

ANDESITES OF THE MOUNT WŻAR

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According to the last investigations two main interpretations of the geological structure of the Mt. Wżar andesites are offered. K. Birkenmajer (1961, 1962a) distinguished there two generations of andesite dykes. The older one is represented by numerous dykes (dyke swarm) nearly parallel to each other, directed E-W, ENE-WSW and ESE-WNW. These intrusions are related to the late orogenic movements of the Savian phase. The second generation of andesites is represented by three dykes cutting transversally or obliquely the andesites of the first generation. The dykes of the second generation are roughly parallel to faults displacing the andesites of the first generation. Birkenmajer is inclined to believe that the faults themselves are synchronous with the formation of dyke swarm of the first generation. The major part of the andesite dykes at Mt. Wżar occur within a brachyanticline built up of Palaeogene flysch deposits (Szczawnica Beds) of the Magura Series.

The above interpretation was generally confirmed by magnetometric survey by S. Małoszewski (1961, 1963).

Another interpretation is offered by S. Kozłowski (1961a, b) who distinguished the following stages of the formation of the Wżar andesites:

1 — Subvolcanic intrusion of feldspar-amphibole andesite into the Szczawnica Beds. A laccolithic character of this intrusion is possible.

2 — Central intrusion of magnetite-amphibole andesite which now forms the summit of the mountain.

3 — Formation of two magnetite andesite bodies (resembling basalt), contemporaneous with the stage „2”.

4 — Strong explosive activity leading to the formation of several blocks separated by broad zones filled with volcanic breccia.

5 — Intrusion of dykes and irregular veins of augite-amphibole andesite.

The differentiation suite of the andesite magma is established as follows: feldspar-amphibole andesite, magnetite-amphibole andesite, augite-amphibole andesite.

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