

Hiroshi Tsunoda
Design Studio

A man in a red checkered shirt is eating from a white takeout container. He is using chopsticks to pick up food from the container, which contains rice and a topping of shredded browned onions. The background is blurred, showing what appears to be a restaurant or food service area. The text "Reinventing Disposable Chopsticks" is overlaid in white on the image, framed by white L-shaped brackets on the left and right sides.

Reinventing Disposable Chopsticks

A vibrant, high-angle photograph of a crowded Japanese street at night, likely in Tokyo. The street is lined with numerous brightly lit neon signs and billboards in various colors, including red, yellow, blue, and green. Some signs are in Japanese, while others are in English, such as 'BURGER KING', 'BETA STADIUM', 'Miami Garden', and 'FamilyMart'. The street is filled with a dense crowd of people walking, and the overall atmosphere is one of a bustling, modern urban environment.

1.3 billion
people use chopsticks daily



they have been around for
5,000 years



chopsticks are the main utensil
used in **many** countries

A photograph of a meal on a wooden table. In the foreground, a white ceramic bowl with a colorful floral pattern on the side is filled with thick, yellow, curly noodles in a dark sauce. A pair of long, light-colored wooden chopsticks rests on the right side of the bowl. To the left of the main bowl is a smaller white bowl containing sliced purple onions, green onions, and a lime wedge. The entire scene is set on a rustic wooden table with a light-colored cutting board under the bowls.

Chinese chopsticks are **long**, for sharing dishes, and have a **wide circular profile**.



In Korea they are made of **metal**
and have a **rectangular profile**.



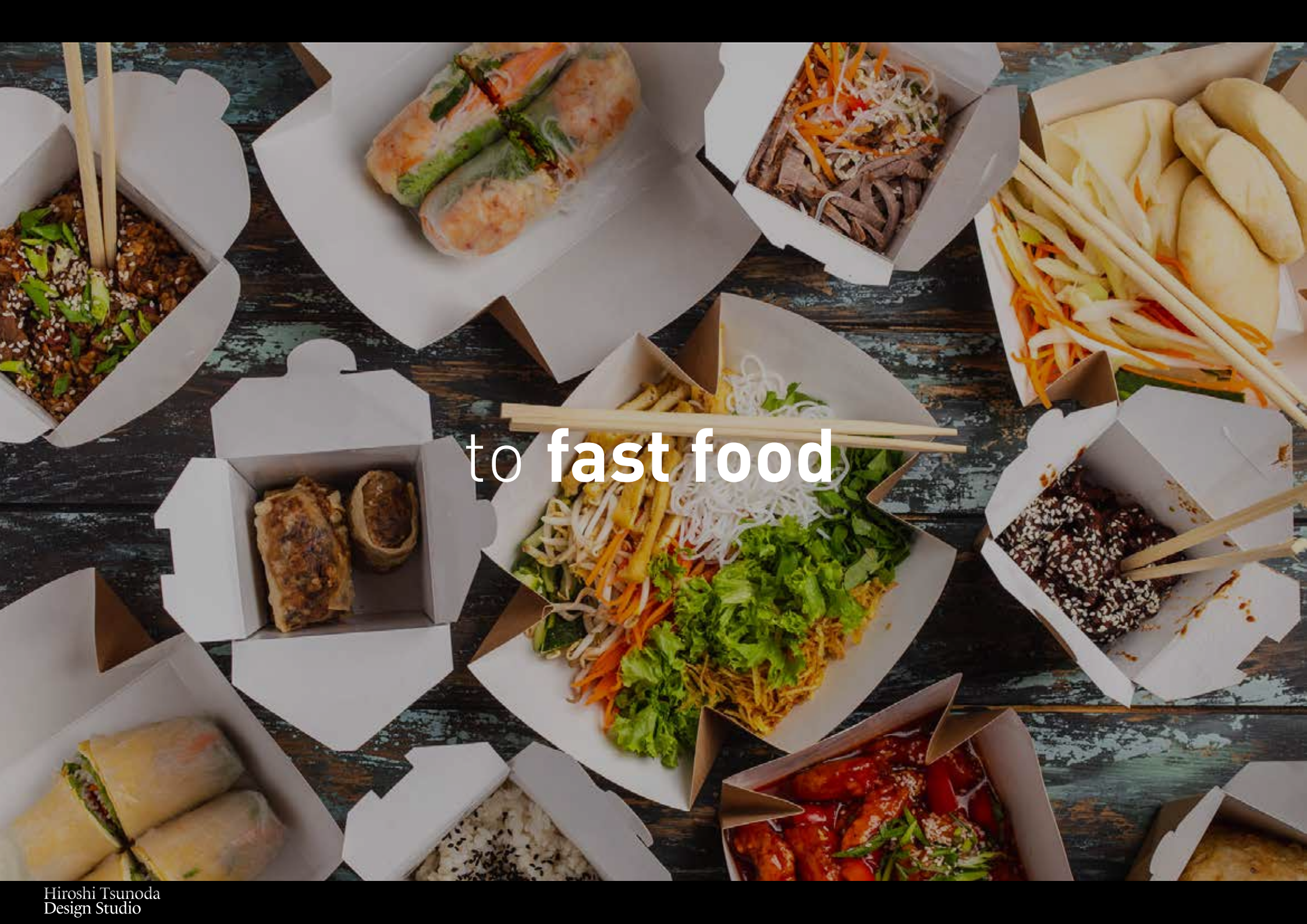
In Japan they are
wooden and tapered.

