

Tidal Thinking for artist-researcher collaboration: beachcombing located memories and place values

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Abstract

Oceans are fundamental to life on Earth, yet they face escalating pressures that demand solutions across society. Addressing these challenges requires approaches that span disciplines and ways of knowing. Bridging art and research offers great possibilities but comes with its own distinct challenges. Inspired by Oceanic movement and our coastal experiences, particularly SCUBA diving, we consider connections between arts and research through rhythm and sense of place. Marine places further benefit from approaches suited to their fluidity, such as ‘Oceanic thinking’ and embodied maritime practices. Based on conversations between the authors (artist and researcher) which became the supporting text for an exhibition, we propose ‘tidal thinking’ as an approach which resonates with our art and research practices. Tidal thinking emphasises dynamic cycles, creating liminal terrains, exposing learnings, and carrying us through tension and release. This cycle has supported our collaborative work, including a participatory mapping and sketching activity outlined below: ‘beachcombing located memories’. To evoke beachcombing, this activity echoes tidal cycles with sketching, scattering, combing, and sharing located images to elicit personal associations with coastal spaces towards shared reflection. Inspired by marine processes and artefacts, we offer tidal thinking as both a conceptual and practical tool to support educators, artists, and researchers in developing transdisciplinary collaborations that contribute to viable and just Ocean futures.

Keywords: art, research, transdisciplinarity, fluidity, cycles, workshop activities

Introduction

Oceans are fundamental to life on Earth, and their current threats pose great questions for the future of human wellbeing (Frazão Santos et al., 2022). Confronting these challenges requires multi-faceted approaches throughout society, engaging the arts, education, and much else alongside science and research which have traditionally taken on this role (Adnan & Fattal, 2023; Bennett et al., 2023; Boyle & Copley, 2022). Bridging arts and research holds great potential for each to break beyond conventions (Brennan, 2018), but requires cross-pollination which can be challenging within traditional disciplinary, institutional, and financial structures (Mesa-Jurado et al., 2025).

One area on which art and environmental research readily converge is sense of place (Brennan, 2018; Wedding et al., 2024), with crucial contributions from the perspectives of each. While ‘place’ has historically been a neglected concept in marine research (St. Martin & Hall-Arber, 2008), it has become increasingly central in interpreting and navigating the Anthropocene Ocean (Bennett et al., 2023; Wedding et al., 2024, 2025). One approach to integrating place-based knowledges and perspectives within research frameworks is participatory mapping, where diverse personal views and values are gathered and portrayed spatially, often through arts-based approaches (Boyle, 2023).

Understanding how different areas of work share processes and approaches may be one way to bring them closer together, particularly on common projects where they can more readily share rhythm. The importance of timing and rhythm has been developed in geography to understand how systems of various kinds can interact (Lefebvre, 2013; Reid-Musson, 2018). Understanding shared rhythms among different areas of work can help foster collaboration (Alhadeff-Jones, 2021; Riddell, 2024). Working in rhythm with a subject of inquiry can deepen embodied practice and knowing (Ingersoll, 2016).

Professionally, we (the authors) are an artist and a researcher, both incorporating marine themes extensively in our work. As diving buddies, sharing rhythm with the sea is part of our practice, along with the early mornings, long drives, and idle shoreline time which form the alternate rhythms of a day’s diving in Scotland. These rhythms have been present through our friendship, forming both the setting and basis for early conversations on our practices and collaboration.

Taking our lead from the Ocean, we adopted and reflected on its rhythm, noticing the common processes in our work.

As well as rich subject matter, this ‘tidal thinking’ can be used to come to grips with the realistic and natural rhythms of producing art and sustaining a creative practice in our current climate. Flooding creativity is flanked by slack meditative moments, intense production is often followed by fallow rest.

Steinberg and Peters (2015) detail ‘Oceanic thinking’, accounting for volume and fluidity. Adnan and Fattal’s (2023) ‘Thinking with Mediterraneans’ brings a similarly free-flowing attitude to the Ocean’s multiple and overlapping meanings. To approach marine space and place in this spirit accepts dynamism and three-dimensionality, shedding some of the constructs inherited from land-based approaches which have been repurposed at sea. Similarly, tidal flats have been characterised as sites of ‘slippery ontologies’, with dynamic and ambiguous properties (Choi, 2022). Artistic practices can often find a way to grapple with the fluid, the illogical. Through our conversation we found that the slippery space between esoteric creativity and factual precision allowed for a deeper and more imbued understanding of current realities and possible futures, particularly when it comes to the sea.

