TRISTAN JOSEPH MORGAN

EXPERTISE

- Digital Transformation
- Digital Strategy
- Strategic Design
- Architecture
- Research and Innovation
- Leadership
- Design Technology
- Agile Project Management
- Modern Methods of Construction (MMC)
- Design for Manufacture and Assembly (DfMA)
- Knowledge Management
- Training and Education

PROFILE

I am an industry leader in design, architecture, digital strategy, and innovation. With over 15 years of experience, I have developed expertise that spans digital tools, processes, and theory.

My work focuses on the future: advanced manufacturing, human-machine interfaces and interactions, design for carbon zero, transdisciplinarity, strategic foresight, and the ethical application of technology for sustainability and resilience in the pursuit of ecology-centric futures.

I use my experience and expertise to fuel purpose-driven initiatives that deliver real impact. Whether it is across an organisation, within projects, or through community and stakeholder engagement, I'm dedicated to delivering positive outcomes for business, client, and community alike.

I am as comfortable driving strategic growth portfolios as I am fostering meaningful connections with clients or ensuring seamless project delivery.

I remain an active researcher and educator, and value sharing knowledge and engaging in deep collaboration to enable the creation of better environments for all participants in our built and unbuilt environments and ecologies.

QUALIFICATIONS

Doctor of Architecture
University of Western Australia
Expected completion 2025

Professional Certificate of Strategic Foresight
University of Houston
2022

Master of Architecture
University of Western Australia
2007

Bachelor of Environmental Design
University of Western Australia
2005

CAREER OVERVIEW

Position	Organisation	Period
Associate, Global Computational Design Leader (APAC)	Aurecon	2021 +
National R&D Co-Lead	COX Architecture	2021
National Design Technology Lead: Innovation		2018 - 2021
National Computational Design Coordinator		2017 - 2021
Co-Founder	Intensive Fields	2016 +
Lecturer, School of Design and the Built Environment	Curtin University	2019 +
Lecturer, School of Design	UWA	2008 - 2020
Unit Coordinator, School of Design		2012 - 2018
Consultant	Engawa Architects	2013 - 2016
Research Associate, Advanced Timber Concepts Research Centre	UWA	2009 - 2012

RECENT AWARDS AND MEDIA

Award / Media	Organisation	Year
National Commendation for Sustainable Architecture, National Architecture Awards	Intensive Fields	2024
Jeffrey Howlett Award for Public Architecture, WA Architecture Awards		2024
Wallace Greenham Award for Sustainable Architecture, WA Architecture Awards		2024
WA Future Leader of the Year, Design Award	Property Council of Australia	2019

GET IN TOUCH

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AUSTRALIA

TRISTAN JOSEPH MORGAN

PROFESSIONAL EXPERIENCE
AURECON, AUSTRALIA

A global engineering, design, and advisory firm that provides services across multiple sectors, including infrastructure, energy, heavy industry and transport. It operates across multiple regions and collaborates closely with clients to tackle complex challenges and create sustainable solutions.

ASSOCIATE, GLOBAL COMPUTATIONAL DESIGN LEADER, 2021 +

Key Responsibilities:
- Leading the Computational Design (CoDe) Strategy and team.
- Leading the CoDe Network's growth, enablement, and adoption strategy.
- Acting as the Group CoDe specialisation lead.
- Contributing as a member of the Digital Leadership team.
- Engaging with key stakeholders across the Global business.
- Contributing to project delivery, opportunity pursuit, and client engagement strategies.
- Maintaining close alignment with the organisation's IT, cybersecurity, and legal requirements.
- Identifying and mitigating risk to ensure achievement of best-practice software development and project implementation.
- Identifying, testing, and implementing emerging technologies and platforms.

Achievements:
- Contributed, as a member of the Digital Leadership team, to the Group Digital Transformation and Enablement Strategy.
- Led the development of cloud-based digital infrastructure to universally scale computationally-enabled automated design tools, processes, and workflows.
- Delivered a pipeline of prototype and proof-of-concept technology to support client delivery.
- Developed innovative business service models for computational design.
- Contributed to the development of a standardised Modern Methods of Construction (MMC) methdology, that leveraged computational tools and workflows to accelerate delivery and improve quality.
- Built internal computational design capacity by growing specialist networks, recruiting expertise, and applied strategic leadership.
- Delivered an automation and computational design knowledge sharing platform to accelerate implementation of advanced digital tools and processes into project delivery.
- Grew eminence of Computational Design and Digital services, internally and externally, through delivery of presentations, lectures, publications, and events.
- Transitioned CoDe team from Waterfall to standardised, yet adaptable and responsive, Agile project delivery processes.

