

A DATABASE AND GIS MODEL FOR FORSEADISCOVERY

Timber trade and shipbuilding in the Spanish empire
during the seventeenth century

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WORK PLAN:

- 1. Database of shipwrecks and timber provenance**
- 2. GIS model for timber provenance and mercantile wood-trade routes**
- 3. Research line about timber trade and shipbuilding in the Spanish empire**

1. Database of shipwrecks and timber provenance

Main tables of DynCoopNet database:

1. Cooperation

2. Actions

3. Companies

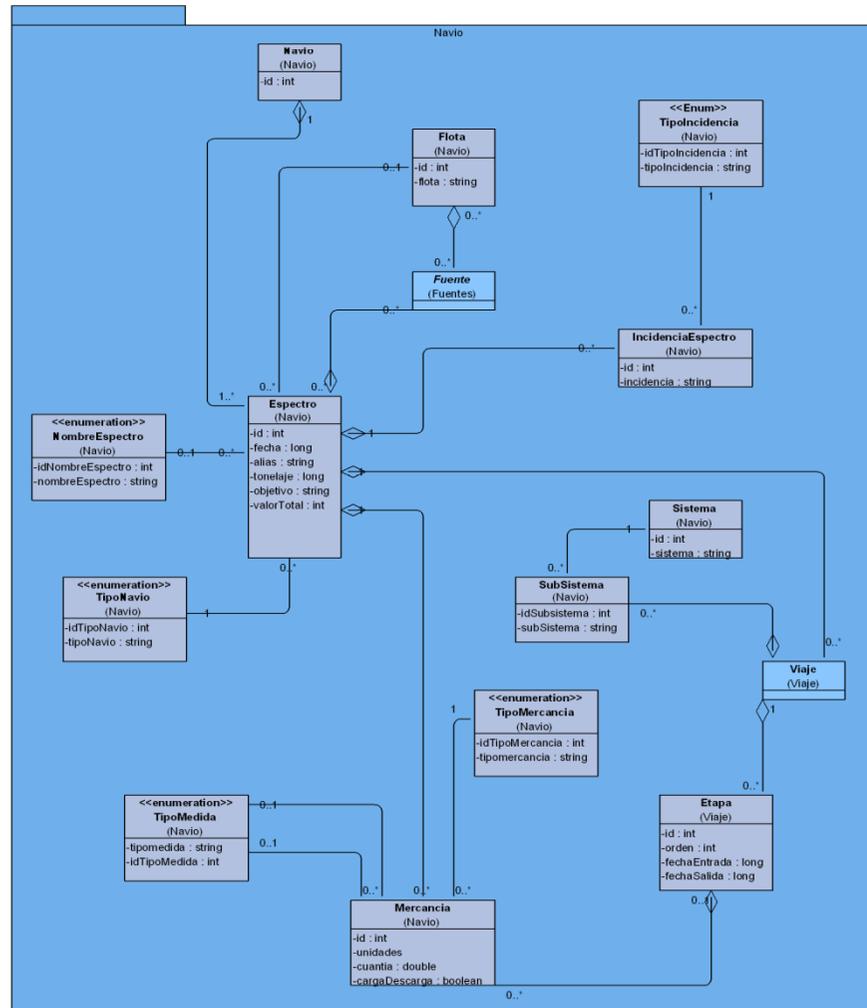
4. Fleets

5. Places

6. Commercial routes

Id de registro de ejercicios	Id de persona	APODO	PERIODO	NAVIO	AGENTE	CONSIGNATARIO	TONELAJE	CA
5687	1713			La Sirena	Dagnes, Jozma	Vanderast & Van Kessel	120	
2	5688		1713	La Buena Concordia	Luder, Martin	Vanderast & Van Kessel	160	
3	5689		1713	El Siervo Volante	Odio de Salazar, L. de			
4	3031		1715	De Juffrow Maria	Lups, Jacobs		240	
5	2194		1715	Los 4 hermanos	Weber & Franchoy	Weber y Franchoy		
6	2195		1715	Los 4 Hermanos	Weber & Franchoy	Weber & Franchoy		
7	5690		1715	Santa Clara	Casanove, Pedro ; Carpentier, P.	Casanove & Carpentier (Cádiz)		
8	805		1717	Santa Maria y Sta. Catali	Cloost Hnos. & Cia	Cloost, Brach y Bayaca (Cádiz)		
9	5603		1717	Santa Maria y Santa Cat	Cloost Hnos. & Cia	Cloost, Brach y Bayaca (Cádiz)		
10	807		1717	Santa Maria y Santa Cat	Cloost Hnos. & Cia	Cloost, Brach y Bayaca (Cádiz)		
11	5691		1715	Santa Clara	Casanove, Pedro ; Carpentier, P.	Casanove y Carpentier		
12	1772		1718	La Concordia	Duisbergh, C.	Duisbergh, C.	180	
13	1772		1718	San Claudio	Duisbergh, C.	Duisbergh, C.	200	
14	1772		1718	El Caballo Bart	Duisbergh, C.	Acoma, Fernando	180	
15	1772		1718	El Santiago	Duisbergh, C.	Acoma, Fernando	180	
