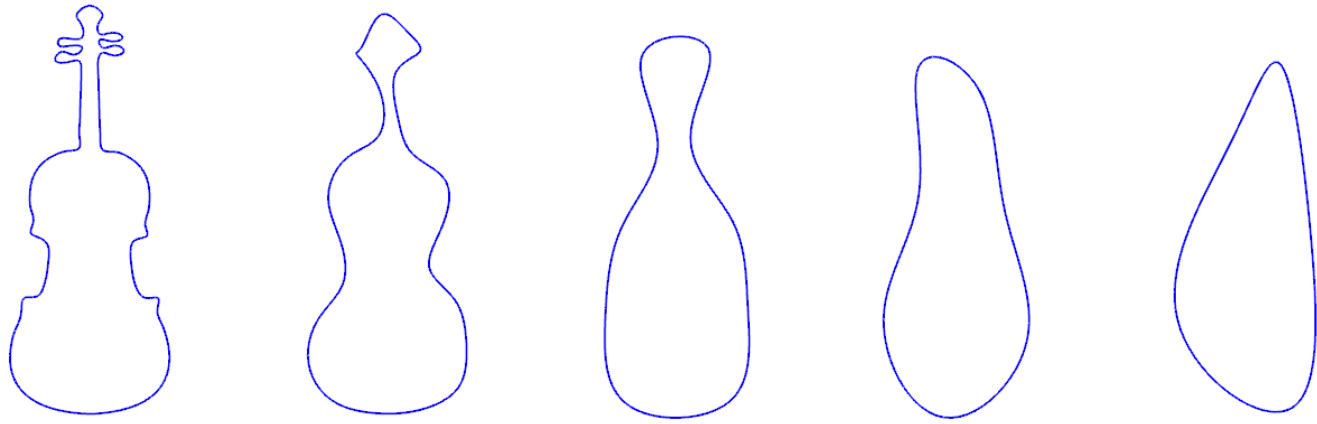


- Zero waste
- Faster
- More cost effective

Analogous methods of transportation for precious cargo:





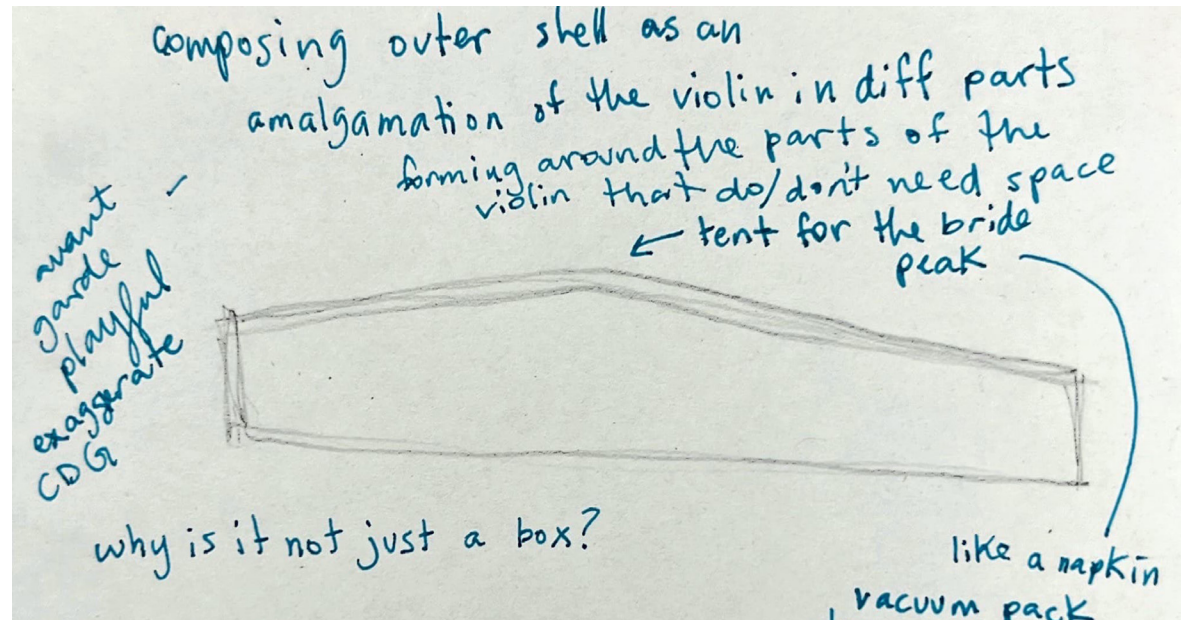
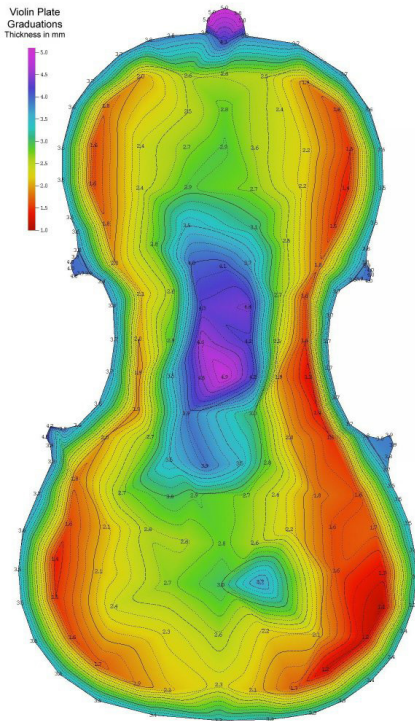




