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In the field of urban reconstruction, there is an urgent need to address pragmatic issues such as employment creation, design flow coordination, adaptation mechanisms, urban form control, prototyping design, and concept visualization, going beyond the geopolitical, societal, urban, and architectural debate that concerns the current post-war situations. The proposed strategy incorporates all these aspects, attempting to lay the foundations for a lasting peace.

Edited by Urbicide Task Force *Proactive Reconstruction*

Quaderni Iuav. Ricerche

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Urban Form. Anticipating the Process of Trial and Error

Theoretical concepts such as genocide, ecocide, spaciocide[1], terracide, urbicide[2], and domicide[3] animate the current cultural debate on the societal, urban, and architectural destruction in contemporary conflicts that targeted sites of urbanity. This emphasizes the need for collaborative, multisectoral, and transdisciplinary contributions to provide operational and practical answers for their future reconstruction. However, current responses to these and other humanitarian crises remain far from multifaceted.

At present, refugee camps are the only viable solution for people fleeing conflicts, persecutions, or natural disasters. The reason for this standard procedure lies in the camps' capacity to respond with a practical solution to strict temporal limits concerning both the design and the construction phases. Emergencies demand timely interventions, and tents or freestanding prefabricated units offer readily available solutions: the possibility of building "Instant Cities"[4].

The phenomenon is widespread and long-lasting, marking the twentieth century as the age of camps[5]. Refugee camps are transnationally built as temporary devices for managing displaced populations, and they often become stable socio-spatial formations[6]. Several examples underscore this tendency of protracted

1 S. Hanafi, *Spaciocide*, in P. Misselwitz, T. Rieniets (ed.), *City of Collision: Jerusalem and the Principles of Conflict Urbanism*, Birkäuser, Basel 2006, pp. 93-101.

2 See: M. Berman, *Falling Towers: City Life after Urbicide*, in D. Crow (ed.), *Geography and Identity: Living and Exploring Geopolitics of Identity*, Maisonneuve Press, Washington DC 1966; S. Graham (ed.), *Cities, War, and Terrorism: Towards an Urban Geopolitics*, Blackwell Publishing, Malden 2004; B. Albrecht, *Urbicide*, in J. Galli (ed.), *Syria: The Making of the Future. From Urbicide to the Architecture of the City*, Incipit Editore, Conegliano 2017, pp. 22-39.

3 The neologism was coined in J. D. Porteous, S. E. Smith, *Domicide: The Global Destruction of Home*, McGill-Queen's University Press, Montreal and Kingston 2001.

4 The concept has been developed referring to the Zaatari Refugee Camp. See: A. Ledwith, D. Smith, *Zaatari: The Instant City*, Affordable Housing Institute, 2018.

5 Z. Bauman, *The Century of Camps*, in P. Beilharz (ed.), *The Bauman Reader*, Wiley, Oxford 2000.

6 G. Picker, S. Pasquetti, *Durable Camps: The State, the Urban, the*

displacement. El Aaiún is one of the major refugee camps set up in 1975-76 in the Tindouf Province, Algeria, hosting an estimated number of 173,600 Sahrawi refugees fleeing from Moroccan forces advancing through Western Sahara. Kutupalong, in Bangladesh, began informally in 1991, after thousands of Rohingyas fled from the Burmese military's Operation Pyi Thaya (Operation Clean and Beautiful Nation), and it is now the world's largest refugee camp, hosting nearly 900,000 Rohingya refugees. Zaatari, in Jordan, officially opened on the 28th July 2012, and is today home to about 82,000 Syrian refugees who have fled war. Dadaab, in Kenya, was set up by the United Nations in 1991 to accommodate a massive influx of refugees fleeing the Somali civil war and has housed up to 200,000 at its peak.

