

From the History of a Simple Group

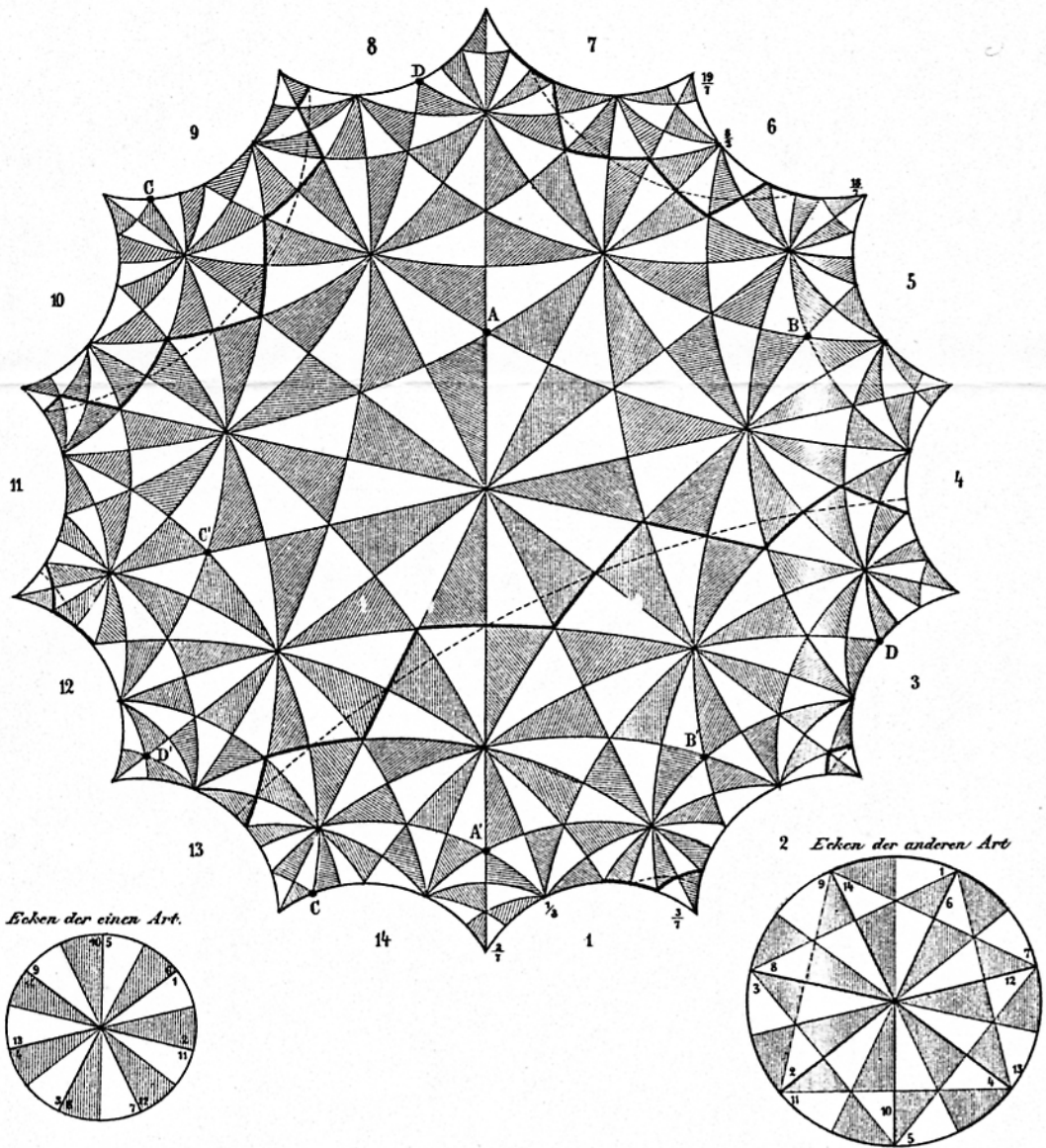
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The attractive figure (Fig. 1) of 168 shaded and 168 unshaded triangles has an interesting history. Since its discovery by Klein in 1878 (see his [1879]), it has often been reproduced, a close cousin formed the badge of the International Conference of Mathematicians in Helsinki (see Fig. 2). This article considers its origins, which lie in the

fields of nineteenth century geometry and the theory of equations.

But first let us look closely at the figure itself. Each triangle, shaded or unshaded, has angles of $\pi/2$, $\pi/3$, and $\pi/7$.

Since $\frac{\pi}{2} + \frac{\pi}{3} + \frac{\pi}{7} = \frac{41\pi}{42} < \pi$, we immediately recognize



F. Klein. Transformation siebenter Ordnung.
Mathematische Annalen Bd. XIV.

Figure 1