

PROFILE

Michael Salka is an architect, researcher, and educator whose work combines computational design, digital fabrication, and bioregional value chains to advance a technology-forward approach to sustainable construction grounded in place-based ecological knowledge, natural material systems, and the communities that sustain them. A Gates Cambridge PhD Scholar Alumnus, he leads the Master in Ecological Architecture & Advanced Construction at IAAC and directs Valldaura Labs' research portfolio, where design, fabrication, and forest stewardship operate as an integrated practice. Recently, he was also appointed as Head of Design for Timber Age, a Colorado-based high-performance prefabricated modular timber building manufacturer. His built work and scholarship — spanning peer-reviewed research, EU policy, World Bank consultancy, and award-winning buildings — address one of architecture's most urgent questions: how can we build beautifully, durably, and in genuine reciprocity with living systems?

EDUCATION

PhD in Architecture

2021–2025

University of Cambridge — Gates Cambridge Scholar

- Dissertation: “On the Origins of Buildings: A Social-Ecological Network Approach to Contemporary Bioregional Architectures of American Earth, Norwegian Timber & Balinese Bamboo”
- Developed a computational social-ecological network methodology to study how contemporary natural material architectures emerge from traditional place-based knowledge, heritage, and collective ecosystem stewardship
- Fieldwork among stakeholder communities across three continents spanning earth construction (USA), engineered timber (Norway), and bamboo (Indonesia)
- Available open-access: <https://www.repository.cam.ac.uk/handle/1810/398378>

Master in Advanced Ecological Buildings (Distinction)

2018–2019

Institute for Advanced Architecture of Catalonia (IAAC) & Polytechnic University of Catalonia (UPC)

- Thesis: Design and construction of a digitally-fabricated autonomous timber house in Barcelona, Spain

Bachelor of Science in Environmental Design (Distinction)

2009–2014

University of Colorado Boulder (CU Boulder)

- Thesis: “The emerging role of computational technologies in planned urbanization”, focused on Kigali, Rwanda

ACADEMIC EXPERIENCE

Technical Director

2022–Present

Institute for Advanced Architecture of Catalonia (IAAC), Valldaura Labs, Barcelona ES

- Led the collaborative design and realization of 5 award-winning high-tech ecological buildings and 18 sustainable public space installations from brief-setting through construction (consulted on a further 3 buildings)
- Directed an integrated on-site regenerative timber value chain: annual selection of 40–60 trees for ecologically-informed harvest, lumber production, composite assembly innovation using undervalued wood species, and deployment in prototypical constructions
- Produced authoritative reports on bio-based socio-economic infrastructure for the World Bank and Inter-American Development Bank using geographic information systems
- Managed multi-scale grant-funded R&D+I projects end-to-end through consortium building, stakeholder coordination, and milestone delivery — on-time and under-cost across all 19 awarded projects
- Co-led Mass Madera (2022–Present), a Built by Nature-funded national network advancing Spain's engineered timber industry, including the adaptive Mass is More exhibition at Barcelona's Mies van der Rohe pavilion (2022)
- Co-led Optoppen (2023–2024), a Built by Nature-funded project exploring vertical timber extensions to existing buildings in Spain, the Netherlands, and the UK
- Collaborated with archaeologists from the University of Barcelona to document and archive an on-site excavation of a 12th-century Cistercian monastery and 13–15th century Aragonese palace using digital tools (drone-based ground-penetrating radar and photogrammetry)

Program Director, Master in Ecological Architecture & Advanced Construction

2022–Present

Institute for Advanced Architecture of Catalonia (IAAC), Valldaura Labs, Barcelona ES

- Designed and directed a graduate curriculum integrating advanced fabrication technologies (robotics, large-format 3D printing, algorithmic modeling) with sustainable architecture and ecosystem management
- Graduated 150 alumni from 44 countries across 8 cohorts
- Responsible for curriculum design, teaching, thesis supervision, assessment, staff management, and budgeting