16	5692		1719	Santiago	Mitthei, Louis	Casa de Contratación	160	
17	5693		1720	St. Anthonij	Maise, Viuda de A.	Dirk Ouvejans	180	
18	2959		1720	El Guillermo y Maria	Hue, Guillermo	Hue, Guillermo	310	
19	5694		1720	De Catarina van Dovers	Fonseca, Daniel de	Hemert, Fco. J. van	220	
20	5695		1721	La Margarita Galera	Mosquitel, Abraham	Viuda de Guillermo y Cocquesel, J.	300	
21	584		1721	La Catalina Galera	Barbour, Philippe, & Henrique Cock	Hue, Gaspar (Cádiz)	320	
22	5696		1721	La Catalina Galera	Barbour, Philippe, & Henrique Cock	Hue, Gaspar (Cádiz)	320	
23	5697		1722	La Reina Esther	Vanson, Conrado	Faveau y Van Bouchout	325	
24	5698		1722	Santa Clara	Bartels, Pedro & Co.	Bellot, Faveau & C.I. de Gand		
25	1170		1722	El Marqués del Campo	Viuda de Cardon	Wesembeek, Andres van	350	
26	5699		1722	El mercader de España	Carter, Juan Baptista van	Faveau y Van Bouchout	350	
27	3238		1723	El Royal	Luis Legrad, Bronny & Butler	Legrad, Luis	220	
28	5702		1723	San Pedro	Morel, E. ; Grinia, J.B. ; Gansman, J.	Gansman, Baldovino (Cádiz)		
29	5701		1723	San Pedro	Morel, E. ; Grinia, J.B. ; Gansman, J.	Gansman, Baldovino		
30	5700		1723	San Pedro	Morel, E. ; Grinia, J.B. ; Gansman, J.	Gansman, Baldovino		
31	5697		1723	La Reina Esther	Vanson, Conrado	Gand, C. Luis de		
32	5703		1724	La Sonia Galera	Bremen, Joaquin	Wesembeek, Andres van	360	
33	5704		1726	San Pedro	Casabon, Pedro	Como, Alberto (Cádiz)		
34	5705		1729	La Catalina Galera	Cappel, Goeder	Carlos de la Jorja y F.J. van Hemert	180	
35	5706		1721	Los Dos Hermanos	Roswinkel, Mathias	Gand, C. Luis de (Cádiz)		
36	5707		1733	La Ana Maria	Wonsel, Mathias van	Faveau, Christian (Cádiz)		
37	5708		1735	San Pedro	Pasch, Juan Henrique	Beuens & Brabenders		
38	5709		1738	De Aigneta Maria	Herkamp, A.	Beuens & Brabenders		

