SUMMARY OF PROJECT RESULTS

A new vision for coastal resilience:

Engaging communities through art to design a transformative future

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This project summary was adapted from a series of presentations developed and delivered by the authors. A recorded presentation by Natasha Pauli & Daniel Jan Martin can be viewed at: https://tinyurl.com/risingtidestalk

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Overview

- Our research project 'A new vision for coastal resilience: Engaging communities through art to design a transformative future' piloted a creative approach to envisioning resilient coastal futures in two coastal hotspots: the Cockburn Coast in Perth, and the Middleton Bay region in Albany.
- Community members were engaged through art-based workshops using collage, textiles, photography and poetry, to uncover values held for coastal regions.
- A variety of landscape architecture design visions informed by both the community values and coastal science were created to help people imagine transformative, nature-based solutions for coastal regions, beyond defaulting to ad-hoc protective hard infrastructure.
- Public exhibitions of community artwork and design visions generated broad engagement and sparked constructive conversations about coastal adaptation.
- Coastal managers and community members alike rated the approach highly for building trust, inclusion, and long-term engagement.
- The piloted approach is replicable: with appropriate resourcing, local governments and coastal managers can adapt this approach for their own planning contexts.
- The approach could be used as part of broader engagement strategies for coastal adaptation, and/or it could form the first phase of future design planning, in consultation with engineers and technical experts.

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Illustrations from Rising Tides: Binalup (edited by Daniel Jan Martin, Liam Mouritz and Sofie Nielsen, featuring seven UWA landscape architecture students)

Visioning resilient coastlines under changing conditions

Australia's coastlines face compounding pressures from climate change, erosion, inundation, flooding and rapid land use change. Building coastal resilience is championed in policy and practice, with government investment directed towards developing response strategies. However, complex barriers hinder investment in innovative, long-term approaches to build social and ecological resilience. Consequently, responses are dominated by a range of approaches that focus on addressing immediate issues rather than planning ahead. For example, short-term fixes (e.g., sand nourishment) delay opportunities for strategic planning that ideally needs to begin now to deliver the desired future outcomes, while semi-permanent structures (e.g., groynes, seawalls) lock in a management pathway and focus disproportionately on protection of built infrastructure relative to natural environments. Repeated investments in such fixes makes it more difficult to envision and implement strategies that deliver longer-term resilience whilst improving economic, social and environmental sustainability for coastal communities and ecosystems.

Planning for the long-term future of rapidly changing coastal areas requires imagining transformative change. However, many people find it very challenging to think about the future, particularly under uncertainty and concerns over the impact of climate change. Community members may experience negative emotions when thinking about changes to treasured places. Some consultative formats (public meetings, written submissions) tend to favour those already engaged with planning processes. Surveys can reach a wide range of community members, but may be limited in the depth of information that can be conveyed. Coastal adaptation decisions require inclusive, creative, and forward-looking methods to complement current approaches.

Our research team trialled the use of arts-based methods to engage with coastal communities, with the goal of showcasing hopeful design visions for the future based on community values and projections for coastal change. We harnessed an interdisciplinary partnership across social science, landscape architecture, coastal engineering and visual arts for this innovative project, which ran in 2024 and 2025. The project received a WA Coastal Award for Excellence in Education, Engagement, Science and Research in October 2025.

A multi-phase, case-study based research approach

This pilot project focussed on two Western Australian case studies: the **Cockburn Coast** (from Fremantle Esplanade to Woodman Point) in Perth; and **Middleton Bay** (from Binalup | Ellen Cove to Emu Point) in Albany. Both locations are much-loved coastal regions facing multiple pressures including erosion, inundation, storm surges, urban development and growing populations.

The stages of the project are illustrated in Figure 1. First, we sought to understand local values through a series of art-based workshops with community members. Additionally, students engaged in design work spent time in each location with Noongar elders, learning about the place. Second, coastal scientists provided information on coastal risks and nature-based engineering solutions. Third, landscape architecture staff at UWA led students through a series of studio offerings focussed on designing a vision for the future, exploring particular sites within each case study location. Fourth, we published and exhibited community artworks, community stories, and multiple landscape design visions across three public exhibitions, including one at each case study location. Finally, we asked attendees at the exhibition to complete a short survey to provide feedback on the research approach and the visions developed.

