







DESCRIPTION of several POINTS which serve as LAND-MARKS for Navigating the Channel of the Harbour of PORTO RICO.

- A. Watch-tower on the Rock at the Mouth of the river.
- B. Watch-tower or Fort opposite to the South-side of the Morro.
- C. Castle of San Juan.
- D. Angle of the Castle of St. Juan Battery.
- E. Watch-tower or the Powder Magazine next to S. Juan Battery.
- F. Watch-tower or the castle of La Punta.
- G. Watch-tower or the castle of the Government House.
- H. The fort of San Felipe.
- I. Eastern Edge of the Morro adjoining the Forts.
- J. Edge of the Park of Arroyo, a very noticeable building.
- K. Edge of the Park of Arroyo, a very noticeable building.
- L. Watch-tower on the Hill on the East-side and near the outer edge.
- M. Watch-tower where the Longitude was determined by Observation.
- N. The House used as an Observatory.

SITUATION of the SHOALS.

Sabana Shal. lies to the eastward of the Point of Callejo, and is about 10 fms. from the shore. It has two small shoals, one to the west & another to the east of the main. - San Agustín's Shal. situated between the Point of Callejo & the Callejo. - Tafarela Shal. lies to the south of the Point of Callejo, and is about 10 fms. from the shore. It has two small shoals, one to the north & another to the south of the Point of Callejo. - Punta Larga (Long Point) Shal. situated at the intersection of Gravel V. and the Magazine. - San Agustín, situated to the North side of Gravel Larga.

NOTE.

The sounding taken at La Water, shows the number of Spanish Fathoms or Fathoms contains, the depth of 20 fms. - The sounding taken at the Point of Callejo, shows the depth of 20 fms. - The sounding taken at 20° 25' 25" in the morning, and the greatest depth equal to 25 fms. English.

**GEOMETRICAL PLAN
of the
PRINCIPAL HARBOUR
in the**

ISLAND OF PORTO RICO;

Surveyed in 1724, by

DOÑ COSME DE CHURRUCA,

Captain in the Spanish Navy.

LONDON:
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William Congreve in His Majesty's
Stationery Office, 1726.

Charing Cross, June 1726.

Scale of one Nautical Mile, Spanish.

REMARKS.
A small hill on the South side of the Harbour, is called Hill of the Observatory, because it is situated upon a hill, which is opposite to the Hill of the Morro. The water-side of this hill may be easily ascended, by being the termination of the hill-shoot, and then cross a short tract of rocky ground, and another range of small hills to the West. The several points and objects hereon, which exceed 100 feet in height, are called the Morro, or The Little Table, and hence it may be designated as the Hill of the Morro.

DIRECTIONS for entering the HARBOUR of PORTO RICO.

If you enter the Harbour with the wind, you must run into the Channel with all the upper sail well out, as well as by the stern, so as to have the wind under the stern, and the wind on the bow. You will then run under the North shore of the harbour until you have the point of Callejo a little open with the V. part of the Isle of Gibara to the south of the Harbour, and stand on until the Morro or Field Hill appears by the point of the Morro.

When you are in the position you must bring the ship head on with the Edge of Callejo, keeping that course until you perceive over the opposite side of the hill, the Point of Callejo, which is the first point of land to the right of the Morro, and then turn to the left, so as to bring the Point of Callejo on the starboard bow, which is the lower battery or castle of the Morro. From hence you will steer on the Morro, in order to avoid the Head of a ship which is to follow the ship, and then bring the Point of Callejo on the port side, and then turn to the right, so as to bring the Point of Callejo opposite the Town, keeping the Point of Callejo more open on the harbour side than Gibara, and you have passed the Head of La Punta, put the ship head on the south of Callejo, or otherwise take a road to the northeast of the Town, as far as with Point Larga. As soon as you have cleared the Head of La Punta, put the ship head on the south of the Callejo, or otherwise take a road to the northeast of the Town, as far as with Point Larga. After passing over your course, and steer on the bottom of the Land, and then turn to the right, so as to bring the Point of Callejo on the port side.

The following directions suppose you have this wind, which is by no means common in these parts. On the other hand they make for the anchorage by tacking and tacking. Emerging in either of these ways, by large tacks, might be anchor'd off Gibara Gully, or later on in the south west corner of the Harbour, when they can beyond the Point of Callejo, and before the Point of La Punta.

Again if you enter the Harbour with the wind at North, however strong it may be, you must run down the north side of the Morro, in which case steer under the Hill of the Morro, and then turn to the left, keeping as much to the west as you can, and then turn to the right, so as to bring the Point of Callejo on the port side, provided the wind does not exceed 100 miles per hour.



