More-than-Human Jerusalem: Rethinking the urban landscape with postanthropocentric imagination

Abstract

As a city that is at the same time unified, divided, fragmented, contested, mixed, neoliberal, post- and neo-colonial, Jerusalem / Al-Quds presents a unique combination of urban conditions. It is divided between East (part of the occupied West Bank) and West, and between Palestinian, Jewish-orthodox religious, and Jewish secular neighbourhoods. It is a religious meta-city, in which past and future fantasies and obsessions are part of quotidian life, but also a fascinating place of everyday practices, unexpected encounters and productive frictions, defying top-down categorisations. At the same time, it is a modern, neo-liberal city, in which local and global capital play a major role in new urban developments.

It would be a mistake, however, to describe Jerusalem solely from an anthropocentric point of view, while neglecting its more-than-human components. This article will present the fruits of a three-year study, conducted as part of the More-than-Human Jerusalem Lab in Bezalel's Master's in Urban Design. Study spanned three projects: Liquid Jerusalem (2021), Growing Jerusalem (2022) and Terra Jerusalem (2023). Together with the students, we explored possibilities for a renewed interaction between artificial and planned elements and between living organisms in the urban space, focusing on water, vegetation and soil in the city and their interweaving in urban culture and everyday experience.

The lab sought to challenge the separations between 'nature' and 'culture,' and to develop nature-based solutions to offer a new perspective on the city, one that can open different futures of inclusion, care and cooperation between the human populations—but also between them and the more-than-human inhabitants of the city. Through a series of projects, the article will describe the research and methodological process of thinking about Jerusalem as a laboratory of the more-than-human, suggesting planning tools designed to enhance urban resilience, justice and inclusion.

Introduction

In a historical speech before the Israeli Knesset in 1964, a young Member of Parliament and author, S. Yizhar, turned to all members of the parliament of a state founded only 16 years earlier. Yizhar sought to speak in the name of the "delicate, light creatures," to establish legislative authority to halt and prevent the decimation of wildflowers, the harm to the lizards, to the reptiles and to all the rest of the protected fauna and flora. The blue lupine, the fields of tulips, the daffodils standing tall, the red anemone, the ratama bushes blooming with serenity in the Sharon region, all described with full artistic intensity. Yizhar made present a perspective of

Ariel
HANDEL

Ganit
MAYSLITS
KASSIF

BEZALEL ACADEMY OF ART AND DESIGN

Yael C H E N A G M O N

> TECHNION ISRAEL INSTITUTE OF TECHNOLOGY

Omri L E V Y

> BEZALEL ACADEMY OF ART AND DESIGN

tenderness in the parliament, the likes of which had never before been heard in the emergency culture and survivalist spirit that characterized the era (Furst 2020).

The poetic oration, that gave rise to a new discourse in the engineered-utilitarian mindset of the era, which saw dressing the earth in "a robe of concrete and cement" as a lofty goal for the nascent nation, stood out in its rarity. Perhaps for this reason precisely, it was so successful and was a part of the process that brought about the legislation of a series of laws and ordinances for the protection of nature.

From a historical perspective, Yizhar's deed of giving presence to a new awareness of the interaction between the human and the non-human in Israel's open space and culture resounds particularly in Jerusalem. A city caught perpetually in the tension between a spiritual asset of legendary proportion and a vibrant city serving hundreds of thousands of residents of diverse religions and nationalities who coexist in a political space that is at once unstable, conflicted and sublime. Ian McHarg's (1969) protest, which denounces the approaches that disconnect humans from nature's frameworks and sees anthropocentric interrelationships as the source of the problem, becomes at once relevant and particularly fascinating in Jerusalem, the cradle of Abrahamic culture. McHarg criticises fiercely and explicitly the monotheistic religions as being responsible for the ethos that formed the relations-in-crisis between humans and the environment. He states that "The great western religions born of monotheism have been the major source of our moral attitudes [...] the Biblical creation story [...] in its insistence upon dominion and subjugation of nature, encourages the most exploitative and destructive instincts in man" (McHarg 1969, 26).

But, as we have mentioned above, Jerusalem is not only the idea of a city or a symbol of monotheistic religion; it is also a living city with unique features. Physically and ecologically Jerusalem is an example of an ancient walled city, with remnants over 3,000 years old. With a continuous yet limited human presence for thousands of years, the city served as fertile ground for the development of an integrated system of nature and humans. The amalgamation of those very same ancient urban expressions of symbiotic space and extreme expressions of accelerated development in the twentieth century, which expose the anthropocentric approach characteristic of urban construction in the modern machine age, is what models Jerusalem as a one-of-a-kind laboratory. Yet, despite the twentieth century's accelerated development, it was in Jerusalem that compelling interactions formed with animal life, plants and streams -making Jerusalem into a local leader of planning processes for preservation and integration of natural frameworks into the city, and in forming captivating interactions between the human and the non-human in the daily life of a congested twenty-first-century metropolis.

