Forests, Naos and Galleons: Beyond the Iberian Bizcayan shipbuilding transition 1550-1650
In search of Iberian shipbuilding signatures through time and space

- Bizcayan ships through wood:
  - Proportions
  - Tonnage
  - Forestry practices
  - Tree species

- Sources:
  - Historical documents (Primary source)
  - Archaeology (Through secondary sources)
  - Experimental Archaeology (Primary source)
  - Dendrochronology (Through secondary sources)
1550-1650
The hypothesis:
A division of interests in shipbuilding
Research questions:

- How is the Iberian Bizcayan tradition changed by the transition?
- What are the Iberian Bizcayan ships like in from 1550s, 1560s (Red Bay) and what are the changes that occur during the 1570s, 1580s, 1590s (Ribadeo), 1600s, 1610s, 1618 and 1650?
Iberian ships, Naos and Galleons: The intrusion of the Monarchic interests

- **1550-1560-1570**
  - The direct *intervention of the Monarchy* in the local shipbuilding and forestry: Superintendence Cristobal de Barros
  - The networks to promote the Imperial interests develop
  - Predominance of Bizcayan ships to sail to Indias until 1579, 80%
  - The beginning of the rise of San Jean de Luz 1560-1570: Migration of shipbuilders to the French Basque area due to higher timber costs
Iberian ships, Naos and Galleons

- **1580s**
  - **Whaling and codfishing crisis, 1579**
  - **Spanish Armada, 1588**: 50% of the tonnage was Bizcayan or Northern Iberian. **Military crisis** in maritime warfare: Another paradigm
  - Economic crisis: **Flanders route** (?), **Levant** and the Ottomans
  - Royal shipyards: **Guarizco, Colindres**
  - **Deforestation?** It is a **relative** interpretation.
Iberian ships, Naos and Galleons

- **1590s**
  - The Basque Economy did **suffer a quantitative temporary decrease in the Spanish side**: This forced Spain to find ships in other places to supply their permanent Armada.
  - Ships from **Napoli, Ragusa, Netherlands** (Since 1575)
  - A process of **militarization of the Armadas core**, Naos, a search for the ideal vessel for the Atlantic, **longer and shallower**, better sailing
Coexistence between Naos and Galleons

**1600s-1618**

- Dutch influences from Dunkirk
- The imposition of shipbuilding practices through Royal Ordenanzas
- Influences of northern shipbuilding in the Ordenanzas 1607, 1613 and 1618
- Resistance towards a first attempt to homogenize different Iberian shipbuilding areas
Periphery and center

- **1618-1650**
  - The *fisheries are protected* by the King and promoted since **1640**
  - *Shipbuilding* and *military crisis* 1653: *English Ship of the line*
Constant change: Iberian Bizcayan shipbuilding is a dynamic culture in constant change. There is no particular homogenous tradition as such, but a constant flourishing and loss of a variety of expressions of culture instead.

The Iberian Bizcayan forestry system evolves to adapt to the construction of big naos and galleons based on a similar forestry system but different proportions.

Multiculturality

Human agency: The influence of the observer in reality

Interconnections or interdependence: The Iberian network, an extension of the Atlantic and Mediterranean trading and shipbuilding cultures
Future research:

- ARCHIVES: Basque Country, Simancas...
- Future research lines:
  - The French Basque side: The continuation of the Iberian Bizcayan shipbuilding
  - Comparison between Portuguese, Venetian, Basque and English shipbuilding and forestry practices