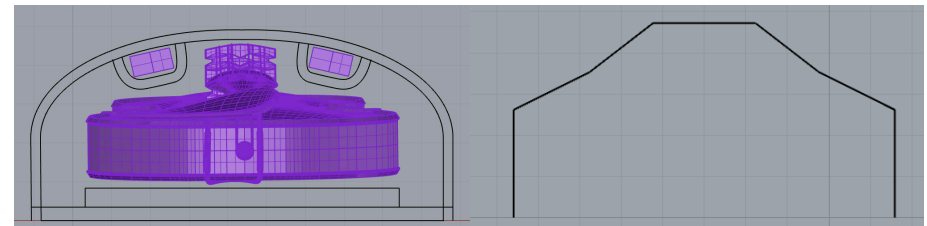
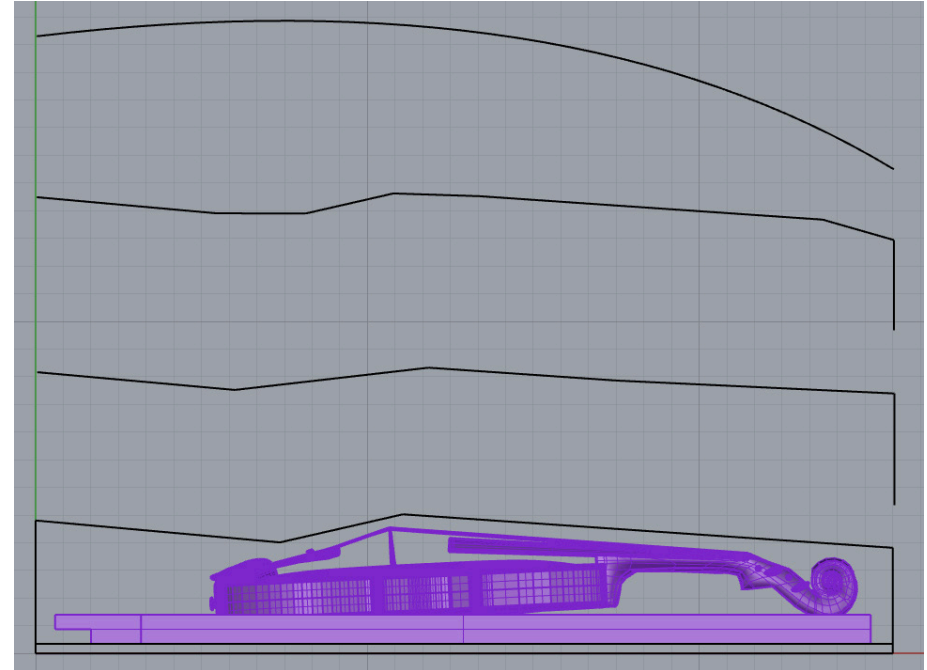
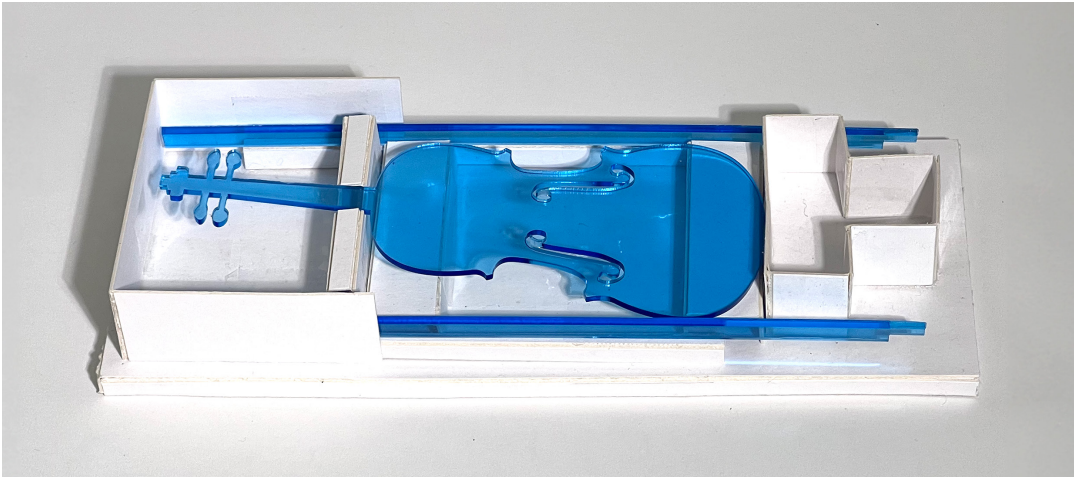
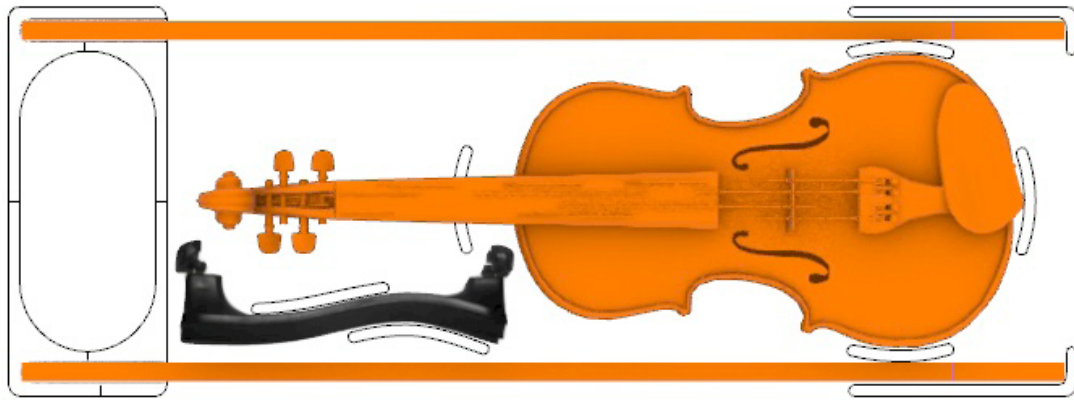
A vertically standing case to be displayed in the home when not in use.



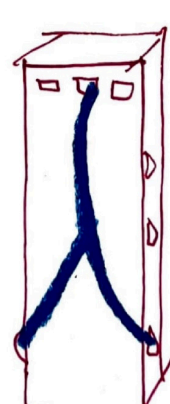
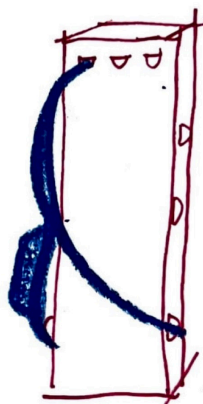
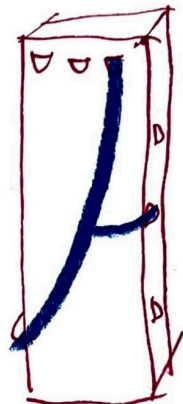
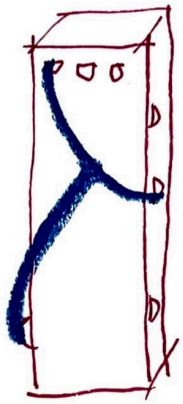
Integration of thermochromic fabric to draw attention to temperature fluctuation in the case's surroundings.