An example of such alliances can be observed, for example, in life that developed over hundreds and even thousands of years on the Old City walls and that have added strata to sites such as the Western Wall that are more than human, such as swallows, capers and lichens (Figure 1). Another example, found in the new part of the city that developed outside the Old City walls, is the Gazelle Valley Park, which forms an island of wild space, hosting a rare population of gazelles and natural systems of wildflowers and wetland habitats. Simultaneously, these form an encounter between city residents and a diverse, living, dynamic ecosystem that is part of daily life in the urban space (Figure 2).



Figure 1. A superposition of swifts' flying patterns recorded over time at the Western Wall of the Old City. (Part of a diptych together with AIRLINES XVIII-2 · Mauersegler über der Trennmauer · Bethlehem · 15. März 2018 · 2:55 Minuten). Image credit: Lothar Schiffler; AIRLINES XVIII-4 · Mauersegler an der Klagemauer · Jerusalem · 14. März 2018 · 48 Sekunden; Lothar-Schiffler.de



Figure 2. Gazelles at the Gazelle Valley Park, which lies at the heart of the urban fabric and serves as an enclave of wild nature. Image credit: Amir Balaban

Today Jerusalem oscillates between two ends of a planning spectrum. The unique nature survey of the walls of the Old City initiated by the Israel Antiquities Authority as part of *The Conservation of Jerusalem's City Walls* project (https://www.antiquities.org.il/jerusalemwalls/default-eng.asp) integrated the system of creatures and their diverse habitats that developed over thousands of years on the stones into a system of planning decisions. Yet today, 70 years after the McHargian revolution, we are still witness to neighbourhoods being planned on unstable soil, coupled with increased destruction of fertile habitats.

Recently, sinkholes have been appearing in Jerusalem's urban environments with increasing frequency. We perceive this as the soil's way of calling us to attention.

To deal with the more-than-human of Jerusalem responsibly, we need to slow down, to be attentive to features of different scales, and to redirect our attention, as suggested by Latour (2018), towards the Earth, Gaia, and the Terre. It is a call to reconnect with forms of knowledge that relate to the ground.

The more-than-human city

The more-than-human approach is gaining ground in the contexts of philosophy (e.g., Abram 1996; Bennett 2010; Haraway 2015), sociology (e.g., Maller 2018), ecology (e.g., Van Dooren et al. 2016) and urbanism (e.g., Hinchliffe et al. 2005; Houston et al. 2018). A two-pronged assumption –empirical and ethical– is at the basis of the research approach to the more-than-human city. From an empirical perspective, this approach shows how the city does not rest upon human agency alone but also on natural foundations that affect its activity, such as soil (Gandy 2003) and water (Kaika 2005). Furthermore, the city houses not only human residents but also an ecological diversity of animal and plant life, ranging from alley cats, boars, sparrows and bees to trees, wildflowers, lichens and mosses.

From an ethical perspective, this movement seeks to identify the more-than-human not only as an empirical fact, but as a foundation for a broader and more inclusive focus, broadening the domain of care beyond the city's human residents (Puig de la Bellacasa 2017). In this manner, the approach refuses the accepted Western-modernist hierarchy, which sees in human beings alone the agents of action (that is, those who shape the city) and the objects of interest and care (that is, those who urban planning is meant to be taking into account).

Steele et al. (2017, 411) have stated that "in the mythology of modernism, the city was depicted as a place where nature had been tamed and domesticated into a benign physical environment for primarily human habitation away from the 'wilds' of nature." The thought of the city as more-than-human helps us conceive of

urban space as something that isn't independent of nature; rather, it forms a unique multi-species place to live. In it, different species negotiate for land and resources of the built-up surroundings, acknowledging the many agents and the mutual dependence of multiple human and non-human, alive and not-alive players, including plants, animals and ecosystems (Barua and Sinha 2020).

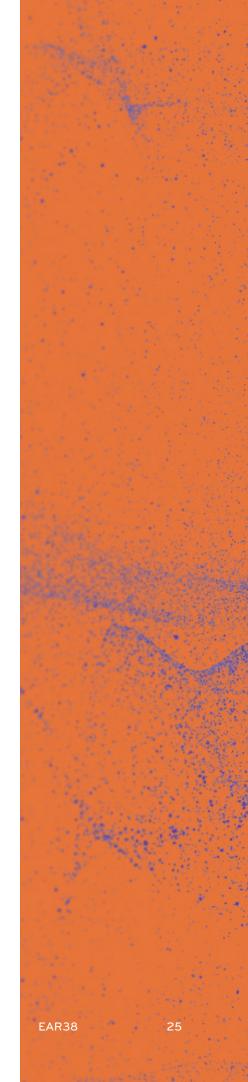
The more-than-human approach introduces nothing new. Indigenous ontologies are founded on a deep awareness and acceptance of ongoing mutual relationships between humans and the rest of nature (Yunkaporta 2019; Porter et al. 2020). Nevertheless, in the context of modern Western planning, the more-than-human demands significant changes in consciousness and in daily practice. In a world in which most humans live in cities, and where cities influence the entire globe (referred to as "planetary urbanism"; see Schmid and Brenner 2011), the challenge is not to restrict the human for the sake of the non-human or vice versa, but rather to develop a profound approach of environmental ecology of which the city is a part.

