

or a roman column between base and capital; the acute ungula of a sphere, the image of one of the component sections or ungulae of the orange which when peeled off reveals to the astonished and admiring eye the very poetry of geometrical conception.

Yes the orange or musk melon with its beautifully ribbed exterior must be among the models either in its reality or in image as suggestive to the pupil of the meridian lines which on the globes he studies parcel out the earth and heavens into groupings of land and water and the constellations, and when other lines are drawn across these equidistant from the poles and the equator, parallels of latitude so-called, circles of declination, crossing the meridians at right angles and the intersection of the two, indicative of the exact position of any point upon the surface.

Again there is the quarter-sphere remindful of the vaulted apsis of a church, the head of a nich; prismoids illustrative of a square based tower, roof or other structure terminated by an octagon at top, or by a square turned angle-wise to the other or by a circle; the wedge illustrative of the implement of that name or when erect, of a ridge-pole-camping tent or hut; the twisted prism or parallelopipedon to cut a hand rail from for the well hole of a staircase; the curved cone and twisted as of a horned animal or powder-flask or cornucopia, etc.

There are also the compound solids or which may be decomposed into a cylinder and hemisphere or other frustum of a sphere illustrative of a mortar or engine of war for throwing shells—the hemisphere and frustum of an elongated cone: a gun, a cone and frustum of a sphere, a buoy — or the gas buoy composed of the best portion of a sphere or spheroid (that is more than half) surmounted by a hollow or concave cone or the frustum of one and illustrative again of a turkish or a moorish dome or finial or minaret; but these few compound figures are merely suggestive of how others may be grouped or applied the one to the other: the cone to the cylinder or to the frustum of a cone as the image of a tower with vertical or battered sides and a conical roof, or of a hay stack.

The sections or frusta of the cones and conoids, straight and curved give the ungula or hoof, the lunette headed opening intersecting a curved or vaulted ceiling or a dome, while the plane sections illustrate the triangle, ellipse, circle, parabola, hyperbola.

Now, there are compound solids illustrative of the lines of penetration or of intersection thereof; or the frusta of cones and cylinders and spheres can be put together or held by the pupil in juxtaposition in a way to show the projections of said lines of penetration as looked at laterally or endwise or from above; as of two cylinders representative of intersecting vaults or sewers or drainage pipes, water or other conduits which when of equal diameter, give