arisen by fusion of the umbral and subumbral wall of the primitive stomach of the Scyphostoma, ("cathamma," *k*). The remains of the gastral epithelium are therefore visible in the transverse section of the selvages, in the form of the "endodermal lamella, cathammal plate, or vascular plate" (fig. 10, *kp*), which separates the thicker gelatinous disc of the umbrella (*ug*), from the thinner supporting lamella of the subumbrella (*zw*). We can even distinctly distinguish two layers of cells in the gastral plate, of which the outer belongs to the umbral endoderm, the inner to the subumbral endoderm. A leaf-shaped genitalium, which projects freely into the contiguous radial pouch, is fastened along the entire length of the septal selvages on each side of its subumbral part (fig. 10, *s*).

Four margins and two walls can be distinguished in each radial pouch. Whilst the two lateral margins of the quadrangular pouch are formed by the interradial septal selvages, its lower (or distal) margin is the proximal velar margin and its upper (or proximal) margin is the gastral opening. The latter can be completely closed by the perradial pouch-valve; this is formed by a horizontal fold of the subumbrella, which rises at the upper margin of the pouch and projects as a thickened gelatinous plate freely into the cavity of the basal stomach. The external or abaxial wall of the radial pouches is formed by the smooth endodermal surface of the gelatinous umbrella, its inner or axial wall by the delicate subumbrella. The latter is thin-walled and very extensible, and consists from within to without of the usual four layers:—(1) The endodermal epithelium with high, glandular, cylindrical cells (fig. 10, *dw*); (2) the thin but firm supporting plate or gelatinous lamella (*zw*); (3) the muscular plate (*mw*); and (4) the exodermal epithelium (*qw*). Although pretty firm, the subumbral wall is so thin that it stretches, like a delicate veil, above the pouches, and allows all the organs lying in them to shine clearly through. A narrow band-shaped longitudinal muscle (fig. 3, *mp*) runs in its perradial middle line. This muscle passes above into the "mesogonium," or upper supensory, below into the "frenulum velarii," or lower supensory. The latter divides the distal section of each of the radial pouches into two broad adradial lobe pouches.

The eight lobe pouches or marginal pouches ("bursæ lobares," or "marginales," figs. 2, 3 8, *bm*) are caused by a perradial septum, which, running from each rhopalar niche to the upper velar margin, divides the distal part of each radial pouch into two halves. This septum is merely the abaxial margin of the frenula itself in which the umbral and subumbral walls of the pouch are fused together. Each of the marginal pouches thus formed is rectangular, nearly twice as broad as high. Dendritic, cæcal, velar canals run from their lower or distal margin into the "velarium" (fig. 8, *cv*). These lie entirely in the thickened supporting lamella of the velarium, and are flattened like a ribbon; their endodermal epithelium, like that of the radial pouches, is flat and clear on the umbral side, high and glandular on the subumbral. Their ramification is delicately dendritic and is weaker towards the perradius, stronger towards the interradius. There are forty-eight velar canals on the whole, so that twelve of them come on each