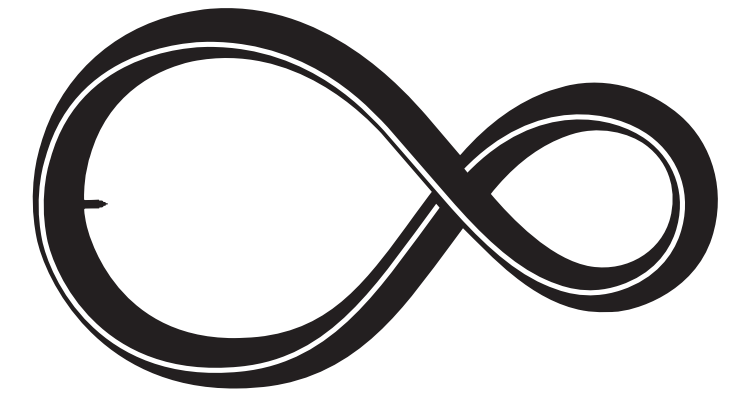


Rubber Impact Project

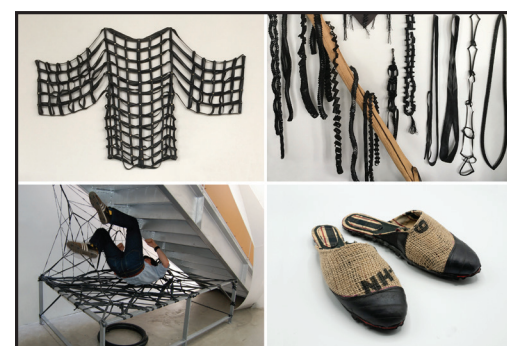
Presented by:
Mandana MacPherson
and Gigi Obrecht



Working to Close the Loop
through Direct Reuse

In 2019–2020, The Rubber Impact Project focused on disrupting the bicycle inner tube waste stream in San Francisco, CA. This rhizome-like project takes a unique broad-based approach to sustainability by collectively harnessing various design drivers—data, technology, products, experiences, systems, and implications—in order to model needed systemic change. The result is an “opportunity template” that leverages the unique components of a community so as to facilitate increased sustainability. The project also functions as a gateway for discussing further environmental issues surrounding transportation rubber, ubiquitous globally. Recent studies show that 30% of ocean microplastics are actually transportation rubber.

METHODOLOGY: The design activist approach focuses on both research and the design of experiences and communication strategies, beyond just product design, to address environmental and social impacts of products, materials, and actions.



RECOGNITION: The Rubber Impact Project was longlisted in the international Dezeen Design Awards 2020 Sustainable Design Category, further validating the approach of simultaneously leveraging design, art, education, communication, and material research as relevant and innovative.



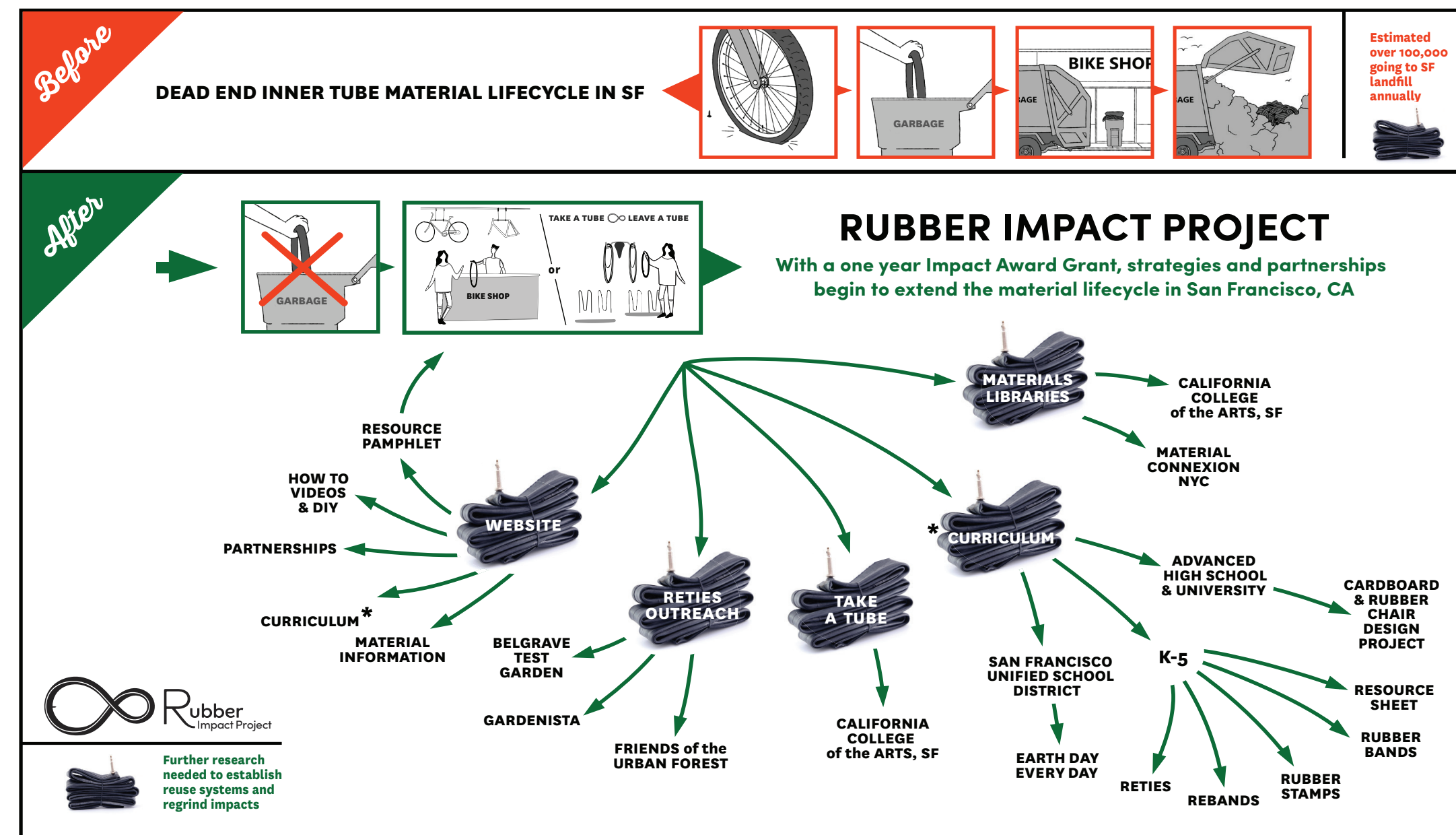
AWARENESS & ACTION: The Rubber Impact Project seeks to:

