Better Charrettes
Libeskind’s Music
Save Columbus
Yale Center Redux

Best Practice
MacKay-Lyons Sweetapple
Tomás Amat Estudio

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The Journal of the American Institute of Architects
The architects behind the new Vegas Altas Congress Center in Villanueva de la Serena, Spain, wanted the 74,000-square-foot project to blend seamlessly into the landscape, becoming a scenic fringe between the medieval town’s urban streetscape and its agricultural hinterlands. But they also wanted the building to be a landmark, distinct from its bucolic setting. So they crafted a structure that does both.

The four-person design team—Luis Pancorbo, José de Villar, Carlos Chacón, and Inés Martín Robles—partly buried the center’s two large auditoriums before topping them with an expansive public plaza. Bursting from this flat surrounds is their counterpoint: a bold, cubic building cast in place with gold-colored concrete and punctuated with geometric window and skylight cutouts. To soften the contrast, the designers wrapped this cube, which houses a restaurant, offices, and service space, in a veil of horizontal bands that follow the cube’s rounded corners, orbiting the structure in regimented paths inspired by the lines cut into farm fields after harvest. The veil also obscures the underlying concrete form from a distance, while providing invaluable shade to building occupants during the region’s hot summers.

For the veil, the designers initially planned to use straight lengths of plastic pipe, but the cost was too high. In their hunt for an alternative, they discovered what turned out to be a superior material: naval-grade rope made from recycled plastic. Not only did the rope cost less, but the designers could customize its colors to include a mix of yellows, oranges, and greens, mirroring the surrounding fields and imbuing the building with the likeness of a hay bale.

Though the design clearly specified the ropes’ thickness and spacing, along with the cantilevered, painted-steel armature that would support them, their precise attachment method remained uncertain until the center was nearly complete. As construction was wrapping up, the architects and their engineers rapidly explored different techniques to secure the ropes to the armature, “testing and trying again, and testing and trying again,” Pancorbo says.

Finally, the team identified that 12-centimeter-diameter rebar would support the ropes, and that 10 or 11 brackets per elevation would ensure the ropes stayed horizontal and taut around the building. The rebar is painted to match the rope, to minimize its appearance.

The jurors praised the Vegas Altas as a monumental artifact. Juror Doug Stockman was particularly taken by the veil, both for its outward appearance and for the “effect it has, especially in that interstitial space” between rope and concrete. —N.B.
Jury

Mic Patterson is founding principal of Los Angeles–based Design Tectonics, a consultancy that focuses on innovative façade technology applications and research. He was formerly the vice president of strategic development at Enclos. Patterson is a Ph.D. candidate in the University of Southern California School of Architecture with a focus on sustainable façade renovation practices.

Douglas Stockman, AIA, is a founding principal at El Dorado in Kansas City, Mo. He also serves on the Kansas State University College of Architecture, Planning, and Design Dean’s Advisory Council, and is chair of the Downtown Council of Kansas City. Stockman received a B.Arch. from Kansas State University.

Elizabeth Whittaker, AIA, is founder and principal of Merge Architects in Boston. In 2015, she was a recipient of the AIA Young Architects Award and the Emerging Voices award from the Architectural League of New York. Whittaker received an M.Arch. from the Harvard Graduate School of Design, where she is an assistant professor in the practice of architecture.

Credits

Cricket Shelter: Modular Edible Insect Farm, page 112
Design Firm: Terreform ONE, Brooklyn, N.Y.
 Architect: Mitchell Joachim, AS, AIA, (co-founder and primary investigator); Jiachen Xu, Lissette Olivares, Cheto Castellano, Ivan Fuenzalida, Sung Moon, Kamila Varela, Yucei Guven, Chloe Byrne, Miguel Lantigua-Inoa, AIA, Alex Colard, Melanie Fessel, Maria Airola, AS, AIA, Vivian Kuan (project management); Felipe Molina, Matthew Tarpely (research assistants)
Consultant: Seek Food - Robyn Shapiro
Fabrictors: Shandor Hassan, Christian Hamrick
Funding: Art Works for Change
Photography: Mitchell Joachim, Matthew Tarpely
Special Thanks: David Stewart, Christian Hubert, Heather Lord, Scott Pobiner, New Lab, Brooklyn Navy Yard, GMD Shipyard, New York University Gallatin School of Individualized Study