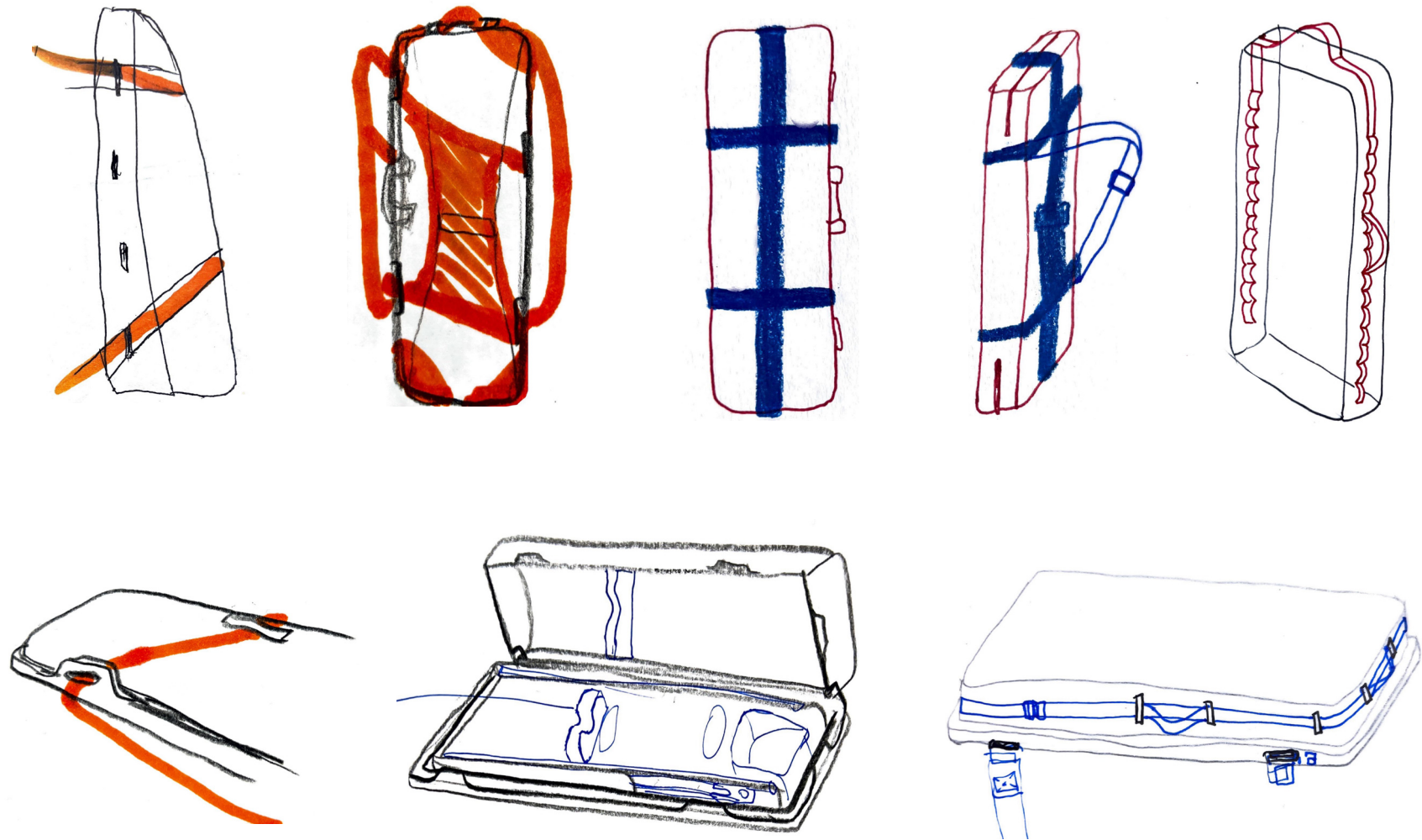


Studying the thinnest and weakest points of the violin's body as well as the peak of the violin at the bridge.

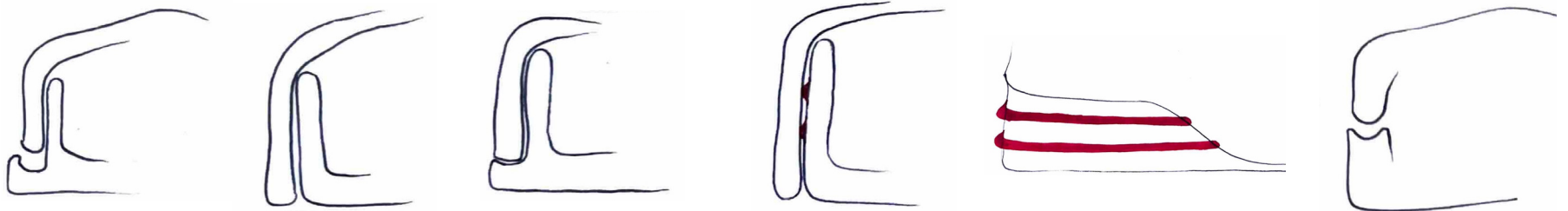
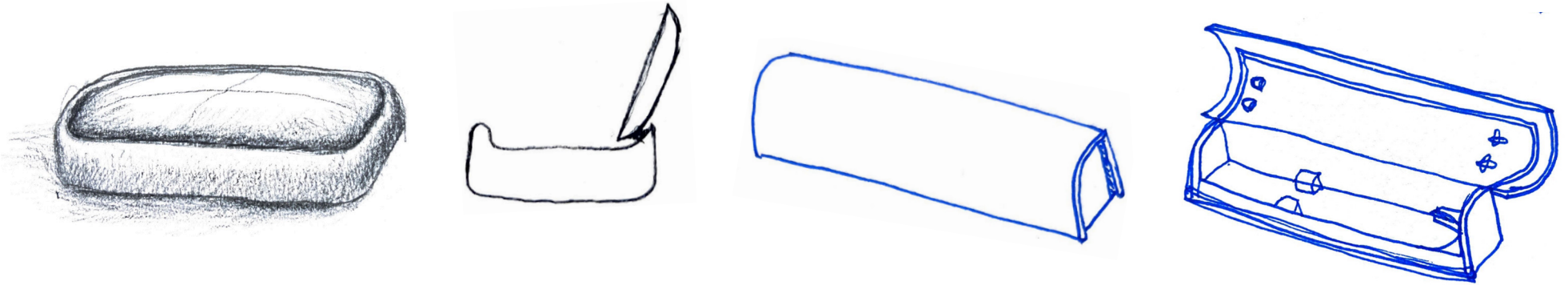


Testing how different interior configurations affect the exterior form.

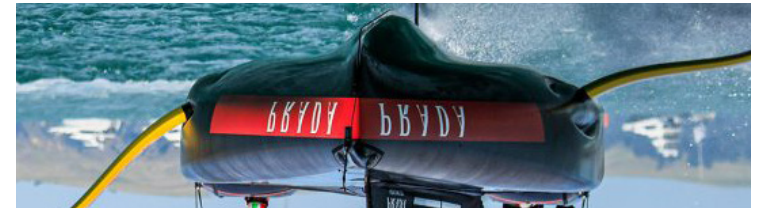
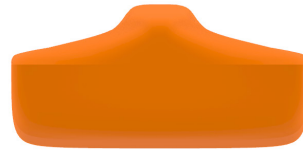




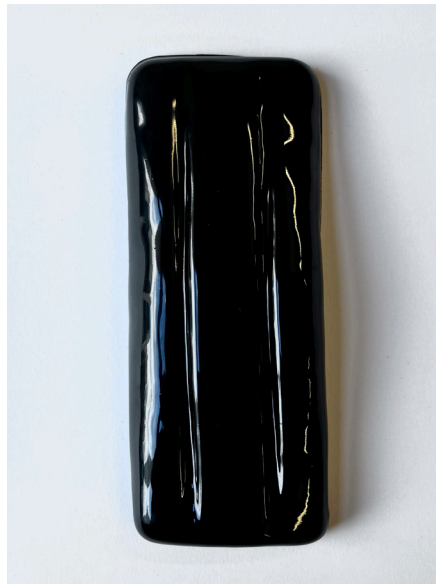
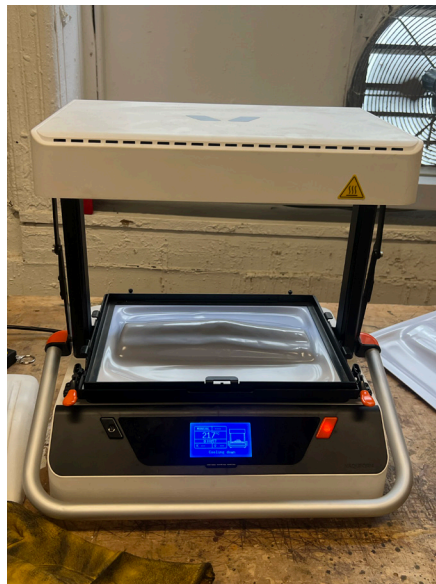
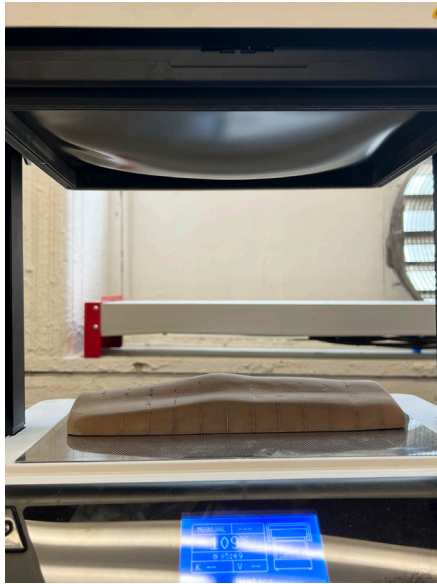
Integrating a system of variable straps into the form of the case.