Educate about transportation rubber waste and material reuse techniques by building upon 30+ years of inner tube upcycling.
www.usedrubberusa.com

Motivate communities to disrupt their waste stream and pressure industry and government for more mindful handling and higher level recycling of transportation rubber.

SHIFT FROM LINEAR MODEL:
Take >> Make >> Waste

TO CIRCULAR MODEL:
Make >> Steward >> Remake



PROCESS: A multi-pronged educational and interventionist approach to uncover opportunities and meet goals for bike shops, schools, businesses, makers, and the greater community.

PRIMARY INSIGHTS: Bike shops, eager for an alternative to dumping waste tubes, require systems to connect waste rubber to potential reusers and recyclers so that material flows can be managed. Reuse alone will not tackle all waste tubes and must be used alongside full tube recycling programs.

RESULTS: A model for a reproducible nodal network for use at the community level that engages a diverse set of stakeholders in order to promote zero waste. To further our mission, we created a website with DIY instructions, educational materials, inspirations, suggested opportunities, and templates for action and awareness building.
www.rubberimpact.net

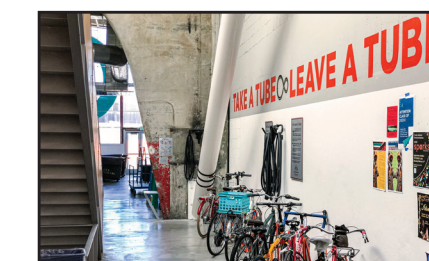
→ FUTURE FUNDING NEEDED TO IMPLEMENT NEXT STEPS:

- Track tubes and leverage waste systems
- Raise awareness of rubber microplastics pollution
- Advocate for reuse over regrind
- Create exchange stations, partnerships, and exhibitions
- Expand programming and outreach to other locations
- Develop and Distribute book/print media and informational materials

MATERIAL VALUE: Inner tube rubber is a modern industrial skin with its own particular properties. The current dead-end material flow straight to landfill demands redirection to unleash its potential for reuse. In contrast to sourcing leather and other natural skins, makers must capture rubber at the waste point and self-process.

→ STEP 1: To track and assess waste inner tube flows, we partnered with local bike shops.

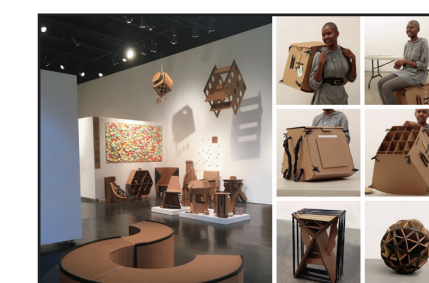
STEP 2: To prototype ideas and concepts for inner tube reuse locally, we:



Designed and installed a 'Take A Tube, Leave A Tube' material exchange station at California College of the Arts for collection and distribution of bike tubes for reuse in art and design.



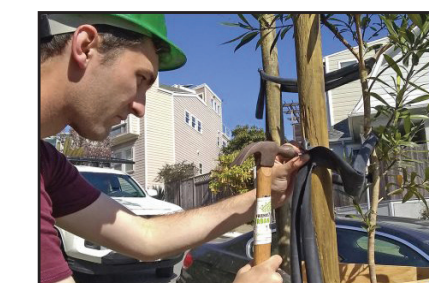
Supplied sample sets to California College of the Arts' Materials Library and Material Connexion's design library in New York City as their first self-sourced, used raw material.



Supplied inner tubes for reuse to California College of the Arts' design programs and to the School of Fashion, at Academy of Art University for shoe and accessory design.



Created K-5 curriculum for SF Unified School District's, Every Day Earth Day program and provided tubes to a local elementary school as superior substitutes for chair leg fidget bands that engage active feet.



Distributed inner tubes and pre-cut strips to Friends of the Urban Forest, landscapers, and home gardeners as an improved method for tying and staking young trees and plants.

Contact:
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