chopsticks are
used in
many
contexts





from **fine dining**



to fast food



although enjoyed by **many**,
disposable chopsticks
come at a cost



70 billion

chopsticks are used in Japan
and China **yearly**

A woman with long dark hair, wearing a light-colored button-down shirt, is seated at a restaurant counter. She is looking down at a small white bowl of food she is holding with her left hand, using black chopsticks with her right hand. The background is a blurred restaurant interior with warm lighting and other patrons. The text "but even more are being used all around the world" is overlaid in white on the image.

but even **more** are being used
all around the world



25 million trees are cut
yearly to meet demand

A photograph of a dense forest with tall, slender trees covered in thick green moss. The forest floor is covered in a dense carpet of green ferns. The lighting is soft and natural, highlighting the vibrant green colors of the moss and ferns.

Chinese forests which
once looked like **this**

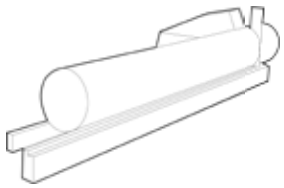
A photograph of a deforested hillside. The foreground and middle ground are covered in brown earth, scattered tree stumps, and debris from cut trees. In the background, a dense forest of tall, thin evergreen trees stands under a hazy, overcast sky. The text "now look like **this**" is overlaid in white on the center of the image.

now look like **this**

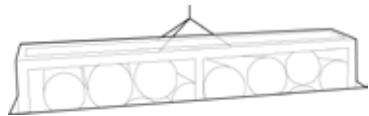


their manufacturing process further
contributes to their **carbon footprint**

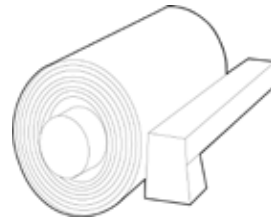
carbon dioxide emissions and **wasted material** result from manufacturing