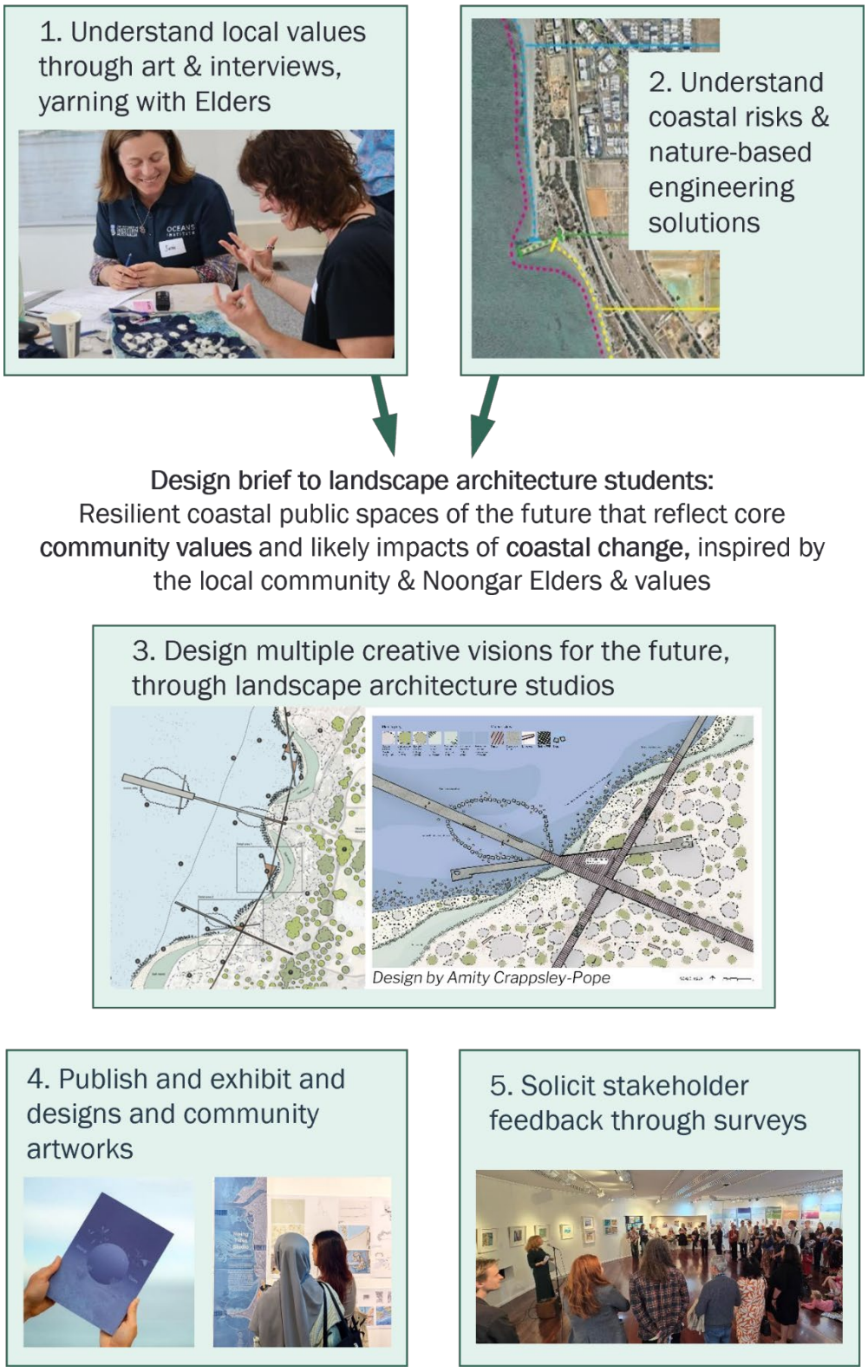

Figure 1: Illustration of the major stages of the research project.

