# Archaeobotany and Society

HIGHLIGHTING THE SOCIAL AND CULTURAL VALUE OF PLANTS IN OUR HISTORY THROUGH SCIENTIFIC DISSEMINATION.

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COMUNICATION

ENVIRONMENTAL AWARENESS

Revaluate natural heritage, inspiring

debate and reflection

Creating visibility of our work

- 9. Els Corremarges SCCL, Cooperativa de trabajo asociado, Spain

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COMMUNITY

ocal community

INVESTIGACIÓ

We analyse our discoveries

We collaborate with the

#### Introduction

Look around: How many plants can you see? Beyond their ornamental presence or in our food, plants surround us in furniture, clothing, decoration, medicine, and are even crucial for our energy consumption. These vital elements, often underestimated, constitute a fundamental part of our daily life; however, they are often omitted in the historical record.

The archaeological community recognizes that our understanding of plants and their relationships with societies, from ancient times to the present, is fundamental to **enhancing** environmental awareness. Therefore, within the framework of our archaeobotanical projects, we have prioritized the design of dynamic and interactive **dissemination activities**. These initiatives aim to actively engage with society and generate social value in the communities where we operate.

Currently, we study past energy practices through archaeobotanical records and through ethnoarcheology of fuel use in Masai (Tanzania) and Veddah (Sri Lanka) communities. As an integral part of this research, our goal is to design and produce educational materials adapted to different levels, providing valuable resources for schools, museums and botanical gardens.

To achieve this, we have implemented **game-based learning**, a playful strategy, attractive to all audiences, developing various proposals around archaeobotany: 'Monofuelpoly', inspired by the popular game Monopoly, and 'Archbotanka Keliya', based on the traditional Sri Lankan game 'Pancha Keliya'.

## Connecting the past with the present

A fundamental part of our project lies in the active collaboration with educational centers, museums and botanical gardens, guaranteeing the practical and effective application of our educational resources. To do this, we have implemented:

- Workshops in local educational centers: Evaluating the reaction to playful and dynamic activities.
- Surveys: Compiling the perception of teachers and students.
- Seminars and meetings: Establishing dialogues in the Department of Education of the University of Peradeniya. (Sri Lanka)

Another pillar in the design of these resources has been the formation of a multidisciplinary and multicultural team. This team integrates research and technical staff from our center, specialists from local communities, and staff from museums and botanical gardens. This diversity of perspectives is key to ensuring that our resources effectively meet the proposed objectives.





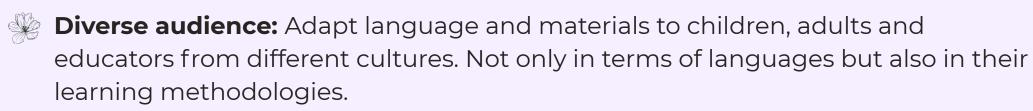


## Challenges and lessons learned

Scientific communication in archaeobotany presents unique challenges, but we have learned valuable lessons to improve its dissemination.



Why do plants matter? Plants have been undervalued in the historical narrative, and giving them value has been a challenge, especially in educational environments.



**Resources:** Limitations of time and budget. Difficulty in transferring people to work with a team that lives in different countries with needs for visas and complex bureaucratic procedures.



- GBL as a universal language and vehicle for the transmission of complex topics with different levels of learning.
- The combination of **different formats** (digital, face-to-face) to work as a team and amplify the impact.
- Collaboration with local and diverse institutions (universities, schools, museums, botanical gardens, etc.)
- Media impact helps the visibility and recognition of the project.

## OUTREACH We spread the results and connect with the society

Outreach strategies: We learn by playing





Our dissemination strategy focuses on game-based learning (ABJ). We recognize that play is a universal language, inherent in all cultures and civilizations, with formats that transcend barriers, which makes it a key element for integration and social cohesion. ABJ is an active and accessible methodology, which offers both students and teachers an educational experience adapted to their needs. Its inherently playful format facilitates the introduction of complex topics, such as archaeobotany, in a relaxed and fun way, overcoming potential learning barriers.

ARCHAEOLOGY

Unearthing evidence

For the dissemination of our games we have defined **two main target audiences**:

- Informal learning audience: We have presented 'Monofuelpoly' in high impact scientific events such as Researchers' Night and the Pint of Science, as well as in the 'Tarragona Juga' game festival. Additionally, the presentation of the game 'Archbotanka Keliya' has been planned in museums in Sri Lanka and in the MUCBO Botanical Garden in Sóller, bringing archaeobotany closer to a wide and diverse audience.
- Educational learning audience: For this segment, we will take the games to schools in the different participating centers, including schools in Kandy (Sri Lanka), Catalonia and Mallorca. The aim is to integrate them into the school curriculum and encourage student participation in research into the energy past."

### Communication and media

Our scientific dissemination projects in archaeobotany have had a wide media impact, with more than 25 appearances in the press and radio, and an estimated reach of 210,000 people. At state level it has been disseminated in various media, and at the international level it has had a prominent presence in Sri Lanka, within the framework of the scientific collaborations of the project.

Additionaly, we have participated in actions such as **Pint of Science** with a talk entitled **"Women**" loaded with Science", in the Researchers' night with the workshop "At the foxes fire who does not bring firewood may not sit" and the scientific dissemination talks organized by MUCBO "Impact of Conflicts in European Forests" given by G. Hello-Laprerie.

Social networks have contributed to expanding the visibility of activities and results, encouraging the participation of the public in real time. This strategy strengthens the social transfer of knowledge and consolidates Archbotanka as a benchmark in archaeobotanical dissemination.







#### Conclusions and future

In the next phase of the project, **pilot tests** will be carried out with prototypes of the games in the associated educational centers. This stage will be crucial for collecting **feedback** and perfecting materials before the production of the final version. Subsequently, the final games will be distributed not only to the participating schools, but also to museums and other collaborating centers, thus extending their scope and guaranteeing a sustainable and far-reaching dissemination.

Our experience shows us the feasibility and impact of dissemination in palaeofuel, especially in urban areas where the connection with nature and its importance in our survival is underestimated. We believe that traditional knowledge of plants, from their origins in prehistory to the present day, must be preserved and continued in the coming generations, in order to give value to natural energy resources and improve our environmental awareness.