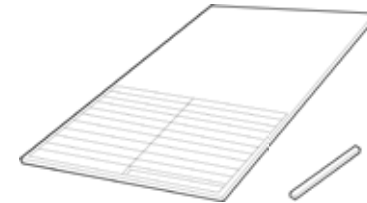
1 Cutting



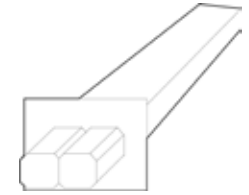
2 Steaming



3 Peeling



4 Pressing



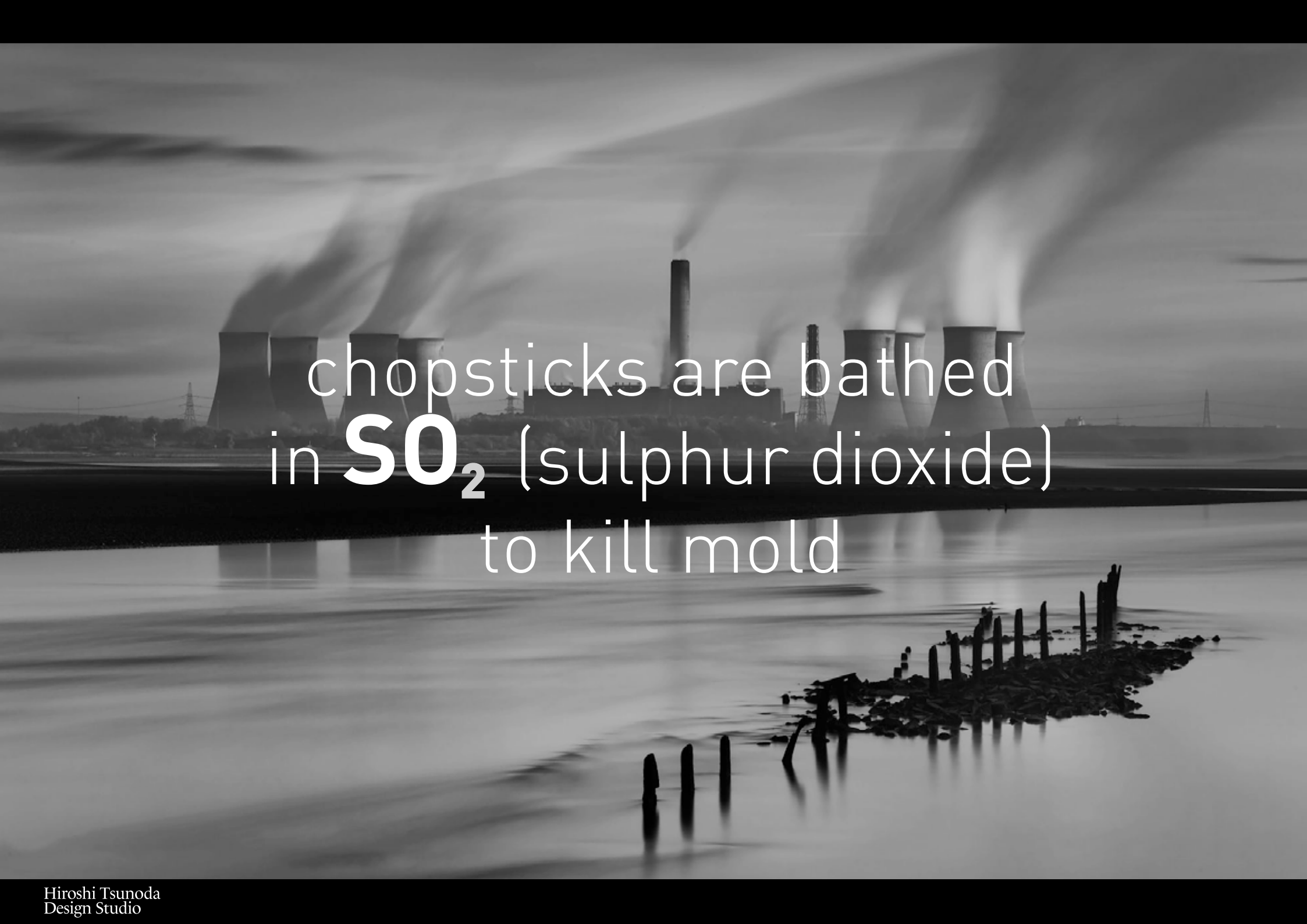
5 Shaping



but disposable chopsticks
are not only harmful to the
environment



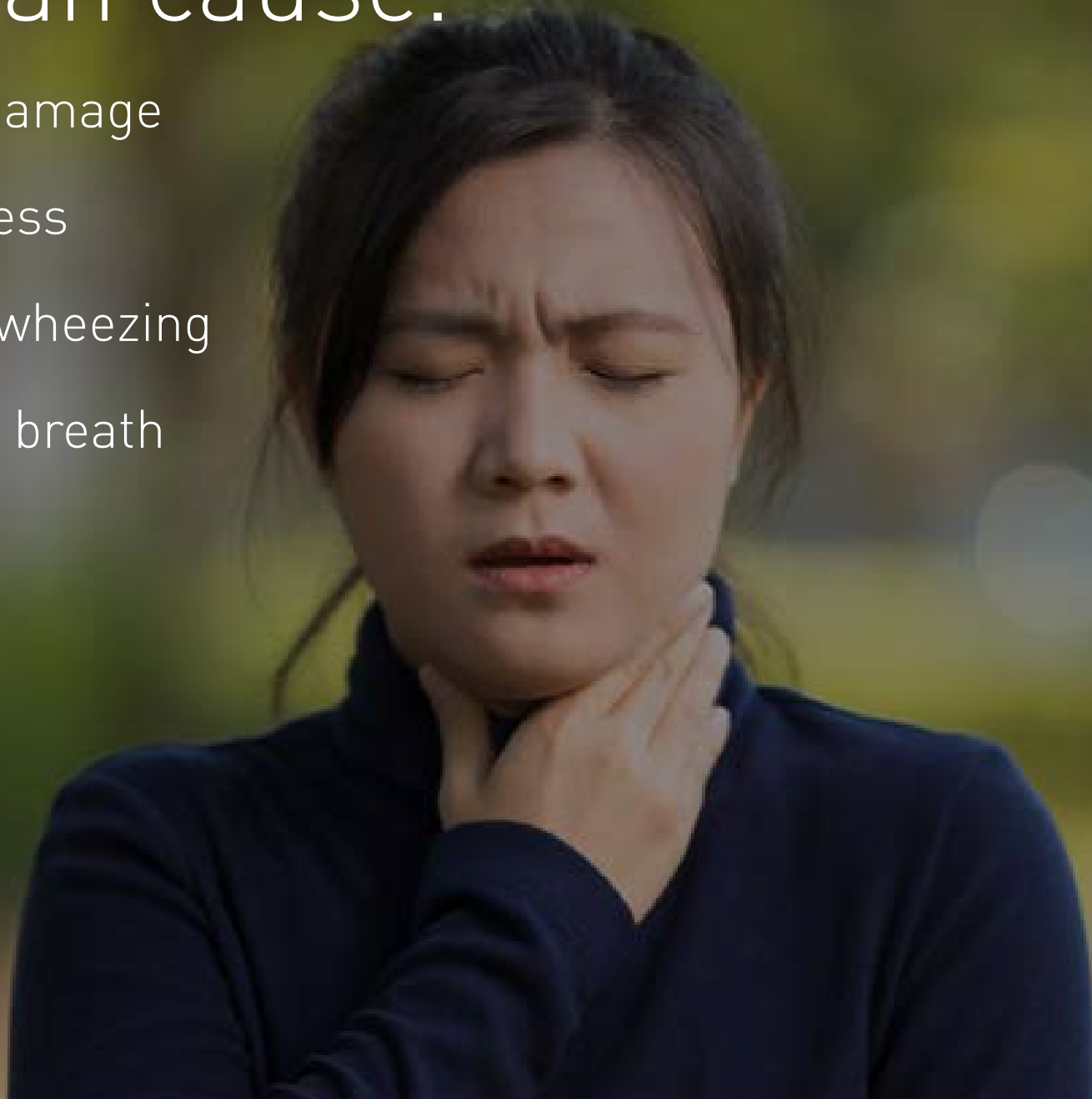
they are harmful
to **humans** too



chopsticks are bathed
in **SO₂** (sulphur dioxide)
to kill mold

which can cause:

1. Esophagus damage
2. Chest tightness
3. Coughing & wheezing
4. Shortness of breath



they are also **bleached** with **H₂O₂** (hydrogen peroxide) to appear 'whiter'



which can cause:

1. Pulmonary damage
2. Respiratory damage
3. Internal organ damage
4. Higher cancer risk



what has been
done about this?



the hybrid solution

Disposable chopsticks meet reusable materials. The handle of the chopstick is made of traditional wood; the tip is made of metal. The aim of this design is to give users the sensation of **holding wooden chopsticks** yet use a material for the tips that can be **washed thoroughly** in a dishwasher.

