

VESTÍGIOS – Revista Latino-Americana de Arqueologia Histórica
Volume 19 | Número 2 | Julho – Dezembro 2025
ISSN 1981-5875
ISSN (online) 2316-9699

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FROM DISASTER ARCHAEOLOGY TO SOCIAL ENTREPRENEURSHIP**

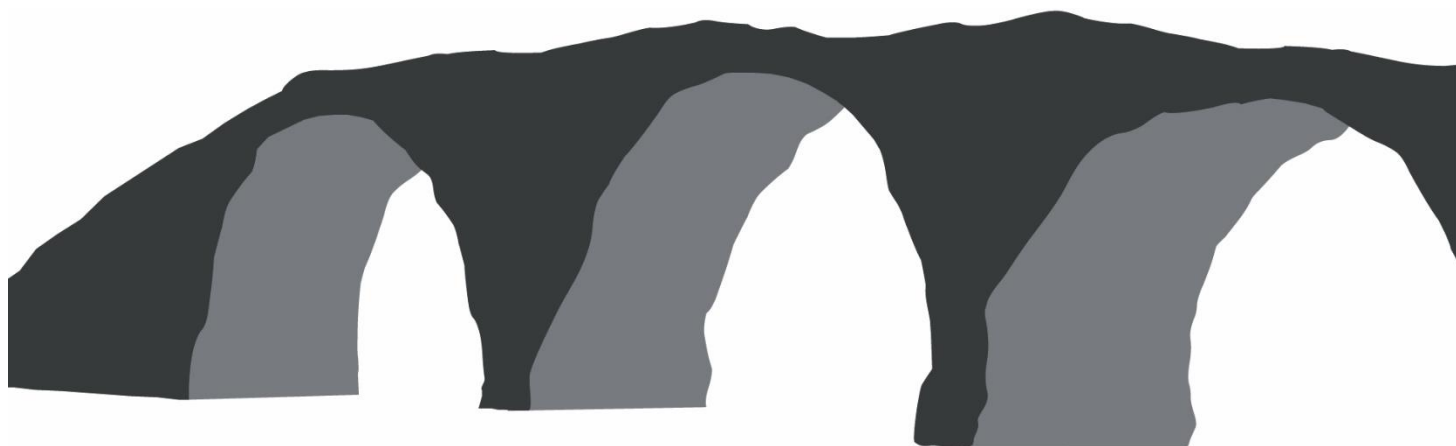
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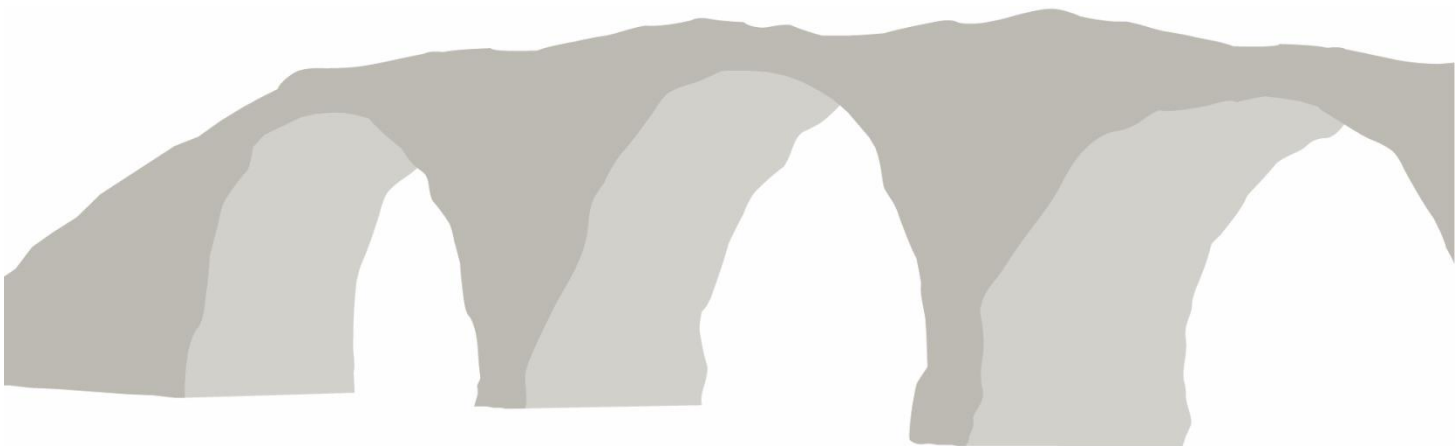
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Tiago Silva Alves Muniz²