The sea is a space to think with (Adnan & Fattal, 2023; Ingersoll, 2016), through minds and bodies, broader cultural readings, and, in some cases, ancestral knowledge. Time spent in and around the sea, and the bonds built through these practices, offer us glimpses of what embodied thinking with depth and volume might look like. In our case, SCUBA diving and beachcombing have prompted collaborations and contrasts and comparisons, which bring us, together, to new ways of understanding.

Creative, transdisciplinary approaches hold great promise in understanding the present and navigating the challenges of the future Ocean from a greater variety of perspectives. Embracing multiple points of view supports procedural justice through participation and epistemic diversity, while also centring humanistic perspectives which are often overlooked and helping explore and triangulate ways forward which balance different objectives or which cannot be seen with only a single way of looking (Boyle & Randhawa, 2024; Brennan, 2018; Mesa-Jurado et al., 2025; Reid et al., 2021). Here, we propose ‘tidal thinking’ as a common process-driven approach among arts and research, supporting transdisciplinary collaboration towards

safe, just, meaningful futures. We tie it to participatory mapping and place value approaches through a group activity, detailed below, on beachcombing located memories.

Tidal Thinking

The text below draws from correspondence between the authors from March–October 2024 and reflections from the Atlantic, Pacific, Mediterranean, North Sea, and Firth of Forth. It is an expanded version of text written to support *Gripping a Wet Rock*, an exhibition of Giulia Gentili's¹ foreshore sculpture at Mote102² gallery, Leith, Scotland in January 2025 (Gentili & Boyle, 2025). This exchange builds on a decade of friendship born of diving, comparing practice as an artist and a researcher, and sharing our views into the deep. *Gripping a Wet Rock* was also the origin of the 'beachcombing memories' activity we detail here, our attempt to capture 'tidal thinking' in understanding our relationships to the sea.

GG - When I was working towards this exhibition I often thought about the long conversations we had on diving trips, comparing our practices between silent stints underwater. Waiting for the tide, we soaked up the environment, the rocks, the seaweed, the shells, and the squidgy things, and added them to our respective research libraries.

JB - Definitely, I see it in the cyclical nature of creating things. Knowledge is revealed, found, and interpreted, held in tension with some things suspended. Then there's an influx and reshaping, finishing with a sense of fullness and the output/work. I feel this in my own research and educational work and know it resonates with yours.

GG - Absolutely, as the tide cycles through different stages it seems to breathe and embody different stages of movement, tension and release.

High Slack I

At high tide the sea sits at its fullest, outstretched over the foreshore, reclaiming the land and the things it left behind. For a short time there's simply more sea.

¹ giuliagentili.com

² Exhibition version first published by Mote102, mote102.com

JB - I once heard the sea described as the first layer of the fluid atmosphere. It makes sea-level feel less like the 'bottom' and more like the top of something else.

GG - I like that idea of the bottom of the sea being just the top of the earth, I can imagine a much more continuous textured surface covered with a wet blanket. It makes the shore feel like a threshold between two worlds - like peeking under the cover. When we dive it often feels like we are visitors, knowing the sea from within as “learning another language” (Huband, 2023, p. 127). It’s a tiny glimpse into the workings of the sea.

JB - People have always been drawn to coastlines. That compulsion led us to make ‘unnatural’ breathing equipment that let us dive beneath like monstrous aquatic cyborgs, to “live differently under water; apprehend the world differently, and, when returning to land, still know the world to be otherwise” (Picken & Ferguson, 2014, p. 334). I like to remind myself that until recently, nobody had really seen much of what goes on beneath the sea's surface. How lucky are we?

GG - Maybe humans have been drawn to coastlines because the fascination with this threshold is magnetic. As the tide changes that limit it starts to become blurry and the border between land and sea somewhat undefinable. I find that when I spend some time away from diving I get nervous about doing it again, like I might forget to breathe. The equipment feels so awkward out of water and then the minute you break the surface it all makes sense.

JB - Our senses do the same thing as we shift from one fluid to the other. Pressure, light, and equipment distort everything and we find ourselves relying on unfamiliar sensations. It’s so richly embodied, overwhelming, and therapeutic - a new way of seeing and feeling (Straughan, 2012). As any time by the sea, with the smell and taste and sound, being in that environment is total.

Ebb II

As the sea ebbs, it recedes and gathers itself. It moves to retreat, revealing the foreshore, the liminal space that is both land and sea. This twilight zone leaves a magical space where the sea’s knowledge is revealed and refreshed.