Camps as Long-term Structures

The aforementioned figures decisively contradict the common understanding of refugee camps as temporary solutions and confirm the global trend documented by the 2004 report by the United Nations High Commissioner for Refugees (UNHCR) Executive Committee (EXCOM). Excluding Palestinian refugees who fall under the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) mandate, it was recorded that the average duration of major refugee situations, protracted or not, had increased from 9 years in 1993 to 17 years in 2003[7].

The failure of camps as temporary apparatuses or *dispositifs*[8] for resettlement is also evident in their physical consequences. Over the decades, camps have witnessed a gradual and progressive

Everyday, «City», 19 (5), 2015, pp. 681-88.

7 UNHCR EXCOM 2004, *Protracted Refugee Situations*, EC/54/CRP.14, «Refugee Survey Quarterly», 24 (1), 2005, pp. 150-161.

8 Foucault explained that a *dispositif* "has as its major function at a given historical moment that of responding to an urgent need". This is the genesis of a dispositif, which is thus a kind of strategic invention. Foucault insisted on the fact that a dispositif is not a fixed formation, but a process. See: M. Foucault, *The Confession of the Flesh*, in C. Gordon (ed.), *Power/Knowledge: Selected Interviews and Other Writings*, Harvester Press, New York 1980, p. 195.

change in their constituent elements. Examples include the replacement of tents and temporary emergency shelters with prefabricated units, new building construction around existing structures to increase home size or provide additional needs, the substitution of deteriorated parts of shelters (usually roofs, floors, or walls) with more durable materials, sometimes ending with the building of steel and concrete housing. The gradual structural solidification of camps marks successive approximations towards long-term camps. Yet, these adaptations fail to maximize their potential use value. In fact, the relapsed rebuilding process reveals two critical issues.

First, the rapid construction of refugee camps leads to various forms of wastage. From an economic perspective, the short lifespan of prefabricated shelters (which last about 8 years) contrasts with the prolonged duration of many camps, increasing costs and wasting resources. Socially, while camps save lives in the emergency phase, they progressively waste the same lives as the years pass. Refugees may receive assistance but are often prevented from enjoying rights such as freedom of movement, employment, voting, and sometimes education, which would enable them to become productive members of society[9]. At times, they also risk losing their right to return. From an urban perspective, the evolving construction process of refugee camps usually marks discontinuities with prior materials and existing urban patterns. Camps often grow horizontally, leading to sprawl, and rarely do they build on existing structures to maintain continuity, resulting in prolonged settlements lacking urban quality and wasting land.

Furthermore, refugee camps actively contribute to constructing, designing, and shaping the territory and the built environment. Far from being temporary, they represent a new and contested urban geography that layers itself to the palimpsest of existing geographies[10]. They form urban *enclaves* often controlled by military surveillance, governed by NGOs such as UNRWA,

9 UNHCR EXCOM 2004, *Protracted Refugee Situations*, cit., pp. 150-61.

10 A. Corboz, *Il territorio come palinsesto*, «Casabella: rivista mensile di architettura e tecnica», 516, 1985, pp. 22-27.

and characterized by a recognizable urban pattern. Even when scattered, they constitute decipherable sectors of a city. Their existence has recently been explained as a product of urbanization processes[11] and prolonged conflicts[12], or, more specifically, "conflict urbanization", a concept that suggests such camps actively contribute to shaping urbanization processes as a consequence of conflicts and warfare.

The conditions of cities following recent and undergoing devastating conflicts squeeze the capacity for a different recovery strategy, challenging the role of architects and other professionals involved in the reconstruction processes who are paradoxically called to resolve decades-long issues with instant solutions.

Teams from the Università Iuav di Venezia[13] have been researching reconstructions since a decade, suggesting a possible answer to this challenge, supporting the historical city as an exemplary reference of a viable design, alternative to the *business-as-usual* protocols of intervention after emergencies, and able to avoid the replication of cities made of tents or prefabricated units. This alternative reconstruction strategy considers historical cities as living examples of urban environments and material artifacts that incorporate accumulated knowledge and showcase the process of urban transformation that occurred over time. Moreover, it acknowledges the significance of the formation process of historical urban patterns that emerged through gradual additions or demolition of buildings, not wasting new land but building upon existing structures and synthesizing and embodying a long process of trial and error in their shape, preserving key urban features through transformative processes[14]. The strategy argues that by

11 Romola Sanyal, *Urbanizing Refuge: Interrogating Spaces of Displacement*, «International Journal of Urban and Regional Research», 38 (2), 2014, pp. 558-572.

