

SUPPORTING INFORMATION

Measurements from moats:

Table S1: Contourite moats reported in the literature from locations all over the world considered in this study (see Fig. 1) and key data used to quantify moat parameters.

NR	Key reference	Location	Measured from
1	Rebesco et al. 2016	NW Barents Sea	Figure
2	Masson et al. 2002	North Rockall Trough	Bathymetry EMONET
3	Roberts 1974/Jones et al. 1995	Rockall Trough (Seamount)	Bathymetry EMONET
4	Hebbeln et al. 2016	North Atlantic (Ireland)	Figure
5	Sivkov et al. 2002	Baltic Sea	Figure
6	Liu et al. 2020	Gulf of Biscay	Figure
7	Haberkern 2017/Hanebuth et al. 2015	North Atlantic (Galicia)	Bathymetry MBES
8	Hernández-Molina et al. 2016	Gulf of Cadiz	Figure
9	García et al. 2009	Gulf of Cadiz	Figure
10	Vandorpe et al. 2014	Gulf of Cadiz	Bathymetry MBES
11	Vandorpe et al. 2014	Gulf of Cadiz	Figure
12	Verdicchio and Trincardi 2006	Mediterranean Sea (Adriatic Sea)	Figure
13	Martorelli et al. 2010	Mediterranean Sea (Adriatic Sea)	Figure
14	Miramontes et al. 2019	Mediterranean Sea (Balearic Sea)	Figure
15	Miramontes et al. 2016	Mediterranean Sea (Tyrrhenian Sea)	Bathymetry MBES
16	Ercilla et al. 2016/Llave et al. 2020	Mediterranean Sea (Alboran Sea)	Figure
17	Palomino et al. 2011	Mediterranean Sea (Alboran Sea)	Figure
18	Tripsanas et a. 2016	Mediterranean Sea (Aegean Sea)	Figure
19	Micallef et al. 2016	Mediterranean Sea (Strait of Sicily)	Figure
20	Acosta et al. 2005	Canary Islands, eastern Atlantic (Lanzarote)	Bathymetry EMONET
21	Lüdmann et al. 2016	Santaren Channel (Bahamas)	Bathymetry MBES
22	Mulder et al. 2019	Santaren Channel (Bahamas)	Figure
23	Betzler et al. 2013	North Indian Ocean (Maldives)	Figure
24	Luedmann et al. 2013	North Indian Ocean (Maldives)	Figure
25	Yin et al. 2019	China Sea	Figure
26	Zhao et al. 2015	China Sea	Figure
27	Palamenghi et al. 2015	China Sea	Figure
28	Juan et al. 2018	Pacific Ocean (Clarion-Clipperton Zone)	Figure
29	Haberkern 2017	South Atlantic (Angola, Anna Ridge)	Figure
30	Miramontes et al. 2021	Mozambique Channel (Mozambique)	Figure
31	Miramontes et al. 2021	Mozambique Channel (Madagascar)	Bathymetry MBES
32	Wilckens et al. 2021	South Atlantic (Argentina)	Bathymetry MBES
33	Uenzelmann et al. 2017	South Atlantic (Argentina)	Figure
34	Gruetzner et al. 2016	South Atlantic (Argentina)	Figure
35	Nicholson et al. 2019	Drake Passage	Figure
36	GeoMapApp (V1807, RC1606, RC1503)	Drake Passage	Bathymetry GEBCO
37	Steinbrick et al. 2020	Pacific Ocean (New Zealand)	Figure
38	GeoMapApp (ELT27)	Indian Ocean (Antarctica)	Figure
39	Gilli et al. 2004	Lago Cardiel (Lake in Argentina)	Figure