GG - As the tide recedes it seems to leave parts of itself behind and reveals a glimpse beyond the threshold; a temporary window; a place for exchange. There is a certain mysticism that we associate with the sea, its unforgiving force, and our inability to naturally cross the threshold.

JB - In Orcadian and Shetlandic folklore, you can visit the ebb and offer your body to the Devil in exchange for knowledge.

“lie down in the ebb at night

place a hand on your head, a hand on the soles of your feet

three or nine times, utter these words, take all that is between my two hands.”

(Huband, 2023, p. 287)

I haven’t tried this (yet), but it made me think of the objects between tides and the stories they have to tell.

GG - It also makes me wonder (rather superstitiously) whether donning our SCUBA paraphernalia is an unwise bypassing of this ritual... Perhaps this mysticism comes from exactly that lack of understanding. “The sea with its fluid and tempestuous custody of the ebb and flow of histories we seek to know, frustrates our rationality” (Adnan & Fattal, 2023, p. XII)

JB -The sea is not rational space. A more humanistic view of how we feel, act, and live around the sea is essential for understanding the whole seascape, people and our irrational lives are very much part of it. *Thus Waves Come in Pairs* touches on how the sea affects us across scales of space/time/community and draws us close as an entity to think with.

GG - Absolutely. The line that really resonated with me is “The forces that flip the seas and cast the clouds are the same ones that spin the fictions that wet our dreams. To dwell on their waters is to get closer to the mysteries that hold us and everything else together.” (Adnan & Fattal, 2023, p. 100)

Low slack III

The sea stops. It holds itself in tension leaving behind shapes it has formed. A quick moment to gather, observe, and research before the sea releases.

GG - Like diving, I find beachcombing meditative - where I do my best thinking and gathering. Sally Huband describes the sea as “an archive of sorts. Every now and then, it offers an object that makes me see something that I otherwise might have ignored” (Huband, 2023, p. 200). I guess a trip to the beach is like a trip to the library.

JB - People have always come to the coast for abundance and survival, but also for ritual, solace, and meditation. Each wave followed by another, one retreats and something else rushes to fill its place. Tides move slower and larger. None of them last but others are certain to come in time. The tide rises and falls, but sea levels change over centuries, not hours. Decades now. We can draw strength and inspiration from the waves to accept change, adapt, and make space. I sit and bob and hope we can collectively find some balance. It can take us out of ourselves.

GG - I see parallels between low tide and the meditative research stage of creating. The sea retreats then pauses, gathering itself and holding still for a moment before it changes direction and outstretches. Similarly, in the creative cycle it can feel like a moment to recharge, observe and gather before bursting back out.

JB - There's also that rhythm in diving: 'surface interval'. We stop, rest, evaluate, and prepare for the next immersion. Rubbery sea creatures just taking a breath among the rockpools.

GG - Rockpools are such wonderful places of play, discovery, and collecting. Ocean portals. Twice a day you're shown a parallel world. The sea eats away at the coasts and builds microcosms within them. As a mould maker I often think about these cavities, the way they fill, tell stories, and refresh with each tide.

JB - Is it a pool held by rock or a rock holding a pool? Maybe that misses the point.

GG - Rockpools are tactile liminal spaces: islands of sea in Oceans of land. This is where I situate the body of work for this exhibition. I want to examine our delicate relationship to the sea, how we change each other. It's integral to human existence but largely unknown. It swallows forms from dry land only to return them later, changed, leaving its mark.

JB - Maybe that's what 'tidal thinking' looks like: constant change, holding difference close to learn from and admire it without pretending we could keep it away. What's revealed in the

spaces left by loss and what's gained by transition. Perhaps accepting and embracing change is what makes the ebb scary to some.

Flood IV

Forces come around and the sea charges towards the land, eating up the shoreline one wave at a time, outstretching to collect, cover, and erode what it has left behind. Tension is released and the shoreline is refreshed.

GG - When the sea floods I feel its creative forces the most. It reclaims land, smoothing edges, growing algae, and swallowing parts to spit them back out, changed. It feels like time changes underwater, things can get lost without knowing if or when they might be returned.

JB - The sea is a good place to think about time. Ripples, waves, swell, tides all happening over seconds-to-months to make an ever-changing surface, some parts like clockwork and others at random.