As we shall see below, the more-than-human challenge is to think in a manner that is always site-specific and deeply situated: biologically, geologically, hydrologically -but also in a manner that is social, political and urban. Following Shingne (2022), we would like to think of the 'more-than-human right to the city' in such a way that it does not abandon any of the players in the urban multispecies ecology, and even opens a new gaze to the discourse on the human component as a "keystone species" with a major role in recovering the ecosystem (Robin Wall Kimerrer 2022). In this way we propose re-examining prevailing perspectives, which see humans primarily as a destructive and invasive species. Rather, we consider the perspective which sees the potential in human systems for constructive reciprocity between homo sapiens and the environment –as proposed in Frederick Steiner's (2016) discussion on Human Ecology, or, alternatively, in Lynn Margulis' discourse on symbiotic systems as a dynamic that allows adaptive development and survival of diverse life systems on the planet (Margulis and Sagan 2013).

More-than-human Jerusalem

Steele et al. refer to the problem of the very classification into non-human vs. human, "given not all non-humans are the same, not all humans are the same" (2019, 411). This point leads us to a discussion on Jerusalem as our field of engagement, and on the emphasis we place on the human community aspect as an integral part of the more-than-human ethic in the city.

As a city that is at the same time unified, divided, fragmented, contested, mixed, neoliberal, post- and neo-colonial, Jerusalem / Al-Quds presents a unique combination of urban conditions. It is



divided between East (part of the occupied West Bank) and West, and between Palestinian, Jewish religious-Orthodox and Jewish secular neighbourhoods. It is a religious meta-city, in which past and future fantasies and obsessions are part of quotidian life, but also a fascinating place of everyday practices, unexpected encounters and productive frictions, defying top-down categorisations. At the same time, it is a modern, neo-liberal city, in which local and global capital play a major role in new urban developments. It would be a mistake, however, to describe Jerusalem solely from an anthropocentric point of view, while neglecting its more-than-human components.

This article presents the outcome of a three-year study, conducted as part of the More-than-Human Jerusalem Lab in Bezalel's master's degree in urban design. Study spanned three projects: Liquid Jerusalem (2021), Growing Jerusalem (2022) and Terra Jerusalem (2023). Together with the students, we explored possibilities for renewed interaction between artificial and planned elements and between living organisms in the urban space, focusing on water, vegetation and soil in the city and their interweaving in urban culture and everyday experience.

The aim of the Jerusalem Lab is to think of Jerusalem as a city of multiple players, with the human and the non-human intricately intertwined. As an underlying pedagogical assumption, the lab views the academic arena as an experimental space vital for study and development. It allows speculative research that challenges prevailing solutions found in practice, and it opens up new tools and perspectives that could affect spatial planning. As a point of departure, the lab asks what meaning the changed perspective of more-than-human has on us, as urban designers, in an age that requires protesting the isolation that characterises our relationships as humans to all that surrounds us.

The lab sought to exploit the developing insights on the relationship between culture and nature as a planning opportunity for forging creative new symbiotic relationships between the human and the non-human in urban space. As artists, architects and designers who operate from a perspective of involvement and mutuality, we went forward and backward in time and sought new and different stimulating partnerships and collaborations, between ourselves and the animate, the vegetative and the inanimate around us. We told stories, conducted experiments, buried ourselves in the numbers, spaces and data, and dived into the world of butterflies, threads, clods of soil, clouds, leaves and smells. Together we pondered whether we could stop designing **for** the world and begin designing **with** the world.

The studio's methodology was rooted in a research process that incorporated the personal interest and motivation of each student together with the urban issue. Analytical and conceptual project

development placed an emphasis on developing plastic and visual research -believing that urban design must engage in beauty, precision, temptation, true effort, tenderness and all the rest of the unmeasurable aspects of our work, those that are necessary for creating the architectural and urban quality, connected to the place in which it generates new opportunities for meaningful interaction. The lab acts as an academic arena integrating "tuition and intuition", developing a planning approach that combines poetic licence with our social and public responsibility, as those who are responsible for the drawn lines that form the human clusters in urban space.

As a starting point for the projects, each lab formed a body of knowledge that surveyed and mapped different features and processes of water, plant life and soil in the Jerusalem arena. Professional advisors assisted the project, helping students develop the body of knowledge and gain a deeper familiarity with important basic concepts from the domains of urban ecology, pedology and hydrology and place them in their rightful place in the planning discourse. Those same physical aspects of natural space –the full range of flora and fauna, soil and water– were plotted on an axis of time using a series of city-wide mappings, with an emphasis on integration of historical, economic and social bodies of knowledge related to the unique human culture of Jerusalem.

