redefining the reusable bag

industrial design thesis alexa valore
special thanks.

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and to all of my classmates who have been there along the way
table of contents.

04 introduction
05 situational research
19 significance
20 problem statement, hypothesis
21 design brief

22 ideation, form development
23 concept direction
24 refinement
28 sketch models
31 inspiration

33 final concept
41 manufacturing
47 brand development
49 product summary
51 complete thesis statement
what’s the situation?

grocery shopping comes in at the top of the list of our repetitive and boring weekly chores, but it’s a lot more complicated than just that.

check around your home and take a look at how many plastic or paper shopping bags you have saved to use again. how many of them do we really reuse?
user journey.

erin. she/her, 26, nurse practitioner. nyc, ny.
shares an apartment with two roommates. walks almost everywhere.
goes out to a few different grocery stores/markets multiple times a week.
frequent trips allocate for a smaller haul.

01 gets off work, walks to nearest grocer.

02 searches for shopping basket on arrival.

03 goes to produce, then dry goods, then deli.

04 heads to self checkout.

05 begins twenty minute walk home.

mood.

reusable bags were left at home.

store is busy, leaving baskets dirty/unorganized.

tomatoes get smashed in bottom of basket.

faced to use plastic bags.

two of the bags tear due to items inside.
single-use waste.
plastic bags.

+ convenient, water-proof, low in cost

- create excess landfill waste do not decompose, but become microplastics, use of excess materials to produce in order to meet high demand

paper bags.

+ can be repurposed, easily recyclable

- break down when holding wet/cold items, very short-lived due to lack of durability, requires four times more water than plastic
know the stats.

100 billion. 1%
plastic bags used in America annually. amount of plastic bags recycled yearly.

1500. 14 = 1 mile.
plastic bags used by the average family. number of bags equivalent to gas use of driving one mile.

80%. 500 years.
ocean plastic comes from land. amount of time it takes for a plastic bag to break down.
reusable bag specifics.
reusable bags.

+ can use more than once, easily accessible

- too simple in form to be memorable, break down easily and need replaced, takes a lot of energy to produce and export
what now?

sustainability

*noun*

the ability to be maintained at a certain rate or level

- avoidance of the depletion of natural resources in order to maintain an ecological balance.
sustainability.

01 economic viability.
02 environmental protection.
03 social equity.

why is it so important?

in order to have **healthy communities**, we need clean air, natural resources, and a nontoxic environment.

sustainability aims to **use our resources efficiently** to benefit our campus and community.
user survey.

“I will never remember reusable, but I realize that plastic bags are not the answer.”

“I try to carry a bag that can fold up and fit in my purse so I rarely forget it.”

“Normally, I end up using plastic bags because they’re the most convenient option.”
environment profile.

the grocery store.
almost all grocery stores are set up in the same order, to appeal to the consumers senses.

01 plants and floral arrangements.
02 fresh produce.
03 dry goods and personal care items.
04 proteins and refrigerated or frozen foods.
05 fresh baked goods.
COVID and grocery shopping.

our new normal; but a lot of these changes may stick around.

01 less trips, while accomplishing more.
02 people are turning to online shopping.
03 store layout is reconfigured.
04 consumers are more conscious of cleanliness.
05 the weekly trip has become a bigger deal.
everything is new and changing, but it’s up to us on how we **adapt**.
target consumer.

looking at the person who is familiar with climate change, but doesn’t really know **where to start** or **how to make a change**.

- **20%**
  - not concerned about the environment at all.
  - no conscious efforts made to be sustainable.

- **60%**
  - somewhat concerned about the environment.
  - some conscious efforts made to be sustainable.

- **20%**
  - very concerned about the environment.
  - almost all conscious efforts made to be sustainable.
significance.

01. single use is detrimental to the environment.

02. reusable bags do not fit our needs accordingly.

03. the pandemic has greatly changed how we shop.
problem.

single use bags, such as paper or plastic, are not sustainable for consumers or the planet we inhabit. reusable bags do not fulfil our needs; as they are easily forgotten and wear out quickly. the current pandemic has also transformed the grocery experience.

opportunity.

to find a more durable and sustainable alternative to our disposable or standard reusable bag; we would be more organized, complete errands more efficiently, and be keeping our planet as a priority.
design brief.