GG - Adam Nicolson writes that “this fluxing and flexing is a landscape, a halfscape, that reverberates with the mutability of things ... daily revelation and daily erasure, daily loss and daily reacquisition” (Nicolson, 2022, p. 9). You know when an object has spent time in the Ocean. The sea's shaping forces smooth but also amalgamate materials and compress them. Material knowledge is central to my practice, it lets me push limits and imagine in that material. It somehow doesn't matter how much time I spend in, near or with the sea, it's shaping mechanisms elude me. Its touch is instantly recognisable yet totally unpredictable. I guess much of this body of work centres around the attempt to reproduce the irreproducible effect of the sea. My own uncanny foreshore.

High Slack V

The sea reaches its full extension once more - its breath held, lungs full, before it exhales again.

Activity: Beachcombing Located Memories

This activity consists of four main parts, echoing the tidal cycle: sketching (high slack), scattering (ebb), combing (low slack), and sharing (flood) (See Appendix 1). It requires

drawing tools, paper, a map, and some pins. It was designed with groups of 5–20 in mind, but could be adapted for others.

In our case, the area of focus was the Scottish coastline. We invited participants to think of striking memories and associations they have with the beaches and seas of Scotland, our specific prompt was to think of “memories related to the coast and why they’re important to you”. We then asked each participant to sketch three or more images of these on separate pieces of paper with a specific site in mind for each (figure 1).

Next, participants scattered their sketches around the gallery space and spent time observing each others’ images, picking out one sketch each which spoke to them. They often adopted the classic beachcomber’s pose: bent forward, hands clasped low behind their backs, scanning attentively (figure 1).

For the sharing stage, each participant introduced their chosen sketch, explained what drew them to it, and pinned it to the map (figure 1). We then invited the sketcher to provide their account and inspiration behind the image, as well as its location. These are interesting when they are similar and interesting when they are different, provoking discussions of values, interests, and geographies. After going through each participant in turn, we used extra time to discuss additional sketches, broadening the collective conversation.

In emulating the cycle of the tides and embodied practices of beachcombing, this activity proved effective in evoking coastal memories, and thinking like tides. Our configuration was intended to connect people to art work (*Gripping a Wet Rock*) through a research tool (value mapping), but rooted in participants’ own creation and collective (re)interpretation. We see this activity easily adapted into various artistic, research, education, engagement, or multiple-use settings, and used across scales anywhere from local consultations to global conferences and beyond.

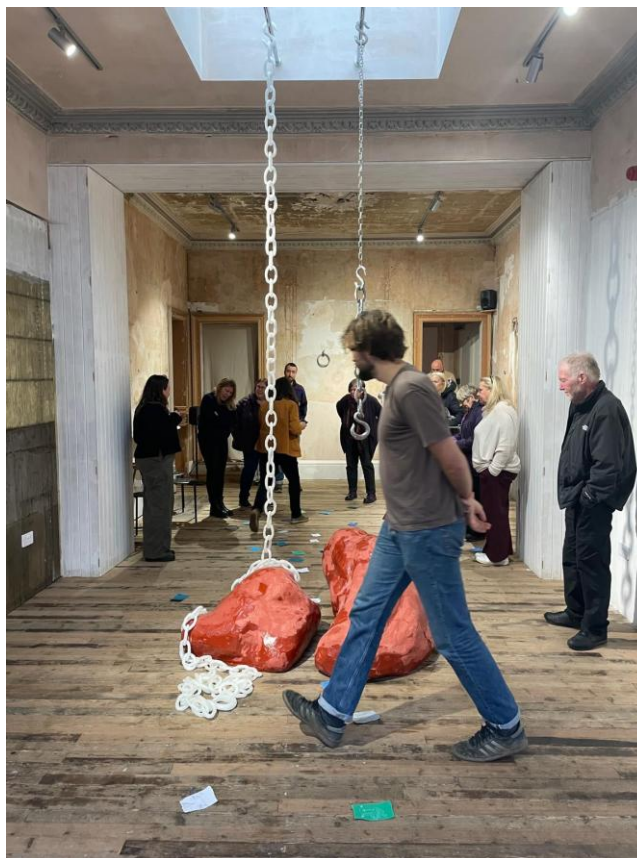


Figure 1: photos from the beachcombing located memories activity, showing (clockwise from top): sketching, combing, sharing.

Conclusion

Tidal thinking offers a process-oriented approach to bridge arts and research, particularly within participatory models and marine or coastal contexts. We conceived of this approach through many years spent in and around the Scottish coasts, where tides and their flows can shape both everyday activity and imaginative engagement. By embracing tidal states as processes within dynamic cycles, and aligning our rhythms, we have created artwork and research within our own practices and in combination to speak within and across disciplines.