BayArc: A Tidal Responsive Barrier, page 116
Design Firm: Skidmore, Owings & Merrill, San Francisco - Craig Hartman, FAIA (concept and interdisciplinary leader); Mark Schwettmann, AIA, Alex Cruz, Ross Findly, David Kwon (project team)
Project Adviser: Moffatt & Nichol
Drawings: Skidmore, Owings & Merrill
Structural Engineer: Mark Sarkisian, Eric Long, David Shock, Geoffrey Brunn
Marine Engineering Concept: Moffatt & Nichol - Dilip Trivedi, Richard Dornhelm

The Tower at PNC Plaza, page 118
Design Firm: Gensler, San Francisco - Doug Gensler, AIA (principal-in-charge); Hao Ko, AIA (principal and architectural design director); Benedict Tranel, AIA (principal and technical director); L. Adkins, AIA (project manager); Anastasia Huggins, AIA, David Hall, Gunwook Nam, Alison Wilkinson, AIA, Daniel Nauman, AIA, Jorge Barreto, AIA, Ethel Macleod, Eugene Lee, Joe Chisholm, Brent Van Gunten, AIA, Len Sciarra, Philip Kaerfe, AIA, Joel McCullough, AIA, Rich Peake, Mariana Vaidas, Jessica Yin, Yooju No (project team)
Rendering: Space Matrix; Tangram 3DS
Construction Manager: P. Dick
Lighting Designer: Fisher Marantz Stone Structural and M/E/P Engineer: BuroHappold
Sustainability Consultant: Paladino & Co.
Photography: Connie Zhou Photography

LELU Exit Sign, page 122
Client: Architectural Safety Components
Design Firm: Interloop—Architecture, Houston - Mark Wamble, Dawn Finley, AIA (design principals); Eric Hughes, Peter Muesig, Jack Mussett (project team)
Project Adviser: Architectural Safety Components - Sam Youdal
Consultant: Martin Co. - John Martin
Fabricators: Moore Fabrication - Kerry Krumbeck; Professionalized Products and Services - Jerry Huang; Southwest Electronic Energy Group - Alex Marin; Andozing Graphics of Houston - Linda Sayers
Special Thanks: Underwriters Laboratories - Abdul Ahad (investigating engineer)

Tally, page 124
Design Firm: KieranTimberlake, Philadelphia - Roderick Bates, Stephanie Carlisle, Billie Faircloth, AIA, Elizabeth Friedlander, AIA, Ryan Welch (project team)
Development Partners: Autodesk; Thinkstep (previously PE International)
Project Team: Autodesk - Jonathan Rowe; Thinkstep - Heather Gaddoniex, Nick Santero, Maggie Wildnauer
Special Thanks: Emma Stewart, Jacky Liang

Pulled Plaster Panels, page 128
Design Firm: Young Projects, New York - Bryan Young, AIA (principal); Jon Ciello, AIA (project architect); Noah Marciniaik, Samantha Eby, NAYOUNG Kim (project team)
Lighting Designer: Architectural Lighting - Rick Shaver
Structural Engineer: Silman - Nat Oppelinheimer

Chicago Horizon, page 130
Client: Chicago Architecture Biennial, Chicago Park District
Design Firm: Ultramoderne, Providence, R.I. - Yasmin Vobis, Aaron Forrest, AIA, Emily Yet, Assoc. AIA, Tida Osotsapa, Will Gant, Hua Gao, Ronak Hingash (project team)
Design Structural Engineer: Guy Nordesth and Associates - Brett Schneider
Structural Engineer of Record: Thornton Tomasetti
Architect of Record: Animate Architecture - Joe Lambke
Fabricator: Nordic Structures
Funding: BP, Chicago Park District; Chicago Architecture Biennial; Rhode Island School of Design; ReThink Wood; Nordic Structures
Photography: Naho Kubota
Special Thanks: Laura Briggs

