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## The Igrîța Cave and Cheia–Quarry sites: a first assessment of the absolute chronology of discoveries belonging to the Upper Paleolithic

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### Abstract

This study presents a first evaluation of the  $^{14}C$  dating results for four Upper Paleolithic samples from the Igrîța Cave (Bihor County) and Cheia–Quarry (Cluj County) sites. In addition, the authors propose a first interpretation of two features consisting entirely of animal bones discovered at the Cheia–Quarry site.

### Keywords

Upper Paleolithic, Igrîța Cave and Cheia–Quarry sites,  $^{14}C$  dating.

## Descoperirile aparținând paleoliticului superior din siturile Peștera Igrîța și Cheia–Carieră: o primă evaluare a cronologiei lor absolute

### Rezumat

Studiul prezintă o primă evaluare a rezultatele datărilor  $^{14}\text{C}$  obținute pentru patru probe paleolitice, provenind din Peștera Igrîța (jud. Bihor) și din situl de la Cheia–Carieră (jud. Cluj). De asemenea, autorii propun o prima interpretare pentru două complexe formate doar din oase de animale, descoperite în situl de la Cheia–Carieră.

### Cuvinte cheie

Paleoliticul superior, siturile: Igrîța Cave și Cheia–Carieră, datări  $^{14}\text{C}$ .

The National Museum of Transylvanian History (MNIT; Cluj-Napoca, Romania) and the Horia Hulubei National Institute for Research and Development in Physics and Nuclear Engineering (Bucharest, Romania) are engaged in a long-term collaboration project to perform the  $^{14}\text{C}$  dating of as many organic samples from prehistoric sites in Transylvania as possible.<sup>1</sup> Some of the results of this collaboration have already been published.<sup>2</sup> While the most substantive part should normally have been gathered in one volume, on both subjective and objective grounds they will be published in separate articles. The first of these consists of a presentation of the radiocarbon dating results and the contexts of four samples from the Igrîța Cave (Bihor County) and Cheia–Quarry (Cluj County) sites.

The **Upper Paleolithic**, dating in general terms to between 42 and 10 ka, the period of the last glacial cycle, is one of the most spectacular periods in human history. Not only in terms of the restructuring of stone tool technology, but also the expansion of the modern human (*Homo sapiens*), which in this period interacts with *Homo neanderthalensis* and replaces it.<sup>3</sup> In other words, the transition from the Middle Paleolithic (MP) to the Upper Paleolithic (UP), while an extremely complex process, holds an exceptionally high potential for analysis in all areas of research,<sup>4</sup> with the very early

1 On the method of analysis used, see: Sava *et al.* 2019, pp. 649–658.

2 Palincaș *et al.* 2019; Rotea *et al.* 2020; Ghemiș *et al.* 2020; Rotea *et al.* 2021.

3 On this complex issue, including the territory of Romania, see: Trinkaus *et al.* 2003; Soficaru *et al.* 2006; Soficaru *et al.* 2007; Greenbaum *et al.* 2019, with bibliography; Netea 2022, pp. 32–35, with bibliography.

4 For Romanian territory, see: Breuil 1925; Roska 1925; Nicolăescu-Plopșor 1938; Păunescu 2001, pp. 41–135; Chirica, Boghian 2003, pp. 111–155; Trinkaus *et al.* 2003; Soficaru *et al.* 2006; Cărciumaru 2006, pp. 77–104; Soficaru *et al.* 2007; Dobrescu 2008, pp. 185–187; Cosac 2009, pp. 7–20; Anghelinu, Niță 2014, pp. 172–192. Netea 2022, pp. 25–42; Chu *et al.* 2022, with bibliography.