The participatory activity ‘beachcombing located memories’ demonstrates how tidal thinking can be used in practice and is readily adaptable to other contexts. By drawing on participants’ own sketches, stories, and spatial associations, our workshop foregrounded personal and collective values, linking artistic creation with research tools such as participatory mapping. Through this approach, it brings diverse voices into dialogue and creates a space for reflection, discovery, and exchange, echoing the movements of objects in tides.

For art, research, and education alike, tidal thinking highlights the value of embracing flux, rhythm, liminality, and embodied experience. We hope that others might adopt and adapt this approach to support teaching, engagement, collaboration, research, creativity, and so much else. In an era of profound Oceanic challenges, tidal thinking provides one pathway for working together toward viable, just, and meaningful Ocean futures.

References

- Adnan, E., & Fattal, S. (2023). *Thus waves come in pairs: Thinking with the Mediterraneans* (B. Casavecchia, Ed.). Sternberg Press.
- Alhadeff-Jones, M. (2021). Time and the Rhythms of Academia: A Rhythmanalytical Perspective. In F. Vostal (Ed.), *Inquiring into Academic Timescapes* (pp. 21–37). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-78973-911-420211004>
- Bennett, N. J., Alava, J. J., Ferguson, C. E., Blythe, J., Morgera, E., Boyd, D., & Côté, I. M. (2023). Environmental (in)justice in the Anthropocene ocean. *Marine Policy*, 147, 105383. <https://doi.org/10.1016/j.marpol.2022.105383>
- Boyle, J. S. (2023). *Meadows, memories, and missing layers: Transdisciplinary mapping of Sanday's seagrass towards restorative marine spatial planning* [MSc, The University of Oxford]. <https://rgdoi.net/10.13140/RG.2.2.12630.42567>
- Boyle, J. S., & Copley, L. (2022). Co-Design and Conservation: A Case-Study from RSPB Biosecurity for LIFE in Coastal and Island Primary Schools and Youth Groups Across Scotland. *Concept*, 13(2), 1–13.
- Boyle, J. S., & Randhawa, H. (2024). Who Grieves for Rivers? A Correspondence. *Art Review Oxford*, 8. <https://artreviewoxford.com/issues/ARO%208.pdf>
- Brennan, R. E. (2018). Re-storying marine conservation: Integrating art and science to explore and articulate ideas, visions and expressions of marine space. *Ocean & Coastal Management*, 162, 110–126. <https://doi.org/10.1016/j.ocecoaman.2018.01.036>
- Choi, Y. R. (2022). Slippery ontologies of tidal flats. *Environment and Planning E: Nature and Space*, 5(1), 340–361. <https://doi.org/10.1177/2514848620979312>

- Frazão Santos, C., Agardy, T., Allison, E. H., Bennett, N. J., Blythe, J. L., Calado, H., Crowder, L. B., Day, J. C., Flannery, W., Gissi, E., Gjerde, K. M., Gobin, J. F., Mulalap, C. Y., Orbach, M., Pecl, G., Scherer, M., Shelton, A. J., Vieira Da Silva, C., Villasante, S., & Wedding, L. (2022). A sustainable ocean for all. *Npj Ocean Sustainability*, 1(1), 2, s44183-022-00004-4. <https://doi.org/10.1038/s44183-022-00004-4>
- Gentili, G., & Boyle, J. (2025). Gripping a Wet Rock. *Giuliagentili.Com*.
<https://static1.squarespace.com/static/52f5eb0ee4b013e3f9433ecd/t/67d41dd5b88acd6f81400b59/1741954518356/Giulia+Gentili++booklet+low+res.pdf>
- Huband, S. (2023). *Sea Bean: A Beachcomber's Search for a Magical Charm*. HarperCollins.
- Ingersoll, K. E. (2016). *Waves of knowing: A seascape epistemology*. Duke University Press.
- Lefebvre, H. (2013). *Rhythmanalysis: Space, time and everyday life*. Bloomsbury Publishing.
- Mesa-Jurado, M. A., Novo, P., Calderón-Contreras, R., Pereira, L., Bisht, V., Boffi, L., Dalla Torre, C., Gianelli, I., Gutiérrez Sánchez, C., Österblom, H., Strand, M., Tengö, M., Vervoort, J., & Balvanera, P. (2025). Meaningful transdisciplinary collaborations for sustainability: Local, artistic, and scientific knowledge. *Ecology and Society*, 30(4), art7. <https://doi.org/10.5751/ES-16491-300407>
- Nicolson, A. (2022). *Life between the tides* (First American edition). Farrar, Straus and Giroux.
- Picken, F., & Ferguson, T. (2014). Diving with Donna Haraway and the Promise of a Blue Planet. *Environment and Planning D: Society and Space*, 32(2), 329–341. <https://doi.org/10.1068/d13016p>