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ABSTRACT

This interview explores Professor Leila's pioneering work in the archaeology of garbage, tracing her journey from disaster archaeology in Iran to the establishment of Europe's first start-up focused on garbology. Initially working in Tehran, Leila faced challenges linked to Iran's political climate and the adaptation of traditional garbological methods to urban environments. Upon moving to Scandinavia, she encountered new professional and cultural dynamics, eventually co-founding Garbonomix -a company dedicated to analyzing consumption habits to support economic resilience. She discusses the interdisciplinary potential of garbology to improve both individual and community well-being, linking academic insights with practical applications. Furthermore, Leila reflects on the stigmatization of contemporary material studies in archaeology, noting the field's often nationalistic orientation that overlooks recent histories. Her work advocates for a more inclusive, human-centered archaeology that addresses modern issues like poverty and environmental sustainability. Through her engagement with both academic and consulting roles, Leila demonstrates how archaeology can extend beyond traditional frameworks, encouraging practitioners to collaborate with marginalized communities and contribute to social resilience.

Keywords: Garbology, Material culture studies, Theory and method in archaeology, Garbonomix, Resilience.

¹ Arqueóloga, co-fundadora da empresa Garbonomix e Pesquisadora Colaboradora da Organização das Nações Unidas para a Educação, a Ciência e a Cultura (UNESCO) em Heritage Futures, Linnaeus University (Lnu). E-mail: leila.papoli-yazdi@garbonomix.com. ORCID: <https://orcid.org/0000-0002-7526-2684>.

² Arqueólogo, pós-doutorando no Programa de Pós-Graduação em Antropologia Social pela Universidade Federal de Goiás (PPGAS/UFG), Educador Patrimonial e Responsável pela Reserva Técnica de Arqueologia do Museu Histórico Municipal de Jaraguá, Goiás, Brasil. E-mail: tiago.samuniz@gmail.com. ORCID: <https://orcid.org/0000-0002-1075-5488>.

³ Professora associada do Departamento de Arqueologia na Universidade do Estado do Rio de Janeiro (UERJ), Integrante do Instituto de Memória e Ação Social (IMAS) e pesquisadora de pós-doutorado no Laboratório de Arqueologia Pública Paulo Duarte (LAP), Núcleo de Estudos e Pesquisas Ambientais (NEPAM), Universidade Estadual de Campinas (UNICAMP), Brasil. E-mail: camilla.rio.br@gmail.com. ORCID: <https://orcid.org/0000-0002-5104-8819>.

RESUMO

Esta entrevista explora o trabalho pioneiro da Professora Leila na arqueologia do lixo, acompanhando sua trajetória desde a arqueologia de desastres no Irã até o estabelecimento da primeira startup focada em garbologia na Europa. Inicialmente trabalhando em Teerã, Leila enfrentou desafios relacionados ao clima político do Irã e à adaptação de métodos garbológicos tradicionais para ambientes urbanos. Ao se mudar para a Escandinávia, ela experimentou novas dinâmicas profissionais e culturais, co-fundando a Garbonomix — uma empresa dedicada a analisar hábitos de consumo para apoiar a resiliência econômica. Ela discute o potencial interdisciplinar da garbologia para melhorar o bem-estar individual e comunitário, conectando insights acadêmicos com aplicações práticas. Leila também reflete sobre a estigmatização dos estudos de materiais contemporâneos na arqueologia, destacando a orientação frequentemente nacionalista do campo, que ignora histórias recentes. Seu trabalho defende uma arqueologia mais inclusiva e centrada nas pessoas, que aborda questões modernas, como pobreza e sustentabilidade ambiental. Por meio de seu envolvimento em papéis acadêmicos e de consultoria, Leila demonstra como a arqueologia pode expandir-se além dos quadros tradicionais, incentivando profissionais a colaborar com comunidades marginalizadas e contribuir para a resiliência social.