A similar approach was followed in both locations. In Cockburn, three classes of undergraduate landscape architecture students were involved in the project, which each class focussing on a specific node within the Fremantle-Cockburn cell (Fremantle Esplanade, Catherine Point, and Woodman Point). In Albany, seven high-achieving students accompanied three staff for a week-long intensive studio, creating seven nodes within a broader conceptual landscape design across Middleton Bay.

Scale and reach of the pilot project

70+	60+	350+	54
community artworks created	landscape architecture students taught	exhibition attendees at two local exhibitions	feedback surveys completed

Eight arts-based workshops were conducted during the project, which were free and open to local residents. The workshops were co-led by creative professionals and researchers and were designed to be accessible to everyone, regardless of prior experience. Four creative methods were used: paper collage, textile creation, photography, and poetry/creative writing. Exhibitions were held at Memorial Hall, Hamilton Hill showcasing the work from the Cockburn Coast, and at the Western Australian Museum of the Great Southern in Albany, for the Binalup | Middleton Bay designs and artworks. Attendees at workshops were invited to attend the launch events, as well as key stakeholders, project partners and coastal planners and managers.

A range of outputs created by the project can be accessed via https://www.resilient-ways.com/coastal-vision-project

Feedback from community and coastal managers

Community perspectives

Thirty-seven members of the general public (including some who participated in workshops) answered surveys about the exhibitions. Of these, 70% said that it had changed their views on what they would like to see at the coast in the future. Participants described the approach as educational and creative, and noted that it generated a sense of hope, possibility, and connection. Several respondents provided detailed reflections on the process displayed at the exhibitions:

"I think with art, people actually will show their heart ... people tap into some inner feeling that doesn't come out quite so often in words or meetings ... a great way of exploring community sentiments."

"Opens up a range of creative possibilities ... the process reveals potential to remove/correct physical designs/planning errors of the past, to support restoration or retreat, or creative redesign in adapting to changing shorelines"

"The creative process would assist with gaining a wider representation of views and values than typical consultation"

"I think it would provide stakeholders with a view from a different angle, placing a spotlight on community values rather than economically driven decisions"

"The idea to involve artists and the public in a few hours of creativity to offer a vision for the environment they live in is genius. To frame the art and return it to the creator further enhances the process, as the pieces will continue to evoke conversation within the community"

Responses from five community members reflecting on the project

Coastal manager perspectives

Coastal adaptation planning typically does include reviews of environmental information and nature-based engineering solutions for coastal hazards. However, adaptation planning does not usually include three additional aspects that were trialled in our research, namely: using creative engagement methods to elicit community values; creating landscape design visions; and discussing these visions with community members and stakeholders. Practitioners answering the survey rated all three of these elements positively for supporting coastal adaptation planning (see Figure 2), with all 16 respondents finding the use of design visions to be 'useful' or 'very useful'.