Reid, A. J., Eckert, L. E., Lane, J., Young, N., Hinch, S. G., Darimont, C. T., Cooke, S. J., Ban, N. C., & Marshall, A. (2021). “Two-Eyed Seeing”: An Indigenous framework to transform fisheries research and management. *Fish and Fisheries*, 22(2), 243–261.

<https://doi.org/10.1111/faf.12516>

Reid-Musson, E. (2018). Intersectional rhythmanalysis: Power, rhythm, and everyday life.

Progress in Human Geography, 42(6), 881–897. <https://doi.org/10.1177/0309132517725069>

Riddell, F. (2024). Reflection: Affect and Interdisciplinarity–Got Rhythm? *FORUM:*

University of Edinburgh Postgraduate Journal of Culture & the Arts, 35(1).

St. Martin, K., & Hall-Arber, M. (2008). The missing layer: Geo-technologies, communities, and implications for marine spatial planning. *Marine Policy*, 32(5), 779–786.

<https://doi.org/10.1016/j.marpol.2008.03.015>

Steinberg, P., & Peters, K. (2015). Wet Ontologies, Fluid Spaces: Giving Depth to Volume through Oceanic Thinking. *Environment and Planning D: Society and Space*, 33(2), 247–

264. <https://doi.org/10.1068/d14148p>

Straughan, E. R. (2012). Touched by water: The body in scuba diving. *Emotion, Space and Society*, 5(1), 19–26. <https://doi.org/10.1016/j.emospa.2010.10.003>

Wedding, L. M., Agardy, T., Green, S., Boyle, J. S., Frazão Santos, C., Malhi, Y., &

Crowder, L. B. (2025). Bridging land and seascape restoration for ecoscape recovery. *Npj Ocean Sustainability*, 4(1), 31, s44183-025-00133–00136. <https://doi.org/10.1038/s44183-025-00133-6>

Wedding, L. M., Pittman, S. J., Lepczyk, C. A., Parrain, C., Puniwai, N., Boyle, J. S.,

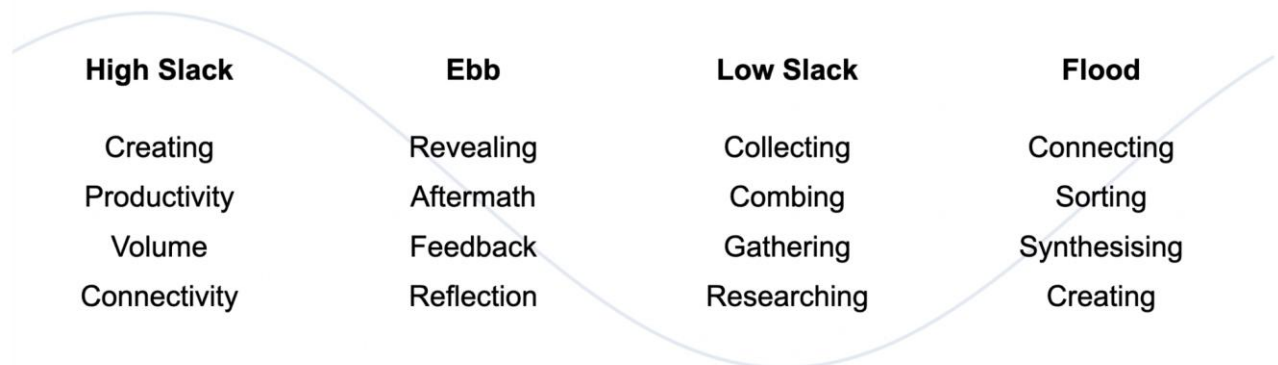
Goldberg, E. G., Young, M., Marty, P., Wilhelm, K., Taylor, S., & Crowder, L. B. (2024).

Integrating the multiple perspectives of people and nature in place-based marine spatial planning. *Npj Ocean Sustainability*, 3(1), 43. <https://doi.org/10.1038/s44183-024-00071-9>

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Appendix 1



Appendix 1: A tidal thinking schematic, with keywords reflecting how these stages play out in our arts and research practices, including the beachcombing located