Indicative Projects:
- Aurecon CoDe Platform | Developed business plan and managed delivery for an industry-leading web-based cloud platform for execution of code and computational design workflows, which included an organisation-specific geometry library of standardised elements and computational functions.
- Aurecon Script Library | Developed business plan and managed delivery of a web-based computational design and programming code knowledge repository, and its integration with design and documentation software platforms.
- Aurecon Buildings Carbon Sketcher | Managed delivery for a web-based platform that enabled automation of early-stage structural design, including analysis and simulation of embodied and operational carbon impacts.
- Exemplar 2024: Generative AI | Hosted the event, as a member of the planning committee, and led the design and delivery of a GenAI hackathon to over 40 colleagues, partners, and clients.
- Exemplar 2023: Sustainability in Design | Invited to deliver the Computational Design and Sustainability Strategy, and participated in workshops with colleagues, partners, and clients.
- ISO27001 | Managed the CoDe team preparation and development of processes and artefacts to achieve certification.
- Universal Automation | Contributed to Automation Strategy and development of measures, metrics, and actions for improvement of digital maturity, productivity, efficiency, and quality.
- Speckle Pilot and Adoption | Established an enterprise partnership with a leading software vendor and managed the development of steering groups, testing cohorts, and documentation to drive adoption.
- Gitlab Maturity and Adoption | Managed improvements to Gitlab and source control infrastructure, including ISO27001 compliance, automation process hosting, and collaborative documentation storage.
- Aurecon InGround | Managed development and delivery of a web-based platform that facilitates creation of data-rich 3D existing utility models for major infrastructure projects.
- Aurecon SignDesign | Managed delivery of a civil design software add-on and web-based library management platform for the design, documentation, and scheduling of standards-compliant signage and road-furniture for roads projects.

COX ARCHITECTURE

A design-focused contemporary architectural practice with studios located in every major Australian city and a history spanning 60 years.

NATIONAL R&D CO-LEAD, 2021

Key Responsibilities:
* Developing and implementing the strategy and roadmap for the newly established National R&D functional area.
* Leading the design, delivery, and adoption of applied research.
* Managing the national R&D leadership team.
* Managing the national R&D portfolio, including annual budgets, resourcing, recruitment, and investments.
* Regularly reporting to the Group Executive and Board of Management on roadmap progress and expenditure.

Achievements:
* Developed the business case for R&D and secured board support and investment.
* Proposed, designed, secured funding for, and implemented a National innovation Accelerator Programme.
* Established, grew, and coordinated a national research team comprising members from each studio representing a diverse range of sectors and technical expertise.
* Established and fostered relationships with academic and research partners, securing funding through successful federal research grant applications.
* Developed business cases for R&D investments
* Applied strategic foresight and thought leadership to grow eminence through engagements with leading national and international industry bodies such as DesignIntelligence, the Design Futures Council, and the Australian Institute of Architects.
* Developed an internal research knowledge sharing platform and managed the editorial committee of internal research publications.
* Initiated, coordinated, and curated a monthly Research Talks series that hosted internal and external experts.

NATIONAL DESIGN TECHNOLOGY LEAD: INNOVATION, 2018 - 2021

Key Responsibilities:
* Leading the Innovation stream for the National Design Technology leadership team.
* Owning the National Computational Design Strategy and managing the Computational Design leadership group.
* Managing digital technology annual budgets.
* Leading the continuous improvement of business and design processes.
* Identifying, testing, and implementing emerging technologies and platforms.
* Regularly reporting to the Group executive and Board of Management on strategy and roadmap progress.
* Coordinating standardisation of technology processes and investments across the National Group.
* Assisting projects with digital execution strategies.
* Contributing as a key member of the Futures Committee.
* Collaborating closely with IT and technical delivery leadership teams.

Achievements:
* Designed and implemented strategy and roadmap for newly established National Design Technology Strategy.
* Designed the business' National Computational Design Strategy.
* Designed and delivered an updated Digital Knowledge Management Strategy.
* Designed and delivered Computational Design Hackathon programme in 2018 and 2020.
* Coordinated contributions to, and attendance at, major industry conferences and events.
* Formalised Computational Design as a key digital specialisation and capability for project design and delivery.
* Delivered the Futures Committee presentation at 2019 AGM.

Indicative Projects:
* Workplace Analytics Toolbox, 2020 | Led the delivery of internal software for automated workplace design.
* Future of Retail Strategic Design Toolbox, 2021 | Led the development of a software tool to enable a key client to visualise the spatial outcome of strategic planning and investment decisions.
* COX Futures = R&D | Designed and delivered a vision and strategy for the R&D function.
* Neom Zero | Led the design and computation strategy for an invited competition proposal and subsequently developed the design and delivery strategy for a digitally-enabled zero carbon modular construction and assembly methodology.
* EXPO 2020 Opportunity Pavilion | Led the computational design and research stream for geometric rationalisation, complex structural methodology, fabrication-ready modelling, and documentation of the project.
* Dubai Creek Harbour Towers | Designed computational design strategy for rapid planning solution generation and evaluation.
* Dubai Creek Harbour Urban Core | Developed computational design strategy for design and analysis of options for development of residential towers and urban realm.
* Optus Stadium | Designed and developed computational design tools to evaluate and validate seating bowl performance.
* Oman Across Ages Museum | Developed computational design processes for the optimisation of facade stone cladding and preparation of documents for fabrication and installation.