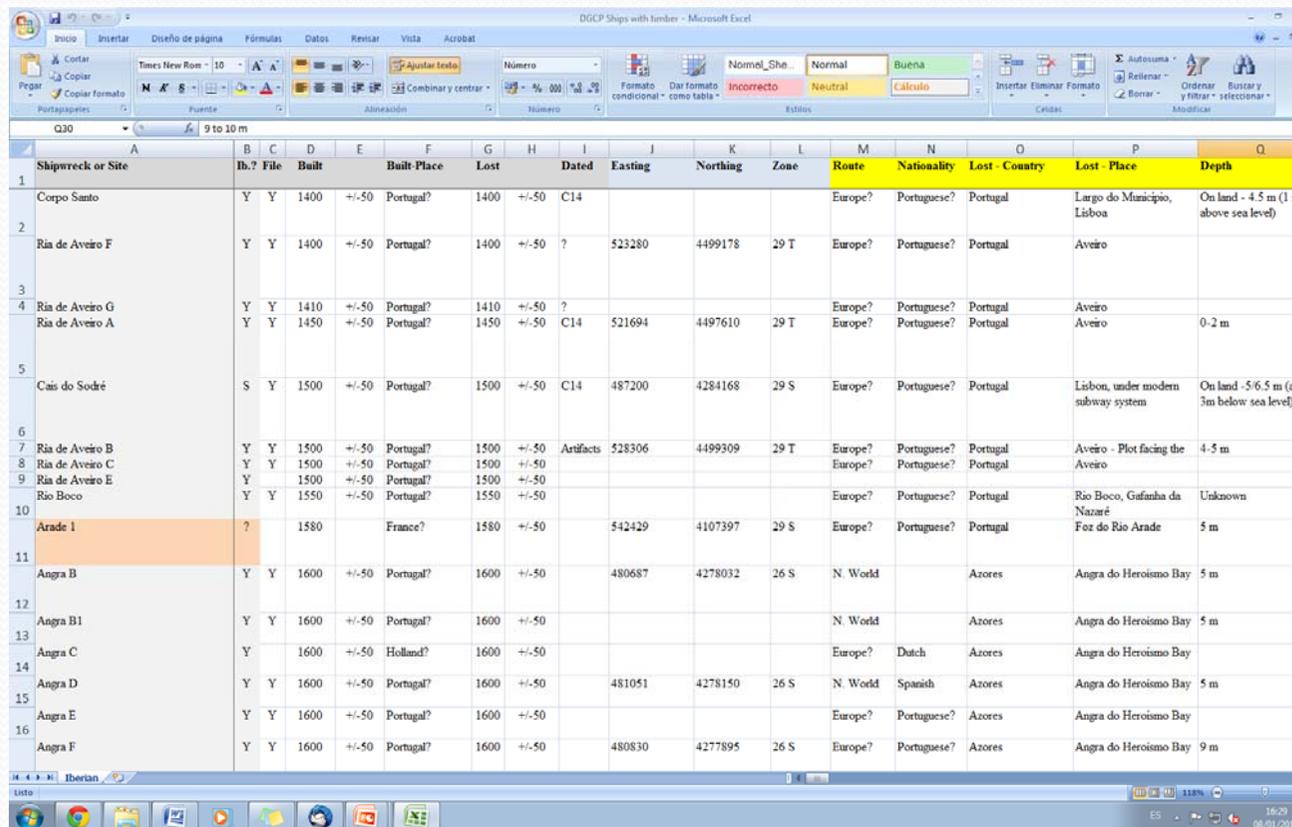
1. Database of shipwrecks and timber provenance



1. Database of shipwrecks and timber provenance

1st Task:

Integration of Filipe de Castro's database on shipwrecks and timber into de database model



