

# in flux: unplanned spatial adaptations in syrian refugee camps

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## abstract

The interiors of refugee camps are spaces of necessity, resilience, and constant negotiation. Far from static or predetermined, these environments evolve through the improvisational agency of displaced communities. This visual essay illustrates how Syrian refugees retrofit and reconfigure shelter units to recreate spatial conditions that mirror deep-rooted cultural practices. Within the constraints of standardised humanitarian planning, refugees enact makeshift adjustments that transform rigid layouts into dynamic and culturally resonant interiors. Through these adaptive practices, ranging from self-built partitions and communal extensions to informal marketplaces, camps become sites of unplanned interiority, where social bonds and spatial memories materialise despite displacement.

This research draws from extensive fieldwork in Al Zaatari Refugee Camp, incorporating photography, video documentation, and diagrammatic analysis to capture the evolving spatial negotiations within the camp. By foregrounding the lived experiences of refugees in Al Zaatari Camp, the study challenges conventional notions of planning and design as top-down processes. Instead, it highlights the agency embedded in informal and emergent spatial interventions that contest the anonymity of the humanitarian shelter. Through critical engagement with concepts of temporality, maintenance, and shared authorship, this study situates refugee camps as evolving, co-produced interiors that extend beyond mere crisis planning and accommodation. Ultimately, it argues for an expanded understanding of interiority — one that recognises unplanned spatial practices as central to sustaining community, identity, and belonging in the face of ongoing uncertainty.

## keywords

unplanned interiors; refugee camps; spatial adaptation; displacement; interiority

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## unplanned interiors and the architecture of displacement

Refugee camps are spaces in flux, caught between the rigidity of humanitarian planning and the fluidity of lived experience. The humanitarian refugee camp is often treated first as a logistical challenge rather than acknowledged as a spatial reality. Standardised and rationalised, its design is driven by urgency and constraint, translated into modular shelter units, gridded infrastructure, and predetermined plans.<sup>1</sup> Yet life within the camp rarely conforms to this order. Across displacement settings globally, and in the Al Zaatari Refugee Camp in Jordan in particular, spatial practices exceed what is planned.<sup>2</sup> What begins as enclosure becomes inhabited through improvisation.<sup>3</sup> What is delivered as temporary accommodation evolves into complex interior geographies shaped by cultural continuity, material necessity, and social memory.<sup>4</sup> To frame this contrast, it is important to recall that Al Zaatari (like many other camps) was initially organised through a formal master plan. Modular shelters were allocated to individual plots, laid out in a rigid grid, with designated service corridors and shared sanitation blocks. This imposed order provides the critical backdrop against which unplanned spatial adaptations take form. This essay argues that these acts of spatial transformation are not incidental or secondary to the camp's purpose. Rather, they are central to how displaced communities reclaim space as a site of belonging and agency. Drawing from fieldwork conducted in Al Zaatari Refugee Camp, this study traces how Syrian refugees continually retrofit and rework the humanitarian template. Their adaptations range from modest interventions, such as hanging curtains for privacy and laying rugs to define gathering zones, to extensive transformations such as clustering shelter units and repurposing their components to construct new spaces including communal kitchens, market stalls, shaded courtyards, and informal gardens. These alterations are not merely practical; they are culturally and politically significant. They challenge the assumptions embedded in humanitarian

planning and foreground alternative forms of spatial authorship.

Architectural historian Robin Evans has argued that architectural plans are not neutral instructions for construction, but ideological instruments designed to prescribe and contain behaviour.<sup>5</sup> In humanitarian aid contexts, this logic of 'planned' containment and its prescribed behaviours intensifies, often erasing cultural spatial differences in the name of efficiency and compliance. While Evans positions planned spaces as catalysts of behaviour, philosopher Henri Lefebvre reminds us that space is not passively received but actively produced through appropriation, use, and the lived practices of everyday life.<sup>6</sup> His theory of spatial production insists that space is never fixed but always relational and socially constructed.<sup>7</sup> Anthropologist Setha Low further elaborates this position, emphasising that space is constituted not only through physical form but also through embodied experiences, emotional attachments, and cultural practices. Her ethnography of space foregrounds how marginalised groups assert identity and claim presence through everyday spatial practices.<sup>8</sup> Building on these theoretical positions, the following pages, through diagrams, photographs, video clips, and field notes, examine how temporality, maintenance, and shared authorship emerge as critical dimensions of unplanned interiority in refugee camps. By attending to the ways spaces are negotiated, adapted, and cared for over time, this essay reframes the refugee camp not as a static or failed form but as a dynamic interior terrain. This is not to romanticise displacement, but to recognise that even under conditions of forced mobility, interior space sustains personhood, memory, and social relations.

## cartographies of exile and the making of unplanned interiors

Displacement unfolds in many trajectories at once, across borders, through buildings, and into the intimate spaces of everyday life. Tracing the geography of Syrian refugees as they move from familiar terrain into the fragmented landscapes of Jordan, Lebanon, Turkey, and beyond reveals the nonlinear paths of forced migration. These paths twist, pause, and disappear altogether, shaped as much by shifting policies and checkpoints as by personal needs. Movement, in this context, is not only about distance; it is negotiated through layers of surveillance, temporary protection, and the invisible scaffolding of humanitarian control.<sup>9</sup> In that sense, displacement is never simply about being moved. It is about living within systems that regulate how, when, and where movement is allowed.<sup>10</sup> Still, even within these precarious conditions, life does not stop. In fact, it insists.

