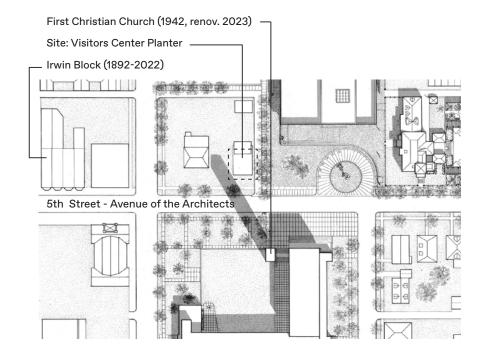
Sylvan Scrapple

PUBLIC SPACE DESIGN
COMPLETED AUGUST 2023
EXHIBITED AT EXHIBIT COLUMBUS 2023: PUBLIC BY DESIGN
COLUMBUS VISITORS CENTER
506 5TH ST, COLUMBUS, INDIANA, USA

Columbus, Indiana, has a unique architectural legacy and collection of over 80 significant works of architecture. Despite this context, Columbus faces challenges activating its downtown post-pandemic, adapting the grand scale of mid-century urban spaces to fit contemporary needs, and building sustainably – issues shared by many cities. Developed on a modest budget for the 4th cycle of the biennial exhibition Exhibit Columbus, Sylvan Scrapple responds to specific site conditions with transferable tactics: urban activation, robotic construction, mass timber, reuse, and public engagement.

Sylvan Scrapple scribes a 110-foot-long snaking wood wall into an existing planter to form a wooded oasis.

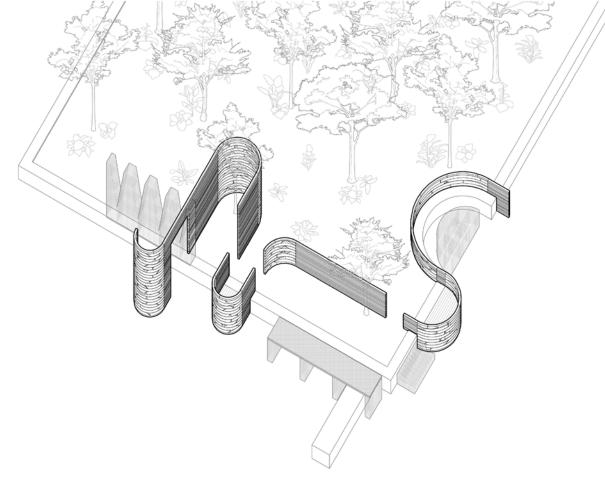


^ Cleo Rogers Memorial Library site plan, Pei Cobb Freed, 1963-71.









URBAN ACTIVATION

Mid-century urban design privileged grand urban moves out of scale with Columbus' modest population of 50,000.

Sited between the Kevin Roche-designed Columbus Visitors Center (1995) and I.M. Pei-designed Cleo Rogers Memorial Library (1971), Sylvan Scrapple inserts a 110-foot-long snaking wood wall along an existing, 2000 ft² landscape planter. Scribed to the planter's brick perimeter, the curved wall shaped two elevated seating areas, two street level seating areas, and a gateway.

- ^ Snaking geometry forms a series of spaces with a minimal footprint. < Existing site street elevation.
- < Activated street elevation.