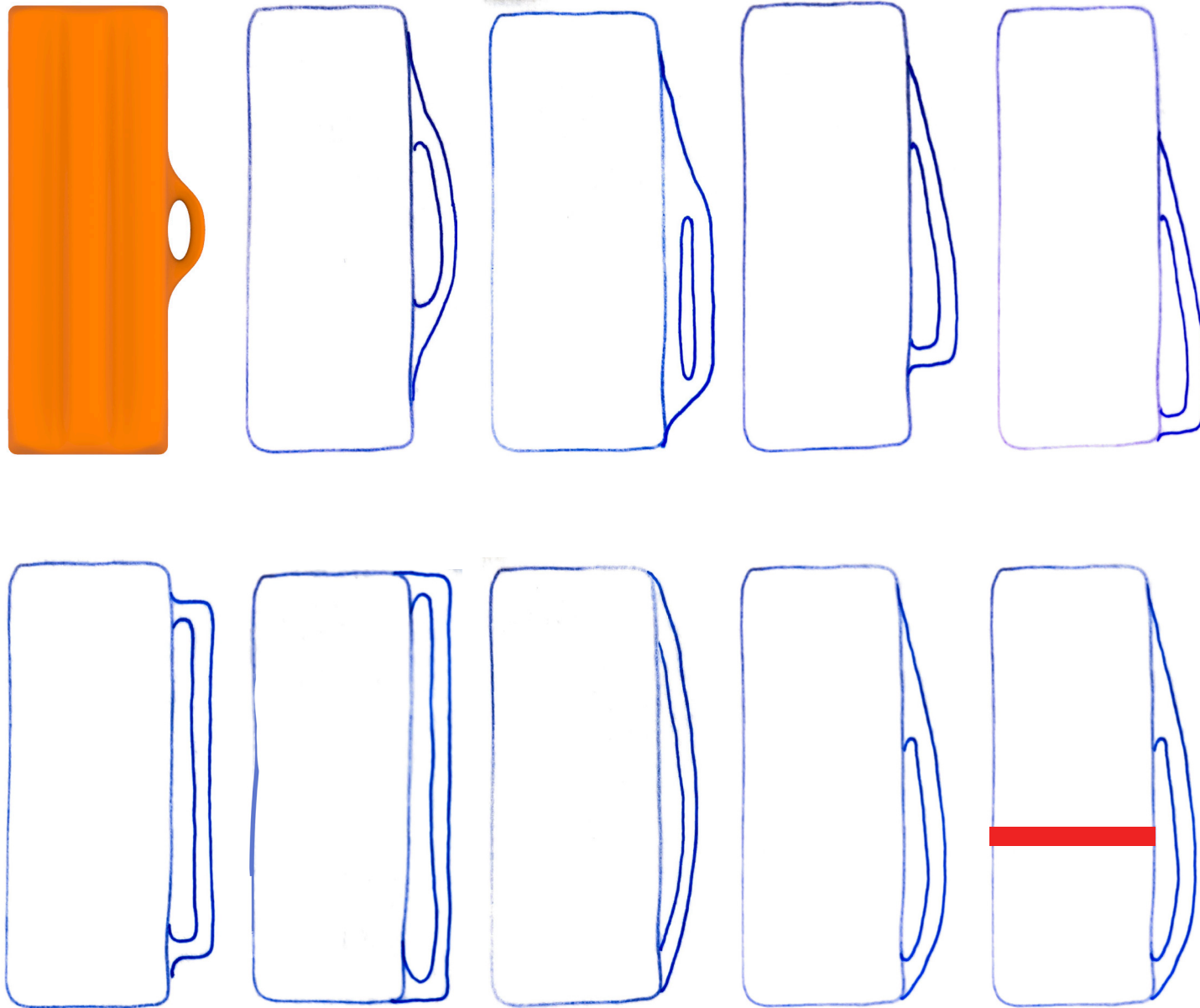
Exploring the overlapping of the top and bottom shell for an airtight seal.



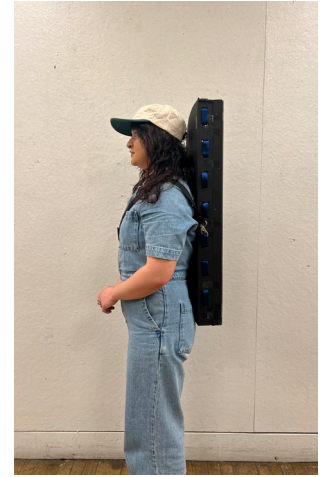
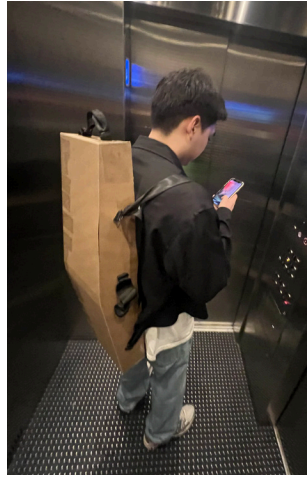
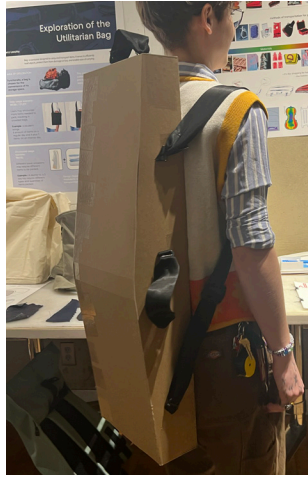
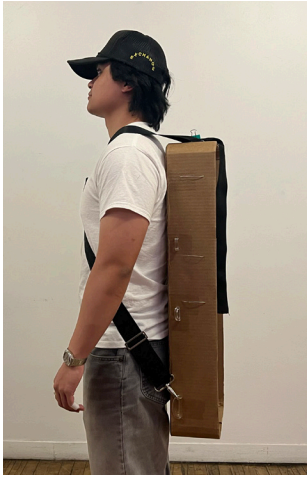
The shell of the case draws on the streamlined form of nautical vessels.



Using vacuum forming as a method of form finding at 1:3 scale.



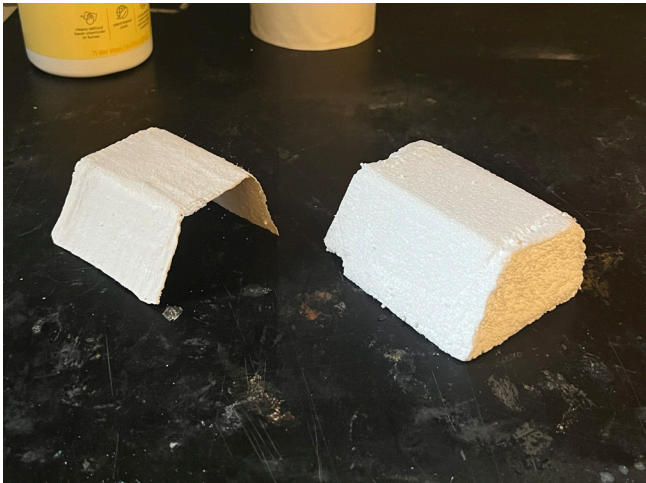
Elongating the side handle to match the grip with the center of gravity.



Testing the ergonomics of the case using weighted models.



Testing the comfort of different side handles.



Testing Aqua Resin with fiberglass reinforcement for outer shell molding.



CNCing both the the interior and exterior shapes in EPS foam and using a foam coating on the exterior for durability.