The images in this section trace the movement of refugees and the changing forms of emergency shelters: first tents, then the harder edges of prefabricated

units.<sup>11</sup> These structures are designed for delivery, efficiency, and containment. But people remake them. Tarps stretch out to cover entryways as extension cords knit one unit to another. Cooking (among other interior acts) moves outside, into the open air, while a few concrete blocks and wooden boards become a bench for neighbours to gather. These are unplanned acts in the architectural sense, quiet, perhaps, but resolute. They are gestures of belonging, of holding on to rituals, of making room for the relations between and the practices of people.<sup>12</sup> In these improvised extensions, at thresholds, in corners, under shade, one finds the emergence of interiorities not drawn by architects or planned by agencies but made in the in-between: fragile and deeply human.

### Figures 01 to 04: Cartographies of Exile

The following figures present a visual archive of displacement. Diagrams by Rana Abudayyeh, Sarah Dunn, and Kathryn Webb, 2023.

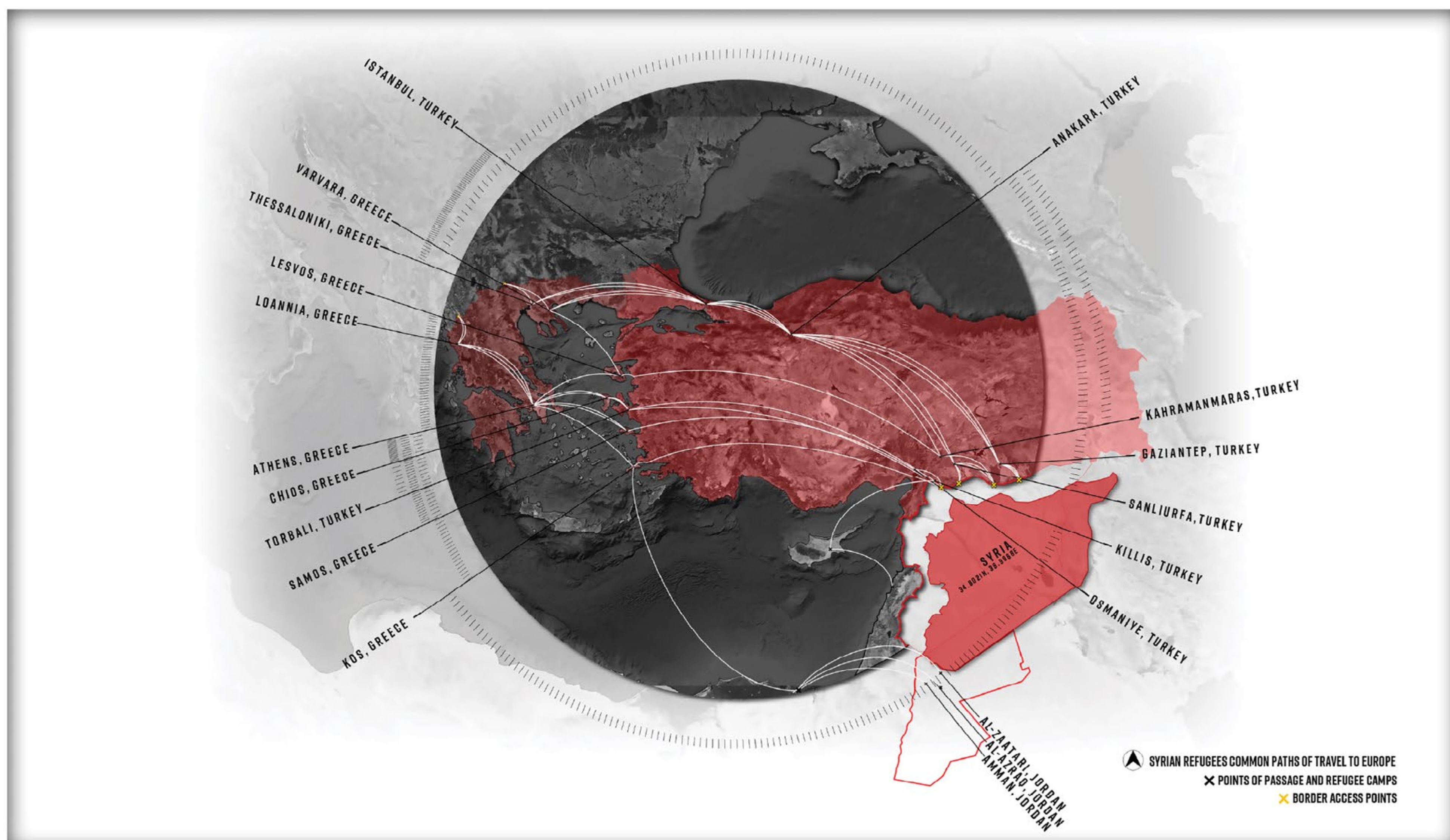
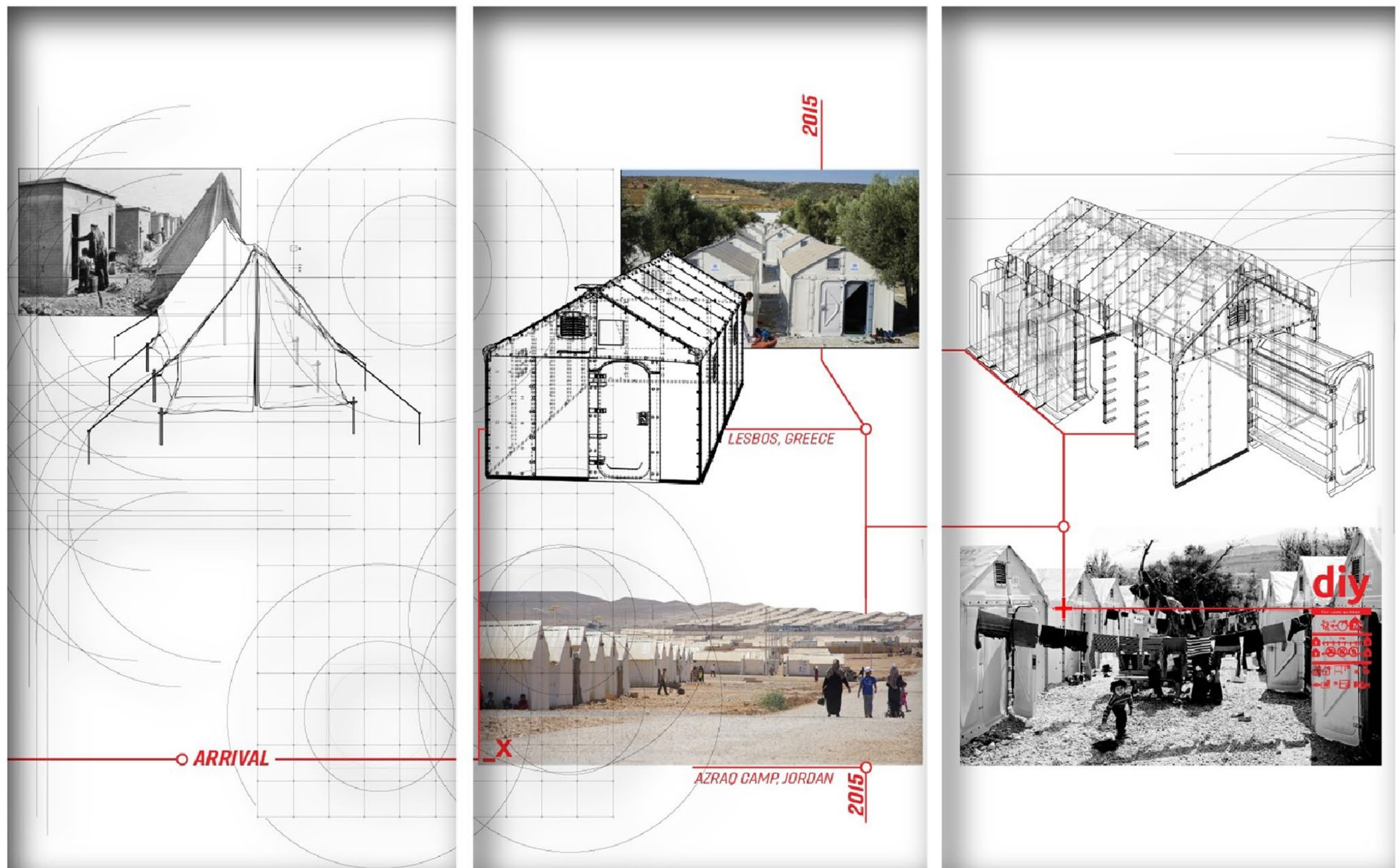