12 B. Albrecht, J. Galli, *Cities Under Pressure: A Design Strategy for Urban Reconstruction*, ArchiTangle, Berlin 2023, pp. 29-40.

13 Namely, the Urbicide Task Force and C.SCARPA research centers (www.urbicidetaskforce.iuav.it; www.iuav.it/it/strutture-e-reti-di-ricerca/centro-superiore-c.scarpa).

14 J. Galli, *Atlante delle ricostruzioni*, Silvana Editoriale, Milano 2024.

leveraging historically tested patterns it is possible to accelerate the design phase while ensuring the sustainable urban development of settlements, addressing both immediate and long-term needs. From this perspective, understanding the deep structure of historical cities could provide a shortcut to complete reconstruction in terms of time, cost, use of resources, and shaping urban form.

Historical Cities as References

It is generally recognized that historical cities present a unique urban pattern perceivable in its entirety. This is evident by looking at their physical bodies, which constitute systems of aggregation, usually complex but stable enough to show themselves according to recognizable figures. For example, historical cities occupy a limited and well-determined area, and this area is densely built up to allow the maximum use of land and a pedestrian scale, with walking being the usual means of communication inside the city.

Their recognisability also depends on an inherent character, typical of each city, given by a system of spatial modification coherent in the repetition of the same architectural types, in the logical arrangement of streets, a peculiar hierarchy, and formal homologies of open spaces[15]. Their overall coherence is maintained thanks to the same building process that lasted centuries, not a design from scratch. For example, in Mediterranean historical cities, the same shape of a small house's courtyard reflects into the larger courtyard of a public building, such as a mosque, guaranteeing consistency across all project scales. Similarly, the *cul-de-sac* that leads to private houses reflects the shape of a wide street.

In literature, these complex systems identified in urban patterns have been described as elements of urban grammar[16], hidden

15 On formal homologies see: D'A. W. Thompson, *On Growth and Form*, Cambridge University Press, Cambridge 1992.

16 See: E. Talen, *City Rules: How Regulations Affect Urban Form*, Island Press, Washington, 2012 and S. Marshall (ed.), *Urban Coding and Planning*, Routledge, London and New York 2011.

dimensions[17], hidden structures[18], or pattern language[19]. While the presence of distinctive features has usually been explained as the effect of building codes or norms, as well as local cultural and environmental factors such as proxemics or acclimation (think about the peculiar architectural elements of vernacular architecture), we argue that an additional explanation comes from a process of adaptation. The concept belongs to the discipline of biology, where the term "adaptive" refers to the ability of a population's genetic heritage to respond to environmental pressures through natural selection. This process enables the population to evolve, improving its ability for survival and reproduction in a given environment. Similarly, some specific morphological urban features have survived centuries while others have been extinguished. This means that some features are more adaptive than others, thanks to their ability to respond to different environmental pressures through natural selection. Reconsidering the traditional Mediterranean architecture as an example, we can observe that its pattern is shaped to respond to hot weather and the introverted way of life of inhabitants through the perfection of courtyard houses, narrow streets, etc., constituting an ecological pattern: a biotope to its inhabitants. Over time, Mediterranean historical cities did not demolish their oldest buildings. However, they built upon them, maintaining the forms that still fit despite changes, growth, and transformations associated with their development.