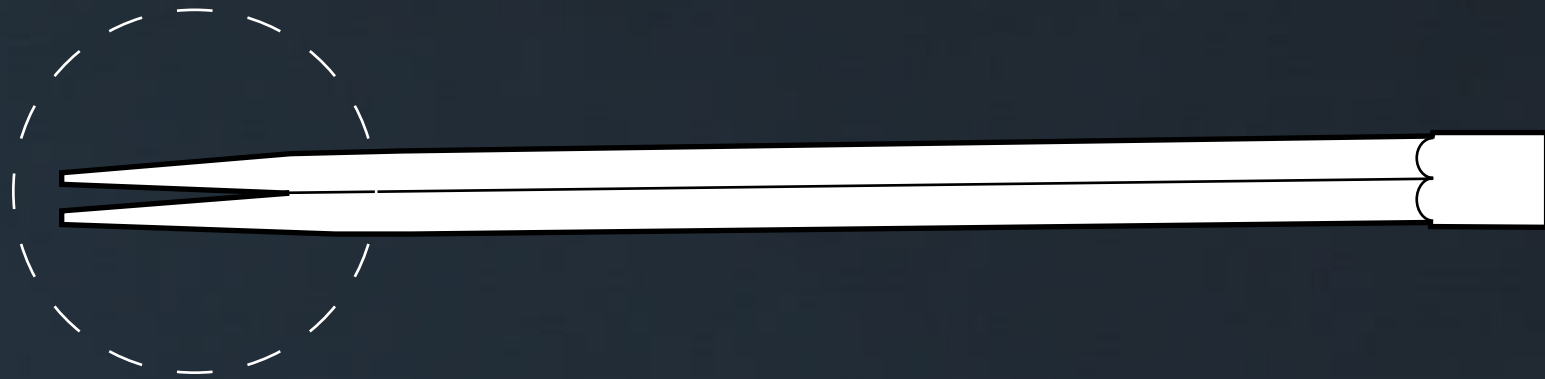
may not be for everyone...

This design is problematic due to the **user experience** when eating with **metal**. Metal is not the traditional material used in Chinese or Japanese chopsticks. Metal can sometimes **taint the taste** of the food. It is also not a soft material and can be **uncomfortable** in the user's mouth.