The screenshot shows a Microsoft Excel spreadsheet titled "DGCP Ships with timber - Microsoft Excel". The spreadsheet contains a table with 16 rows of shipwreck data. The columns are: Shipwreck or Site, lb.? File, Built, Built-Place, Lost, Dated, Easting, Northing, Zone, Route, Nationality, Lost - Country, Lost - Place, and Depth. The data is as follows:

Shipwreck or Site	lb.? File	Built	Built-Place	Lost	Dated	Easting	Northing	Zone	Route	Nationality	Lost - Country	Lost - Place	Depth	
1 Corpo Santo	Y Y	1400	+/-50 Portugal?	1400	+/-50	C14			Europe?	Portuguese?	Portugal	Largo do Município, Lisboa	On land - 4.5 m (1 m above sea level)	
2 Ria de Aveiro F	Y Y	1400	+/-50 Portugal?	1400	+/-50	?	523280	4499178	29 T	Europe?	Portuguese?	Portugal	Aveiro	
3														
4 Ria de Aveiro G	Y Y	1410	+/-50 Portugal?	1410	+/-50	?			Europe?	Portuguese?	Portugal	Aveiro		
Ria de Aveiro A	Y Y	1450	+/-50 Portugal?	1450	+/-50	C14	521694	4497610	29 T	Europe?	Portuguese?	Portugal	Aveiro	0-2 m
5 Cais do Sodré	S Y	1500	+/-50 Portugal?	1500	+/-50	C14	487200	4284168	29 S	Europe?	Portuguese?	Portugal	Lisbon, under modern subway system	On land - 5/6.5 m (above 3m below sea level)
6														
7 Ria de Aveiro B	Y Y	1500	+/-50 Portugal?	1500	+/-50	Artifacts	528306	4499309	29 T	Europe?	Portuguese?	Portugal	Aveiro - Plot facing the Aveiro	4.5 m
8 Ria de Aveiro C	Y Y	1500	+/-50 Portugal?	1500	+/-50				Europe?	Portuguese?	Portugal			
9 Ria de Aveiro E	Y Y	1500	+/-50 Portugal?	1500	+/-50									
10 Rio Boco	Y Y	1550	+/-50 Portugal?	1550	+/-50				Europe?	Portuguese?	Portugal	Rio Boco, Gafanha da Nazaré	Unknown	
11 Arade I	?	1580	France?	1580	+/-50		542429	4107397	29 S	Europe?	Portuguese?	Portugal	Foz do Rio Arade	5 m
12 Angra B	Y Y	1600	+/-50 Portugal?	1600	+/-50		480687	4278032	26 S	N. World		Azores	Angra do Heroísmo Bay	5 m
13 Angra B1	Y Y	1600	+/-50 Portugal?	1600	+/-50				N. World		Azores	Angra do Heroísmo Bay	5 m	
14 Angra C	Y	1600	+/-50 Holland?	1600	+/-50				Europe?	Dutch	Azores	Angra do Heroísmo Bay		
15 Angra D	Y Y	1600	+/-50 Portugal?	1600	+/-50		481051	4278150	26 S	N. World	Spanish	Azores	Angra do Heroísmo Bay	5 m
16 Angra E	Y Y	1600	+/-50 Portugal?	1600	+/-50				Europe?	Portuguese?	Azores	Angra do Heroísmo Bay		
Angra F	Y Y	1600	+/-50 Portugal?	1600	+/-50		480830	4277895	26 S	Europe?	Portuguese?	Azores	Angra do Heroísmo Bay	9 m

1. Database of shipwrecks and timber provenance

2nd Task:

Integration of data of shipwrecks and timber produced by fellows of ForSeaDiscovery into the database model