Figure 01.

A geopolitical diagram maps the movement of Syrian refugees across national borders, from camps to cities and, in many cases, into further uncertainty.



Figures 02, 03, and 04.

A triptych of photographic and typological studies traces the evolution of shelter forms, from emergency tents to prefabricated units.

### al zaatari: encampment becoming city

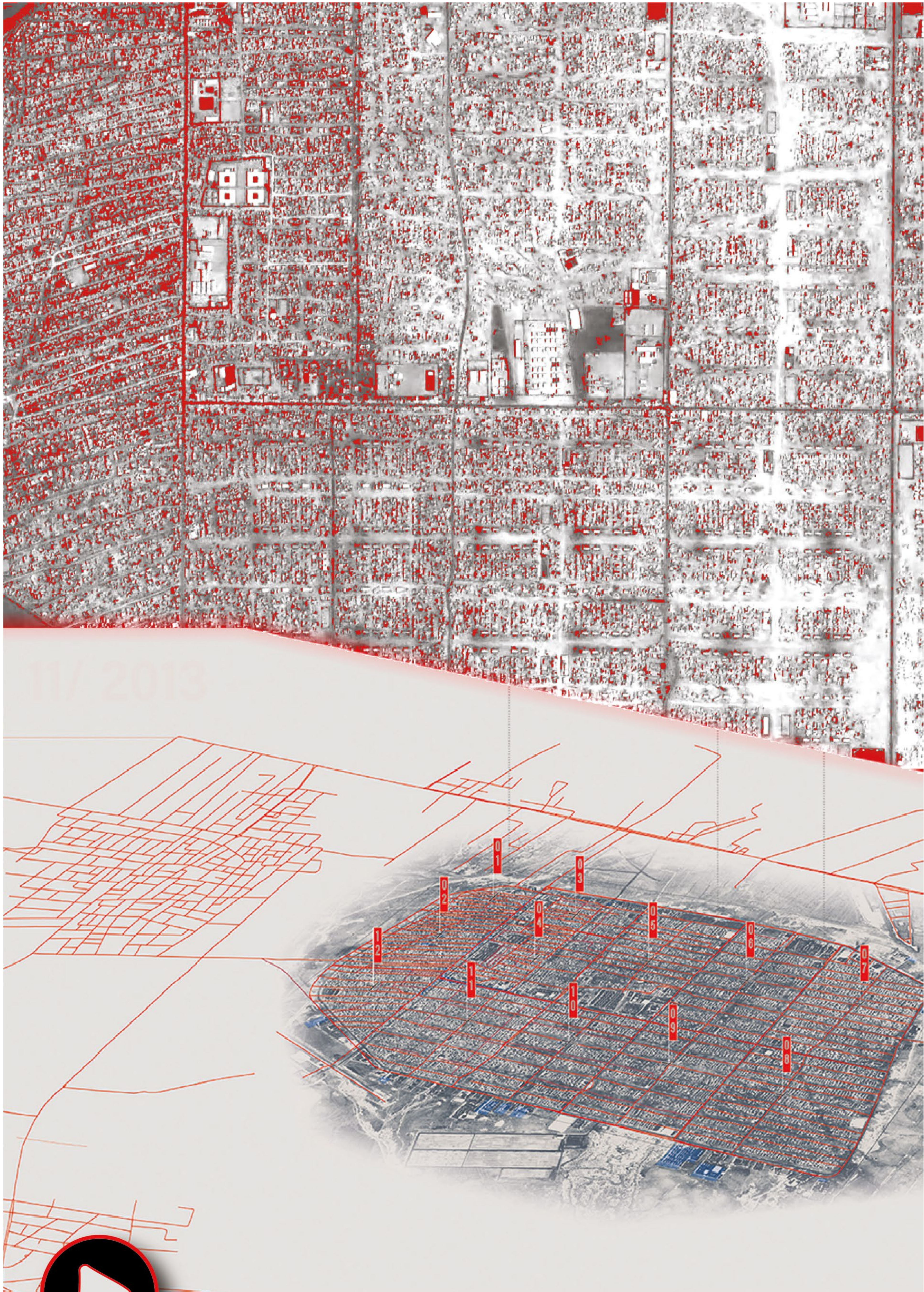
Al Zaatari Refugee Camp was not built xto last. It followed the logic of crisis management where uniform shelter units were arranged for control, speed, and containment. But people arrived with rhythms and memories that could not be boxed in. Families began to reshape their surroundings. They turned shelters of extended families to face one another, creating familial clusters. Gaps became courtyards and extensions were added to create kitchens, shaded porches, and places to rest, engage, and share.<sup>13</sup> These acts were not random; they followed an interior kind of thinking where refugees built from the inside out, shaping space to support what they needed most. The desire to be together, to hear a neighbour's voice, to create a space that felt familiar: these were the needs guiding how the camp took and retook form. The unplanned private and public interiors of Al Zaatari did not emerge from formal design; they evolved