Spray-On House, page 132
Design Firm: Patrick Tighe Architecture, Los Angeles - Patrick Tighe, FAIA, Zachary Teixera, Evelina Sausina, Assoc. AIA, Risa Tsutsumi, Brian Arfin (project team)
Structural Engineer: Neus Engineering - Matt Melynk
Consultant: Demilec
Fabricator: Machinable
Life-Cycle Assessment: Department of Civil and Environmental Engineering, School of Engineering, Stanford University
Prototype: Built at Southern California Institute of Architecture (SCI-Arc), as part of the SCI-Arc Gallery Series
Drawings, Renderings, and Photography: Courtesy Patrick Tighe Architecture
Special Thanks: SCI-Arc team
Vegas Altas Congress Center and Auditorium, page 134
Client: Junta de Extremadura
Design Firm: Pancorbo + de Villar + Chacón + Martín Robles, Madrid · Luis Pancorbo, Jose de Villar, Carlos Chacón, Inés Martín Robles (project team)
Drawings and Lighting Designer: Luis Pancorbo, Jose de Villar, Carlos Chacón, Inés Martín Robles
Structural Engineer: Mecanismo · Juan Rey, Pablo Vegas, Jacinto Ruiz Carmona
Electrical and Facilities Engineering: Urculo Ingenieros · Rafael Urculo, Sergio Rodriguez
Acoustics: Arau Acústica · Higini Arau
Models: Gilberto Ruiz
Construction: Placonsa · Eloy Montero
Ropes Installation: Cotesa; Lastra & Zorrilla
Funding: Junta de Extremadura
Cost: €10,505,187 ($11.7 million, approx.)
Photography: Jesús Granada (building); Ignacio Bisbal Grandal (model)

Nanobiome Building Skin, page 136
Design Firm: Michael K Chen Architecture (MKCA), New York · Michael Chen, Justin Snider, AIA, Alan Tansey, Natasha Harper, Elie Cohn, Breeden Caldwell, AIA, Julian Anderson, AIA (project team)
Drawings: MKCA
Landscape Architect: Local Office Landscape Architecture · Walter Meyer, Jennifer Bolstad, AIA, Jenny Hindelang
Conservation Consultant: State University of New York College of Environmental Science and Forestry, Department of Environmental and Forest Biology
Danilo Fernando (associate professor and graduate program director)
Facade and Structural Engineer: Buro Happold
General Contractor: IA Construction Management
Manufacturer: Boston Valley Terra Cotta
Photography: MKCA

Infundibuliforms: Kinetic Tensile Surface Environments, page 138
Design Firms: Matter Design, Boston · RVTR, Ann Arbor, Mich., and Toronto · University of Michigan
Primary Investigators: Wes McGee, Geoffrey Thün, Kathy Velikov
Design Research Associate: Daniel Tish
Fabrication Assistants: Asa Peller, Dustin Brugman, Andrew Kiemers, Andrew Wald, Iram Moreno Pinon
Wireless Sensing Adviser: Jerome Lynch
Technical Partners: Buckeye Polymers; Industrial Fabricating Systems; Beckhoff
Funding: Taubman College of Architecture and Urban Planning: 2016 Research Through Making Program; University of Michigan Office of Research: Small Projects Grant
Photography: Peter Smith

Timber Waste Modular Unit (“TwMU”), page 140
Design Firm and Fabricator: IKD, Boston · Yugon Kim, Tomomi Itakura (leaders); Yuki Kawae, Steven Hien, Brendan Casimir, David Morgan, Eric Kim, James Pan, Miguel Lorenzo Gumila (student research assistants)
Drawings: IKD
Funding: Heritage Museums & Gardens; Rhode Island School of Design
Photography: IKD
Special Thanks: Windy Hill Farm Sawmill

Grove, page 141
Client: Design Biennial Boston, Boston Society of Architects (BSA)
Design Firm and Fabricator: GLD Architecture, Brookline, Mass. · Joel Lamere, Cynthia Gunadi, Sophia Chesrow, Grigori Enikolopov, Zain Karsan, Dohythun Lee, Elizabeth Galvez (project team)
Drawings: GLD
Funding: Design Biennial Boston; GLD
Photography: Jane Messinger
Special Thanks: Rose F. Kennedy Greenway Conservancy, Boston Art Commission, Pinkcomma Gallery, BSA Space, Boston Mayor’s Office of New Urban Mechanics, David Cordero, Caitlin Mueller, Steven O. Anderson, John Skibo, Matt Wagers, Chris Dewart, Christopher Gunadi

Blooming Bamboo Home, page 142
Design Firm: H&P Architects, Hanoi, Vietnam · Doan Thanh Ha, Tran Ngoc Phuong, Chu Kim Thinh, Erimescu Patricia, Nguyen Van Manh, Nguyen Khanh Hoa, Nguyen Quynh Trang, Tran Quoc Thang, Pham Hong Son, Hoang Dinh Toan, Pham Quang Thang, Nguyen Hai Hue, Nguyen Khae Phuoc (project team)
Fabricator: H&P Architects
Photography: Doan Thanh Ha
Cost: $2,500
Special Thanks: Nguyen Tri Thanh