- **adaptable**: change as needed to fit user and environment.
- **portable**: able to move easily whether compacted or expanded.
- **convenient**: fits into the user's routine without any extra hassle.
- **accessible**: available to a ride range of users for different issues.
- **personal**: individualized to cater the best experience for the user.
concept development.

how will it collapse?

how will it fold up?

shoulder strap?

hip indent

eronomic padding
direction.
reflection.
refinement.
user survey.

“It would be super useful for me, if the bag could somehow fold away for storage.”

“My reusable bags get really dirty, it would be nice to have something easy to clean.”

“I wouldn’t mind spending more on a product like this if I knew it would last for awhile.”
functional sketch models.
sizing sketch models.
material tests.
scale model.
cmf inspiration.
final design

teneo.
redefining the reusable bag
meet teneo.

teneo provides the user with a **simple**, yet **effective** and **sustainable** solution for holding and transporting their belongings.

this helps the user to have a cleaner and **streamline experience**; whether it be used for assisting in the weekly grocery trip or for a couple bottles of wine.
stages of use.
ergonomics.

concave shape to form with the body's natural curvature.

padded rest comforts and molds against the user while in use.

adjustable strap to flow through different carrying needs.
teneo compacts in order to follow the user on their daily journey.

mesh inner pocket gives your phone or wallet a place to stay, to make things easier.
mechanics.

A pivoting hinge is used to change the orientation of teneo.

The user can easily pop the joint, as it locks in and out of place.
colorways.
orthographics.
exploded view.

- polyurethane foam
- injection-molded abs
- elastic cord
- high-density polyethylene
- bioknit mesh fabric
- layered bamboo
- silicone
material background.

bio-knit fabric
recycled plastic bottles and CiCLO® technology, carbon neutral product is free from formaldehyde and toxic dyes.

bamboo
bamboo can be a very sustainable crop: a fast-growing grass, it requires no fertiliser and self-regenerates from its own roots, so it doesn’t need to be replanted.

hemp
hemp fabric is not susceptible to shrinkage, and is a natural fiber. a typical cotton t-shirt lasts 10 years at the most, a hemp t-shirt may last 2-3x that time.
teneo

verb
latin word for “to hold, to have.”

brand background.

+ teneo holds and carries your belongings with intention and care.
+ with a focus on sustainability, the brand keeps product longevity and quality in mind, with strong material consideration.
product lifecycle.

the return.

as a sustainable product, the lifecycle of teneo was heavily considered throughout its development.

01 raw materials are harvested.

02 production into manufacturable materials.

03 product goes into production.

04 product is used as intended by user.

05 product is able to return to raw material state.
improved user journey.

**erin.** she/her, 26, nurse practitioner. nyc, ny.
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**stage.**

**mood.**

teneo is already waiting in erin’s bag.
hybrid bag and basket? erin skips the hassle.
adjustable orientation allows for organization.
items are already bagged and waiting to go.

teneo keeps items safe, whatever they may be.
product summary.

- **adaptable**: change as needed to fit user and environment.
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redefining the reusable bag
thesis statement

background:
in our everyday lives, we always have something to do; or somewhere to go. our complex, busy lifestyles lead us, and sometimes we end up prioritizing convenience over what makes the most sense. one days’ itinerary may consist of going to class, then to the grocery store, then to the pharmacy, and then to a friend’s house. we have a lot of things to carry around and transport on a day like this, for each task. this leads to us using many different bags throughout the day; whether they are paper, plastic, or even marketed as reusable. excessive bag use eventually leads to clutter in our lives, and a negative impact on our planet. paper bags are not as durable and can clutter the same way that plastic bags do. reusable bags can be forgotten, lost, damaged; and essentially are not as effective as they are made out to be. it can be stressful trying to gather all of one’s reusable bags for a days’ different uses. almost all types of single-use bags end up in landfills, as only one percent of these bags are actually recycled.

problem statement:
single use bags, such as paper or plastic, are not sustainable for consumers or the planet we inhabit. reusable bags do not fulfil our needs; as they are easily forgotten and wear out quickly. the current pandemic has also transformed the grocery experience.

hypothesis:
to find a more durable and sustainable alternative to our disposable or standard reusable bag; we would be more organized, complete errands more efficiently, and be keeping our planet as a priority.
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sources


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thank you.

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