from deliberate cultural reclamation.<sup>14</sup> They came from a resolute spatial agency, from the small decision to shift a shelter slightly, opening space for a shared space, from spreading a tarp that became a shaded gathering place. Such rearrangements were never just about comfort; they were about restoring the conditions for daily life to take hold, and about preserving a sense of home, even amid uncertainty.<sup>15</sup>

#### Animation 01: Encampment Becoming City

(click on play icon to access).

Satellite imagery reveals more than a camp. It reveals a city in the process of becoming. The animation captures Al Zaatari Camp's transformation over time. What began as a strict modular grid gradually loosened. Red overlays trace informal expansions that disrupted the original order. Shelters were shifted, rotated, and clustered. A market spine emerged through the centre. Neighbourhoods formed. The grid bent to accommodate life. Images by Rana Abudayyeh using Google Earth aerial views.<sup>16</sup>



**Animation 01: Encampment Becoming City**  
(click on play icon to access).

## architecture under revision

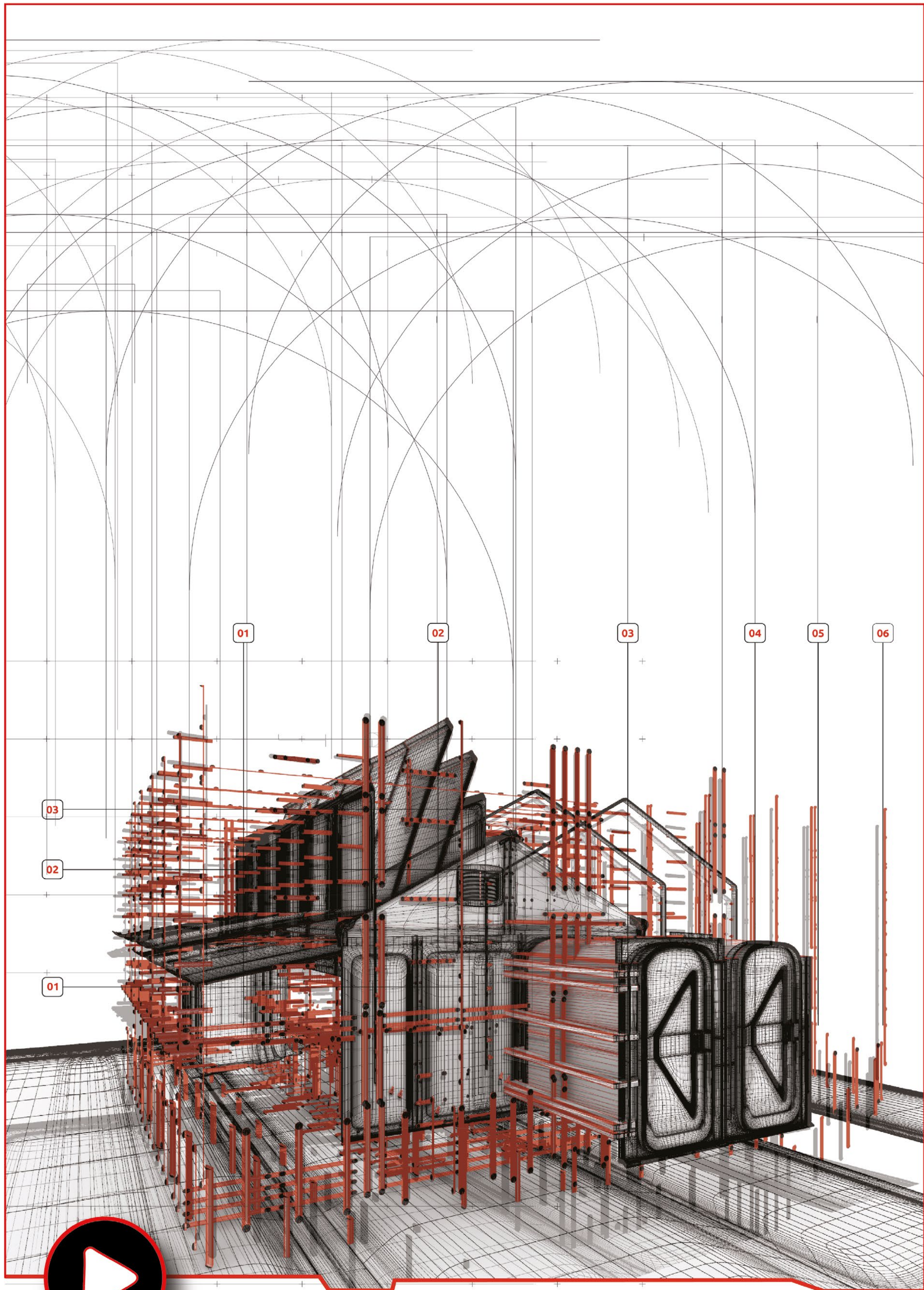
The refugee shelter does not remain as it was given, and it does not stay obedient to the plan. From the beginning, residents altered it, extended its roofs, and moved its entry points. Walls go up, storage is added, and boundaries shift. These are not minor adjustments; they are deliberate acts of transformation to make the space usable, protective, and responsive to daily life in the camp. In doing so, residents transform the camp into a reinterpreted living space that can be described and understood as *domestic refugee architecture*.<sup>17</sup> The emergence of this *domestic refugee architecture* reflects Michel de Certeau's insight into the ingenious ways in which people make use of structures and spaces imposed upon them.<sup>18</sup> It stands as a critical counterpoint to the representations of space defined by humanitarian and government agencies, instead producing what Henri Lefebvre refers to as *spaces of representation*: lived, symbolic, and socially embedded environments that resist imposed spatial order through the agency of everyday life.<sup>19</sup>