Palavras-chave: Garbologia, Estudos de cultura material, Teoria e método em arqueologia, Garbonomix, Resiliência.

RESUMEN

Esta entrevista explora el trabajo pionero de la profesora Leila en la arqueología de la basura, siguiendo su trayectoria desde la arqueología de desastres en Irán hasta la creación de la primera startup centrada en “garbología” en Europa. Inicialmente trabajando en Teherán, Leila enfrentó desafíos relacionados con el clima político iraní y la adaptación de métodos tradicionales de la arqueología de la basura a entornos urbanos. Al trasladarse a Escandinavia, experimentó nuevas dinámicas profesionales y culturales, cofundando Garbonomix, una empresa dedicada al análisis de hábitos de consumo para apoyar la resiliencia económica. Ella discute el potencial interdisciplinario de la “garbología” para mejorar el bienestar individual y comunitario, conectando conocimientos académicos con aplicaciones prácticas. Leila también reflexiona sobre la estigmatización de los estudios de materiales contemporáneos en la arqueología, destacando la orientación frecuentemente nacionalista del campo, que ignora las historias recientes. Su trabajo defiende una arqueología más inclusiva y centrada en las personas, que aborde cuestiones modernas como la pobreza y la sostenibilidad ambiental. A través de su participación en roles académicos y de consultoría, Leila demuestra cómo la arqueología puede expandirse más allá de los marcos tradicionales, alentando a profesionales a colaborar con comunidades marginadas y contribuir a la resiliencia social.

Palabras clave: Arqueología de la basura, Estudios de cultura material, Teoría y método en arqueología, Garbonomix, Resiliencia.

INTRODUCTION

In recent decades, archaeology has expanded its disciplinary boundaries by engaging with contemporary issues that challenge the notions of time and materiality. One of the most innovative paths in this expansion is garbage archaeology, or garbology, which examines waste as a meaningful record of current social dynamics. Inspired by the pioneering work of William Rathje, this approach has been critically developed and applied by researchers such as Leila Papoli-Yazdi, whose trajectory connects archaeology to urgent matters such as social inequality, sustainability, and social entrepreneurship. Her work in contexts like Iran and Scandinavia demonstrates the transformative potential of archaeology when focused on the residues of the present and committed to dialogue with marginalized communities.

This interview with Professor Leila Papoli-Yazdi explores the innovative field of garbage archaeology, or garbology, and its contribution to understanding contemporary social dynamics. This field was initially popularized by anthropologist William Rathje, who, through the Garbage Project, demonstrated that waste could reveal hidden aspects of human behavior. In their work, Rathje and Murphy (1992) emphasize that archaeology has a unique way of revealing what people actually do, not just what they say they do. By studying waste, Rathje showed that analyzing refuse provides an objective and unfiltered view of consumption and waste practices, challenging superficial social perceptions.

Following this approach, Leila Papoli-Yazdi expanded Rathje's methods by applying garbology in marginalized and suburban areas of Iran, facing political and economic challenges. In her research, Papoli-Yazdi proposes that archaeology should be concerned not only with the material remains of the past but with the residues of the present that shape the future (Papoli-Yazdi, 2021), advocating for an archaeology focused on the critical analysis of social inequalities reflected in consumption and disposal practices. By investigating household waste in Tehran's poorest areas, she demonstrated how garbage reveals deep layers of social exclusion, as well as consumption and survival patterns of disadvantaged classes.

In the context of her work in Tehran, Leila Papoli-Yazdi develops an in-depth analysis of how waste can reflect class divisions and social identity. In her article *The Archaeology of a Marginal Neighborhood in Tehran, Iran: Garbage, Class, and Identity*, she examines how accumulated waste in impoverished areas reveals dynamics of exclusion and resistance. Papoli-Yazdi (2021) argues that the garbage in marginalized neighborhoods is not merely a consequence of poverty conditions but an identity assertion of the communities residing there. By investigating the material everyday lives of the disadvantaged, she challenges traditional archaeological perceptions and proposes a more inclusive approach that comprehends contemporary social complexity.