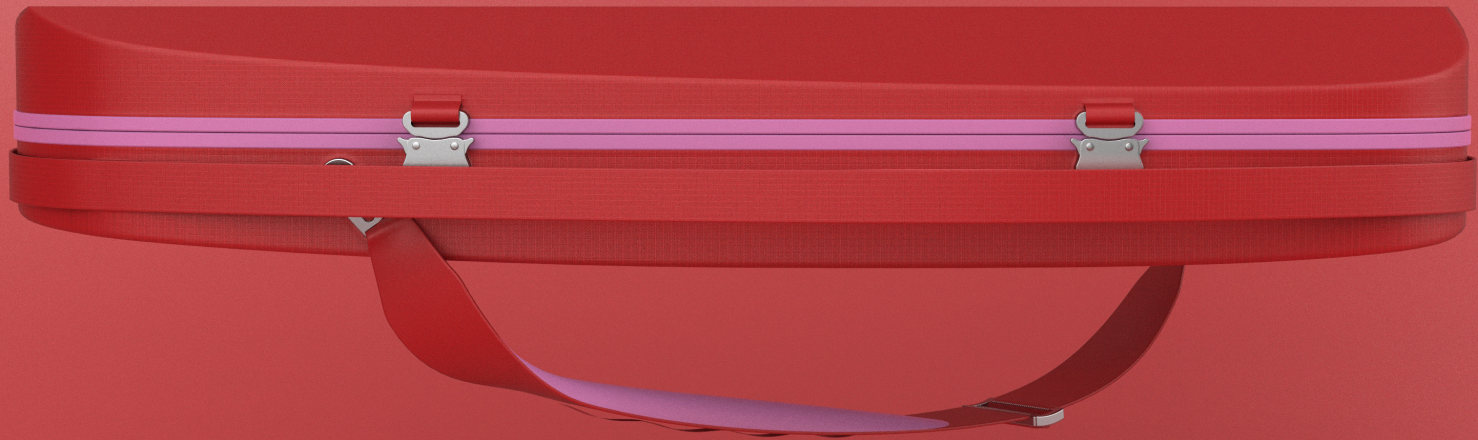


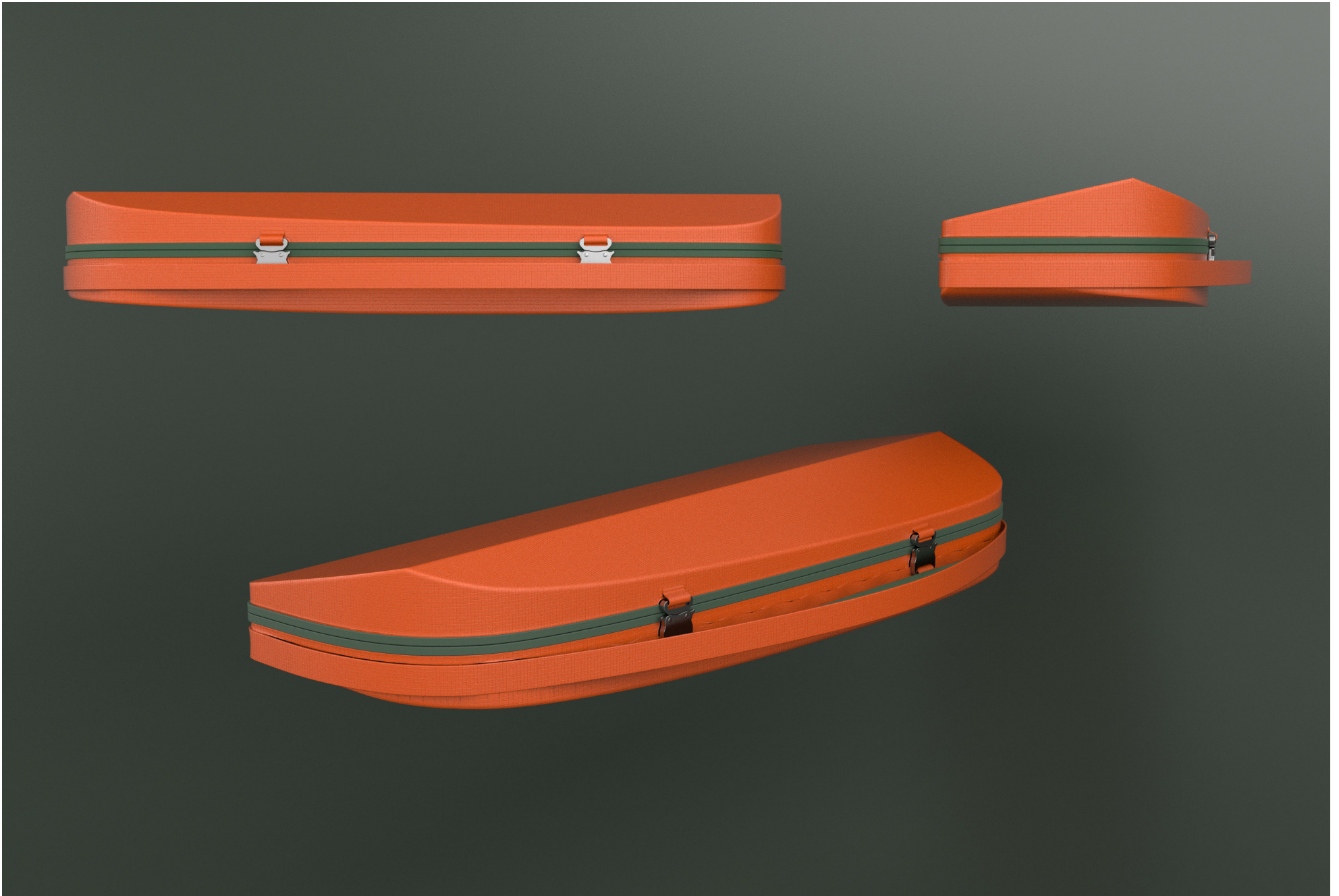
Modeling the interior separately in its intended materiality of cork and in the foam model in the context of the case as a whole.