The following animated drawing conceptually captures that transformation. Red lines reveal not theory but practice. They trace where an extension needed to go, where the light was blocked, where fabric became structure, and where two units fused together. Every line is a record of change, of refusal to live inside someone else's definition of shelter. These modifications are not optional; they are essential. They are how space becomes inhabitable. As such, the unplanned interior is not an accident. It is made through direct engagement with materials, weather, family dynamics, and cultural rhythms. It is rebuilt again and again, not because it fails, but because it is being lived in. What emerges here is not one solution. It is a layered architecture shaped by necessity and reshaped again the next day. In this architecture, the drawing does not represent a finished design. It shows what survival looks like when the interior is taken beyond what is planned.

### Animation 02: Unbuilding the Shelter

(click on play icon to access).

A speculative wireframe animated drawing reconstructing the modular refugee shelter through layered intervention. Red lines trace alterations to structure, function, and spatial use. This is not a proposal, but a drawing of unplanned spatial insistence and lived adaptation. Image by Rana Abudayyeh, 2023.



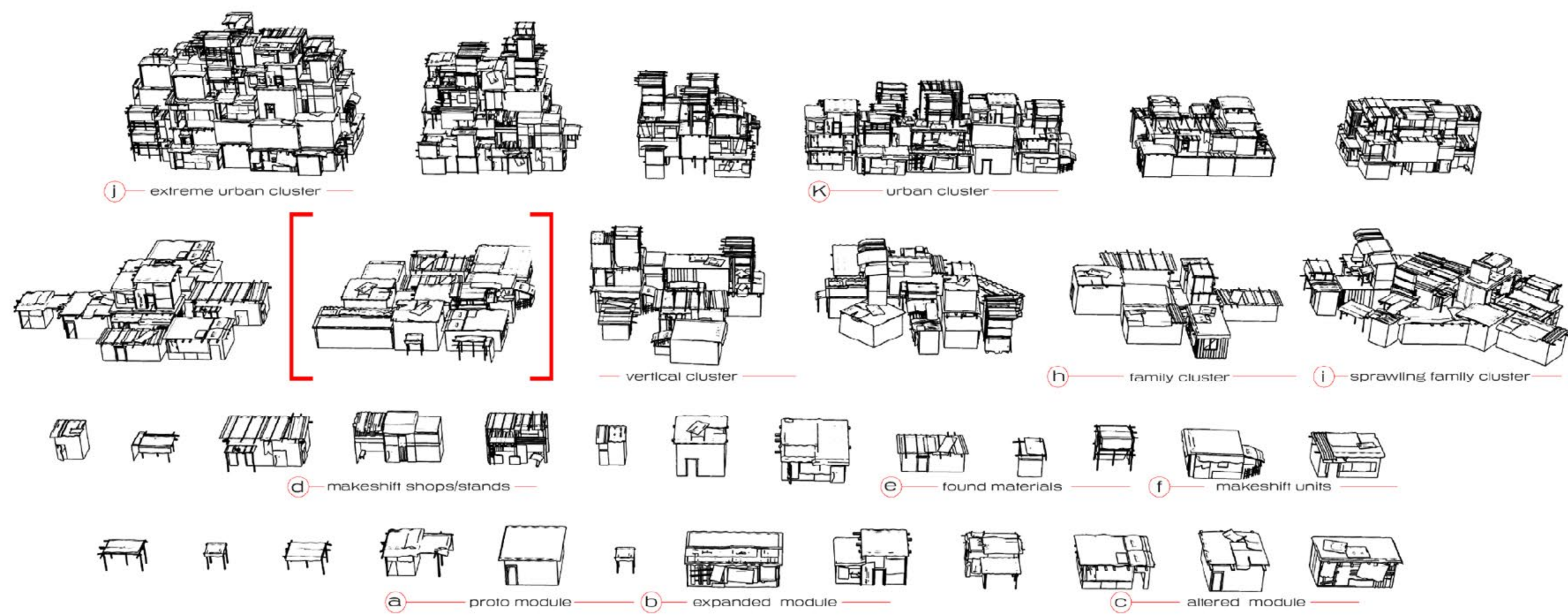
Animation 02: Unbuilding the Shelter  
(click on play icon to access).