Papoli-Yazdi also finds inspiration in the thinking of Paulo Freire (2020), as she considers dialogue and education fundamental for transforming practices and engaging communities. Freire argues that without dialogue, there can be no true education, and Papoli-Yazdi integrates this principle into her practice of garbology, using the study of waste to foster discussions on conscious consumption, economic resilience, and sustainable practices.

After migrating to Europe, Papoli-Yazdi founded Garbonomix, a startup that applies garbology to analyze consumption patterns and promote financial sustainability. This initiative, in addition to being pioneering, reflects her vision that archaeology can go beyond traditional limits and become a tool for social transformation. By connecting garbage archaeology to issues of social justice and sustainability, Leila demonstrates that the

archaeological field need not be restricted to the past but can address urgent present-day issues and contribute to building a more equitable and sustainable future.

This perspective aligns with the conversation of Holtorf and Muniz (2020), who talked about the role of cultural heritage as a tool to shape the future, emphasizing that heritage should not be seen only as a remnant of the past but as an active resource for social transformation. For Holtorf and Muniz (2020), cultural heritage can engage society in meaningful dialogues about identity and belonging. By connecting her research to the idea that archaeology can "build futures", Leila reveals the potential of garbology as an interdisciplinary and transformative practice that illuminates not only the past but also the challenges of the present and the possibilities for a more just and sustainable future.

QUESTIONS & ANSWERS (Q&A)

1) Welcome, Professor Leila. First, I would like you to tell us a little about your journey with garbage archaeology in your country. How was it to start these studies in suburban areas? What were your biggest challenges at that time?

My colleagues, Omran Garazhian, Maryam Dezhmakhoo and I started to do disaster archaeology in 2003 after the city of Bam (located in southeastern Iran) was destroyed by a dramatic earthquake and more than 40000 individuals perished. During this project which lasted five years, we could practice a modern branch of archaeology that dealt with ordinary people and their everyday lives. This was completely different from the school of archaeology which we had studied at the University of Tehran and is still very much involved with classical and historical archaeology. Due to this dichotomy, my colleagues and I lost the opportunity to conduct field projects in Iran.

In 2018, a friend who had a network in the municipality of Tehran called me and arranged for us to do a garbological project. At the time, the sanctions and poor economic policy of Iran's government had ended up in the impoverishment of the middle classes and the intensifying rate of poverty among the low-income classes. We decided to work in two districts of Tehran. One was officially known to be the poorest area in the city and in the other, both the middle classes and the poor lived.

I categorize the biggest challenges of this project into two main groups. The first one included those challenges which are linked to the political climate of Iran. We did not have enough capital and had lots of problems in order to issue our permissions. The second group of challenges was associated with the approach of garbology. During the last fifty years, garbology has been very rarely applied by archaeologists. However, in the last half-century, the nature of garbage has changed a lot. Also, the Garbage project conducted by William Rathje (the pioneer of garbology) in 1973 concentrated on large-scale landfills which for us was completely impossible due to political and financial problems. Adopting the techniques of garbology to be usable in our small-scale project was one of the most challenging obstacles in our way of studying garbage bags.

2) Currently, you work in Sweden. How was this professional transition for you, and how do you perceive the studies on waste in the Global South, the United States, Europe, and more specifically, in Scandinavia?

Garbology is closely connected to studying the lives of the absolute poor and those who subsist by collecting, selling, or even consuming waste. Since William L. Rathje initiated garbology in the 1970s, the emergence of these communities in both the Global North and South has become more pronounced. However,

as someone originally from the Global South, I found it challenging to work in the southern regions of the Global North. In countries like France and Germany, where I have worked, there was an expectation that I focus on evidence from my home country.

