## VARDZIA, LESSER CAUCASUS, GEORGIA: SUTABLE AREA TO ASPIRING A GEOPARK

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Georgia is located in active Alpine collisional zone, between the Black and the Caspian Seas, in the Caucasus Mountains. It is with unique geoheritages and favorable climate is an excellent destination for the aspiring of Geoparks and development of Geotourism (Gamkrelidze et al., 2021). In Georgia there is an additional advantage that the areas of high geoheritage value also coexist with areas of significant cultural importance and heritage. The medieval city of Vardzia is an excellent example of geoheritage supporting cultural heritage. Vardzia is located in southern Georgia, within the Lesser Caucasus volcanic highland. The geoheritage value includes remnants of a Late Miocene megacaldera; volcanogenic deposits one kilometer in thickness; ignimbrite flows of 35 km length and other significant features of caldera forming eruptions (Okrostsvaridze et al., 2019). The city of Vardzia was directly cut into the rocks ignimbrites flows at the end of the 12<sup>th</sup> century. Its together with Khertvisi medieval fortress, was designated by UNESCO as a World Heritage Site. Unfortunately, the city is included in a tectonic block, which is detached from the main rocks and is gradually subsiding towards the Mtkvari (Kura) So, the Vardzia district preserves both internationally significant geoheritage and worldrecognized cultural heritage. The area also has support for enhanced geotourism and sustainable development of these resources. It therefore appears to satisfy the criteria for an aspiring UNESCO Global Geopark.

## References

Gamkrelidze I., Okrostsvaridze A., Koiava K., Maisadze F., 2021. Geotourism Potential of Georgia, The Caucasus. Springer, 140 p.

Okrostsvaridze A., Chung S. L., Chang Y. H., Skhirtladze I., 2019. Geology and Zircon U-Pb Geochronology of the Mtkvari Pyroclastic Flow and Evaluation of Destructive Processes affecting Vardzia rock-cut City. J. Quaternary International, vo. 45, no.3, pp. 21-29.

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