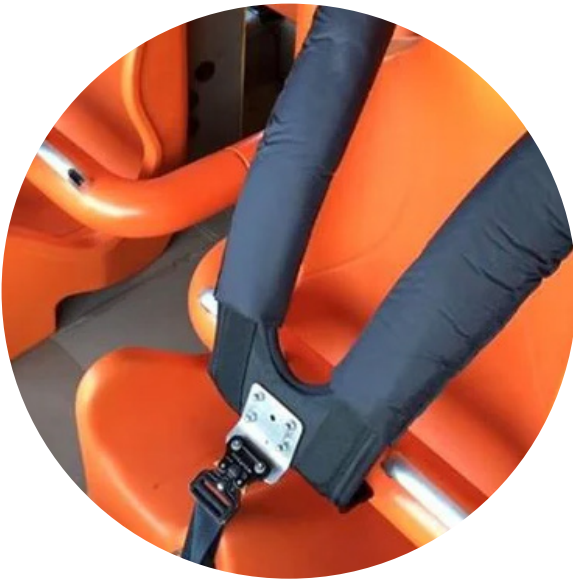




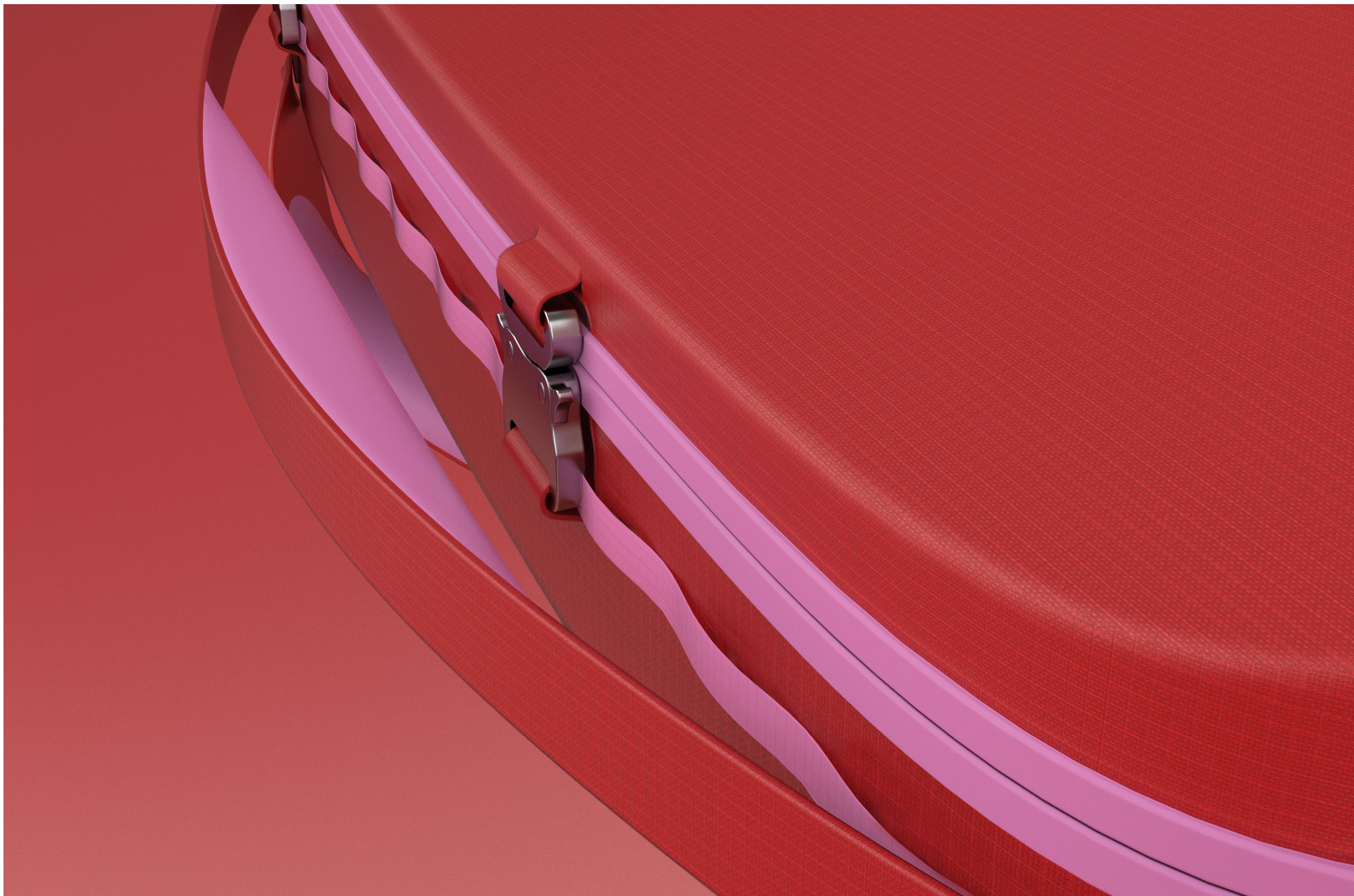




The overall form of the case is recognizable by its sleek and sculptural peak.



The closure hardware on the case is a buckle used in more industrial settings on harnesses that can be found on roller coasters and airplanes. It has recently been translated into the context of fashion notably by the brand Alyx on a range of accessories. Its sculptural quality lends an expressiveness to an otherwise very functional detail of the case.



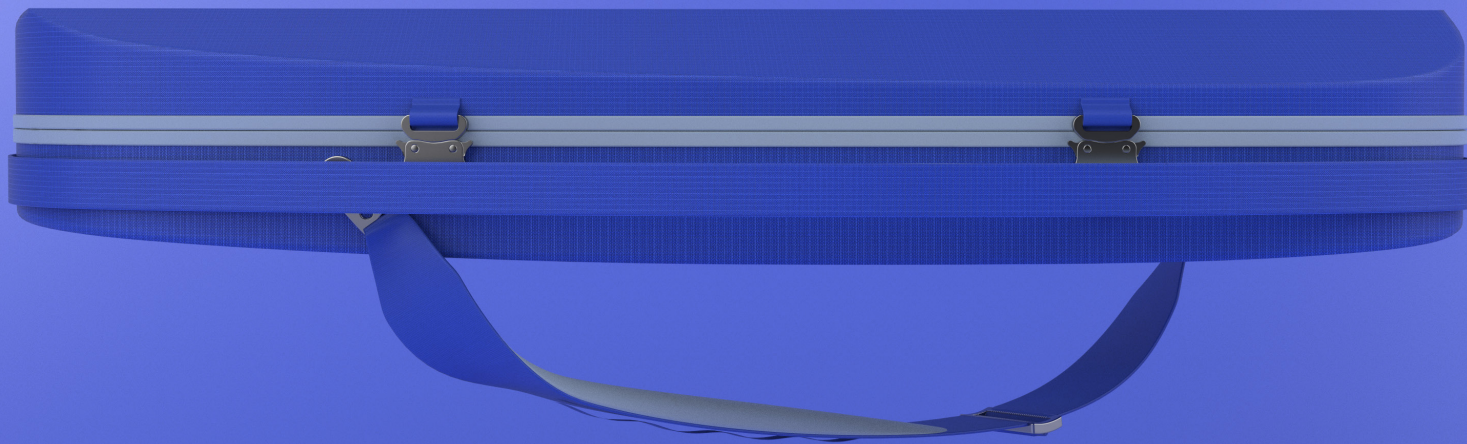
A strip of nylon attachment loops runs around the entire perimeter of the case allowing you to clip the straps on at any point to find the perfect fit.



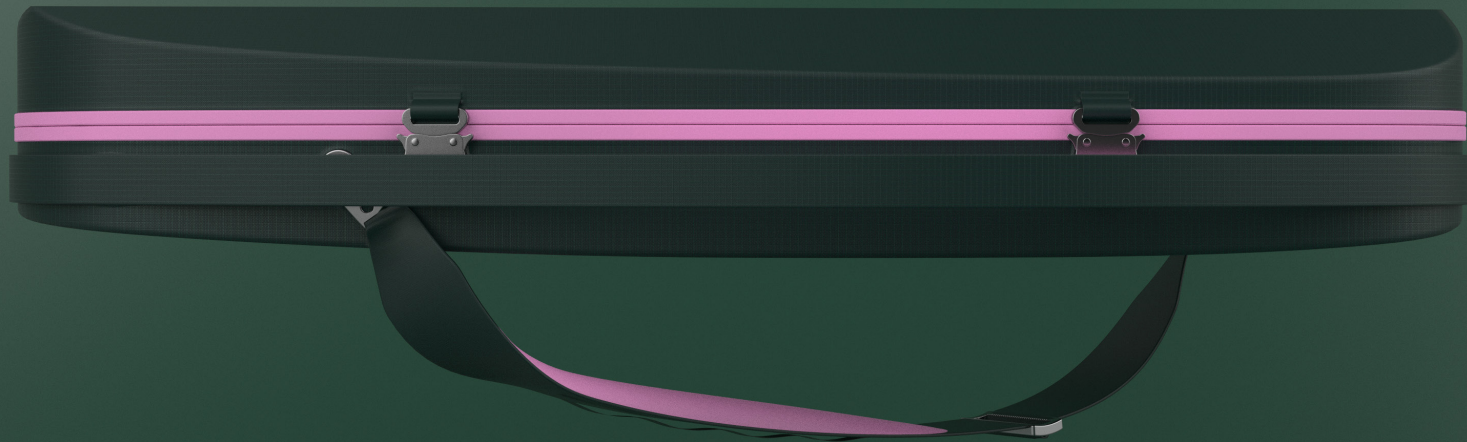
Using the attachment loop system, the two main straps can be configured as a crossbody or a backpack depending on what you might be wearing.

