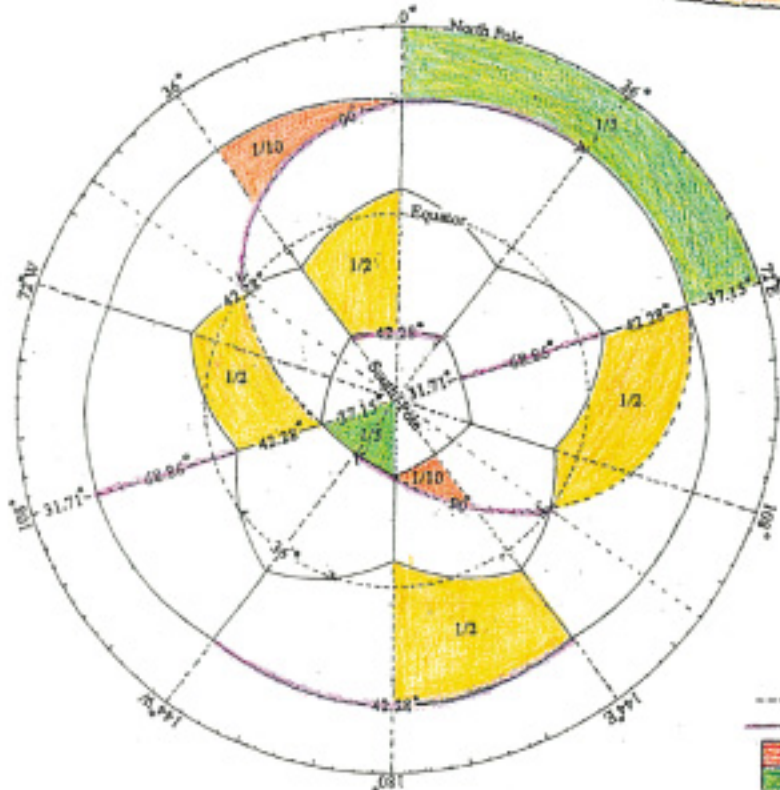
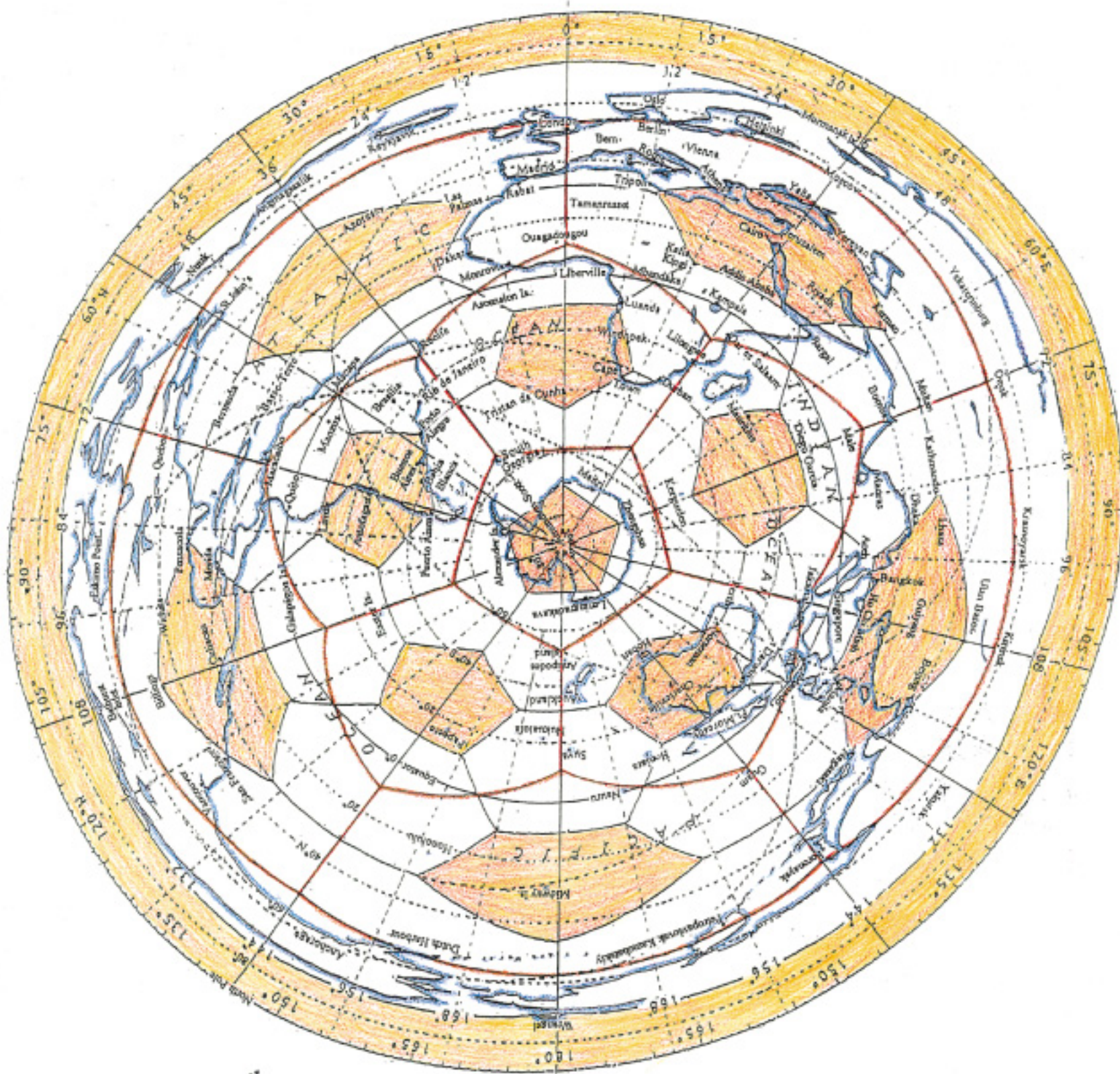


The rotary "dodeca cum hex-pen" grid superimposed onto the antipodes map



The mapped out dodecahedron (insphered)

Notice how well the "dodeca" and "hex-pen" grids synchronise with each other. The arc-angle (42.28°) distance of a side of a pentagonal face of the dodecahedron is equal to the arc-angle distance between the centres of adjacent hexagons of the "hex-pen" grid. And the area of that face (42,505,793.57 sq. kms.) is approximately equal to the area of 1 pentagon and 1/2 hexagon of the "hex-pen" grid. Because of this close alignment between the two grids, all the facts relating to the "hex-pen" grid with reference to distances and areas has cross-relevance to the "dodeca" grid also. Hence reference can be made to the various tables of the "hex-pen" grid for relevant information.

In the diagram beside, each side, face and vertex of the dodecahedron has its corresponding antipodal counterpart. The outermost circle is the magnified point of the north pole.

Arc-angle distances and areas approximations using the "dodeca" grid

Arc-angle	distance in kms.	area of	in sq. kms. (approx. values)	+
31.71°	3524.04 - 3529.95	a 1/10 (face)	4,250,579.35	1/120
36°	4000.8 - 4007.51	a 1/5 "	8,501,158.71	1/60
37.15°	4128.6 - 4135.53	a 1/2 "	21,252,896.79	1/24
42.28°	4698.71 - 4706.6	a face of the dodeca.	42,505,793.57	1/12
90°	10002 - 10018.79	a hemisphere	255,034,761.4	1/2

+ as a fraction of the earth's superficial area

- great circle circumference
- equal antipodal distances
- areas (1/10 of a face)
- " " " (1/5 " " ")
- " " " (1/2 " " ")