### field notes from the interior

The modifications on the exterior reflect interior everyday realities. Here, the unplanned interior shapes the exterior with immense care and calibration. Living spills outward into shaded, ornate porches and courtyards. Inside, a living room and a kitchen are situated in a repurposed shelter unit. It has been carefully modified: salvaged shelves support pots and utensils, plastic crates hold dry goods, and the surfaces are fitted with precision using playful fabrics. While unplanned, these interiors are crafted piece by piece to support daily life. A curtain shades the entry and separates spaces within the conjoined shelter units. Car batteries are hacked to provide auxiliary power sources, while original standardised components of the shelter, like door handles, are replaced with bespoke ones. Through these modifications the interior becomes rooted, inhabited, and specific; it is freed from the imposition of the plan. Elsewhere in the camp's main corridors, prefabricated shelter caravans have been reconfigured into commercial spaces. Materials (some found, others smuggled) form extensions, vitrines, signage, and shade structures. The result is a vibrant spine of economic and social life. In these photos and videos, you can trace where structure gives way to invention. A city grows not from plan but from presence. These unplanned spaces are not anomalies; they are part of the camp's spatial fabric. The unplanned interior emerges here through use and insistence. It lives in the details: the way a shelf is balanced on bricks; how two caravans are joined with tarpaulin and string; how a corner becomes a place to rest, to greet, to gather. To call these spaces unplanned is not to suggest disorder. It is to recognise a different form of authorship, one shaped by memory, scarcity, and the rhythms of daily life. They are the outcome of persistent spatial negotiations that fold care, utility, and cultural continuity into each gesture. They are not supplementary. They are central to how life continues in displacement.

#### Figures 05–17; animations 03–04: Unplanned Interiors: Field Documentation

Photographs and video clips from fieldwork in Al Zaatari were taken by the author during the summer of 2023. What they show is not the architecture of emergency, but rather of emergence.



**Figure 05.**  
At the top: A residential cluster in Al Zaatari Camp, Jordan.

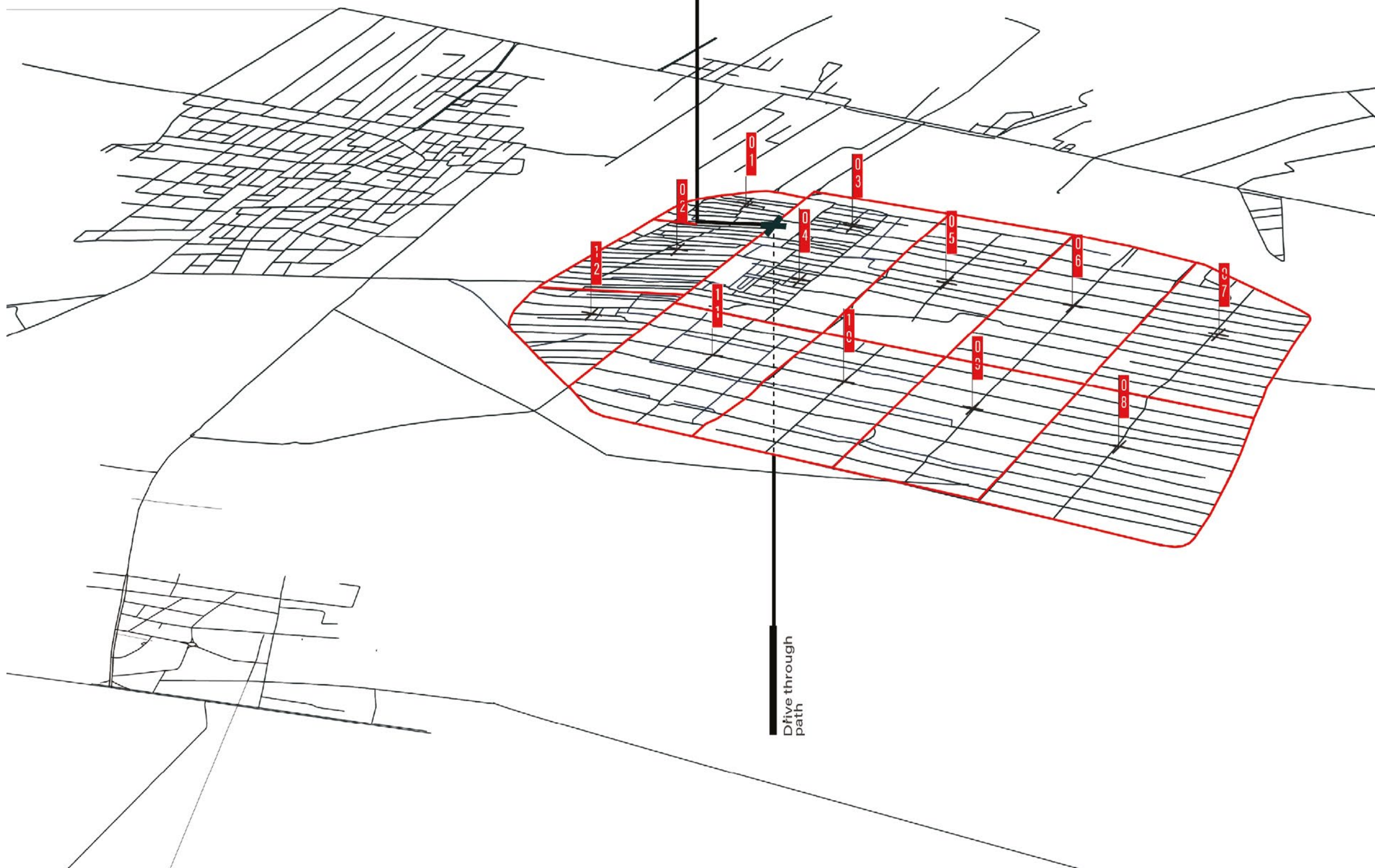
**Figure 06.**  
At the bottom: Analytical diagrams tracing the camp's transformation from a prototype shelter unit into a residential cluster, highlighting a key stage in its spatial evolution.