In a methodological process we called "realistic utopia," the labs searched for the right balance in their projects for integrating a bold, open conceptual and theoretical approach and an in-depth familiarity with the human and more-than-human data of the city. Examination of the data, the mappings and the analysis served as a foundation for freedom and imagination that allowed us to transform ideas into alternative possibilities and scenarios to propose a new and creative type of human intervention in the city. The effort was therefore scientifically founded and aspired toward creative urban design, with awareness of political dimensions of activity in a city whose past history and whose present are found in deep contention.

As a programme at a distinctly Jerusalemite institution such as Bezalel, Jerusalem's sociology and politics do not skip over the shared academic space: each of the labs includes Israeli and Palestinian students, secular and religious, with wide-ranging attitudes to the city of Jerusalem and to the world at large. As we seek to demonstrate below, a central motivation was to examine how the more-than-human could create a re-territorialisation and de-territorialisation of the city's familiar human borders, and what potential the more-than-human has to transform the human layer into a more just one.

1The professional advisors were eco-hydrologist Ori Moran, ecologist Amir Balaban, tree expert Yisrael Galon and pedologists Rami Zeidenberg and Ori Halberstadt.

The "Growing Jerusalem" lab

The "Growing Jerusalem" lab conducted a renewed examination of the dichotomy between "culture" and "nature," and the anthropocentric perspective that rules spatial design. From the opportunities available in "rewilding" the urban space, we re-examined, as urban designers, everything that grows, that entwines, that sheds, that withers, that shades, that flowers, that sprouts, as significant players in the experience of space. We began to think about "growth" not in the sense associated with modern capitalism or urban development, but in a different sense; one which goes back to the natural, untamed object of growth -the plants themselves. For this we sought to go back to our roots: plants as a spatial rhizome, knotty and full of holes, with the ability to grow, rehabilitate and to astonish. Jerusalem's particular geographical conditions and its long history have formed a rich palette of wild and cultivated plants and agriculture. Forestation efforts of the 1950's have introduced landscape influences and additional vegetation. Today the city is home to diverse sacred trees, cultural landscapes that hold myths and cultures, nature reserves and national parks, as well as private gardens, orchards and traditional and modern farmland.

Continuing the trend that calls to bring nature back to the city, the lab engaged in different aspects of the relationship between vegetation and Jerusalem life. With the goal of forming meaningful integration of plant life into the city –not only as urban gardening or engineered landscaping– we studied the manners in which plants could serve as material to shape place and identity, to form changing and uncontrolled dynamics, and to develop rich interactions between nature and urban culture and space.

Jerusalem is built almost entirely from 'Jerusalem Stone' (various types of pale limestone and dolomite, common in and around the city). Entire swaths of the city have existed for hundreds and thousands of years; these stones serve as a bed for growth of a diversity of plant life. The greater the margin between the stones, the more textured they are in three dimensions, the more cracks they have –the more life they allow between them– the richer the habitat of the stones and the cracks between them. A project entitled "The right to an ecocentric city" mapped the stone beds and developed a planning language of fissures of different scales. This network of fissures serves as a habitat for pollination routes and insects, for a variety of plant species, and even serves as a shelter for unsheltered people in areas identified as "solitude spaces" (Figures 3 and 4).

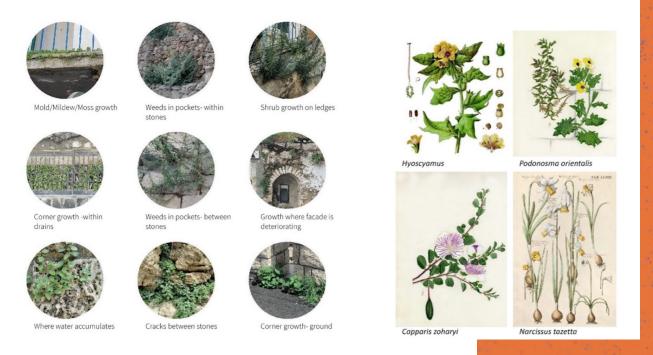


Figure 3. Catalogue of plants' adaptation of cracks within the various Jerusalem wall types. Image credit: Shelli Kushnir, Eitan Egdes, Tamir Manzur and Ariel Hanoch; "The Right to an Eco-centric City."



Figure 4. Cross section of Hillel Street, demonstrating various design tactics in several scales that use the urban "fissures" to enhance human and non-human activity. Image credit: Shelli Kushnir, Eitan Egdes, Tamir Manzur and Ariel Hanoch; "The Right to an Eco-centric City."

A project entitled "Food as a cultural landscape" engaged in reviving the local food network. The project offered a range of oldnew spaces for growing food and distributing it throughout the city, including: open spaces in East Jerusalem that do grow food today but the produce of which does not reach other parts of the city due to the Separation Wall; built up areas in the Old City, on

rooftops of spaces that served in the past as a central food market for the entire space (Figure 5); areas forested decades ago by the human hand, exposed, after destruction in recent fires, as the site of a rich system of agricultural terraces that had been covered over as part of an organised effort to hide Palestinian history; dozens of food orchards and forests scattered throughout the city, restored and connected to the public transportation network, making them accessible to local communities.