Founding Partner & South Hub Lead

2024–Present

New European Bauhaus (NEB) Academy, European Commission, Barcelona ES

- Co-authored the winning proposal for a €1 million Horizon Europe grant to establish the EU's flagship platform for training the construction ecosystem toward carbon neutrality, beauty, sustainability, and inclusion
- Formed and steered the NEB Academy South Hub by onboarding 14 regional academic, municipal, industry, trade, and community organizations; negotiated a shared memorandum of understanding
- Developed proposal briefs on bio-based, regenerative, digital, long-lived, and circular built environments; managed expert review; awarded 17 subgrants totaling €91.5k, mobilizing 28 organizations from 15 countries to deliver 32 courses for 500+ trainees
- Organized and moderated the 1st NEB Academy Conference (February 2026) within the UNESCO-UIA Barcelona World Capital of Architecture program; 80+ participants

Teaching Associate, History & Theory of Architecture and Design 2025–2026

University of Cambridge, Department of Architecture, Cambridge UK

- Research-led teaching for undergraduates and postgraduates (Parts I & II) earning top-tier program rankings
- MArch (Part II) program coordinator supporting 47 Year 4 & 5 students; aligned program with ARB and RIBA validation criteria to secure accreditation
- Deployed inclusive scaffolding to maintain the University's Gold TEF rating for student experience and outcomes

Guest Instructor & Studio Critic

2024

Royal College of Art (RCA) & Delft University of Technology (TU Delft), London UK & Delft NE

- Taught a design studio workshop for the TU Delft MSc Architecture, Urbanism, and Building Sciences on adaptive reuse of Amsterdam's historic industrial waterfront with lightweight timber installations
- Taught a design studio workshop for the RCA MA Architecture (Part II) on digitally fabrication reciprocal timber structures; juried design studio presentations

Supervisor & Instructor

2022–2024

University of Cambridge, Department of Architecture, Cambridge UK

- Supervised Cambridge Architecture BA (Hons) Year 3 (Part II) dissertations (20% of annual marks)
- Delivered lectures, site visits, and assessment for Cambridge Architecture BA (Hons) Years 1 & 2 (Part I) Environmental Design and Principles of Construction courses

Instructor, BIM for Mass Timber Design

2021–2022

Institute for Advanced Architecture of Catalonia (IAAC), Master in Mass Timber Design, Online

- Taught Revit for modeling, coordination, LCA, and construction documentation; supervised master's theses at the intersection of BIM, mass timber, and circular design

Head of Projects & Digital Fabrication Lab Manager / Academic Coordinator

2019–2021

Institute for Advanced Architecture of Catalonia (IAAC), Valldaura Labs, Barcelona ES

- Coordinated and taught an immersive postgraduate design-build degree program
- Managed digital fabrication and carpentry workshops; oversaw safety protocols
- Project management of innovative architectural/urban actions, sustainable forestry practices, and grant writing

PROFESSIONAL EXPERIENCE

Head of Design

2026–Present

Timber Age Systems, Durango CO, USA

- Lead design practice for a Passive House-certifiable, production-scale, modular mass timber building system, directing schematic design, permitting coordination, and the design-to-fabrication pipeline
- Serve as lead architect on stock and modified-stock CLT projects, managing external designers and drafters and applying digital fabrication tools (Revit, Fusion360, CNC workflows) in live practice
- Author and maintain the TAMBS design standards and stock-design library, translating field and manufacturing feedback into continuous, evidence-based design improvement
- Design and deliver technical education for architects, builders, installers, and homeowners — extending studio-adjacent teaching into professional practice contexts
- Bring computational and parametric design methods developed through prior research (IAAC, Valldaura Labs) into an operating, real-world construction system

Associate Architect

2016–2018

Hangar 41, Denver CO, USA

- Designed and coordinated 18 new-build structures and 3 tenant fit-outs (residential, commercial, civic, mixed-use) using BIM, from schematic design through construction administration