**Animation 03.**

A drive through of residential districts 01 and 02 in Al Zaatari Camp, showing the diverse materialities and spatial formations devised by refugees.

(click on play icon to access).



**Figure 07.**

A diagram documenting path of a drive through in Al Zaatari as shown in Animation 03.



**Figure 08.**  
Exterior of a residential cluster formed by combining multiple shelter units  
and modifying them to meet residents' needs.



**Figure 09.**  
Exterior of a home created by joining several shelter units and adding a porch.



**Figure 10.**  
Exterior of a modified shelter cluster organised around a shared courtyard  
that functions as both a social space and a climatic buffer.



Figure 11.  
Interior view of a residential cluster showing a multiuse room that serves  
as both living and sleeping space.



Figure 12.  
A kitchen in a shelter unit, fitted with custom cabinets and shelving.



Figures 13, 14, and 15.  
Interior views of the same home, showing varied cladding materials and makeshift details that contribute to a sense of homeliness.



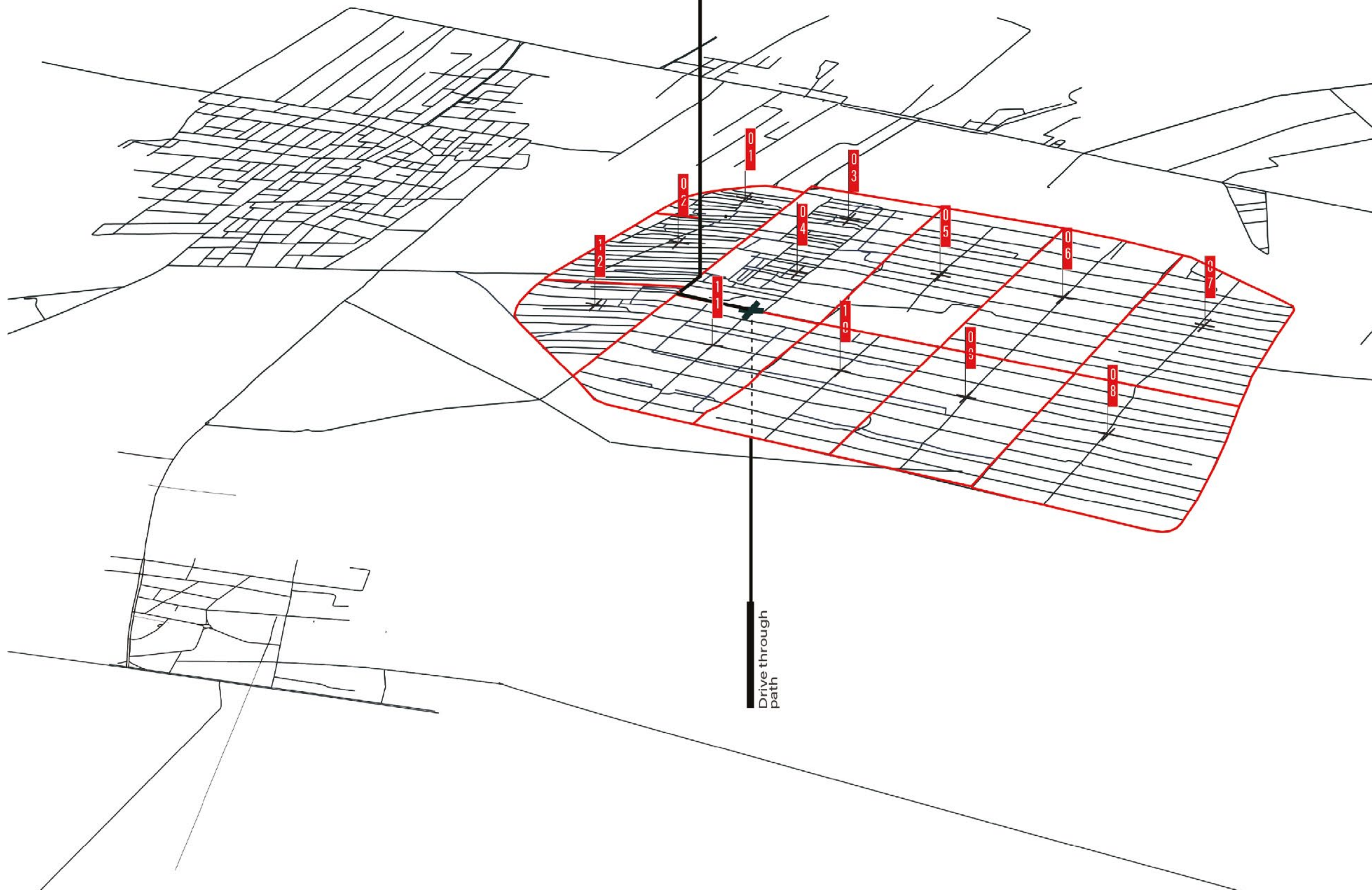
Figure 16.  
A view of the commercial district in Al Zaatari Camp, Jordan.