Adaptive Approach

Adaptive reconstruction is about the project's features to fit better into its environment and the people's way of life. The process of achieving that fit belongs to history and can be observed in the quasi-natural development of cities of the past. The acceptance of an adaptive approach to urbanism – a model inspired by historical urban patterns and ecological principles – offers a departure from

17 E. T. Hall, *The Hidden Dimension*, Doubleday, New York 1966.

18 U. Eco, *La struttura assente: la ricerca semiotica e il metodo strutturale*, Tascabili Bompiani, Milano 2008.

19 C. Alexander, *A Pattern Language: Towns, Buildings, Construction*, Oxford University Press, New York 1977.

standard and modern planning, reconnecting with tradition and accumulated experiences.

The adaptive approach considerably differs from the twentieth-century approach, when technology emancipated builders from tradition and accumulated knowledge, and some architects believed that they could dispense with the practice of incremental modification of concepts and observances enshrined in long-accepted conventions. Implementing an adaptive approach in building camps requires the definition of strategies able to preserve the functional relations of the urban system over time. These strategies must employ technologies, materials, and machines to radically modify the austere pattern of contemporary refugee camps into efficient and complex systems.

In the context of future rapid reconstructions, architects must prioritize historical cities as a reference for shaping urban environments. This does not mean copying existing patterns while replicating their morphology. In fact, it is one thing to recreate the past and another to reproduce it. Designing while keeping in mind the reference to the historical city means defining a process that preserves certain urban features over time. This implies

> the need to establish a disciplinary approach for architects as creative formalizers or, instead, to have the specific task of introducing figurative objectives in the spatial implementation of services within the context right from the start of the planning process.[20]

In fact, architects should not merely act as technical problem-solvers. From the very beginning of the planning process, they should play a key role in shaping the form and deep structure of the rebuilt cities and environment, taking into account the symbolic, cultural, and identity-related aspects of the context. In other words, architects should translate figurative goals into functional and

20 V. Gregotti, *Il territorio dell'architettura*, Universale Economica Feltrinelli, Milano 2008, p. 79.

meaningful spaces for the community. They must also strengthen their capacity to interact with all other figures involved in the reconstruction process, dealing, for example, with geographical, administrative, and economic aspects.

Conclusion

Just over a year has passed since the 7th October Hamas attack and just a few weeks (from the moment I'm writing) since the first phase of the cease-fire between Hamas and Israel. In the meantime, 56 conflicts are underway in the world: the Myanmar conflict, the insurgency in the Sahel, the Sudanese conflict, the Russo-Ukranian War, and the Ethiopian civil conflict, to mention the majors. Overall, the ongoing conflicts involve 92 countries – almost half of the countries in the world – and have displaced over 100 million people. The number of conflicts is the highest since the Second World War, and this resonates with the words of Pope Francis who recently warned that the «third world war in pieces» that characterize our epoch is turning into a «real global conflict».

Given global political uncertainty and envisioning massive post-war, post-conflict, and post-disaster reconstructions, it is imperative to develop strategies that foster stability, peace, and conflict prevention. Indeed, effective reconstruction builds the foundation for lasting peace.

Beyond the geopolitical debate, there is an urgent need to address pragmatic questions such as the shape of future cities that constitute the future environment for the development of post-conflict and post-war societies. This issue demands all our creative imagination.

Adaptive historical cities offer a possible answer to these challenges: cities of the third millennium must integrate new technologies with traditional characters of urban form, involving all aspects of urban life quality, such as density, pedestrianization, and traditional lifestyles, reflected in architectural typologies. Historical cities represent a valid operative design framework because they maintain specific morphological features perfected, optimized, and tested over centuries. Recognizing these adaptive features and building from them allows us to fill the missing middle from the