Figure 5. Re-positioning the Old City as a local food market, and rewilding its bare rooftops. Image credit: Sharbel Halloun, Kim Guttmann, Sarah Maria Elizabeth Gerdiken, Ismael Pharoun and Eli Philip; "Food as a cultural landscape: Reviving local farming in the Old City"

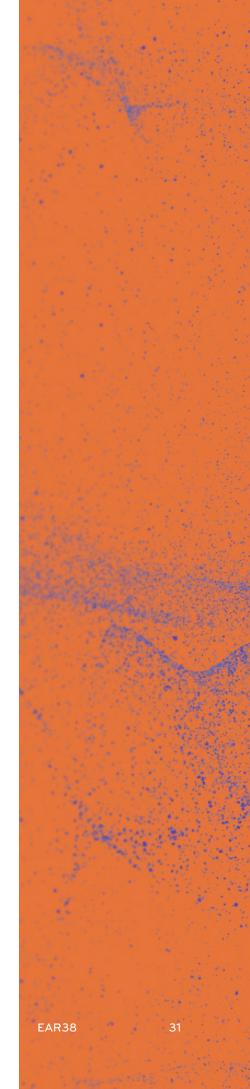
In this context, we wish to point out that a major objection to nature-based solutions (NBS) pertains to the fact that these solutions are almost always directed toward improvements in urban habitats for humans –instead of considering how they could also benefit the local ecosystem and non-human species (Maller 2021). Moreover, such solutions are often implemented in a technical-engineering manner, without considering biodiversity, historical knowledge and the local culture (Seddon et al. 2019, 85). The projects described above took site specificity as a point of departure for urban intervention: beginning with an in-depth study of geological and hydrological conditions, using local plants ecologically adapted to the existing urban nature of the city, and finally, giving consideration to urban justice and cultural, historical and narrative contexts, in ways that acknowledge more-than-human as part of the urban 'sense of place'.

The "Liquid Jerusalem" lab

The "Liquid Jerusalem" lab studied options for reconnecting the city and its residents to all presentations of water in the Jerusalem space. The trickle, gurgle, reflection, spray, cascade, gush, floods, flow, droplets, pores, stains, dark cisterns, hidden streams, toads, tadpoles, canes, bulrush, lichens –all disappeared in urbanised effort to channel, concretise, and drain water resources in the name of the need to engineer, to protect and to form stable, dry spaces clean of the cascading, the surprising and the everchanging dynamics of water. The lab studied ways in which the conception of water in the city could change from a domesticated and managed space to a rhizomatic network; from a collection of discrete items to a system of communicating vessels; and it adopted approaches in formation of "rewilding" and "nature-based solutions."

In Jerusalem, issues of water have always been particularly complex. As a landlocked city situated on the edge of an arid desert, Jerusalem suffers from a threefold problem: first, water runoff down the mountain slopes makes retaining water and utilising rainwater difficult; second, the level of groundwater in the city is particularly deep, such that excavating wells down to that level is not possible; and third, springs are sparse due to the proximity to the Judean Desert. These geographical challenges coupled with accelerated development of the city, meant to double its built-up area in the coming decades, demands a new and creative way of thinking, whereby solutions for water and infrastructure are recognised as being of prime importance both for the city's physical resilience and for its cultural and social life.

A watershed divides Jerusalem in two, with most water draining westward, while the eastern side is drier, at the edge of the desert. This is a geomorphological line but is also a political border that divides the Palestinian neighbourhoods of East Jerusalem and the Jewish neighbourhoods of the western part of the city. The eastern side, suffering from innate hydrological inferiority, aspires toward a better future in a reality of extreme nationalism, complex land rules, neglected infrastructure and absence of urban opportunity. The "Hydropolis" project focuses on the Mount of Olives in the A-Tur neighbourhood adjacent to the Old City -a Palestinian enclave partially detached from basic infrastructure of water and sewage and suffering from flooding each winter. The project, developed by four students, two of whom reside in the neighbourhood, proposed exploiting every geological and built structure in the area as an opportunity to form a hydrologically autonomous space, under existing conditions that include nonpermeable or partially permeable soil, the dramatic topography of deep wadis and steep slopes, an array of unattended open space, and the Separation Wall that delineates the neighbourhood to the east. The project proposes to dig an artificial aguifer under the Mount of Olives, into which water will trickle down naturally and



from which it will be possible to draw the water back up to the surface of the mountain when needed. The Separation Wall, in a radical reclaiming process, becomes the dam that could create a reservoir holding a huge volume of water that would accumulate from the entire system (Figures 6 and 7). Together these create conditions for an innovative system of water infrastructure with the power to forge considerable change in the urban space and to form environmental, economic and social resilience.



Figure 6. Garden wetlands, wastewater treatment ponds and pathways as part of the communal infrastructure. Image credit: Rawan Shalalde, Maisa Shweiki, Marianna Kimyagarov and Jenia Gutman; "Hydropolis."