**Animation 04.**

Drive through the commercial spine of Al Zaatari Camp. The video clip illustrates how modular shelters have been repurposed and deployed to form shops.

(click on play icon to access).



**Figure 17**  
Diagram documenting the path of a drive through in Al Zaatari as shown in Animation 04.

**conclusion**

Displacement reshapes more than geography; it remakes the very structure of life. Within the constraints of the camp, refugees transform space not only to survive but also to remember, to gather, and to assert presence. Here, what begins as emergency relief becomes lived territory, shaped by acts of resilience and resistance. The unplanned interior is not incidental; it is a space of quiet authorship, drafted without permission yet full of intent. These spaces emerge where the blueprint stops. They are formed through rituals that resist erasure: planting, cooking, sitting, hosting, repairing. Each act may appear ordinary, yet together they accumulate into a language of persistence. Such gestures of maintenance become declarations. In their repetition, they produce a form of care that unsettles the logic of displacement. This is not a story of formal invention; it is a story of tenacity told through patchwork roofs, shared porches, and adaptations that refuse containment. What unfolds in these interiors is more than modification; it is the forging of space that holds memory, meaning, and the stubborn refusal to be erased. Learning from the spaces of Al Zaatari, we see that architecture is not always what is designed but what is made — together, unplanned, in flux.

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Rana Abudayyeh is an Associate Professor of Interior Architecture and the Robin Klehr Avia Professor at the University of Tennessee, Knoxville. Her work explores design as a framework for placemaking, belonging, and spatial justice. Abudayyeh is the recipient of the 2024 IIDA Educator Diversity Award for advancing equity in design education.

## notes

- 1 Irit Katz, 'Architecture on the Move: (Re)Creating a Place in a Displaced World', in *Inhabiting Displacement: Architecture and Authorship*, ed. by Shahd Seethaler-Wari, Somayeh Chitchian, and Maja Momić (Birkhäuser, 2022), pp. 50–51.
- 2 Majd Al-Homoud and Ola Samarah, 'Redesigning Refuge: Spatial Adaptations and Defensible Space Principles in Al Zaatari Camp in Jordan', *Buildings*, 15.8 (2025), pp. 3–4, [doi.org/10.3390/buildings15081288](https://doi.org/10.3390/buildings15081288).
- 3 Katz, 'Architecture on the Move', p. 48.
- 4 Al-Homoud and Samarah, 'Redesigning Refuge', pp. 4–5.
- 5 Robin Evans, 'Figures, Doors and Passages' in *Translations from Drawing to Building and Other Essays* (Architectural Association, 1997), pp. 56–57.
- 6 Henri Lefebvre, *The Production of Space*, trans. by Donald Nicholson-Smith (Blackwell, 1991), p. 26.
- 7 Lefebvre, *The Production of Space*, p. 26.
- 8 SETHA LOW, *Spatializing Culture: The Ethnography of Space and Place* (Routledge, 2016), pp. 16–17.
- 9 Alison Mountz, 'Where Asylum-Seekers Wait: Feminist Counter-Topographies of Sites between States', *Gender, Place and Culture: A Journal of Feminist Geography*, 18.3 (2011), pp. 381–99 (pp. 387–88), [doi.org/10.1080/0966369X.2011.566370](https://doi.org/10.1080/0966369X.2011.566370).
- 10 Liisa H. Malkki, 'Refugees and Exile: From "Refugee Studies" to the National Order of Things', *Annual Review of Anthropology*, 24 (1995), pp. 495–523 (pp. 497–498; 512), [doi/10.1146/annurev.an.24.100195.002431](https://doi.org/10.1146/annurev.an.24.100195.002431).
- 11 Adam Ramadan, 'Spatialising the Refugee Camp', *Transactions – Institute of British Geographers*, 38.1 (2013), pp. 65–77 (p. 70), [doi.org/10.1111/j.1475-5661.2012.00509.x](https://doi.org/10.1111/j.1475-5661.2012.00509.x).
- 12 Ramadan, 'Spatialising the Refugee Camp', p. 70.
- 13 ReliefWeb, 'Evolution of Al Zaatari Refugee Camp, Mafraq Governorate, Jordan, 14 May 2013', 2013 <<https://reliefweb.int/map/jordan/evolution-al-Al-Zaatari-refugee-camp-mafraq-governorate-jordan-14-may-2013>> [accessed 18 June 2025].
- 14 Majd Al-Homoud and Ola Samarah, 'Socio-Spatial Adaptation and Resilient Urban Systems: Refugee-Driven Transformation in Al Zaatari Syrian Refugee Camp, Jordan', *Urban Science*, 9.4 (2025), pp. 133–172 (p. 136), [doi.org/10.3390/urbansci9040133](https://doi.org/10.3390/urbansci9040133).
- 15 Malkki, 'Refugees and Exile', p. 512.
- 16 ReliefWeb, 'Evolution of Al Zaatari Refugee Camp'.
- 17 Re-thinking The Future, 'Refugee Architecture: The Culture in Refugee Shelters (Building Home Away from Home)', 3 March 2025 <<https://www.re-thinkingthefuture.com/architectural-community/a13743-refugee-architecture-the-culture-in-refugee-shelters-building-home-away-from-home/>> [accessed 20 June 2025].
- 18 Michel de Certeau, *The Practice of Everyday Life*, trans. by Steven Rendall (University of California Press, 1984), p. xvii.
- 19 Lefebvre, *The Production of Space*, p. 39.