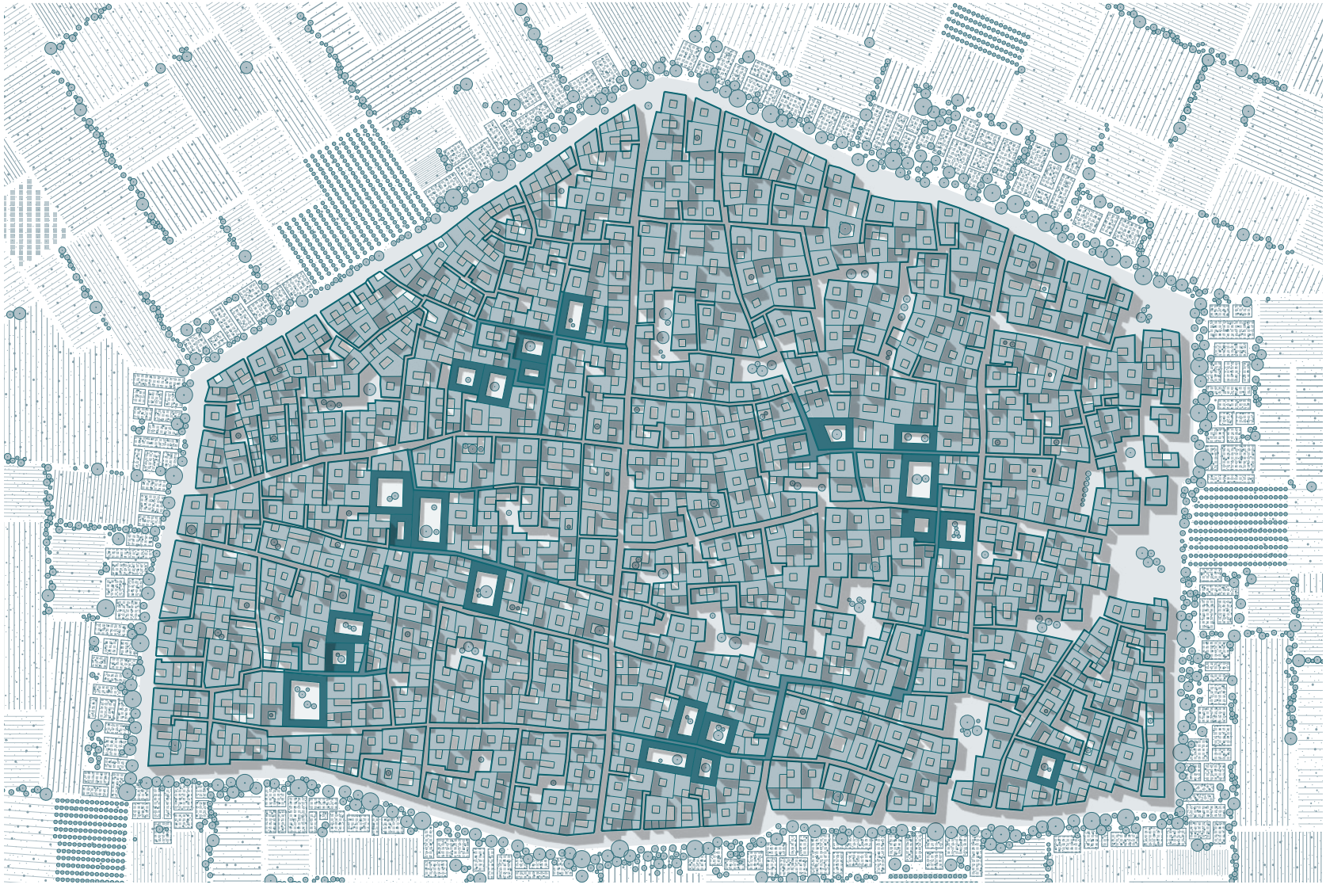
emergency to the early recovery phases, from transition to reconstruction, and from reconstruction to development. These phases are currently conceived as separate by international protocols of international organizations such as UNHCR[21] and do not allow for a smooth transition in the reconstruction process, leading to different forms of wastage and incoherent urban evolution, as explained before.