In Sweden, I began my work at Gothenburg University and continued at Linnaeus and Malmö Universities, but eventually, continuing my academic career became untenable. My contract was terminated, and I couldn't find another academic position. My husband, Omran Garazhian faced similar difficulties. Consequently, we decided to engage with the community differently and founded a start-up called Garbonomix. At Garbonomix, we analyze people's consumption habits and waste, offering them a consumption plan to help improve their finances and increase resilience against inflation and economic pressures, whether online or in person.

It is very challenging for immigrants to establish themselves in Scandinavia's business environment, though there is significant potential. Unlike academia, where obtaining permission to work with people's or communities' garbage is nearly impossible, a start-up allows us to work directly with customers through mutual agreement on our approach. Over the past two decades, my team and I have refined my methodology to better serve the needs of the poor and disadvantaged. I believe the approaches used to study the Global South can also be applied to impoverished communities in the Global North.

3) I would also like you to tell us about the experience of opening one of the first garbology company in Europe. Firstly, how was it to deal with the bureaucracy? And how is the company's insertion into the market? Who is the target audience?

As I mentioned earlier, Garbonomix was founded by Omran Garazhian, and I joined him as a garbologist. In Sweden, setting up a business requires creating a comprehensive business and budget plan. There are two institutes that provide free assistance with this process. The bureaucratic steps took three months, after which we received a business registration number and were able to start operating officially.

However, we still face a significant marketing challenge. The language we use in academia differs greatly from business terminology, and translating our academic insights into a business context is quite challenging. Another issue is that many people find it difficult to believe that archaeology can offer strategies to improve economic stability and resilience. Archaeologists are typically seen as those who study ancient ruins or work in museums.

The concept of recent past archaeologies and their potential to enhance people's lives is largely unfamiliar to the general public. Therefore, I acknowledge that we have a long and challenging road ahead to attract the attention of our target audiences in different countries.

4) How do you see the role of archaeology in diversifying its areas of activity beyond more traditional fields such as academia, heritage management, or environmental licensing?

Archaeology reveals aspects of modern civilization that often go unnoticed by other disciplines, particularly its material culture and tangible artifacts. At a conference, I once asked my sociologist colleagues what the poor in a modest district of Tehran typically eat. Few could answer. In contrast, archaeologists possess the tools to delve deeply into the everyday lives of people from various communities and social statuses, uncovering precise details about their diets, leisure activities, hobbies, relationships, and other aspects reflected in material objects. This unique capability of archaeology offers young people the potential to engage with diverse communities, initiate start-ups, and contribute to society. Moreover, it can be leveraged to discover job opportunities and build fulfilling careers.

5) What is the main difference between consulting work on waste and the academic work conducted on this subject?

The main difference is that our academic articles, books, and discussions often lack an immediate impact on people's daily lives. In contrast, face-to-face interactions with customers in a business environment are vastly different. We bear responsibility for every penny our customers spend on our services, and if those services fail or produce unexpected outcomes, it can significantly affect people's lives. Therefore, working outside academia and within a business context is highly sensitive, as it directly engages with the daily lives of individuals in our community and beyond.

6) How can we use the concept of the Anthropocene to broaden the notion of archaeology and discuss the discipline with the general public more widely?

Using the concept of the Anthropocene broadens archaeology by linking ancient human activities with contemporary environmental impacts, expanding the discipline's focus to include recent artifacts and landscapes shaped by human influence. This interdisciplinary approach can make archaeology more relevant to modern societal concerns, engage the public in discussions about sustainability, and transform our understanding of heritage to include current human impacts, fostering a connection between past and present in a way that resonates widely.

7) If we consider that archaeology studies the waste of a given society, or in other words, garbage, how can we engage with recycling economies and sustainability policies?

Unlike many scientific disciplines that focus on the environmental and technical aspects of waste accumulation, the fields of waste archaeology and garbology emphasize human behavior. We concentrate on the cycle of consumption and waste disposal, specifically what occurs before objects are discarded. This focus enables us to significantly influence the reduction of waste and consumption. Additionally, archaeology provides various methods for classifying and sorting materials, which can be adapted to improve recycling processes.

8) Is there prejudice within archaeology when professionals in the field dedicate themselves to researching materials from the 20th and 21st centuries? Is it considered "less archaeological" work than others?