Intern Architect

2014

Sustainable Urban Neighborhoods (SUN) Studio, Denver CO, USA

- Schematic design, rendering, and code analyses for a 25-acre, 308-residence net-zero energy community
- 25 homes constructed in the initial build-out phase

Design & Construction Team Lead

2012–2014

Engineers Without Borders (EWB), Cyanika Sector, RW

- Led design and construction of 3 rainwater catchment systems serving approximately 250 rural residents with 80,000 liters of sanitary storage capacity

GRANTS & FUNDING

As Technical Director & Head of Projects at IAAC's Valldaura Labs (2019–Present):

- Authored 19 successful grant proposals with a combined awarded budget of approximately €7 million, including funding from:
 - Horizon Europe
 - LIFE Programme for Climate and Environment Action
 - European Institute of Innovation & Technology (EIT)
 - Built by Nature
 - Spanish Ministry for the Ecological Challenge and Demographic Transition (MITECO)
 - Additional public and private schemes
- 48 proposals managed in total (40% success rate); integration of AI-assisted workflows increased yearly submission volume by 27% and success rate by 22%

CERTIFICATIONS & TRAININGS

Life Cycle Assessment of the Sustainability of Taller Timber Buildings, COST Action CA20139 HELEN	2024
GIS and Digitization of Historic Maps, Cambridge Digital Humanities	2021
Architectural Experience Program (AXP), National Council of Architectural Registration Boards (NCARB)	2014–2020
Introduction to Python for Data Science, Microsoft	2017

LANGUAGES

English (native) | Spanish (professional working proficiency)

AWARDS & HONORS

Design Educates Awards Gold Prize & SolarLux Choice Award in Architectural Design, Laka Foundation	2024 & 2025
Building of the Year Finalist, ArchDaily	2025 & 2026
Gates Cambridge Scholarship (most prestigious international postgraduate award at the University of Cambridge)	2021–2025
New European Bauhaus Prize Finalist, European Commission	2024
Urban Mobility Success Story, European Institute of Innovation & Technology	2020
American Institute of Architects (AIA) Europe Scholarship	2019
IAAC Outstanding Performance Award & Top Merit-Based Scholarship	2018–2019

SERVICE & PROFESSIONAL AFFILIATIONS

Senior Consultant, World Bank & Inter-American Development Bank	2023
Peer Reviewer, Scroope: Cambridge Architecture Journal, Issue 32	2023
Sutton Trust Summer School Instructor	2022
Gates Cambridge Scholars' Council Vice President & External Officer	2021–2022
Architectural Experience Program (AXP), National Council of Architectural Registration Boards (NCARB)	2014–2020
Engineers Without Borders Rwanda Design & Construction Team Lead	2012–2014

PUBLICATIONS

Peer-Reviewed Journal Articles

- Salka, Michael.** 2026 (in preparation; currently developing as a three-paper series on timber, earth, and bamboo bioregions). "On High-Tech Bioregional Architecture: a Social-Ecological Network Analysis of Contemporary American Earth, Norwegian Timber, and Balinese Bamboo Building Practices." *Building Research & Information*.
- Ibañez, Daniel, Vicente Guallart, and **Michael Salka.** 2022. "On Pedagogical Prototyping of Advanced Ecological Buildings and BioCities at Valldaura Labs." *AGATHÓN | International Journal of Architecture, Art and Design* 11: 136–49.
<https://doi.org/10.19229/2464-9309/11122022>.
- Perriccioli, Massimo, Roberto Ruggiero, and **Michael Salka.** 2021. "Ecology and Digital Technologies: Small-Scale Architecture as a Place of Connections." *AGATHÓN | International Journal of Architecture, Art and Design* 10 (December): 36–45.
www.agathon.it. <https://doi.org/10.19229/2464-9309/1032021>.