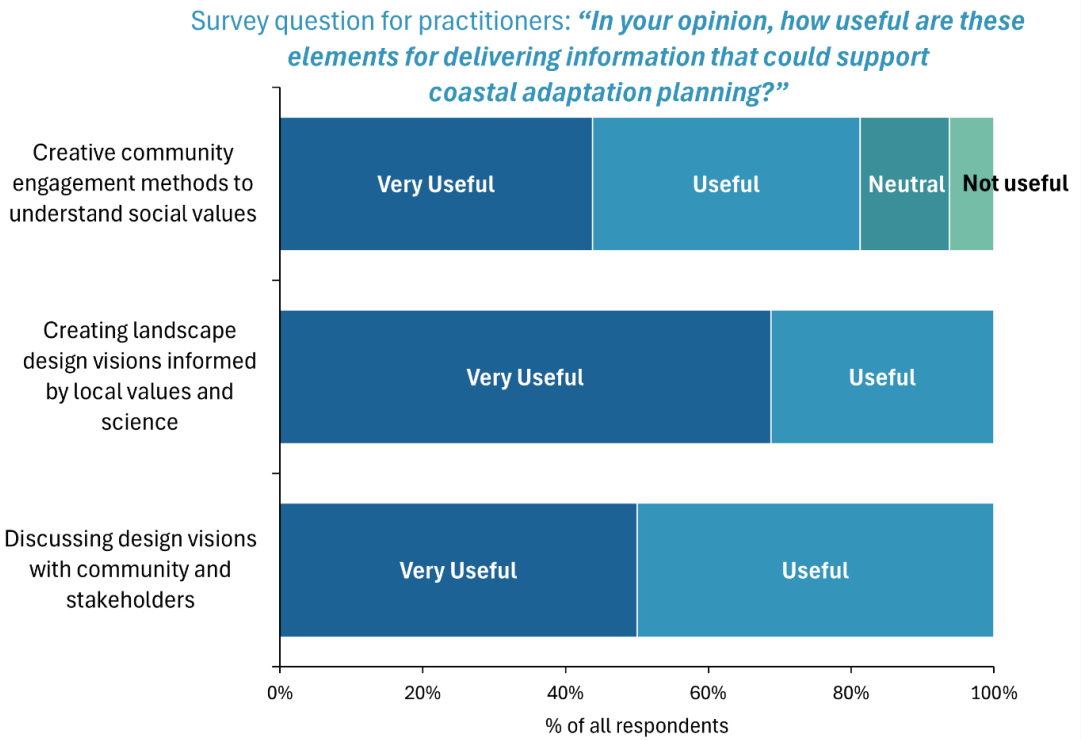

Figure 2: Summary of survey responses from 16 practitioners attending exhibitions staged in Perth and Albany.

Responses from practitioners reflecting on how the process displayed in the exhibitions compared to other planning processes included:

> *"Creates a non-confrontational environment where more discussion and interaction is allowed for, leading to long-term trust and progress."*
>
> *"This process allows for a soft and dynamic approach instead of the normal 'death by survey'."*
>
> *"Allows for people to engage with the concept of coastal adaptation and change in a creative way and I imagine will result in a much greater level of connectivity with the community."*
>
> *"Adaptation investigations are currently largely technical ... Landscape planning and integration is a missing piece in this."*
>
> *"Creative and innovative solutions...can supplement/complement more typical engineering responses and scientific knowledge. Most community members readily relate to the arts - this is the ideal way to engage/consult."*
>
> **Responses from five practitioners reflecting on the project**

Opportunities and strengths

The approach fosters creativity, inclusion, and trust in discussions about change, representing a wide range of community values, including those held by groups less likely to attend formal meetings. Public exhibitions functioned as a meaningful additional layer of community engagement. The approach shows potential to envision coastal futures that augment and move beyond commonly implemented approaches such as sand nourishment and seawalls. There was strong alignment between workshop participants, coastal managers, and broader community members in relation to the utility of the approach. Survey results showed that ~70% of coastal managers were already aware of the use of visioning techniques in coastal adaptation planning, compared with only 27% of community members, suggesting that practitioners are well-poised to introduce visioning as part of community engagement activities in adaptation planning.

Challenges and areas for development

While direct participation numbers were small, the reach of the project was extended through the two week-long public exhibitions. Having exhibitions open for longer periods, and integrated with outreach and educational programs, could generate deeper community interest. Workshop participation skewed towards those already inclined towards creative arts, and towards women participants for all approaches except photography. Alternative arts-based methods may be needed to broaden demographic representation. Interpreting visual materials may present communication barriers for people who prefer written or recorded information. Providing a balance of narrative information alongside landscape designs could aid in interpretation.

Policy and practice recommendations

- Consider investing in creative engagement and visioning methods to complement existing engagement processes in coastal hazard management and adaptation planning . Creative methods can create a ‘snowball’ effect and open opportunities for dialogue.
- Address demographic gaps by testing complementary creative methods (e.g., manual arts, digital arts, audio/music, or movement-based creative processes) to increase engagement with underrepresented groups.
- Provide resourcing for facilitation, artist partnerships, exhibition curation and hosting. Surveyed coastal managers flagged resourcing as the primary barrier to implementing the approach adopted in this project. Partnering with educational institutions can provide training opportunities for emerging landscape architects, social scientists, and coastal engineers. Partnering with local community arts-based groups can provide opportunities for co-designing workshops, and for involvement of local arts practitioners and venues.
- Explore options for longer-running, travelling or digital exhibitions to extend community reach beyond short display windows. Concurrently, develop opportunities for local schools and vocational institutions to visit and engage with exhibitions.

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