

Hypogea2023

Proceedings of IV International Congress of Speleology in Artificial Cavities
Italy, Genoa, September 29th / October 1st



EDITORS

Stefano Saj, Carla Galeazzi

Michele Betti, Francesco Faccini, Paolo Madonia





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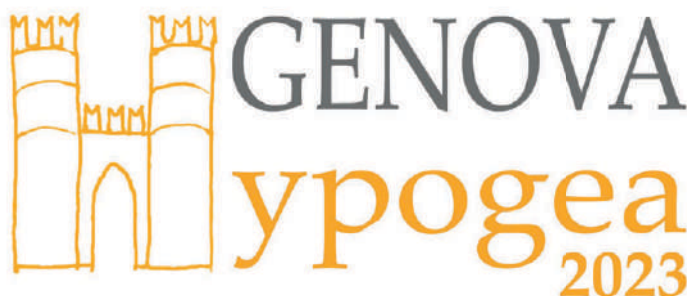


PROCEEDINGS OF IV INTERNATIONAL CONGRESS OF SPELEOLOGY IN ARTIFICIAL CAVITIES

HYPOGEA2023

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PALAZZO DUCALE, SALA MINOR CONSIGLIO
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CONGRESS PRESENTATION

Stefano Saj^{1,2,3}, Carla Galeazzi^{1,4,5}



Venue of the congress: Sala del Minor Consiglio of Palazzo Ducale (photo G. Cavaliere)

This publication gathers the contributions presented during the IV International Congress of Speleology in Artificial Cavities, *Hypogea2023*, organized in Genoa by Centro Studi Sotterranei (Underground Studies Center) with the support of the SSI - Società Speleologica Italiana (Italian Speleological Society), in partnership with the UIS - Union Internationale de Spéléologie (International Union of Speleology) and in collaboration with the Hypogean Federation, the SSI Artificial Cavities Commission, the Ligurian Speleological Delegation and the Opera Ipogea - *Journal of Speleology in Artificial Cavities*.

The Genoa Congress is the first one organized in presence after the restrictions and great difficulties faced by all communities due to the Covid-19 pandemic, following the previous ones held in Italy - Rome (*Hypogea2015*), Turkey - Cappadocia (*Hypogea2017*) and Bulgaria - Dobrich (*Hypogea2019*).

In the prestigious historical venue of the Palazzo Ducale in Genoa, the 52 congress contributions (oral and poster) confirm the synergistic commitment that has characterized research over these last few difficult years in which the pandemic has never stopped.

The Congress, distinguished by the same scientific rigor as the previous editions, constitutes a strategic moment for the exchange of experiences in various high-level scientific, technical, and design fields thanks to the participation of Italian and international experts. Different methodologies, issues and achieved results are shared.

The research lines are organized divided into 11 sessions.

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¹ General chair of the Congress

² Centro Studi Sotterranei, Genoa, Italy

³ Opera Ipogea - *Journal of Speleology in Artificial Cavities*

⁴ Società Speleologia Italiana, Bologna, Italy

⁵ Hypogea Federation for research and enhancement artificial cavities, Rome, Italy



Main courtyard of Palazzo Ducale (photo G. Cavaliere)

sions, each addressing a significant topic related to the central focus of the conference.

It emerged from the speeches that cooperation between academic and non-academic entities and that the cooperation between these entities and the institutions has strengthened in recent years. Even in the more strictly scientific field, decisive steps forward have been taken. The complex picture emerging from the congress provides theoretical and practical insights, bibliographical and documentary references related to the multitude of areas of intervention, which are useful for the best continuation of our studies and researches.

Talking about the state-of-the-art means drawing lines between what has been done, what is currently being done, and what will be done taking advantage of new knowledge, renewed skills, and technological progress. Multidisciplinarity is essential in the path of study, research, and efficient management of results, and it is worth highlighting how the commitment of each entity and the recognition of expertises can make a difference.

Based on the work carried out in the years which preceded to the congress and based on the organization of *Hypogea2023*, the need for constant experimentation in speleology has emerged, requiring a flexible attitude.

The transformation process that has characterized our work at the Centro Studi Sotterranei has led us to redefine our project year after year, and continuous connections have emerged among the different levels of research of those involved.

The congress represents an essential point of reference for the knowledge, protection, and enhancement

of underground heritage of historical and archaeological interest at international level.

In fact, it provides a reading of a wide-ranging researches and monitoring of completed and ongoing initiatives, offering an updated, innovative, yet realistic picture of a field which is constantly evolving and therefore increasingly complex.

In this journey, it is fundamental the commitment of administrative leaders at various levels and, also, the need to share the importance of the topic with the society. Local government represents a key role to coordinate and influence what can be implemented in the territory, and its cooperation with higher institutions represents the possibility of developing more effective policies.

The growing interest in topics covered by the scientific literature sector, of which the journal *Opera Ipogea* is a significant example, has not yet significantly reflected in local policy, where the issue is still largely experimental.

Fortunately, there are representative cases in the management and urban planning of the underground, with adequate regulatory support from the urban resilience perspective, as it is the case of Helsinki has demonstrated for many years (Helsinki Underground Master Plan).

The *Hypogea2023* Congress also aims to provide a contribution and stimulus in this direction, focusing on the active role of those within Public Administrations who are tasked with making decisions or systematic evaluations at the local level.

The result of this IV Congress represents valuable support for the fruitful future work of a relatively recent discipline such as Speleology in Artificial Cavities.

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