Peer-Reviewed Book Chapters

- Salka, Michael,** Vicente Guallart, and Daniel Ibañez. 2026 (under review). "From Forest to Future: The Valldaura Labs Immersive Approach to Timber Architecture." In *Unknowing Architecture: Lessons from the Edges of Architecture Education*, edited by Matthew Jones, Rashida Ng, Rachel Sara, and Hannah Vowles. Routledge.
- Ibañez, Daniel, **Michael Salka,** Vicente Guallart, et al. 2023. "Innovative Design, Materials, and Construction Models for BioCities." In *Transforming Biocities: Designing Urban Spaces Inspired by Nature*, edited by Giuseppe E. Scarascia-Mugnozza, Vicente Guallart, Fabio Salbitano, Giovanna Ottaviani Aalmo, and Stefano Boeri. Future City. Springer International Publishing.
https://doi.org/10.1007/978-3-031-29466-2_8.
- Guallart, Vicente, **Michael Salka,** Daniel Ibañez, et al. 2023. "Towards the Development of a Conceptual Framework of BioCities." In *Transforming Biocities: Designing Urban Spaces Inspired by Nature*, edited by Giuseppe E. Scarascia-Mugnozza, Vicente Guallart, Fabio Salbitano, Giovanna Ottaviani Aalmo, and Stefano Boeri. Future City. Springer International Publishing.
https://doi.org/10.1007/978-3-031-29466-2_1.
- Salka, Michael,** Vicente Guallart, Daniel Ibañez, et al. 2023. "The Enabling Environment for BioCities." In *Transforming Biocities: Designing Urban Spaces Inspired by Nature*, edited by Giuseppe E. Scarascia-Mugnozza, Vicente Guallart, Fabio Salbitano, Giovanna Ottaviani Aalmo, and Stefano Boeri. Future City. Springer International Publishing. https://doi.org/10.1007/978-3-031-29466-2_11.

Peer-Reviewed Edited Work

- Mhmood, Fatma, Heather Mitcheltree, Jerry Chow, **Michael Salka,** et al., eds. 2023. *Scroope 32: The Quotidian and the Enchanted*. Scroope 32. University of Cambridge Department of Architecture. <https://www.arct.cam.ac.uk/news/latest-issue-scroope-journal-quotidian-and-enchanted-now-available-download>.

Book Chapters (Not Peer-Reviewed)

- Guallart, Vicente, Daniel Ibáñez, Alex Hadley, and **Michael Salka**. 2023. "New Niu." In *FURNISH: New Methodologies to Intervene in Public Space*. CARNET Future Mobility Research Hub. <https://doi.org/10.5821/ebook-9788419184764>.
- Guallart, Vicente, Daniel Ibáñez, and **Michael Salka**. 2023. "Co-Fabrication Process." In *FURNISH: New Methodologies to Intervene in Public Space*. CARNET Future Mobility Research Hub. <https://doi.org/10.5821/ebook-9788419184764>.
- Guallart, Vicente, Daniel Ibáñez, and **Michael Salka**. 2023. "Open Terrace." In *FURNISH: New Methodologies to Intervene in Public Space*. CARNET Future Mobility Research Hub. <https://doi.org/10.5821/ebook-9788419184764>.
- Guallart, Vicente, Daniel Ibáñez, and **Michael Salka**. 2023. "El Cargol." In *FURNISH: New Methodologies to Intervene in Public Space*. CARNET Future Mobility Research Hub. <https://doi.org/10.5821/ebook-9788419184764>.

