

# **A Return Route across the Ocean, encoded at Tormsdale Rows**

(Caithness, NE Scotland, c.1600 BC)

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## **Summary**

The stone rows of Tormsdale are buried under peat beside the Thurso River, in NE Scotland. The monument consists of two groups of rows, both pointing NW, and a NS row. When the stones are numbered, and interpreted as latitudes, it is possible to read encoded sailing information. In a previous article, we showed that the rows describe the coastal sailing route via the Upper North to Central America. In this article we show that the site also encodes the return route across the Ocean to Scotland.

## **The Rows of Tormsdale**

Tormsdale consists of a fan of rows of low menhirs, about 1 meter above the original ground level (Fig.1). It is located in the region of Caithness, in the NE corner of Scotland, alongside the small Thurso River, about 15 miles (24km) from both north and east coasts (Ref.2). Like a number of other sites in the region, the rows of Tormsdale are buried in a layer of peat which is more than a meter high. The stone rows were first recorded by the Archaeology Branch of the Ordnance Survey in 1982 (Refs.2,39). The site covers a surface area of 60m x 60m, and is located between two ruined brochs, once graceful circular drystone towers, dating from the Iron Age (Ref.1). Photo 1 gives a NW view across a Sheepfold, which is 200m north of the southern broch. The rows should be at the right side of the bend of the Thurso River, some 100m NW of the fold.

Using the groundplan, as labeled for our first article (Fig.1), we see that Tormsdale consists of rows of stones forming two arrows, both pointing NW, which are cut by a NS line. The 5 southern rows A-E are directed to one point Y, and form a group, called Group Y. The 7 northern rows B and P-U are focused on distant point Z, and form a group, called Group Z. The important line B is a common row of both Groups Y and Z. In parentheses following the letter labeling of each row is the total number of stones in each row. It is a rather large construction (Refs.19-21). In total, there are 104 stones, each of them having a length of about a meter, and a width of half a meter, as can be seen using the scale in Fig.1. On the average they are about one meter high. The taller menhirs are placed at the south side of the monument (Refs.1-7).