Our Proposal

we only use **1/5** of
chopsticks when we eat



we put the tip in our mouth
and the rest goes to waste

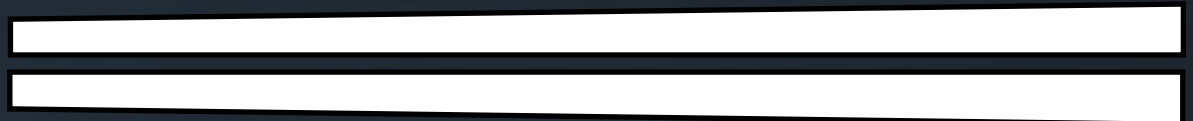


use



waste

what if we made only **1/5**
of chopsticks disposable

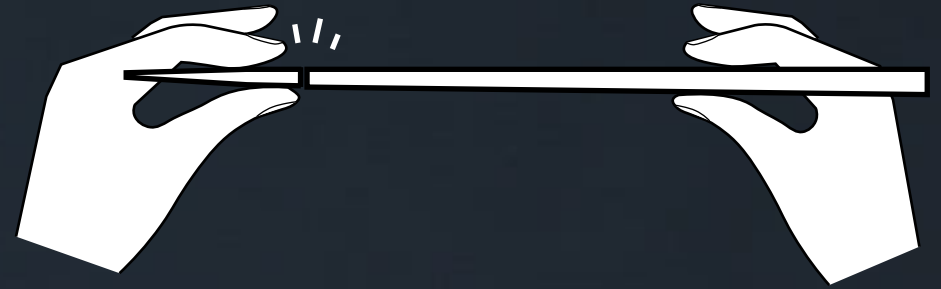
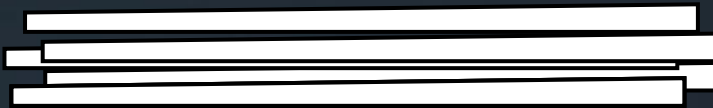


disposable tip

reusable handle

*Disclaimer: this is not the final design and is only an aid in explaining the concept.

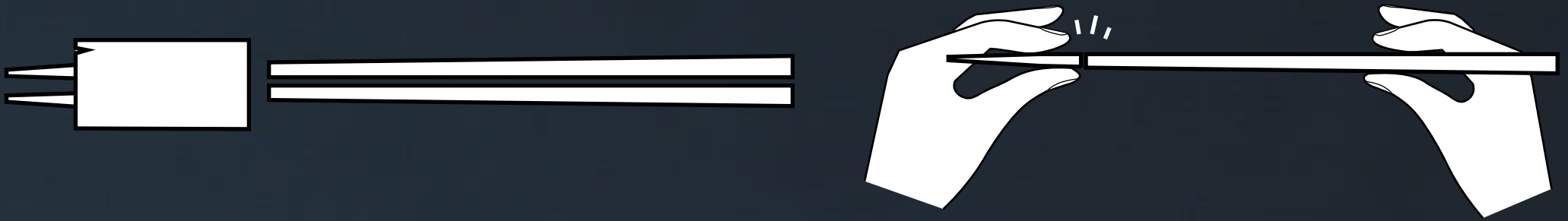
at restaurants:



The restaurant owns handles which they wash and reuse.
Clients are provided with new tips and clip them to the
restaurant handles.

*Disclaimer: this is not the final design and is only an aid in explaining the concept.

at home:



Clients will own personal handles at home. Restaurants will provide tips with the food delivery. Clients clip the tip to their handles to use.

*Disclaimer: this is not the final design and is only an aid in explaining the concept.

customisable

Tips will not only be wood, they will be a range of materials to meet the needs of different cuisines and users.



wood



steel



plastic



bio
materials



bamboo

*Disclaimer: this is not the final design and is only an aid in explaining the concept.



we are giving users the **liberty to choose** traditional wooden tips ...

A close-up photograph of a person's hands using wooden chopsticks to pick up a piece of cooked meat from a hot plate. The meat is dripping with sauce and is being held up in the air. In the background, a large pot of food is visible on a stove, and the scene is set in a restaurant or dining area. The lighting is warm and focused on the food.

... or experience an innovative
alternative material,



all at a **fraction** of the
environmental impact.

we are ready to develop a concept
that will revolutionise the way we
use and dispose of chopsticks

Hiroshi Tsunoda Design Studio

Hiroshi Tsunoda (Hiroshi Tsunoda Design Studio) holds the exclusive sole right on development and final production of the design that is presented in this document. Ownership of rights derived from intellectual and industrial property for the creations that are object of the present document exclusively belongs to Hiroshi Tsunoda (Hiroshi Tsunoda Design Studio), NIF X4055144-Z. Thus, Hiroshi Tsunoda (Hiroshi Tsunoda Design Studio) is the sole holder of the rights that correspond as author of the products that are object of the present document, the same in accordance to art. 2 of the Intellectual Property Law, Law 22/1987, dated November 11 on Intellectual Property, which includes ownership of the rights that are recognized in the Second Title of the same Law. Non-compliance of the above-mentioned conditions will be subject to an action at law before the Courts and Tribunals of the province of Barcelona, Spain.