Reports & Other Publications (Not Peer-Reviewed)

- Kies, Uwe, Florence Kuijl, Andreja Kutnar, Michael Burnard, and **Michael Salka**. 2026. "1st New European Bauhaus Conference: Knowledge, Skills, and Innovation in Sustainable Construction for a Resilient Future of Europe. Conference Proceedings." Paper presented at NEB Academy Conference. February 27. <https://doi.org/10.5281/zenodo.18853141>.
- Bugarin, Juan, Eduard Correal, Carla Ferrer, **Michael Salka**, et al. 2025. *Informe 2025 Mass Madera Red española para el impulso del uso de madera maciza industrializada en España*. Built by Nature. <https://massmadera.org/informe-mass-madera/>.
- Salka, Michael**. 2025. "On the Origins of Buildings: A Social-Ecological Network Approach to Contemporary Bioregional Architectures of American Earth, Norwegian Timber & Balinese Bamboo." Department of Architecture. <https://doi.org/10.17863/CAM.127242>.
- Bugarin, Juan, Eduard Correal, Carla Ferrer, **Michael Salka**, et al. 2024. *Informe 2023-2024 Mass Madera Red española para el impulso del uso de madera maciza industrializada en España*. Built by Nature. <https://massmadera.org/informe-2023-24-mass-madera/>.
- Whitby Wood, IAAC, TU Delft, et al. 2024. "Optoppen | Leading the Way in Sustainable Urban Densification." Creative City Solutions. <https://www.optoppen.org/>.
- Ibáñez, Daniel, Mariano Gomez Luque, **Michael Salka**, and Byron Cadena. 2023. *Vivienda y Desarrollo Urbano Inclusivo y Resiliente En Ecuador: Avances, Desafíos y Oportunidades*. World Bank.
- Ibáñez, Daniel, Mariano Gomez Luque, **Michael Salka**, and Ana Gallego. 2023. *Vivienda Biomaterial En América Latina y El Caribe*. Inter-American Development Bank. <https://iaac.net/projects/biomaterial-housing-in-latin-america-and-the-caribbean-report/>.
- Guallart, Vicente, Daniel Ibáñez, **Michael Salka**, and Fabio Capra Ribeiro. 2021. *Biociudad: Modelo Para La Aplicación de Los Principios de La Bioeconomía Circular En La Área Metropolitana de Barcelona*. IAAC.

SELECTED PRESENTATIONS

- Salka, Michael**. 2026. "What North America Can Take (and Leave) from Europe's Mass Timber Journey." Mass Timber Group Summit, Denver, USA, August 21. <https://www.masstimber.group/summit>.
- Salka, Michael**. 2026. "Industrialized Wood Construction Program & Prefab Training School." UNESCO-UIA World Capital of Architecture. 1st New European Bauhaus Academy Conference: Knowledge, Skills, and Innovation in Sustainable Construction, Barcelona, Spain, February 27. <https://innovawood.com/nebacademyconference26>.
- Salka, Michael**. 2024. "Advanced Ecological Architectures & BioCities - Learning by Living How to Build a Greener Future." National University of Singapore (NUS) Cities Public Lecture Series, Singapore, November 20. <https://cde.nus.edu.sg/nuscities/public-lecture-series/>.
- Salka, Michael**. 2024. "Sustainable Lifespan." Anatomy of Timber / Building Forum, Delft University of Technology (TU Delft), Delft, The Netherlands, October 15. <https://www.aanmelder.nl/anatomyoftimber2024/home>.
- Salka, Michael**. 2024. "Eiendomsdagen i Drammen (Drammen Property Days) 2024: Nature and the City - What Can Drammen Learn from Barcelona?" Eiendomsdagen i Drammen 2024, Drammen, Norway, November 7. <https://www.eiendomsdagen.drammen.no>.
- Salka, Michael**. 2023. "Designing and Fabricating Advanced Ecological Buildings & Biocities." Build: From High to Low Tech, Casa da Arquitectura, Porto, Portugal, September 15. <https://www.buildporto.com/build-23>.
- Salka, Michael**. 2022. "Prototyping Advanced Ecological Buildings and Their Nature-Based Value Chains." Cambridge Zero Postgraduate Academy. Inaugural Summer Symposium, Cambridge, United Kingdom, June 7.
- Salka, Michael**. 2019. "The Niu Haus: An Advanced Ecological Prototype Home." AIA Continental Europe Conference, Brussels, October 3. <https://www.aiaeurope.org/past-events/2019/10/3/aia-continental-europe-conference-brussels-l>.