## **The Sailing Route from Scotland to Central America**

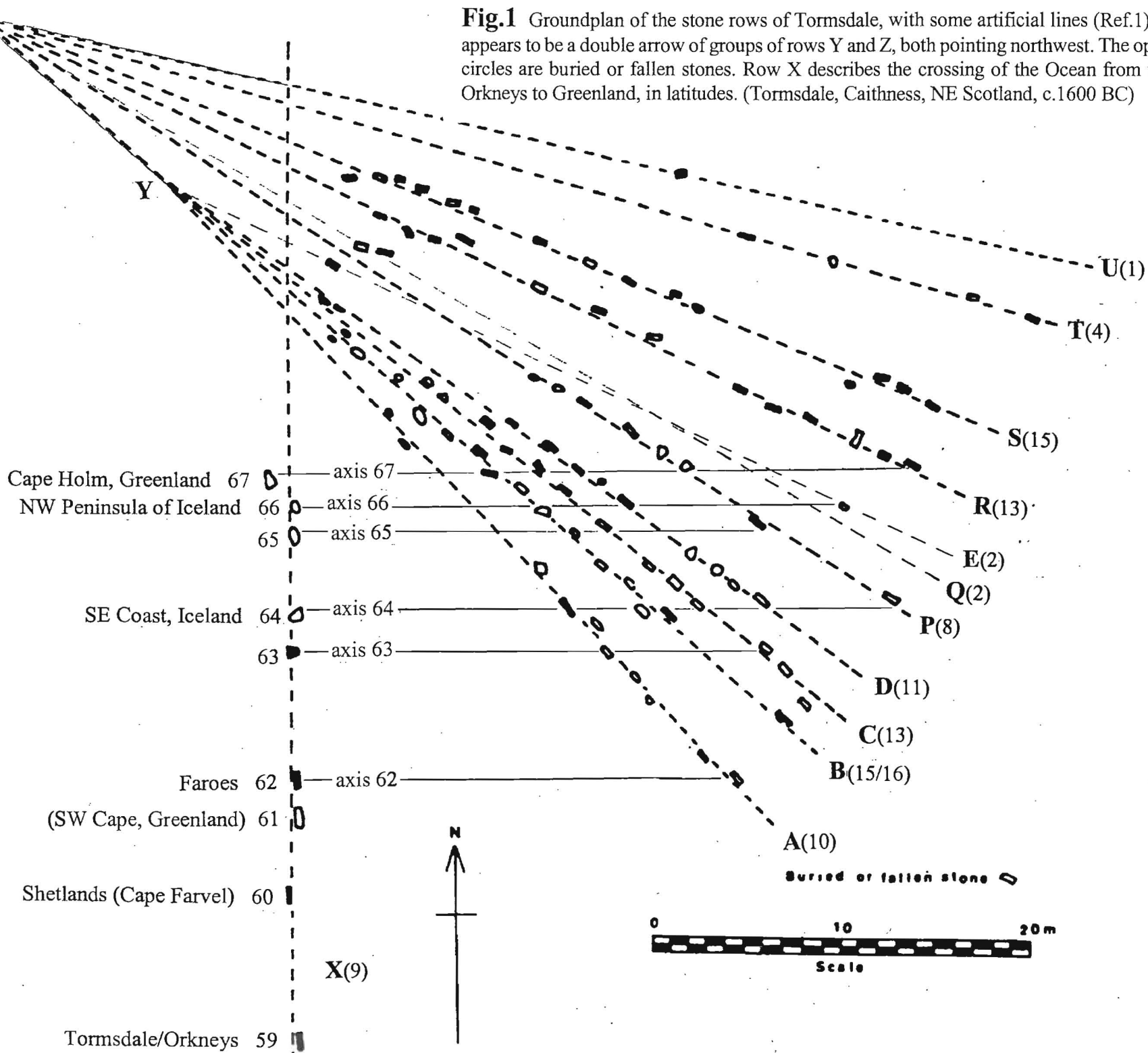
First, we will recap the route as described in our previous article (Ref.41). When sailing to the northwest (along row A in Fig.1), the latitudes along the stones of row X increase from 59°N (the Orkneys, X59), to 67°N (Cape Holm, Greenland, X67). The double arrow of Tormsdale gives the global sailing direction (NW), via the Faroes and Iceland to Greenland. These three areas are represented by the three groups of stones of row A. Sailing continues along the SE coast of Greenland (which is via row X) to the south.

From the west coast of Greenland (row B, the western stone B2)(see Fig.2), we cross at 64°N (along axis 64) due west to Cumberland Sound (X64). Sailing continues along Baffin Island to the south (by going down the latitudes of row X) to the coast of Labrador (X59), at



**Photo 1** View NW across the Sheepfold. The Tormsdale Rows are supposed to be at the right side of the bend of the Thurso River, some 100m NW of the fold. (Caithness, NE Scotland)

**Fig.1** Groundplan of the stone rows of Tormsdale, with some artificial lines (Ref.1). It appears to be a double arrow of groups of rows Y and Z, both pointing northwest. The open circles are buried or fallen stones. Row X describes the crossing of the Ocean from the Orkneys to Greenland, in latitudes. (Tormsdale, Caithness, NE Scotland, c.1600 BC)





59°N. The continuation of this route is provided by the stones of Group Z, following the rows U-R from north to south. From Labrador (U58), at 58°N, we sail along the East Coast of North America to the south, all the way to the island of Bimini (R26), offshore Florida, at 26°N.