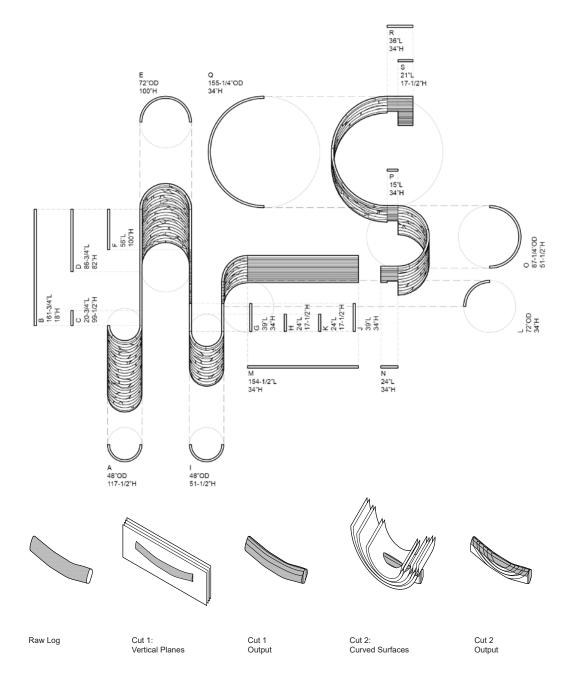
MASS TIMBER & ROBOTIC CONSTRUCTION

Sylvan Scrapple develops an application for curved logs and instrumentalizes their curvature in service of thin, lateral-force resisting structures. A posttensioning system is deployed to address the ease of human labor, embodied carbon of heavy machinery, fuel costs, disassembly, and decommissioning.

This project is the first full-scale prototype of a freestanding post-tensioned curved timber wall assembly that deploys computer numerically controlled (CNC) sawmilling methods to process waste wood in the form of curved logs.

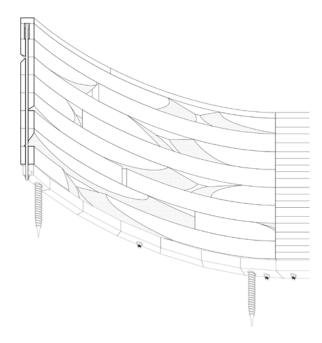
The project team developed an electric, robotic sawmill for processing nonlinear logs, augmenting an analog, gas-powered sawmill with sensors, motors, guides, and digital toolpaths.





- ^ Inventory of straight segments and arcs.
- ^ Nested toolpaths processed with the robotic bandsaw sawmill.
- < Irregular logs are cut on a custom, robotic sawmill using digitally programmed toolpaths.





Curved logs are cut into 3" wide curved boards. For straight walls, lumber from a decommissioned barn is gathered. Straight segments have a uniform final width of 3" and vary in vertical thickness, allowing for reclaimed 2×4s to be maximized.

Panels are assembled without adhesives. Wood is stacked, threaded, and post-tensioned using vertical rod secured to a steel tube base. An integrated spring detail allows for expansion and contraction in response to seasonal fluctuations in the moisture content of the wood, and rapid disassembly.



- ^ Integrated spring detail.
- < Worms eye sectional axonometric through threaded rod detail.



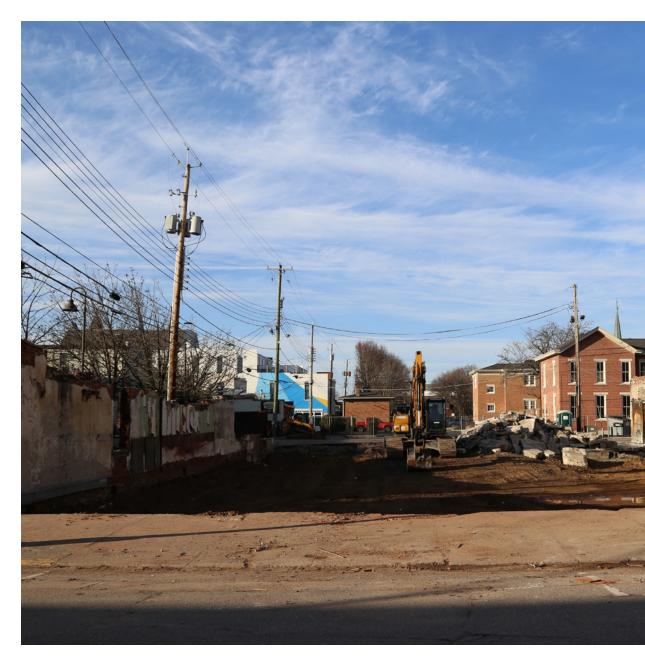


REUSE

The project collected scraps from significant buildings across the city. The landscape planter's existing brick wall is augmented with custom welded gabion cages which form a series of urban furniture elements including screen, dining table, stairs, and coffee table.