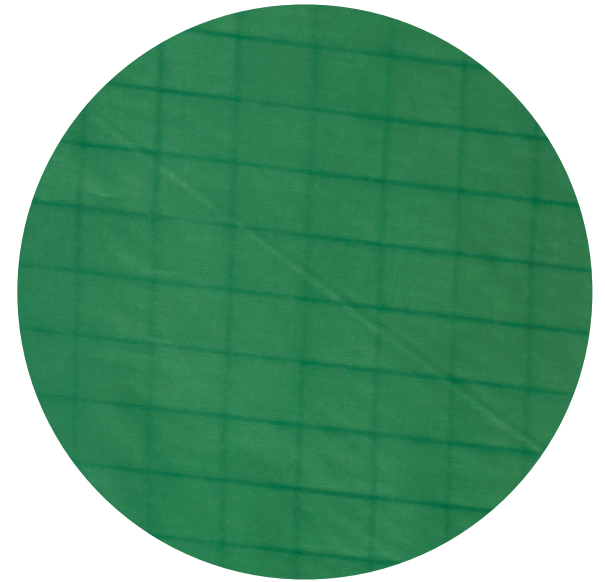
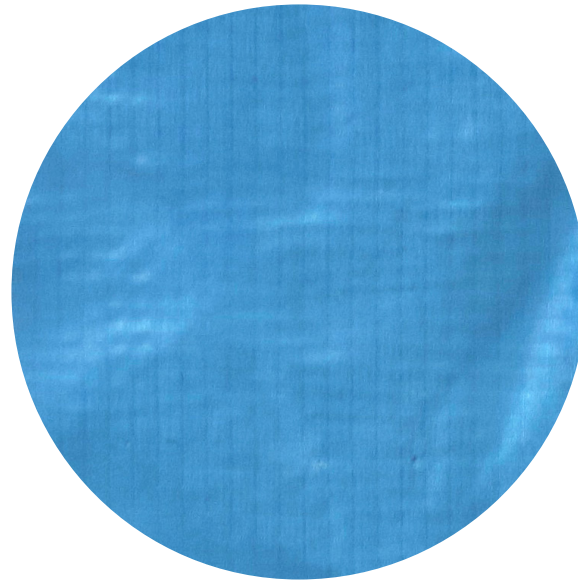


The stabilizer strap can be used to create entirely new configurations.

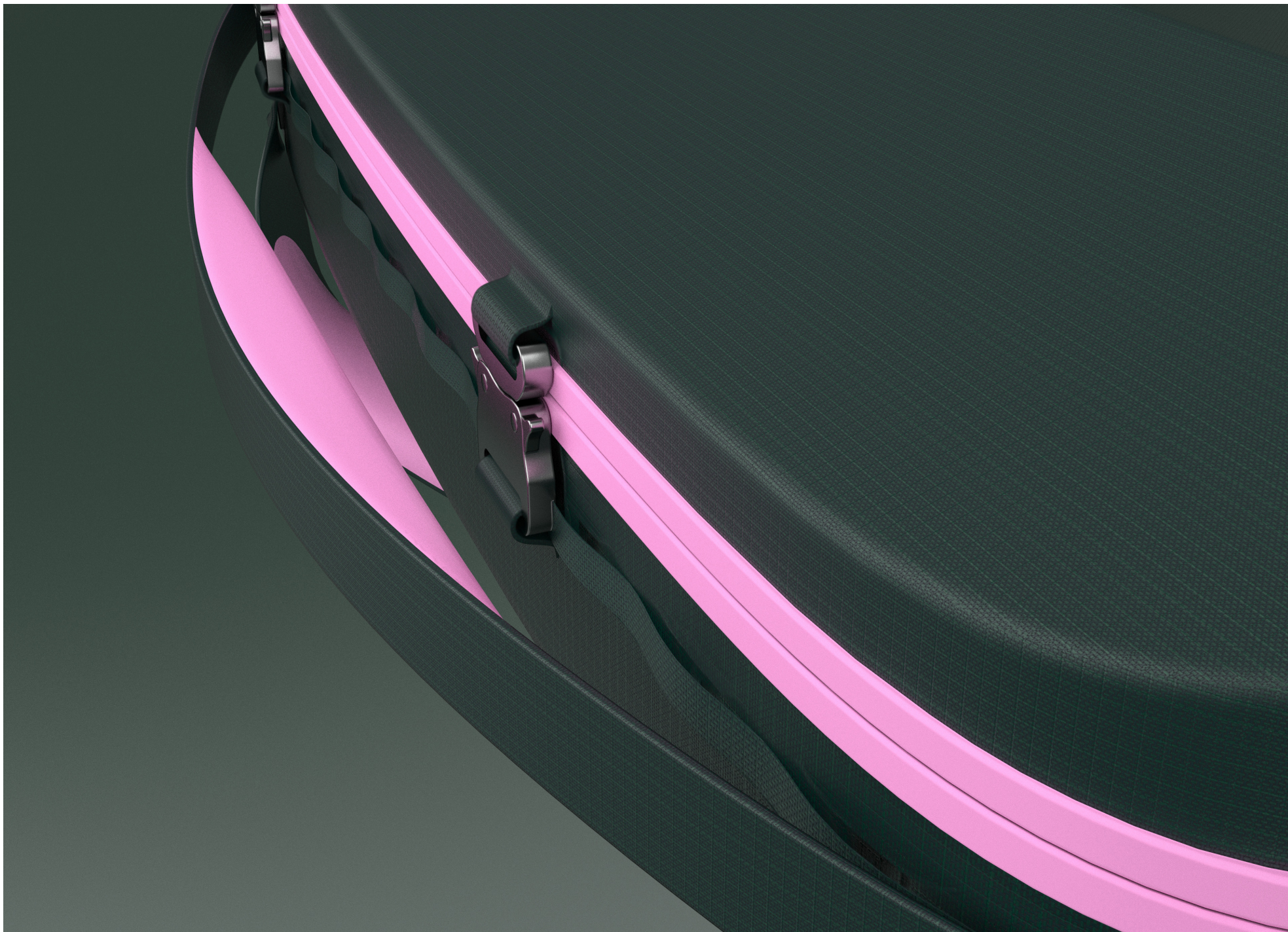


The exterior lining of the case and the straps are nylon so they are easily customizable along with the exposed silicone gasket.





Nylon is a versatile material that comes in many forms. The exterior lining is a ripstop nylon used for the spinnaker sail on sailboats. In this form it's extremely durable and weatherproof. It is also much less susceptible to scratching than carbon fiber or aluminum cases that are made today.