Tormsdale has a big arrow to western point Z, and a small arrow to eastern point Y (Fig.2). Rows Q, P, and B of arrow Z provide the western route from Florida around the Gulf of Mexico, and rows E, D, and C of arrow Y give the shortest, eastern way to Central America. Both sailing routes lead to the south point of the Gulf of Campeche, at 18°N (P18/D18), the center of the Realm of the Dead, and beyond to the south (Refs.14-18,42-44).

### **The Return Route across the Ocean**

The target of the voyage described in the Tormsdale rows was the south point of the Gulf of Campeche in Mexico, at 18°N (Refs.22,30-38,41). So, for the return route this will be the point of departure, shown in Fig.3. The southernmost menhir X18 now represents this point, literally, the Gulf of Campeche, at 18°N (Fig.4). Menhir X21 is Cape Catoche, Yucatan, at 21°N. Here we have to cross to Cuba. Axis 21 leads to the first stone of row A. This row contains a total of 10 stones, corresponding with the correct sailing direction to Cuba, 10°ENE. The group of 2 menhirs 20 and 21 of row X provide the sailing distance, 2 Moiras= 2°= 120 NM.

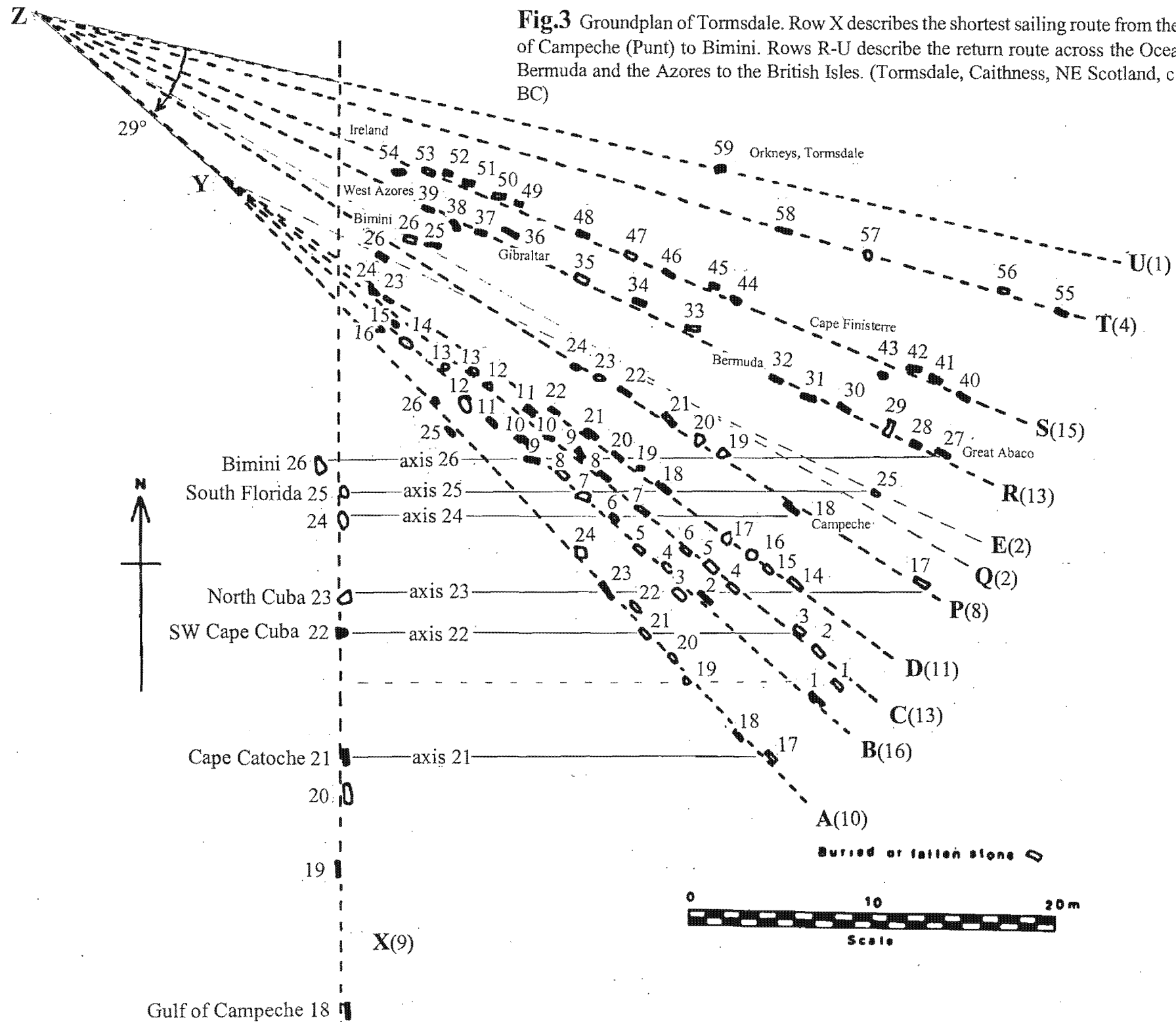
Note that the stones of the rows in Fig.3 are changed by one number, compared to Figs.1 and 2 used in the previous article to encode the route west. They now end at 59, on the top row, not 58. It appears that the monument was designed this way, because when this is done, and the same methodology is employed in “reading” the monument, return latitudes are obvious, and indicated correctly. We do not know if the stones ever had painted numbers on them. They may have just been mnemonic devices, that required counting to be used. They may have been copied from dots in boards, or other navigating devices. In any case, after the invention of writing, the ability to use these devices was no longer useful, and so forgotten.

