### ArcGIS shapefile of the Ports of England and Wales, 1650-1911.

This shapefile represents the port network between 1650 and 1911. This was funded by grants from the Leverhulme Trust (RPG-2013-093) Transport, Urbanization and Economic Development in England and Wales 1670-1911); the NSF (SES-1260699), Modelling the Transport Revolution and the Industrial Revolution in England and the Newton Trust grant on Transport, energy, and urbanization c.1670-1911.

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At the Cambridge Group for the History of Population and Social Structure, researchers have been collecting and analysing new sources to support the recreation of the historical coastal network using ArcGIS. This programme connects data with advanced geographic analysis tools. We have started to map ports and coastal sailing routes in E/W using this programme and data collected from the archive and consequently digitised. Our aim has been to identify and digitise information about ports and coastal trade for E/W between 1680 and 1911, and create an integrated coastal transport network using ArcGIS.

Coasters – even larger colliers – landed at a wide range of locations, including beaches and large ports. An array of different loading apparatus moved goods from boats to shore. Unfortunately, little is known at a macro level about these systems at present, and must rely on local information. We have created a port list drawn from published sources, as listed below. The list follows the customs organisation of 'head' and 'member' ports, reflecting the location of customs houses and their authority over smaller landing places, including harbours, and creeks and even beaches. In the 19<sup>th</sup> century, the number of reported ports of all kinds increases compared with the 17<sup>th</sup> century due to better information about ports, and the probable expansion of the network 1. Where we have been using customs records to chart voyage routes, this port structure matches naturally with reported departures and arrivals from customs ports. One should note that the coastal port books might state a landing location was the customs port even if a coaster landed at a neighbouring landing point. More work is needed to rank and categorise the ports according to size listed in sources below.

## Method

Firstly, it was necessary to obtain an accurate list of ports from historical sources to add to ArcGIS. Bogart identified Daniel (1842) as a valuable source and passed it to Alvarez. Dunn identified Hargrave (1787) as a valuable source and passed it to Alvarez. Berkay Kucubaslar, funded by an Erasmus internship, and supervised by Alvarez digitized and geo-located the ports listed in Daniel. The rest of the lists were digitized and geolocated by Alvarez. The result f this exercise is a shapefile of 325 English and Welsh ports derived from the following sources (by period):

• 1565-1700

Sacks, D.H., and Lynch, M., Ports 1540-1700, in Clark, P. *The Cambridge Urban History of Britain*, (CUP 2016), pp. 388-389.

Hargrave, F. A Collection of tracts relative to the law of England from manuscripts, Vol. 1, (Dublin, 1787), pp. 49-50. 650pp.

- 1780 Langton, J., and Morris, R.J., Atlas of Industrialising Britain, 1780-1914, (London?, 2002)
- 1842

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<sup>• 1680</sup> 

Daniel, J., *The Shipowner's and Shipmaster's directory to the port charges, all the depth of water in Great Britain and Ireland,* (Aberdeen), 269pp.

• 1826

Steel, D., Ship-master assistant and owner's manual, (London, 1826)

• 1903

Hopwood, F., Harbour authorities. Return from the authorities of the harbours etc of the United Kingdom, (London), 286pp.

Field	Data type	Description
FID	Object ID	Unique ID for each row in the table
Shape	Point	Point for loation of the port
Name	String	Unique name of each port
Point_X	Numeric	X coordinate of the port
Point_Y	Numeric	Y coordinate of the port
Sacks2016	Numeric	Indicator =1 if port is identified in Sacks and Lynch as a port
Hargr1787	Numeric	Indicator =1 if port is identified in Hargreaves as a port
Langton2002	Numeric	Indicator =1 if port is identified in Langton as a port
Daniel1842	Numeric	Indicator =1 if port is identified in Daniel as a port
Steel1826	Numeric	Indicator =1 if port is identified in Steel as a port
Hopw1983	Numeric	Indicator =1 if port is identified in Hopwood as a port

#### Attribute data

## **Co-ordinate system**

British\_National\_Grid

Projection: Transverse\_Mercator

False\_Easting: 400000.000000

False\_Northing: -100000.000000

Central\_Meridian: -2.000000

Scale\_Factor: 0.999601

Latitude\_Of\_Origin: 49.000000

Linear Unit: Meter

GCS\_OSGB\_1936

Datum: D\_OSGB\_1936

# Citation

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Ports and coastal routes as described above. Ports, coastal routes and rivers come from CamPop work, bathymetry data obtained from EMODnet. Map by Eduard Alvarez-Palau.