
31-MAR-75 16:59:51,1155
Date: 31 MAR 1975 1659-PST
From: CARHART
Subject: WEATERVANES
To: LECERBERG
cc: CARHART

YES, I HAVE ACTUALLY BUILT MY 26-NODE STRUCTURE AND THE GROUP IS CORRECT. THE WEATERVANES CAN BE FIT TOGETHER BECAUSE THE TRIANGULAR PERIMETER HAS A PATTERN LIKE [C.X.C.X.C.X.] - THAT IS, EACH EDGE OF THE TRIANGLE READS C-X-C. THUS THERE IS NO CONFLICT IN ASSEMBLING THEM. THE "HANDEDNESS" OF THE FACES DERIVES NOT FROM THE PERIMETER OF THE FACES BUT FROM THE INTERNAL PORTION. IF THE TETRAHEDRON IS DRAWN IN THE PLANAR REPRESENTATION, THEN YOU CAN ORIENT THE FACES PROPERLY BY GIVING EACH SMALL INNER TRIANGLE A CLOCKWISE ORIENTATION, AND GIVING THE LARGE OUTER TRIANGLE A COUNTERCLOCKWISE ORIENTATION. I SEE NOW WHAT THE SOURCE OF THE CONFUSION MIGHT BE - I SAID THAT THE PINWHEELS "FIGHT EACH OTHERS CURRENT" AT EVERY EDGE, BUT I DIDN'T MEAN THAT THE HANDEDNESS WAS DIFFERENT. IF THE TETRAHEDRON IS A SOLID OBJECT, EACH FACE IS PAINTED WITH THE SAME HANDEDNESS. OF COURSE, THIS IS EXACTLY THE IDEA YOU PRESENTED, EXCEPT THAT THE CHIRALITY OF EACH NODE OF THE TETRAHEDRON DERIVES FROM THE OPPOSING FACE.

RAY
