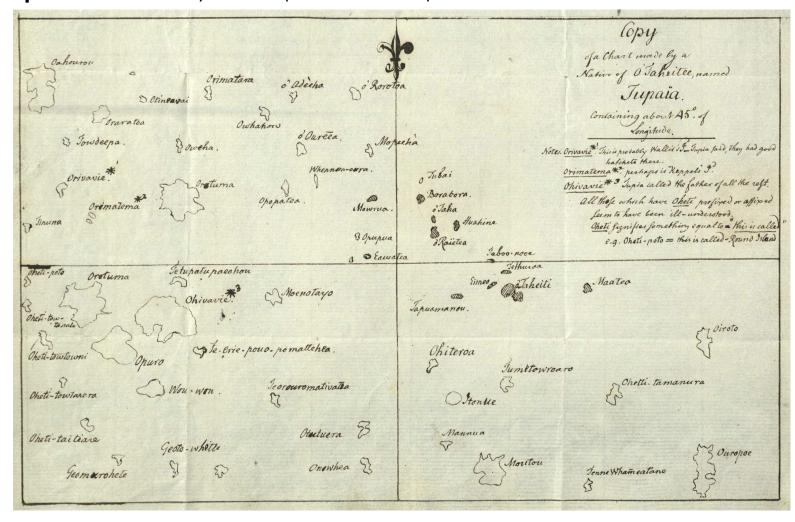
Mapping and Indigenous Knowledge

Explore: Look carefully at this map and answer the questions below.



Tupaia (Ra'iātea, 1725-1770), "Chart of the Society Islands, with Otaheite [Tahiti] in the Center," July-August 1769. From Charts and Maps Made During the Voyage of Discovery in the South Pacific Ocean, by Captain James Cook, Commander of the Endeavour, in 1769 and 1770. Image courtesy of the **British Library** Archive, Add. 21593 C.

1. What symbols do you recognize on this map?

2. What do the lines and shapes mean to you?

3. What would you need to know to use this map for navigation?

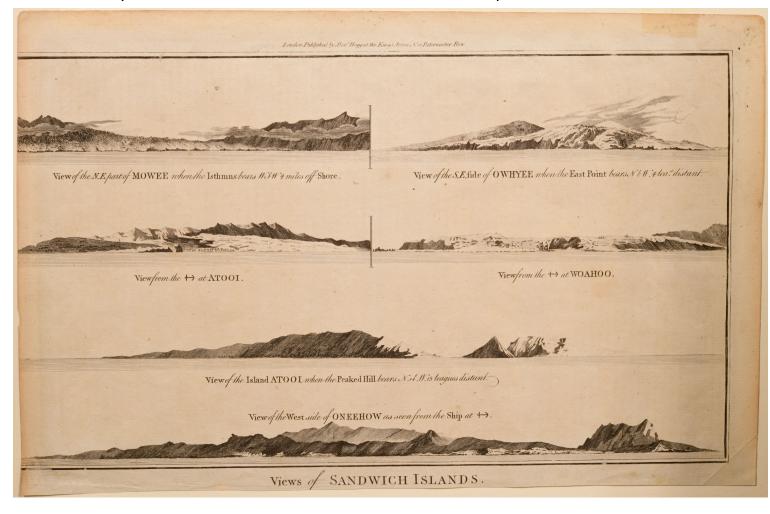
Tupaia's map is sophisticated wayfinding, based on the careful transference of generational knowledge, continuity of tradition, and oral storytelling. It is not organized by a European standard of measurement or cardinal directions. Because of this, for 200 years Europeans thought it was wrong. This map affirms Pacific Islanders' strong sense of place within their oceanic world.

Tupaia (c. 1725-1770), a navigator and priest from the island of Ra'iātea, made this map of over 70 islands for English mariner James Cook around 1769. The map represents a conversation between an Indigenous navigator and a Western explorer with differing perspectives on how to organize time and space. Look at the map. Notice the placement of the islands and distortion of space between them. Notice how Tupaia's home, the island of Ra'iātea, is the center of the map? Today, we know Tahiti to be the center of commerce and government, but for Tupaia, his home island was the spiritual center all other islands were organized around. He and ancient navigators of the past would have oriented their voyages as sailing in and out of Ra'iātea, using the shape of the islands to tell us where the best harbor to sail into would be located. Some islands may seem farther away because of the strong currents that make voyaging to them long and difficult. Other islands that may physically be farther away might be a less difficult journey because strong favorable winds push you in their direction. How would you map this?