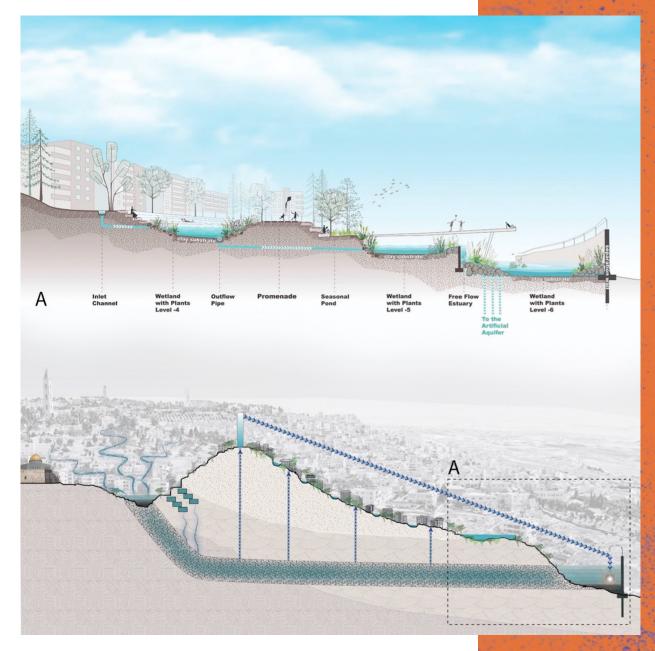
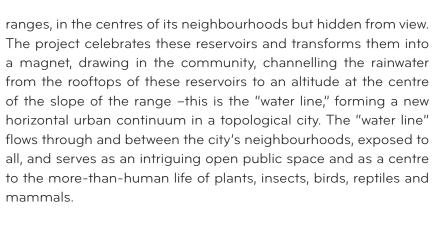


Figure 7. Cross section from the Old City to the Separation Wall showing the artificial aquifer and the entire water system for A-Tur, that not only gives them water autonomy but also highly improves the public space with a series of water ponds and wetlands. Image credit: Rawan Shalalde, Maisa Shweiki, Marianna Kimyagarov and Jenia Gutman; "Hydropolis."

The "Water line" project studied Jerusalem's water supply, which has been a major challenge since the city's earliest days. Throughout the generations, city residents were forced to find solutions for the water deficit, in accordance with technologies available at that time, and to bring water to the city from afar. As the years passed, these water systems became increasingly sophisticated, and have developed into a huge engineering project. But along the way, the linkage between humans and their source of water, once so central to urban life, was lost. Today Jerusalemites consume desalinated water, transported from the Judean foothills to 19 reservoirs scattered atop the city's mountain



The "Terra Jerusalem" lab

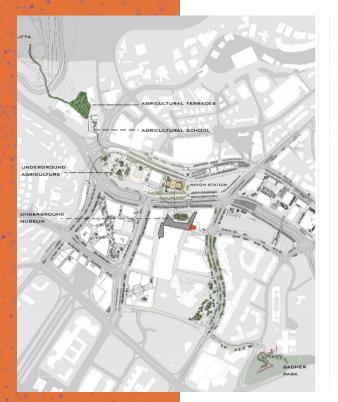
The "Terra Jerusalem" lab sought to focus on what is always underfoot, and to develop awareness of and concern for that living layer of bio-infrastructure (Puig de la Bellacasa 2017). A lot can be discovered from careful observation of the soil. Being an archive of tangible memories, a simple one-meter-deep cross section through the soil exposes the roots of this year's plants, dry shoots of what grew last year, worms and other organisms that slowly treat and heal the ground. The pedological timeline can tell us about the seasons, about historic temperature, about humidity, about the motion of tectonic plates or the age of rivers. Extending this capability to Jerusalem's human past, we could add to the timeline layers of silenced narratives and give voice to marginalised histories. Digging into the ground, exposing what was buried, we can face the subconscious and the repressed.

Like the other labs, Terra Jerusalem, too, wished to combine the human with the more-than-human, to empower the shared resilience of the populations in the space.

The "Re-imagining Agricultural Lifta" project originated from understanding that the pre-1948 borders of the Palestinian village of Lifta -whose inhabitants were expelled during the war, and of which only a small part of the built area still stands- previously encompassed large parts of what today forms the northern portion of the city. Prior to their expulsion, the inhabitants of these lands engaged in various types of agriculture and land management practices. Post-1948, Jerusalem expanded into most of the lands, turning them into residential neighbourhoods and national institutional centres of culture and government. While tracing the paths taken by the village's inhabitants, students (including a descendant of Lifta's refugees) discovered a natural underground cave that was exposed during the works on Jerusalem's new train station. This prompted them to propose reviving the memory of Lifta through unveiling of underground routes and uncovering of the paths that once formed part of the village. A "land ethic" (Leopold 1964) led the students in this case to be attentive to human repressed histories, but also to indigenous agricultural knowledge, suggesting a sustainable, more-than-human deep ecological urbanism (Figures 8, 9 and 10).