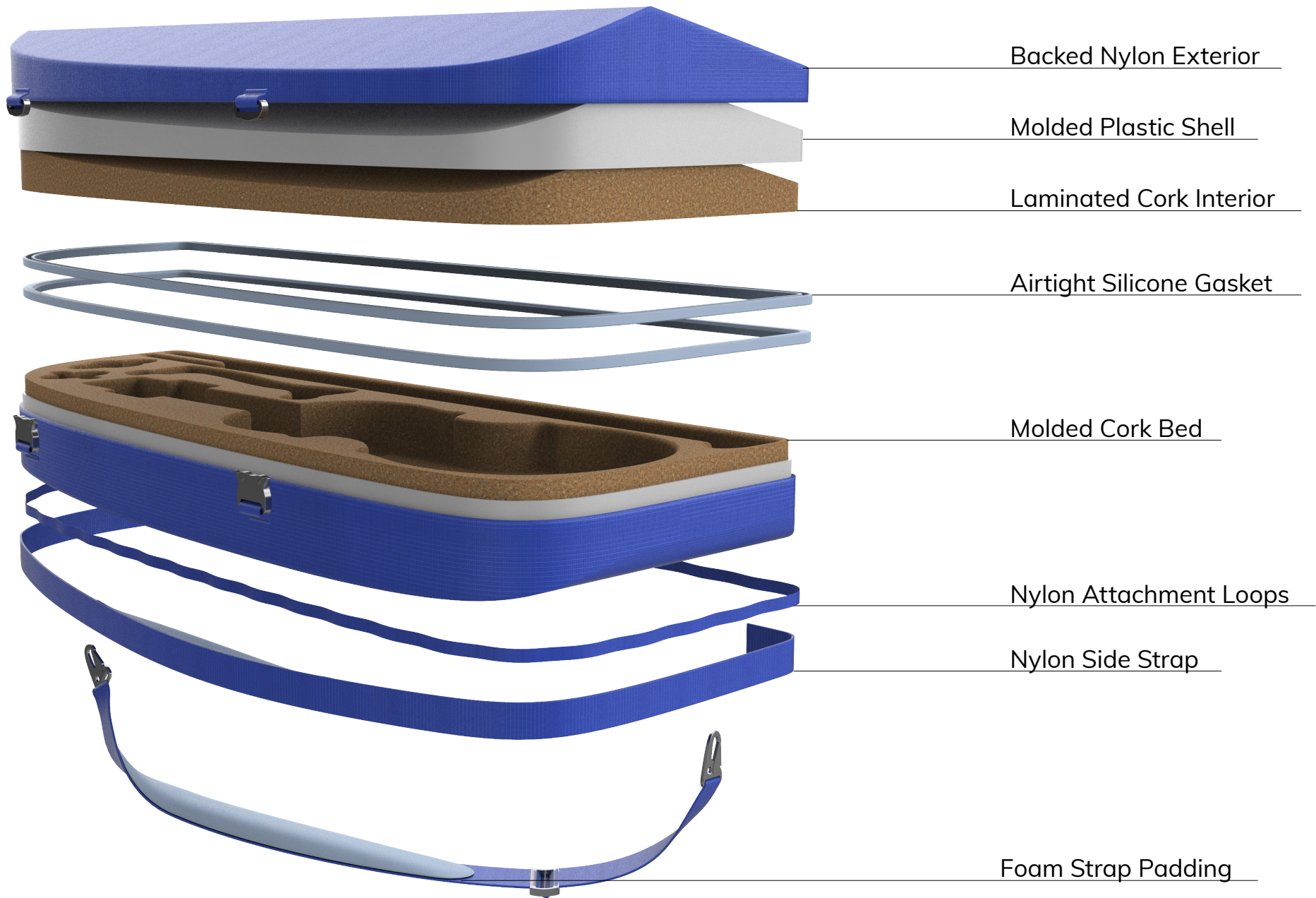


As the violinist takes off their case, all of the necessary components they might need for playing including rosin, a mute and their chin rest are laid out around the instrument and easily accessible.

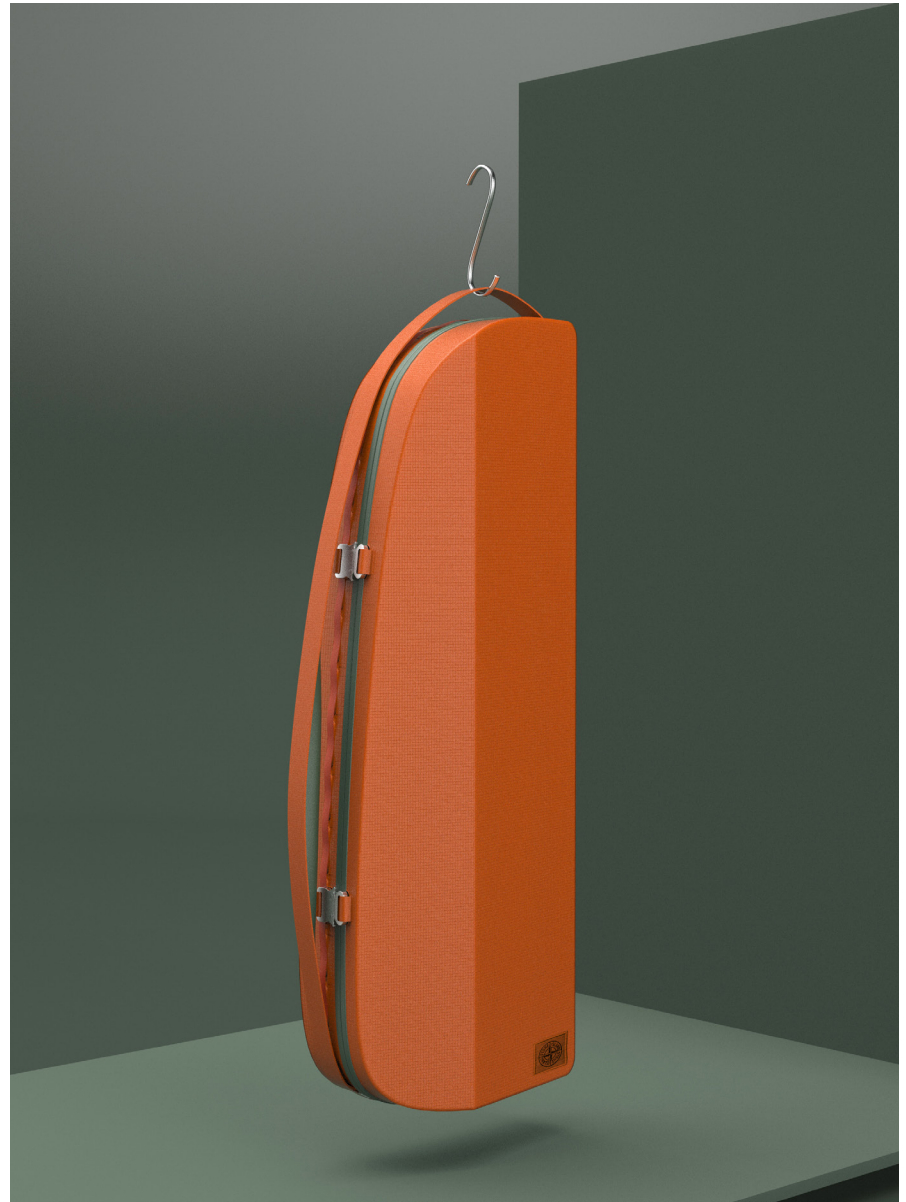


Cork is a natural insulator that can regulate temperature and humidity fluctuations which helps to preserve the violin especially during winter months and air travel. The cork can be dyed in vibrant colors during the molding process to further customize the interior of the case and match the foam suspension points that are necessary to absorb any shock around the body of the violin.









By collaborating with various brands, Apex can come out with limited edition versions of the case. Stone Island is known for their innovative material research, which aligns with Apex's goal of bending fashion and material technology.

I would like to thank those who have contributed to the making of Apex:

Christine Gat

Michael Bambino

Daniel Michalik

Elise Dalleska

John Becker



Dedicated to Elise Dalleska my violin teacher of 14 years!