BoomToren

A Landmark in Circular Architecture

Hof van Cartesius, Utrecht, 2020-2022

The BoomToren is a four-story circular pavilion in Utrecht's Hof van Cartesius, designed as a shared space for the community and the BoomHut collective—a group of young programmers and creatives. The ground floor features a kitchen, restrooms, and meeting area, while the upper floors provide workspaces and communal zones.

Built almost entirely from second-hand materials, the structure uses reclaimed CLT slabs (from a Rotterdam school demolition) and repurposed sandwich panels for insulation. Windows and doors come from Utrecht's social housing renovations. Its standout feature? Glazed steel facades saved from a 1980s car showroom, paired with yellow train schedule panels (sourced from NS Pro-Rail) and old train windows on the rear.

The sides showcase a biodiversity-boosting façade—100+ tiles made from leftover materials, designed with HKU students to support local wildlife. The ground floor even includes a climbing wall from a bouldering gym, and a steel "patchwork" staircase ties it all together.

BoomToren proves that circular architecture can be bold, functional, and sustainable—turning waste into a landmark for the future.

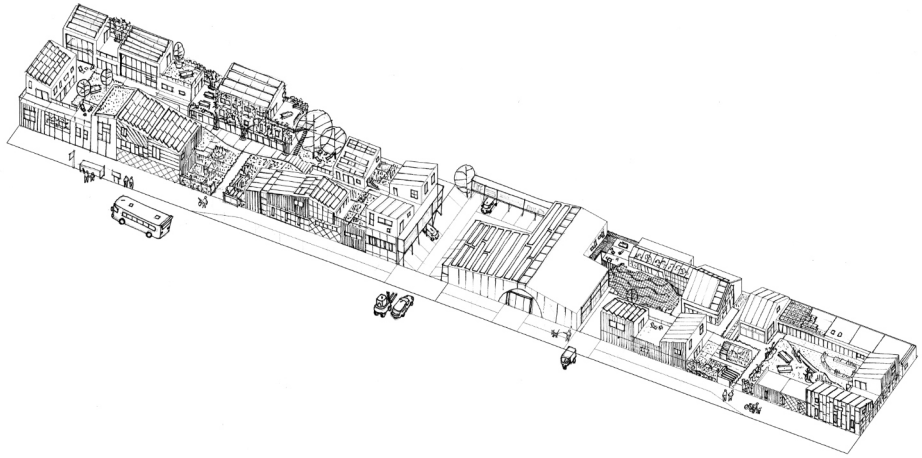
Barn 2

The Circular Puzzle

Hof van Cartesius, Utrecht, 2019-2020

Barn 2 is a 90 sqm circular shed, designed as a test case for Utrecht's Hof van Cartesius team. Built to temporarily host Buurman Utrecht's first shop and workshop, its flexible layout allows for future adaptations—even a bar or restaurant. The foundation uses glass-foamed concrete to minimize cement, topped with a thin reinforced slab. Its main structure is a reused CLT puzzle—salvaged from a Rotterdam school demolition—supporting a lignature mezzanine. The roof is held by a reclaimed A-shaped steel truss from an old farm barn, while openings feature second-hand doors and windows sourced from private suppliers. The standout southeast glazed corner is a design puzzle of HR++ glass (production rejects from a Utrecht manufacturer), and the façade mixes white Trespa strips (from social housing renovations) with yellow Trespa (from a swimming pool's locker room).

ArchiFré's role? Optimizing circular materials—creating detailed drawings to streamline construction, coding each unique piece, and minimizing waste. The result? A smart, adaptable, and waste-free building that proves circular design can be efficient, beautiful, and future-proof.



Hof van Cartesius Phase 2

The Birth of ArchiFré's Circular Vision

Hof van Cartesius, Utrecht, 2019

In 2018, Alessandro Zena, founder of ArchiFré, began collaborating with Utrecht's Hof van Cartesius cooperative, ioon becoming a key architectural and circular designer under the mentorship of Charlotte Ernst the visionary co-founder of the cooperative. With the support of the Hof van Cartesius community, guided by Charlotte and Bianca Ernst alongside Simone Tenda, ArchiFré took significant strides as a circular design and construction studio, partnering with builder and contractor Tom Thissen of TTT Timmerwerken.