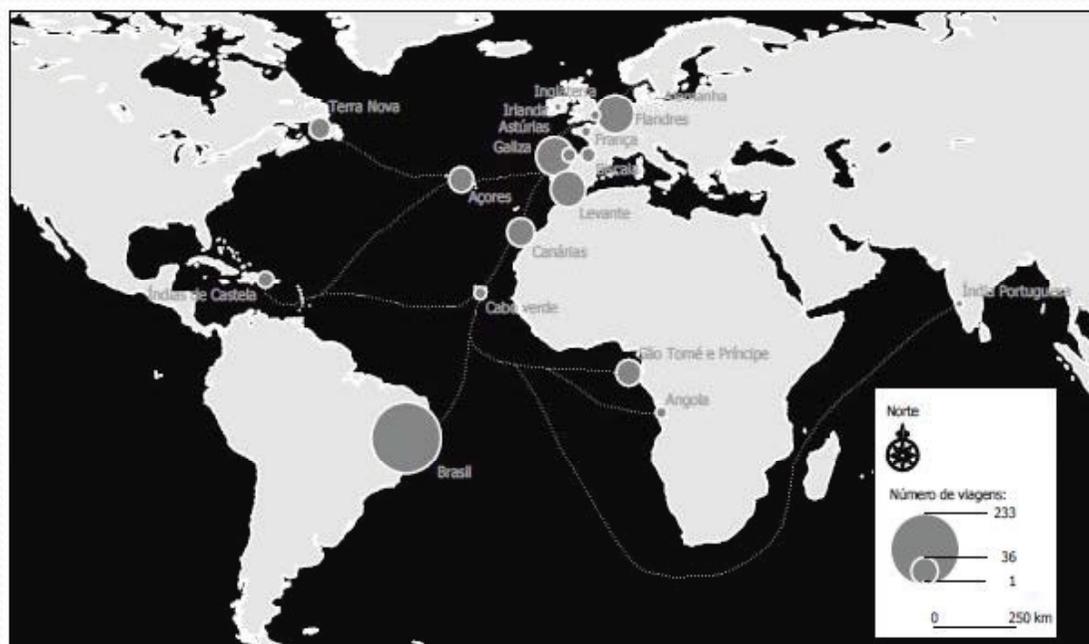


Hull of French ship 'La Belle' (late 17th century)
Center for Maritime Archaeology and Conservation at Texas
A&M



Oak Tree rings seen in a cross section

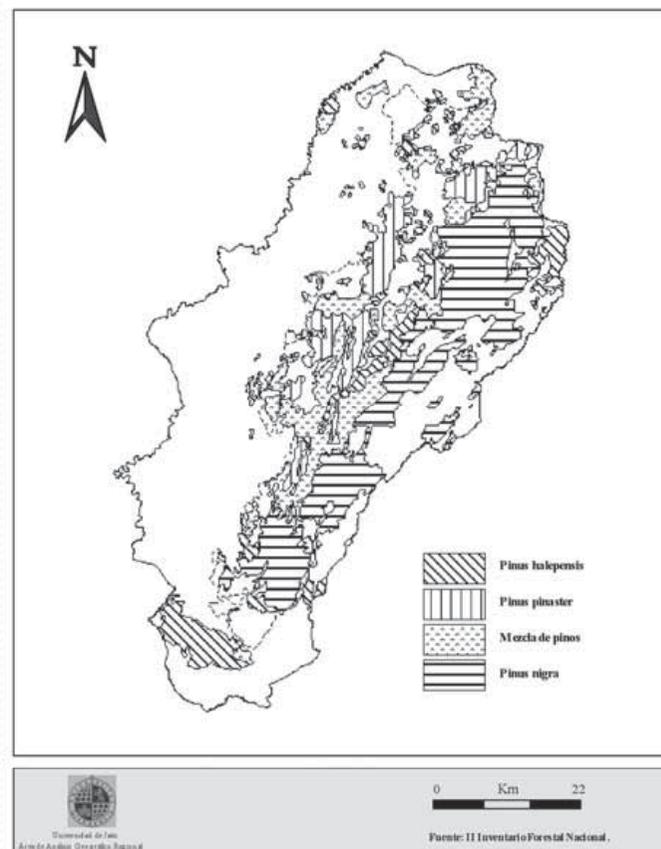
2. GIS model for timber provenance and mercantile wood-trade routes



Navigation destination from Porto (16th century)

Source: A. Barros (2004), *Porto: A construção...*, p. 709.