ACADEMIC EVENTS ORGANIZED

1st New European Bauhaus Academy Conference, UNESCO-UIA Barcelona World Capital of Architecture 2026
Martin Centre Research Seminar Series, University of Cambridge Department of Architecture 2021-2024

SELECTED MEDIA COVERAGE

- Bernard, Grace. 2026. "This Tiny Cabin in Spain Is Pretty Impressive for a Student Project." Dwell, April 2. <https://www.dwell.com/article/forestone-iaac-tiny-cabin-off-grid-building-6d3561a4>.
- Domus Editorial Staff. 2026. "There's an Experimental Tiny House Made of Charred Wood." <https://www.domusweb.it/en/architecture/gallery/2026/03/10/experimental-tiny-house-charred-wood-forestone-cabin.html>.
- Editorial Staff. 2026. "Forestone: An Ecological Shelter in the Pyrenees - Institute for Advanced Architecture of Catalonia (IAAC) | The Plan." The Plan, February 16. https://www.theplan.it/eng/whats_on/forestone-cabin-iaac-pyrenees.
- Fernández, Elvira. 2026. "Faceted Wood Resting. 'Forestone' Cabin by IAAC." METALOCUS, February 12. <https://www.metalocus.es/en/news/faceted-wood-resting-forestone-cabin-iaac>.
- Hill, John. 2026. "A Boulder Made of Timber." World-Architects. <https://world-architects.com/en/architecture-news/found/iaac-forestone-cabin>.
- IAAC. 2026. "Forestone | IAAC." Archello. <https://www.archello.com/project/forestone>.
- Vergopoulou, Christina. 2026. "IAAC Ecological Architecture Students Build a Shelter That Helps Fight Wildfires in the Pyrenees." *Designboom | Architecture & Design Magazine*, February 6. <https://www.designboom.com/architecture/iaac-ecological-architecture-students-shelter-wildfires-pyrenees-forestone-cabin-institute-advanced-architecture-catalonia/>.
- Garner, Mandy. 2025. "Learning from the Past to Make Better Buildings for the Future - Gates Cambridge.", August 5. <https://www.gatescambridge.org/about/news/learning-from-the-past-to-make-better-buildings-for-the-future/>.
- IAAC. 2025. "CORA Wins Gold Prize at Design Educates Awards 2025." *IAAC Barcelona*, July 18. <https://iaac.net/cora-gold-prize-design-educates-awards-2025/>.
- Kenworthy, Laura. 2025. "Solving Problems in Beautiful Ways." *The Darwinian*. <https://www.darwin.cam.ac.uk/wp-content/uploads/2025/02/Darwinian-WEB-JAN25.pdf>.
- Pintos, Paula. 2025. "CORA Installation." ArchDaily, March 27. <https://www.archdaily.com/1028395/cora-installation-iaac>.
- Varea, Ana. 2024. "Self-Sufficient Mobile Home Made of Dowel-Laminated Timber Rides on Wheels." *Designboom | Architecture & Design Magazine*, April 12. <https://www.designboom.com/architecture/self-sufficient-mobile-catalyst-home-dowel-laminated-timber-wheels-iaac-04-12-2024/>.
- Lasky, Julie, Lila Allen, and Lauren Messman. 2021. "16 Global Design Concepts for an Unpredictable Future." *Arts. The New York Times*, March 28. <https://www.nytimes.com/2021/03/28/arts/design/designers-global-challenges.html>.
- Ott, Clara. 2021. "The Voxel Quarantine Cabin." ArchDaily, March 15. <https://www.archdaily.com/958366/the-voxel-quarantine-cabin-valldaura-labs>.