

# A Novel Future

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Synthesis, at its core, is re-interpreting existing data for new knowledge. What sets NCEAS apart from other research centers is its core ethos of synthesis. Science is no longer siloed, and influential work is done to not only sort out gray areas, but to deep dive into them.

My two-part mural at NCEAS reflects the importance, potency, and necessity of synthesis in the progress of our world. The visuals broadly depict ecological transformations of both Santa Barbara's ocean and mountain landscapes. Specific local phenomena, such as the effect of keystone species within coastal waters, or the effects of prescribed burns in the chaparral, are on view as narratives from existing to future conditions. To emphasize NCEAS's interdisciplinary approach, recognizable symbolism is overlaid within these landscapes. These "synthesis symbols" include transformational motifs in dialogue with the working groups who gather at NCEAS to holistically approach some of our most complex issues.

By translating synthesis visually, the murals aim to inspire and accelerate the creative and collaborative process. As interdisciplinary groups filter in and out of NCEAS, the paintings are in quiet conversation with their process — providing an alternative angle as they chat with their colleagues over coffee, for example. For outsiders, this may help them understand NCEAS's mission - simplifying and making it more accessible.

In our multifaceted world, a multi-disciplinary approach is necessary. Synthesis offers an answer to the question of how we can, in balance with nature, move into the future sustainably.

## SYNTHESIS SYMBOLS

The flow of the fluorescent symbolism throughout both of the pieces is an adaptation of Sam Kaner's Diamond Model of Participation, with the X-axis being "time" and the Y-axis being "diversity of ideas." The charts in the mural illustrate an introduction of diverse ideas, an early conclusion, a chaotic "groan zone," and eventually a solution. The symbols trickle in at the beginning of the first wall, begin to coalesce, and eventually become bigger, more recognizable shapes on the second wall. The solution is the most discernible symbol in the piece — a butterfly. The butterfly is a motif of transformation, and the logo of NCEAS.

The symbols themselves are inspired by ice wedge polygon data collected by the Arctic Data Center, and Federal Geographic Data Committee (FGDC) geologic patterns.

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**OCEAN:** *Overfished, warm waters → Thriving kelp forest, integrated man-made structures*

Past -- Present

- Great White Shark
- Purple Sea Urchin

Present -- Future

- Sea Otter [keystone species]
- Giant Kelp
- California Spiny Lobster
- California Sheephead
- Giant Spined Sea Star
- Garibaldi

**MOUNTAIN:** *Wildfires, unbalanced ecosystem → Prescribed burns, diverse oakland*

Present -- Future

- Interior Live Oak + Acorns [keystone species]
- Great Horned Owl
- Spotted Humboldt's Lily
- Fiddleneck
- California Poppy
- Common Lichen