This phase deepened Alessandro's passion for bottom-up, community-driven projects, inspired by collaborations with Uitvindergilde and Utrecht's squatter communities. By the end of Phase 2 of HVC, ArchiFré had already left its mark on the cooperative. The partnership with Charlotte Ernst led the design team to win the 2019 "Groene Kroon" first prize(€6,000 for biodiversity enhancements) and the 2020 Rietveld Prix Popular Jury Prize, resulting in the publication of HVC's first two phases in magazines and online platforms. These achievements solidified ArchiFré's role in sustainable, collaborative architecture.

Hof van Cartesius Phase 3

A Pioneering Model of Circular, Community-Driven Architecture

Hof van Cartesius, Utrecht, 2020-2022

Since 2020, ArchiFré has played an integral role in the development, of the Phse 3 of Het hof van Cartesius. As a stable member of the design and building team, giving shape to 5 circular pavilions The core concept revolves around sustainable workspaces arranged around a shared garden (hof), fostering interaction among members through a network of paths, stairs, and galleries that encourage spontaneous meeting and collaboration. This self-managed cooperative model, combined with land ownership, empowers renters to shape their environment, creating a dynamic ecosystem for creatives, makers, and innovators.

The design process is rooted in extreme material reuse and a "flexible dynamic approach", where the initial concept evolves alongside material scouting. Permits and construction adapt in real-time to the availability of second-hand resources, making each pavilion a unique puzzle of circularity. Standout examples include CLT slabs and lignature floors salvaged from a demolished Rotterdam school, prefab concrete slabs (perron plaat) from Dutch railway renovations, and steel railway beams repurposed as columns. Windows from Sprinter trains, polyester panels from an Amsterdam hotel, and doors and windows from social housing projects further highlight the resourcefulness of the design. Iconic elements like the BoomToren's three-story glazed façade—saved from an 1980s Utrecht car showroom—and yellow NS train schedule panels add visual flair, while climbing walls from a bouldering gym and train windowsintegrate functionality with creativity. Every detail, from metal stairs to custom facades, reflects the collaborative spiritof builders, designers, and renters, resulting in a mosaic of pavilions that celebrate diversity in form and function. As one of Europe's pioneering circular projects, HVC Phase 3 proves that sustainable architecture can be innovative, community-driven, and visually striking—all while leaving a minimal ecological footprint.

UP! Circular Wall

Transforming a Hull into a Circular Workshop

Utrecht, The Netherlands, 2025

Commissioned by UP Utrecht, ArchiFré and Buurman Utrecht collaborated to design and furnish the UP Maakplaats workshop, turning an empty hull into a fully functional, circular workspace. As UP Utrecht's circular hub—where entrepreneurs, organizations, and residents collaborate on reuse, repair, and upcycling—the workshop was designed to be accessible, adaptable, and entirely circular. Starting on December 1, 2025, the team transformed the space with reclaimed materials, crafting everything from circular workbenches and a reused door wall to a tool wall, shed, and course cabinets. Even the partition walls and geometric UP! logo were built with second-hand materials, resulting in a spacious, practical, and visually cohesive workshop. This project embodies UP Utrecht's mission: proving that circular design can be functional, inspiring, and community-driven.

Carros Gitanos

Off-Grid Tiny Houses in Andalusia

Aracena, Spain, 2026

In winter 2026, ArchiFré teamed up with Atelier Jamie Nee to design and build two Tiny Houses in Aracena, southern Spain, as part of Finca Molino el Bombo—a visionary project aiming to create a sustainable, off-grid housing cooperative immersed in nature. Built atop repurposed steel farmer trailers, the Carros Gitanos embody circular principles: windows and wood were reclaimed from past projects and sourced from second-hand online platforms. Construction was a collaborative effort, with volunteers from the finca helping assemble the structures. Some elements were prefabricated in a workshop, disassembled for transport, and then rebuilt on-site on the steep Andalusian terrain. The result? Two functional, eco-friendly tiny homes that blend sustainability, community spirit, and off-grid living.