Figure 8. Subjective map of Lifta lands with the current city- and landscapes.Image credit: Lee Gorelik and Nadine Akel; "Re-imagining Agricultural Lifta."



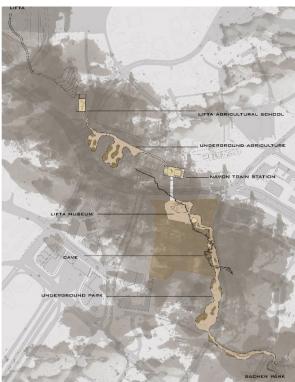


Figure 9. Overground and Underground plan of memory path. Image credit: Lee Gorelik and Nadine Akel; "Re-imagining Agricultural Lifta."



Figure 10. Cross-section of memory path. Image credit: Lee Gorelik and Nadine Akel; "Re-imagining Agricultural Lifta."

On the other side of the Old City lies the "Hinnom Valley." Theologically, the valley was associated with the concept of the underworld, its name being very close to the Hebrew word for Hell. Due to its harsh climatic and topographic features, the valley became a symbol for pain and punishment. Observing nineteenth-century writings of European surveyors, the students discovered a system of aqueducts, viaducts and blood pipes (used in the Jewish Temple to dispose of the sacrificed animals' blood) leading to and from the Old City. Around the line of separation, between two rock formations, the students found a series of historical caves. By extending the existing caves for therapeutic uses and

expanding the number of ducts using the extracted material for natural connectivity above the valley, the students proposed to free the ground from human activity, allowing the wild that once existed there to prosper again (Figures 11 and 12).



Figure 11. Imagined section of potentially wild Hinnom Valley. Image credit: Sonia Shuster and Naama Blum, "Earth's Womb."

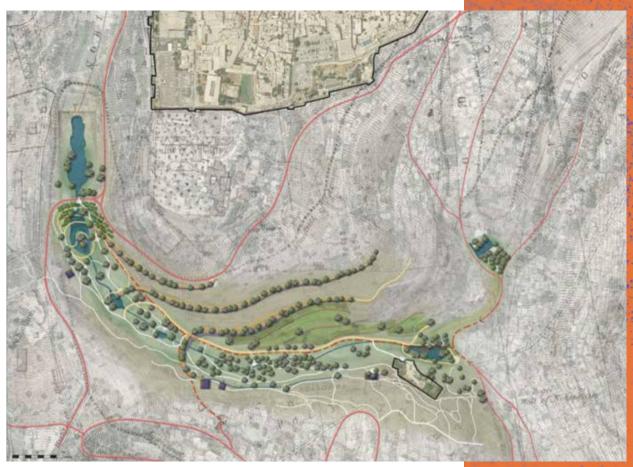


Figure 12. Introduction of new ducts and caves on top of the valley. Image credit: Sonia Shuster and Naama Blum, "Earth's Womb."

Conclusion

The More-than-Human Jerusalem lab has sought to challenge the distinction between 'nature' and 'culture,' to offer a new perspective on the city, one that might open up possibilities for different futures of inclusion, care and cooperation among the human populations –but also between them and the more-than-human inhabitants of the city.

The lab is an ongoing experiment in realistic utopia; an experiment that seeks to expand the design language and urban sensitivity of the members of the "human, all too human" community (to borrow from Nietzsche). The more-than-human needs to spark the imagination –What does the soil want? What does the lichen need? What is the existential anguish of the tree? And how could we think about more-than-human urban resilience, the kind that offers spatial inclusive justice to flora, fauna, soil and humans? Radical inclusivity, where we climb out of our skin and of our consciousness and move toward the other, requires collaboration that does not follow the typical routine of academic work and its familiar practices, in order to create shared study that crosses disciplines and fields of knowledge as well as human and political borders. We thus see in our shared imagination a toolkit that is not considered of lesser importance than the prevailing planning toolkits.

Stoetzer (2018) wrote that to relate to the urban as ecological formation means knowing how to contain and live with unexpected neighbours. Derrida (2000) examines the welcoming of guests as a political question and identifies the tension between hospitality, hostility and being held hostage. He reminds us that every encounter with a guest forces us to make room for the other, by reducing ourselves and raising questions about our own identity. In the more-than-human we come up against a threat to our standing as human beings, where we are used to perceiving ourselves as the ones "in charge" in the city. Simultaneously, it also opens up before us an opportunity for an inclusive urban design practice, in which more-than-human imagination allows us not only to think anew about organisms, water and soil, but also to find shared points of contact, interest and collaboration among human populations in Jerusalem. Rather than perceiving Jerusalem as a meta-city, we wish to see it as an urban place of everyday multiplicity, in a way similar to Amin and Thrift's (2002, 9) view of "everyday urbanism" that gets "into the intermesh between flesh and stone, humans and nonhumans, fixes and flows, emotions and practices. ... It needs to know the city beyond the powers of cognition, venturing into the realms of poetic invocation and sensory intimation."