Along the coast of Cuba we continue to sail to the northeast. X23 is the north coast of Cuba, at the holy Tropic of Cancer, at 23°N. On midsummer day the Sun is here at right angles above. The slow northerly movement of the Sun then turns into a southerly movement. This is also the latitude of the Southern Egyptian Empire, far in the east. It is the center of the Sunreligion (Refs.8,9). (Note, that menhirs X23 and A23 are located at the ends of axis 23, which previously, at the way there, indicated the important crossing of Davis Strait (Fig.2) (Ref.41).

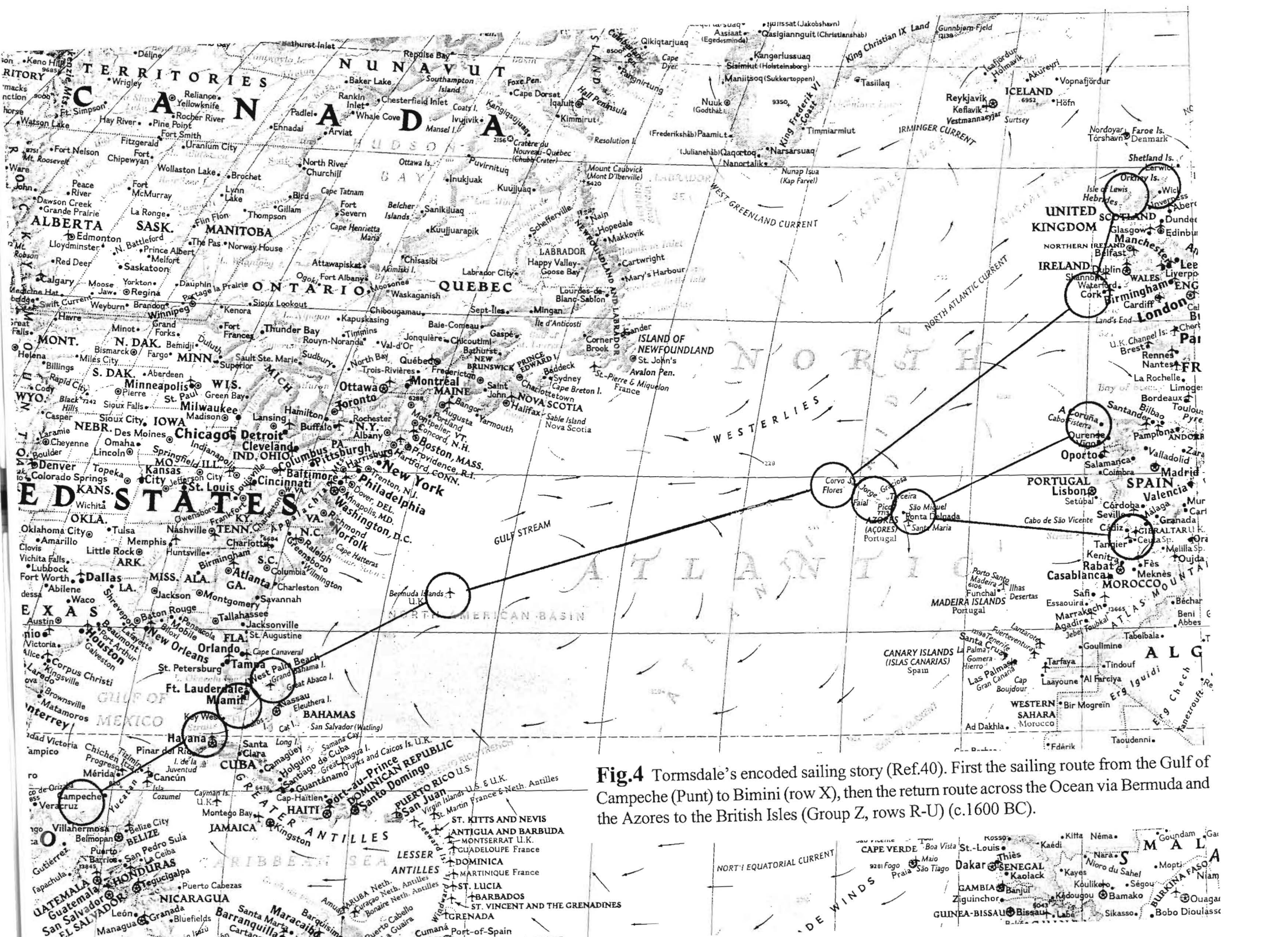
From Cuba, we cross due north to Florida. The group of 2 menhirs 22 and 23 of row X provide the sailing direction and sailing distance, 2 Moiras= 2°= 120 NM. X25 is the south point of Florida, at 25°N. The last, special menhir X26 is the island of Bimini, offshore Florida, at 26°N. This is the important departure point of the long voyage across the Ocean (Fig.4).

Rows C, D, and E also describe this short route from the Gulf of Campeche to Bimini. They have together 13+11+2= 26 stones, confirming Bimini (E26), at 26°N. Rows B, P, and Q of Group Z describe the western route around the Gulf of Mexico. They possess together 16+8+2= 26 stones, again confirming Bimini (Q26). Rows B and A describe the easterly Antilles Route. They contain together 16+10= 26 stones, once again confirming Bimini

**Fig.3** Groundplan of Tormsdale. Row X describes the shortest sailing route from the Gulf of Campeche (Punt) to Bimini. Rows R-U describe the return route across the Ocean via Bermuda and the Azores to the British Isles. (Tormsdale, Caithness, NE Scotland, c.1600 BC)







**Fig.4** Tormsdale's encoded sailing story (Ref.40). First the sailing route from the Gulf of Campeche (Punt) to Bimini (row X), then the return route across the Ocean via Bermuda and the Azores to the British Isles (Group Z, rows R-U) (c.1600 BC).

(A26). In our previous article these rows were shown to encode the three routes from Bimini to the south (Ref.41).