INTENSIVE FIELDS LAB AND STUDIO

Award-winning transdisciplinary research and design practice working across scales, focused on delivery of climate and community responsive projects, enabled by advanced digital technology. It operates at the intersection of architecture and design, public art, advanced manufacturing, software development, and strategic design.

CO-FOUNDER, 2016 +

Key Responsibilities:
- Leading business strategy and development
- Identifying and initiating partnerships and collaborations with research and industry bodies, which are developed through project applications and teaching practice.
- Identifying and leading work-winning activities, including opportunity pursuit and client engagement.
- Managing and coordinating growth and marketing activities.

Key Achievements:
- Achieved steady growth of project pipeline, equating to 10x increase in revenue since 2016.
- Established strategic partnerships with mature practices and specialist consultants, strengthened through the delivery of key architectural projects and public artworks.
- Led development from technology start-up to award-winning architecture and design practice.

Indicative Projects:
- Ravensthorpe Cultural Centre, Western Australia, 2023 | Developed technological approach for real-time and dynamic modelling and visualisation of embodied carbon factors.
- "Pleated Histories" Sculpture (with Jacky Cheng and Daniel Giuffre), Broome North Regional TAFE, 2023 | Led opportunity pursuit and client engagement for delivery of a geometrically complex artwork to regional Australia.
- Geraldton West End Revitalisation Feasibility | Led the financial feasibility and commercial planning strategy for a proposed mid-rise prefabricated timber tower.

RESEARCH AND ACADEMIA EXPERIENCE

CURTIN UNIVERSITY, SCHOOL OF DESIGN AND THE BUILT ENVIRONMENT

The School of Design and the Built Environment provides teaching that values design, sustainability and community development; encourages individual approaches to visual ideas; and celebrates future possibilities.

LECTURER, 2019 +

Transdisciplinary teaching across Art History, Design Technology, Advanced Fabrication and Manufacturing, Architectural History, Theory, Design, and Urban Design.

Master of Architecture
- Thesis Supervision, 2019 +
- Urban Research and Methods, 2019 +
- Urban Winter Studio, 2021
- Complex Building Studio, 2023 +

UWA, SCHOOL OF DESIGN / FACULTY OF ARCHITECTURE

This future-focused school attracts the best students from around the world and drives innovation in architecture and design.

LECTURER 2008 - 2020 / UNIT COORDINATOR, 2012 - 2018

Transdisciplinary teaching across Art History, Design Technology, Computational Design, Advanced Fabrication and Manufacturing, Architectural History, Theory, Design, and Furniture Design.

Master of Architecture
- Generative Fabrication (Unit Coordinator), 2012 - 2018
- Design Studio (Studio Coordinator), 2019 - 2020
- The Architecture of Furniture, 2010 - 2016
- Grid-shell Experiment, 2011

Undergraduate
- Advanced Design Thinking (3rd Year Studio Coordinator), 2015 - 2017
- Design Studio (3rd Year Studio Coordinator), 2015 - 2016
- Design Studio (2nd Year Studio Coordinator), 2016
- Design Studio (1st year Studio Coordinator), 2011
- Australian Studies (2nd Year), 2010
- Art: Idealism to the Everyday (1st Year), 2010
- Art and Architectural History (1st Year), 2008 - 2010

ADVANCED TIMBER CONCEPTS (ATC) RESEARCH CENTRE

The Research Centre in the Faculty of Architecture, Landscape and Visual Arts was established to administer research work associated with a joint venture between The University of Western Australia and the Forest Products Commission.

RESEARCH ASSOCIATE, 2009 - 2012

Key Responsibilities:
- Undertaking materials research using desktop and applied research methodologies.
- Contributing to the development of prefabricated building design processes and methodologies.
- Contributing to regional and remote delivery of buildings and structures
- Supporting the development of technical processes to enable lightweight furniture design and production.
- Leading research into rapid prototyping and digital fabrication.
- Providing design consultation across disciplines, including sculpture, installation, building design and construction.

Indicative Projects:
- Pingelly Recreation and Cultural Centre, 2015 | Developed the overall design strategy and contributed technical expertise for the digital design and fabrication approach.
- Shade Structure, South Hedland Town Square, Western Australia, 2011 | Led the project from concept through to delivery, including application of novel computational design techniques and digital fabrication processes to ensure timely and cost-effective execution.
- Jarrah Durability Literature Review, Royalties for Regions, 2010 | Acted as Lead Researcher for unpublished research into durability of Jarrah and made subsequent recommendations for reclassification within Australian Standards.

MEMBERSHIPS AND AFFILIATIONS

CAADRIA (Computer-Aided Architecture and Design Research in Asia)
Member, 2012 +

ACADIA (Association of Computer-Aided Design in Architecture)
Member, 2017+

PURL (Perth Urban Research Lab)
Collaborator, 2022 +