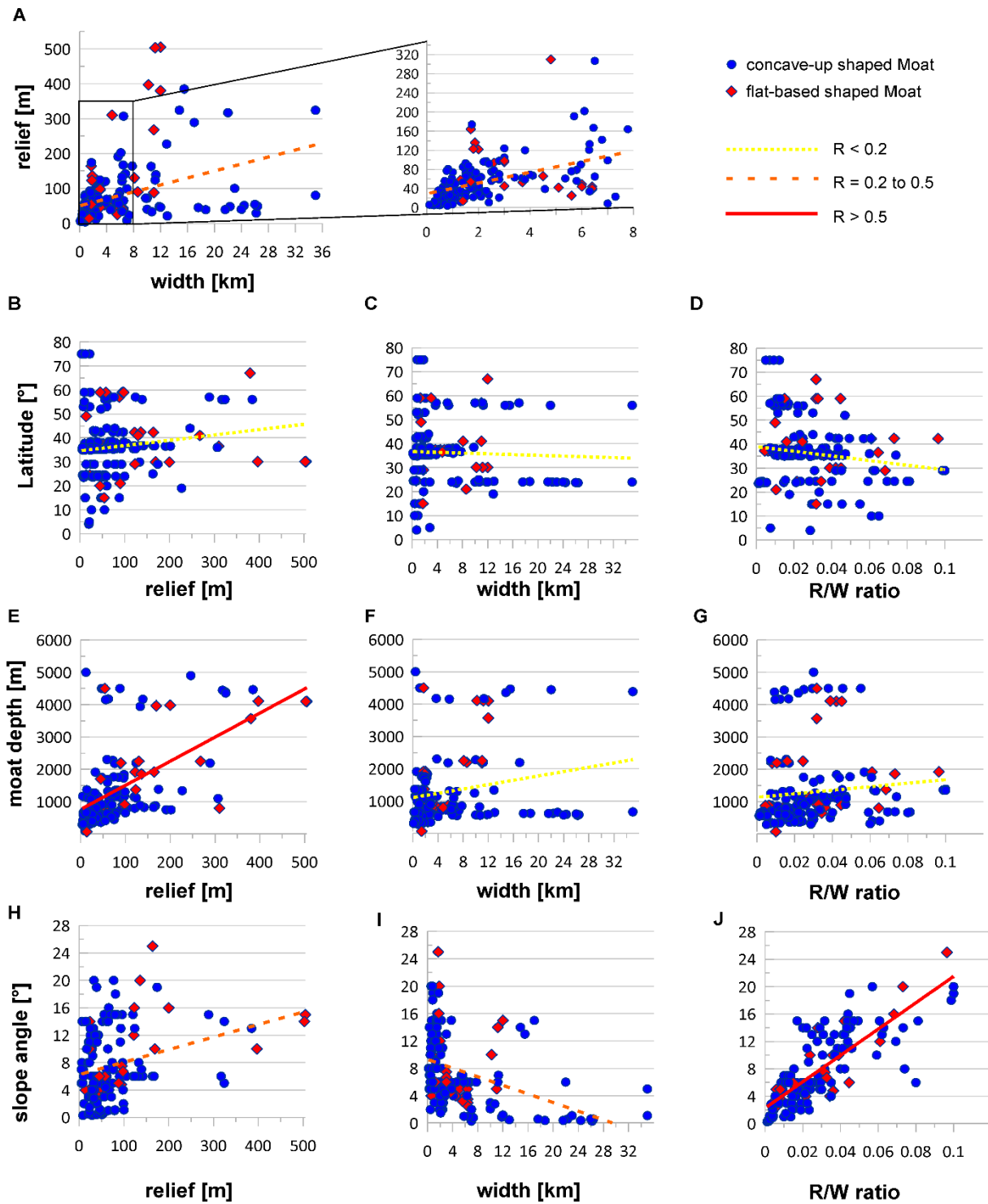


Figure S1. Diagrams showing correlations between (A) width and relief, (B) relief and latitude, (C) width and latitude, (D) relief-width ratio and latitude, (E) relief and moat water depth (F) width and moat water depth, (G) relief-width ratio and moat water depth, (H) relief and and slope angle, (I) width and slope angle and (J) relief-width ratio and and slope angle .