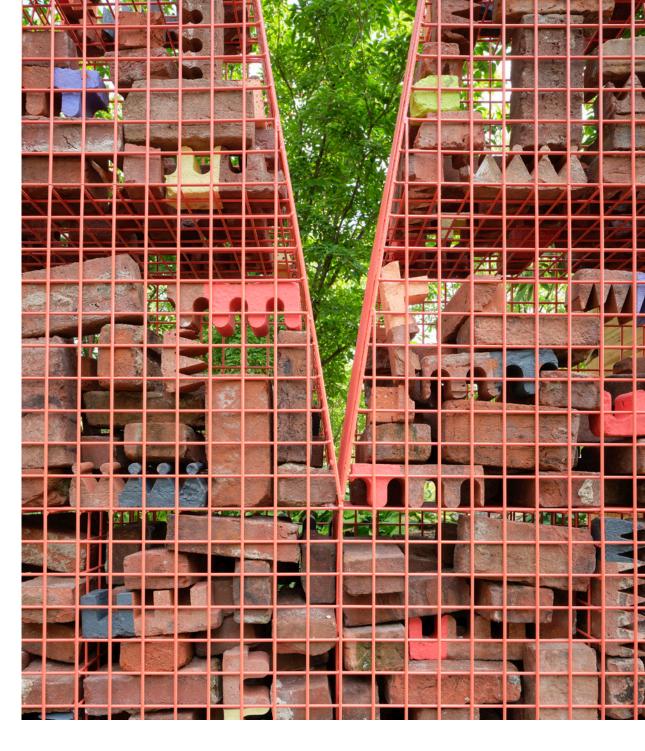


The Irwin Block (1892), a significant Queen Anne style building, burned down in November 2022.

- ¹ Irwin Block (February 2023)< Irwin Block (August 2021)< Irwin Block (December 2022)

The gabions collect 2,500 bricks salvaged from Columbus' Irwin Block as well as 500 bricks salvaged from Eliel Saarinen's First Christian Church tower (1942), which was restored in 2023. After the installation ia de-installed, the gabions become standalone furniture elements.



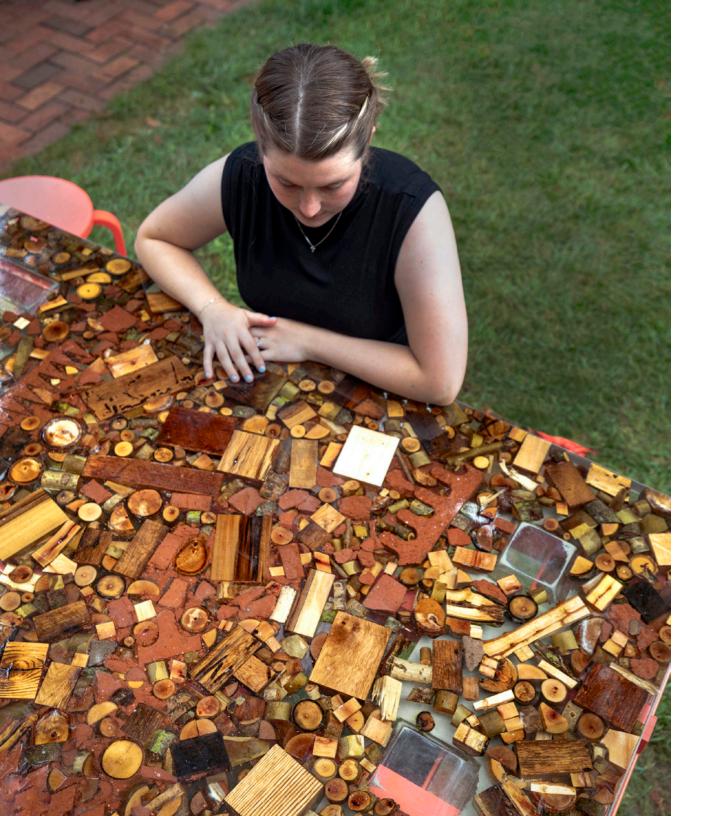


[^] Existing brick planter wall augmented with custom welded gabion cage and filled with salvaged bricks from the Irwin Block and First Christian Church. < Water jet brick profiles referenced Alexander Girard's legacy in Columbus.