The design strategy inspired by historical cities is, instead, a unique process with different degrees of approximation toward a refined urban form. The introduction of adaptive features at the beginning of the reconstruction process permits anticipating the natural process of trial and error that occurred in historical cities, reaching a developed urban form in a short period. Specific morphological features that are maintained over time can be reproduced in new settlements because they work: they have already been tested. Time is, in fact, the most pressing issue in our contemporary world, and to avoid being overwhelmed by the course of events, we can only rely on past experiences.

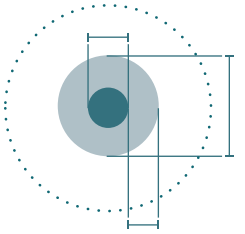
In conclusion, lasting conflicts demand an adaptive reconstruction approach to meet emergency needs and long-term necessities. We cannot yet know whether the adaptive choice in designing new camps and cities is the best, but it is undoubtedly the least limiting.

21 The same structure is followed in the Egypt's plan adopted at the Arab Summit on the 4th March 2025. See: Arab Republic of Egypt, *Gaza/Palestine Report for Gaza's Early Recovery, Reconstruction, and Development*, available online (www.drive.google.com/file/d/1JCmaQpq625nvcigpIS-RnYmwnPKGmakZ/view?usp=sharing).

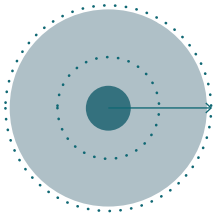
Transitional Housing
Urban Cell



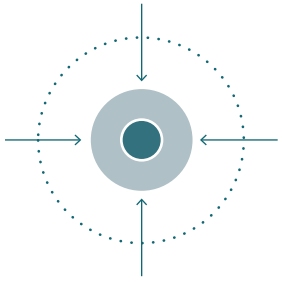
Urbicide Task Force, *Transitional Housing. Urban Cell*, Università Iuav di Venezia consultancy for UNDP/PAPP, Venezia, 2024.



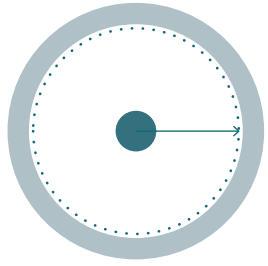
Proxemics
—
Physical distances in communication unconsciously structure the human use of space and affect population density, behavior, communication, and social interaction.



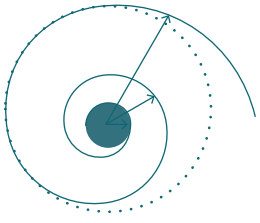
Enduring pattern
—
Almost all historical cores have the same size of a 1-mile radius. This consideration suggests the existence of some optimal dimensions of human habitat.



Compactness
—
Building density expresses an economy in the use of land and resources. Compactness has got to be combined with loosening, loosening between compactness, and loosening the network structure.

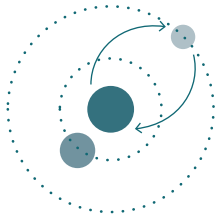


Spatial containment
—
Small dimensions and a clear syntax of spatial morphologies structure satisfy the behavior of the human mind to delimit and comprehend their territory.

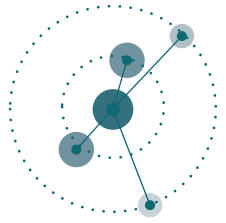


Accessibility
—
The measure of meters or minutes expresses accessibility and access to services. Accessibility increases when distances are shorter, at a pedestrian or human scale.

Mixed-use
—
Mixité in urban environments is desirable to prevent functional zoning and allows the development of multiple sites simultaneously and of the same quality.



Sharing
—
A compact urban form fosters practices of sharing. Goods, services, and resources are, in fact, common at all scales. For example, private mobility can turn into mobility as a service.



Interactions
—
People who live close or encounter each other more frequently tend to develop relationships. Proximity promotes interaction between individuals and groups.

Urbicide Task Force, *Urban Cell. Advantages*, Università Iuav di Venezia consultancy for UNDP/PAPP, Venezia, 2024.

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