Acknowledgements

The lab and the research would not have happened without the belief and support of the Master's Degree in Urban Design at Bezalel Academy for Art and Design. Special thanks are due to the professional advisors who assisted the lab: ecologist Amir Balaban, eco-hydrologist Ori Moran, tree expert Yisrael Galon and pedologists Rami Zeidenberg and Ori Halberstadt. Their invaluable professional knowledge made it possible to deepen and develop the connection between urban planning and the more-than-human knowledge of the natural sciences and ecology.

REFERENCES

- Abram, David. 1996. The spell of the sensuous: Perception and language in a more-than-human world. New York: Pantheon Books.
- Amin, Ash and Nigel Thrift. 2002. *Cities: reimagining the urban*. Cambridge: Polity Press.
- Barua, Maan, and Anindya Sinha. 2019. 'Animating the urban: An ethological and geographical conversation'. *Social & Cultural Geography* 20 (8): 1160-1180.
- Bennett, Jane. 2010. Vibrant matter: A political ecology of things. Durham, NC: Duke University Press.
- Furst, Benny. 2020. "Hotel or Homeland": S. Yizhar's speeches as forerunners of environmental rhetoric in Israel. *Megamot* 55 (2): 97-119 (in Hebrew).
- Gandy, Matthew. 2003. Concrete and clay: reworking nature in New York City. Cambridge, MA: MIT Press.
- Haraway, Donna. 2015. 'Anthropocene, capitalocene, plantationocene, chthulucene: Making kin'. *Environmental humanities* 6 (1): 159-165.
- Hinchliffe, Steve, Matthew B. Kearnes, Monica Degen, and Sarah Whatmore. 2005. 'Urban wild things: a cosmopolitical experiment'. *Environment and planning D: Society and Space* 23 (5): 643-658.
- Houston, Donna, Jean Hillier, Diana MacCallum, Wendy Steele, and Jason Byrne. 2018. 'Make kin, not cities! Multispecies entanglements and "becoming-world" in planning theory! *Planning Theory* 17 (2): 190-212.
- Kaika, Maria. 2004. City of flows: Modernity, nature, and the city. Abingdon: Routledge.
- Kimmerer, Robin Wall. 2002. 'Weaving traditional ecological knowledge into biological education: a call to action'. *BioScience* 52 (5): 432-438.
- Latour, Bruno. 2018. Down to earth: Politics in the new climatic regime. Hoboken, NJ: John Wiley & Sons.

- Leopold, Aldo. [1946] 1999. 'The Land-Health Concept and Conservation'. In Aldo Leopold: For the Health of the Land: Previously Unpublished Essays and Other Writings, edited by J. B. Callicott and E. T. Freyfogle, 218–226. Washington, DC: Island Press.
- Maller, Cecily. 2021. 'Re-orienting nature-based solutions with more-than-human thinking'. *Cities* 113: 103155.
- Maller, Cecily. 2018. Healthy urban environments: More-than-human theories. Abingdon: Routledge.
- Margulis, Lynn and Dorion Sagan. 2013. Slanted truths: Essays on Gaia, symbiosis and evolution. Berlin: Springer.
- McHarg, Ian L. 1969. *Design with nature*. New York: American Museum of Natural History.
- Porter, Libby, Julia Hurst, and Tina Grandinetti. 2020. 'The politics of greening unceded lands in the settler city'. *Australian Geographer* 51 (2): 221-238.
- Puig de la Bellacasa, M. 2017. *Matters of care: Speculative ethics in more than human worlds*. Minneapolis: University of Minnesota Press.
- Schmid, Christian, and Neil Brenner. 2011. 'Planetary urbanization'. In *Urban constellations*, edited by Matthew Gandy, 10-13. Berlin: JOVIS.
- Seddon, N., B. Turner, P. Berry et al. 2019. 'Grounding nature-based climate solutions in sound biodiversity science'. *Nature Climate Change* 9: 84–87.
- Shingne, Marie Carmen, and Laura A. Reese. 2022. 'Animals in the city: Wither the human-animal divide'. *Journal of Urban Affairs* 44 (2): 114-136.
- Steele, Wendy, Ilan Wiesel, and Cecily Maller. 2019. 'More-than-human cities: Where the wild things are'. *Geoforum* 106: 411-415.
- Steiner, Frederick R. 2016. Human ecology: How nature and culture shape our world. Washington, DC: Island Press.
- Stoetzer, Bettina. 2018. 'Ruderal ecologies: Rethinking nature, migration, and the urban landscape in Berlin'. *Cultural Anthropology* 33 (2): 295-323.
- van Dooren, T., E. Kirksey, and U. Münster. 2016. 'Multispecies studies: Cultivating arts of attentiveness'. *Environmental Humanities* 8: 1–23.
- Yunkaporta, Tyson. 2019. Sand talk: How indigenous thinking can save the world. Melbourne, Victoria: Text Publishing.