Unfortunately, yes. In many countries, nationalistic approaches to archaeology remain prevalent. These perspectives focus on glorifying ancient civilizations to reinforce the foundations of nation-states. Conversely, archaeologies of the recent past shed light on the darker aspects of modern civilization and seek solutions to contemporary issues. This focus is often unpopular, especially among those in power. Consequently, it can be challenging for archaeologists specializing in contemporary history to find employment.

9) How are you received by people when you offer your consulting and/or research services? Do they perceive this service as archaeology or as something different?

Most of our clients are initially skeptical. However, our first consultation is free, allowing them to decide if our service suits their needs without any obligation. People are often intrigued by the connection between archaeology and the modern world. At Garbonomix, our mission goes beyond business; we aim to educate people about how waste archaeology and garbology can enhance their daily lives. During the first meeting, we provide a presentation, share testimonials from previous clients, and explain our methodology in detail, highlighting the benefits of our service. Clients typically see improvements in their finances within the first two months of implementing our consumption plan. Three months after they receive the plan, we follow up to discuss their progress and review the plan if needed.

10) What advice would you give to the Brazilian audience interested in the subject, and how can they overcome challenges when offering a new service to the job market?

Brazil, as an advanced emerging economy with the ninth-largest GDP globally, faces significant economic challenges, particularly for marginalized communities and the younger generation. To combat the rise of absolute poverty and enhance resilience, I believe we must scrutinize our consumption habits as closely as we monitor our health. Poor consumption routines contribute to the impoverishment of vulnerable groups. I draw inspiration from Brazilian thinkers like Augusto Boal and Paulo Freire who are my figure models in life. Freire's emphasis on dialogue—"Without dialogue, there is no communication, and without communication, there can be no true education"—resonates deeply with me.

Our consumption patterns and the objects we use and discard can spark essential dialogues. These dialogues can lead to meaningful improvements in our lives. From Boal and Freire, I learned to shift my focus from negotiating with the affluent to engaging in dialogue with people like myself, ordinary people, creating a continuous platform for mutual support and survival. In my interactions with Brazilian archaeologists at international conferences, I've been impressed by their research on topics such as slavery, emancipation, and sustainability. Brazil, I believe, has tremendous potential to advance new interdisciplinary approaches in archaeology. Embracing this potential can help us address contemporary challenges and innovate in ways that resonate with the unique needs and strengths of the Brazilian context.

I, as a garbologist, would be very glad if I could share my ideas and observations with the archaeologists from Brazil. I hope that they can create a platform to start a dialogue on the base of archaeology.

FINAL CONSIDERATIONS

Professor Leila Papoli-Yazdi's pioneering approach to garbology not only broadens the scope of archaeology but also challenges conventional boundaries within the field. By exploring the hidden narratives embedded in garbage, her work uncovers the intricate social dynamics that often remain invisible in traditional archaeological and social studies. Her investigations in marginalized communities in Iran reveal how waste can serve as a silent testament to economic hardship, social exclusion, and identity assertion. This perspective demonstrates that waste is not merely a byproduct of consumption but an active, revealing record of contemporary societal structures.

Furthermore, Papoli-Yazdi's work exemplifies a transformative vision of archaeology, where the discipline is not solely concerned with the past but also addresses present-day social issues and the potential for future change. By using garbology as a tool to open dialogues around sustainability, economic resilience, and conscious consumption, she bridges the gap between archaeology and social advocacy, showcasing a field that is both interdisciplinary and relevant to modern challenges.

Through her establishment of Garbonomix, Papoli-Yazdi has set a compelling example of how archaeology can impact contemporary society directly. Her work aligns with the insights of Holtorf and Muniz on cultural heritage's role in future-building, reflecting a future-oriented archaeology that addresses environmental and social sustainability. In championing garbology as a means to analyze and improve current consumption patterns, Papoli-Yazdi not only redefines the role of archaeologists but also demonstrates that archaeology can be a transformative force for addressing urgent social and environmental issues, contributing to a more just and sustainable world.

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