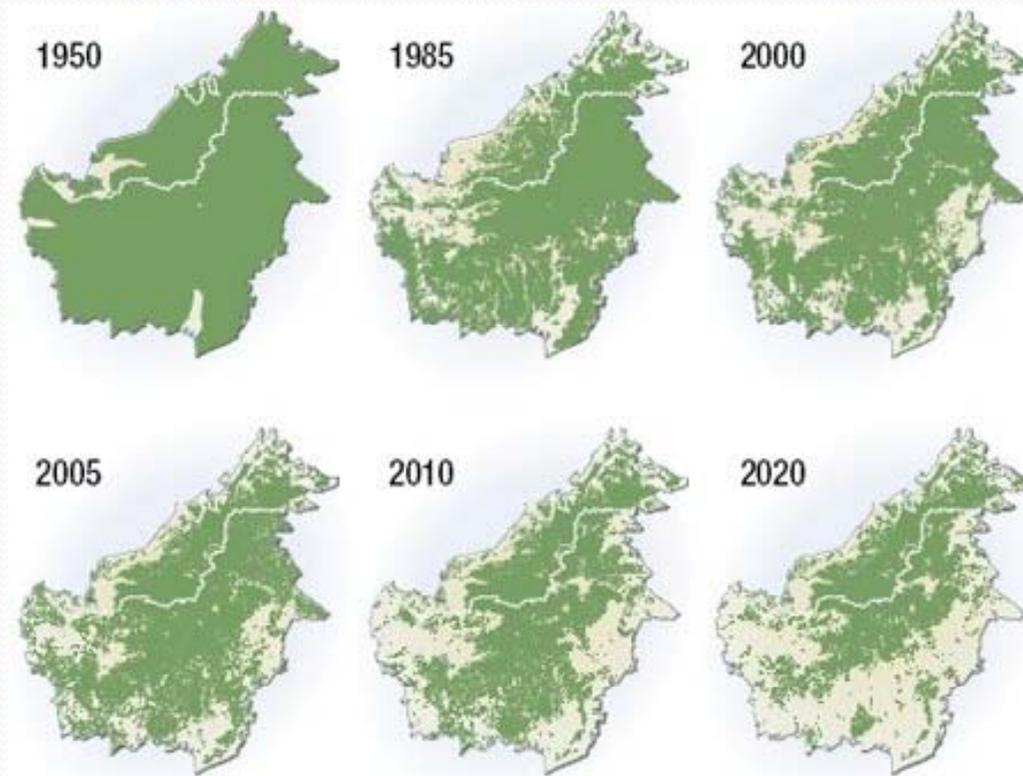
2. GIS model for timber provenance and mercantile wood-trade routes



Distribution of pine species in Cazorla, Segura and Las Villas

Source: E. Araque Jiménez, (2013), “Evolución de los paisajes forestales del Arco Prebético. El caso de las Sierras de Segura y Cazorla”, *revista de Estudios Regionales*, 96, p. 13.

2. GIS model for timber provenance and mercantile wood-trade routes



Timeline of deforestation in Kalimantan (Borneo)

Source: <http://math.ucr.edu/>



3. Research on timber trade and shipbuilding in the Spanish empire during the seventeenth century

Research questions:

- 1. Could Iberian forests sustain increasing demand for timber, or was the wood imported from elsewhere?**
- 2. If so, how were the trade networks organized?**

Case study:

- 1. Deforestation and/or reforestation policies of the Spanish crown in the 17th century**
- 2. Importation of Caribbean timbers in comparison to Baltic timber**
- 3. Timber prices in seventeenth-century Spain, and, in the future, cost and productivity changes in seventeenth-century Spanish shipbuilding**