Wood, bricks, and scraps form a 15' long dining table that creates a center for the installation. Bound with bioresin, this table closely resembles scrapple (a traditional dish that makes use of scraps and trimmings). A game of "I spy" uncovers panels salvaged from Eliel Saarinen's church tower and branches from Mill Race Park.



PUBLIC ENGAGEMENT

Table Scraps is a collection of recipes that make use of food waste exhibited with Sylvan Scrapple. By relating the use of waste in cooking and construction, this exhibition sought to build a bridge between architectural practice and the everyday rituals of the public.

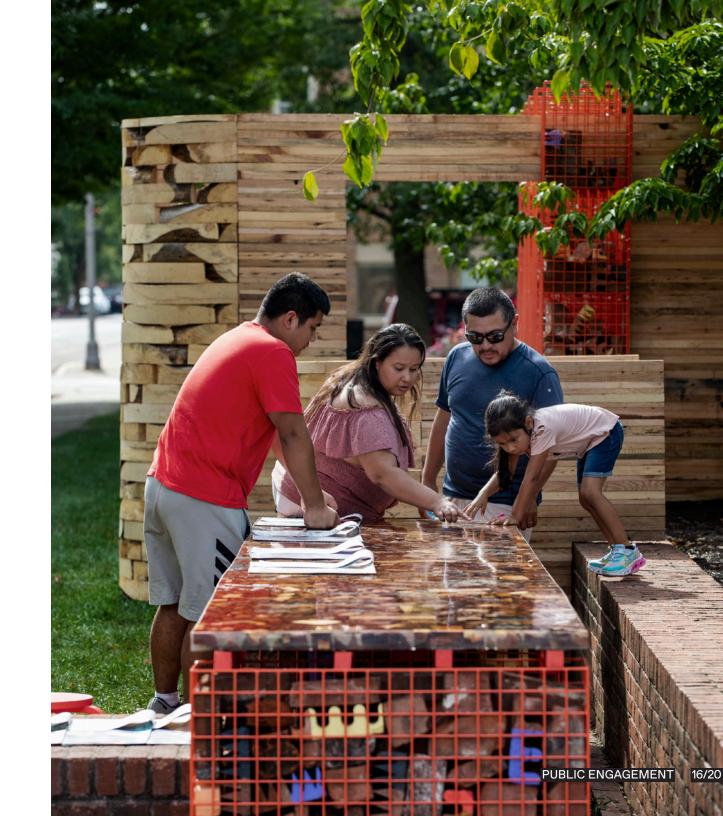
Call for Recipes
Table Scraps

We invite you to submit recipes that make use of food waste, to be collected and exhibited with the installation Sylvan Scrapple at Exhibit Columbus: Public by Design in Columbus, Indiana this August.

The project draws parallels between the use of waste in cooking and construction, use of waste in cooking and construction, and place settings from dining tables, counters, restaurants, and social halls, in Columbus and beyond.

please submit:

- Recipe
- 2. Photograph from above of the plated dish
- (example on flip side) Written details about
- your place setting
 4. Name & Short Bio



The collection combines recipes with visual scraps and place settings from dining tables, counters, restaurants, and social halls, in Columbus and beyond. Recipes were gathered through a public call. Each recipe is photographed on the place setting of its authors and displayed as a lifesize vinyl placemat.

































Sylvan Scrapple and the accompanying exhibition Table Scraps attracted families and school groups throughout Exhibit Columbus's duration.