– Terava Kaʻanapu Casey, Kanaka Maoli and Mā'ohi historian

How does this information change your understanding of this map?

Look carefully at "Views of Sandwich Islands" and answer the questions below.



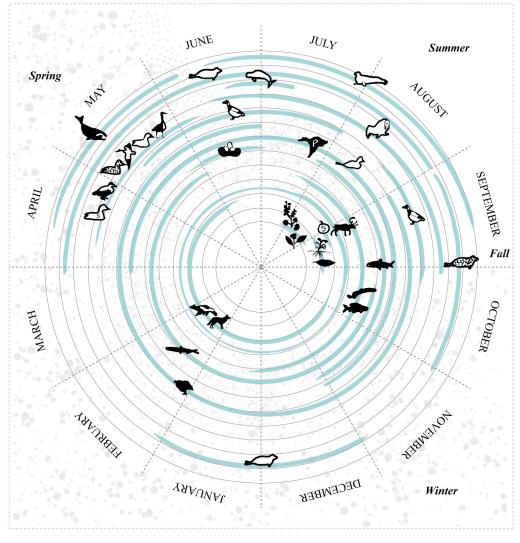
William Bligh (UK, 1754-1817), "Views of Sandwich Islands, Mowee, Owhyhee, Atooi, Woahoo, Oneehow," ca. 1786. Copper-plate engraving, 8 1/2 x 14 1/4 in., New Bedford Whaling Museum, 2001.100.7049.

The Sandwich Islands are also known as Hawai'i.
How does this change your understanding of the map?

1. What symbols or shapes do you recognize?

- 2. Why might a sailor draw islands from this perspective?
- 3. How is this view of islands in the Pacific Ocean different from Tupaia's map? How is it similar?

Look carefully at this seasonal round (ecological calendar) for the community of Ulguniq (Wainwright, Alaska) and answer the questions below.



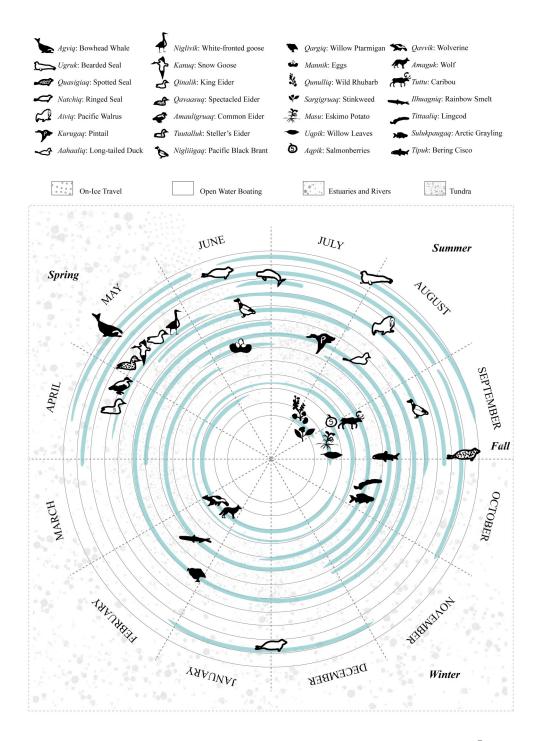
1. What symbols do you recognize on this map?

2. How does this map combine time and place?

3. What knowledge do you bring to your understanding of this map?

This figure illustrates a seasonal round (ecological calendar) for the community of Ulguniq (Wainwright, Alaska) with insightful contributions, direct participation and generosity of the leadership and community members of Wainwright, Alaska.

Published in "Role of Biodiversity in Ecological Calendars and its implications for Food Sovereignty: Empirical assessment of the resilience of indicator species to anthropogenic climate change." Kassam, K.A.S. & Bernardo, J. (2022) Department of Natural Resources; the Environment and American Indian and Indigenous Studies Program, Cornell University, Ithaca, NY, USA; Department of Biology, Texas A&M University, College Station, TX, USA.



How does this key change your understanding of the map?

Create: Draw a map of a place that is important to you. Consider: What did you include? What did you leave out?

What would someone else need to know to understand your map?

How else could this place be represented on a map?