From Bimini (X26) we sail (along the upper axis) to the neighboring island of Great Abaco (R27), Bahamas, at 27°N. From here we set a course to Bermuda (R32), at 32°N. This small island was discovered c.2400 BC (Refs.8,9,12,13). Probably the island was visited briefly, as a welcome place to take a break and refresh. Certainly it was important for emergencies. The first group of 3 stones (usually the tens) finishes with a stone at right angles to the row. So, the initial sailing direction (ISD) to Bermuda is  $3 \times 10 = 30^\circ\text{NE}$ .

After R27 (Great Abaco) we see a group of 2 stones (the tens), and after this a second group of 3 stones (the units), finishing with R32 (Bermuda). So, the terminal sailing direction (TSD) in the neighborhood of Bermuda is  $20+3 = 23^\circ\text{NE}$ . The difference between both sailing directions is caused by the curvature of the Earth. After R27, Great Abaco, there are 12 stones in row R, corresponding with the sailing distance to Bermuda, 12 Moiras =  $12^\circ = 720 \text{ NM}$ , which is correct.

From Bermuda (R32), at 32°N, we sail to the West Azores (R39, the last stone of row R), at 39°N. The Azores (R37-39), at 37, 38, and 39°N were discovered c.3600 BC (Refs.8-12). They form an archipelago which can be easily found (Fig.3). Accurate instructions are not needed now. We are sailing with the wind and the current to the northeast. The first group of 3 stones (R33-35, the tens) shows the correct initial sailing direction, c.30°NE. The second group of 4 stones (R36-39, the units) gives the terminal sailing direction in the neighborhood of the West Azores, c.4°ENE. The rows R (13 stones) and S (15 stones) possess together 28 stones, providing the sailing distance, 28 Moiras =  $28^\circ = 1680 \text{ NM}$ . Row R points to the top angle Z of 29°, confirming it, about 29 Moiras, which is correct. The eastern stone R36 illustrates the eastern situation of the Strait of Gibraltar, at 36°N.

From the West Azores (R39) we sail to the west coast of Ireland (S52-54, the last stones of row S), at 52, 53, and 54°N. Again, we are sailing with the Gulf Stream. The first group of 4 stones in row S gives the initial sailing direction, c.40°NE, the second group of 5 stones gives the sailing direction halfway, c.50°NE, and the last group of 6 stones gives the terminal sailing direction, c.60°NE. Row S (15 stones), row T (4 stones), and row U (1 stone) provide the sailing distance to Ireland, about  $15+4+1 = 20 \text{ Moiras} = 20^\circ = 1200 \text{ NM}$ . The western stone S43 indicates Cape Finisterre, NW Spain, at 43°N. S48 is the west point of Brittany, France, at 48°N.

Finally, the last stone 58 of row T is the island of Lewis of the Outer Hebrides, Scotland, at 58°N, and U59 represents both the Orkney Islands and Tormsdale, at 59°N. So, in this way people were sailing back, with the wind and the current, to the Old World (see Fig.4).

The rows of Tormsdale form a numerically-encoded map of this southern return route (via Bermuda) across the Ocean. Row X symbolizes the western island of Bermuda, rows A-E and P-S form a group of 9 rows, representing the 9 islands of the Azores, and the last group of 2 rows, T and U, encode the 2 British Isles. All these islands represent the "stepping stones" to the Old World. This route across the waters had a special religious meaning. In antiquity, the Old World was considered as the "Land of the Living" (Refs.8,9,23-29).



## Discussion

The rows of Tormsdale and other megalithic monuments were not built by accident, but were carefully designed by the mind of man. In prehistoric times they were, after all, a lot of work to construct. We believe they were mnemonic devices, used by some members of the community to recall data, and retell encoded stories, prior to the modern development of phonetic writing. Maybe the groundplan of the Tormsdale site was burnt in a polished plank of wood, and carried by sailors for navigational purposes. After a few millennia, the methodology used to interpret the numeric encodings was lost, so later people were unable to read the monuments. However, we think we have rediscovered this methodology, and reading the monument this way makes geographic sense, and cannot be presumed to be beyond the ability of men in the Bronze Age.

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