Rabbit House

The Rabbit mansion for Utrecht Natuurlijk

Utrecht, The Netherlands, 2025

Designed by ArchiFré for a client passionate about reuse, Tinekeetje is a garden atelier that embodies the balance between craftsmanship, circularity, and hands-on participation. The result of an active collaboration between designers and client, this project transformed a corner of a garden in Berlicum into an intimate, functional space using second-hand materials and biobased solutions. The client played a key role, personally contributing to the restoration of beams, panels, and planks, proving how individual dedication can make sustainability achievable even on a tight budget. The outcome is more than just an atelier—it's a participatory building model, where the design adapts to available materials and the client's evolving needs, creating a testament to shared commitment and circular design.

Tinekeetje.

A Tuin Huis for a Creative Soul

Berlicum, The Netherlands, 2025

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The Frégon

Upcycling a Tiny House on Wheels

Eupen, Belgium 2024

Born from a collaboration between ArchiFré and Atelier Jamie Nee, The Frégon is a mobile tiny house that transforms an abandoned farmer's trailer into a vibrant, playful, and sustainable living space through creative upcycling. Rescued from a failed project in Utrecht, the trailer was moved to HVC's North Stroke cooperative, where it became the heart of a radical upcycling process: wooden beams, insulation, windows, and even a repurposed metal fence (now a bed) were salvaged from previous projects, while the exterior features reclaimed "dibon" panels from a photography exhibition and thermowood sourced from Buurman Utrecht. Inside, natural light floods the space through multiple windows, reflecting Jamie Nee's signature purple and green palette. The interior blends reclaimed furniture (kitchen, sofa) with DIY details like climbing holds, creating a playful yet functional environment. Every element—from the leftover floor tiles donated by Studio Wae to the artistic finishes—tells a story of collaboration, creativity, and sustainability. Today, The Frégon stands as a unique retreat at Camping Montdragon in Eupen, offering guests an immersive experience between nature, art, and "Arty-techture".

Let it Rot

Compostable Pavilion 1

the Observatory for the Microverse

Ruigoord, Amsterdam 2023

"Let it Rot" is a temporary pavilion designed to decompose and nourish its surroundings, redefining the concept of temporary architecture. Created through a collaboration between ArchiFré and Jamie Nee, and supported by Stimuleringfonds and the Ruigoord community, this project uses compostable and reclaimed materials to create a structure that not only disappears without a trace but enriches the soil and boosts biodiversity. The foundation consists of American oak logs embedded in Ruigoord's clay soil, designed to naturally degrade within 5–10 years. The walls, built from straw bales inoculated with compost, form natural niches where plants thrive as rainwater filters through, nourishing seeds and accelerating decomposition. The roof, covered with reused aluminum plates from a photography exhibition, shelters a green roof of sedum growing on a substrate of straw, bio-compost, and local clay—all intended to eventually return to the earth. "Let it Rot" is more than a pavilion; it's a living experiment in how architecture can harmonize with nature, leaving behind not waste, but new life.

Recycled GreenHouse

Utrecht Down Under

Stek, Utrecht, 2022

In 2022, ArchiFré was commissioned by Mosep to design and scout materials for a temporary GreenHouse Pavilion at the Utrecht Down Under event, hosting a Dutch artist's installation. Embracing a radically circular approach, the pavilion was built entirely from second-hand materials, with a design so intuitive that volunteers could assemble it on-site. The framework used reclaimed wooden beams from demolition projects, resting on a dry foundation of leftover bricks and tiles sourced from local gardening renovations via Buurman Utrecht. The enclosure featured PVC windowssalvaged from a surplus auction lot of the Hof Van Cartesius project, while the cladding combined hospital bed railsand curved polyester façade panels from Amsterdam's Ibis Hotel, both repurposed from HVC's leftover stock. Even the roof was completed with scavenged polycarbonate sheets found across Utrecht. After serving as a one-month art installation, the pavilion was disassembled, and all components were sold or donated via Marktplaats, ensuring every material continued its lifecycle. This project proved that temporary architecture can be both low-budget and high-impact, turning waste into opportunity and reinforcing the power of circular, community-driven design.