

Home in the Era of the Platform: Nine Theses on Decentralized Domesticity

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Digitally networked platforms are transforming interpersonal relations and the occupation of urban space, including how home and the domestic are understood and enacted. Despite a rhetoric of openness, neutrality and sharing, the penetration of digital platforms into the domain of architecture is resulting in increased individualization and financialization—extending the managerial logic of late capitalism deeper into the domestic sphere. On one hand, the networks of this *platform capitalism*—from Uber to Airbnb and beyond—allow a distributed, fluid mode of exchange, fostering forms of flux and openness that exceed the comparatively-static models that preceded them. By altering patterns of interaction, consumption, travel, and more, digital sharing platforms are re-shaping the way private and public spaces are conceived and used for work, leisure, and living. On the other hand, this fluidity is too often accompanied by a dissolution of stability and mutual obligation, leading to precarious forms of life. In the process, the centralized model of domesticity ebbs in favour of a decentralization of domestic space—pushing domesticity beyond the bounds of the individual domicile into collective and urban space.

The nine theses of this paper comprise a call for a critical re-evaluation of the trajectories of distributed domesticity—examining both historic experiments and contemporary digitally-networked permutations. The theses are a foray into the realm of platform domesticity: excavating new trajectories from both *platform* and *domestic* to inform future models of ‘home.’ To do so, the paper traces three independent but overlapping trajectories in the decentralization of domestic space: the austere dwelling, the collective dwelling, and the networked dwelling. Emerging forms of domesticity entangle aspects of the austere, collective, and networked in novel ways—and do so with a variety of attitudes to technology, control, politics, and design. In response, the paper argues that platform domesticity requires a renewed conception of conviviality and agency: *a right to the platform*.

1.0. Digitally networked platforms are transforming interpersonal relations and the occupation of urban space, including how home and the domestic are understood and enacted.

1.1. Over the past decades, digitally mediated and data-driven network technologies—‘platforms’—have altered patterns of interaction, consumption, travel, and more. In the process of doing so, they have likewise begun to re-shape the way public and private spaces are conceived and used. On the one hand, physical urban resources such as housing, mobility, and even human labour, are becoming digitally managed via various ‘sharing’ platforms such as Airbnb, Uber, or TaskRabbit. Conversely, digital platform-based companies are venturing into new roles as active producers of urban spaces themselves, as seen in the case of Toronto’s waterfront redevelopment by Google/Alphabet’s Sidewalk Labs,¹ housing prototypes by Airbnb’s design studio Samara,² or the patents filed by Amazon for everything from drone fulfilment centers to augmented reality furniture.³

1.2. While platforms have been discussed from an economic point of view,⁴ there is a growing recognition of the need to engage them through a specifically spatial lens. An emerging subject of critical urban research, *platform urbanism*,⁵ is concerned with both the “functional reconstitution of city design and services *as a platform*” and with the implications of digitally networked technologies in our everyday socio-spatial practice.⁶

1.3. A key arena of transformations is the home. In place of the centralized notion of domesticity—understood as the private living space of the nuclear family—the contemporary home is in flux. Amidst broader societal shifts, such as changing household demographics and gender roles, domesticity today is being *decentralized*, predominantly through digitally networked platforms, into a heterogeneous, multi-scalar, mediated, and increasingly commodified constellation.⁷ This platformization of the home permeates contemporary urbanism, from the conversion of formerly-domestic spaces into short-term rental products via Airbnb, to the displacement of public/private and production/reproduction dichotomies across urban space via Facebook and Slack. Platforms so pervade contemporary thinking that they even crop up at the furthest extreme of domesticity—homelessness.⁸

1.4. Given these profound changes, architectural investigations of new forms of domesticity and their relationship to urbanity at large have likewise been on the rise. Recent exhibitions focusing on domestic space include *Home Economics* at the 2016 Venice Biennale⁹ and *House Vision 2016* in Tokyo.¹⁰ Similarly, collectivity on the urban scale has been the theme of two Seoul Biennales (*Imminent Commons* and *Collective City*), and of the upcoming 2020 Venice Biennale, *How will we live together?* For chief curator Hashim Sarkis, living *together* foregrounds our connectivity across digital and real space, and the ability to form communities based on equity and inclusion¹¹—concerns at the heart of the rise of platform urbanism.

1.5. These nine theses comprise a call for a critical re-evaluation of the trajectories of distributed domesticity—examining both historic experiments and contemporary digitally-networked permutations. Thus the theses are also a foray into the realm of *platform domesticity*: excavating new trajectories from both *platform* and *domestic* to inform future models of ‘home.’

2.0. Despite a rhetoric of openness, neutrality and sharing, the penetration of digital platforms into the domain of architecture is resulting in increased individualization and financialization—extending the managerial logic of late capitalism deeper into the domestic sphere.

2.1. As media researcher Tarleton Gillespie argues, platform-based corporations capitalize on the multiple, specific, yet elusive meanings of ‘platform’—alternately evoking computational infrastructure, architectural condition, figurative space, and political program. This allows them to portray their services as an “open, neutral, egalitarian and progressive support for activity”¹² while ultimately retaining a tremendous amount of control in their position as mediator. Despite rhetorically touting this as ‘sharing,’ the relationships incentivized by these platforms push users—and architecture—away from collective control and toward an individualistic, ‘optimized,’ post-political, and financialized domestic sphere.¹³

2.2. Looking beyond rhetoric to the form and political structures that platforms produce, what is left is a potent means of organizing society. Paralleling larger societal shifts, platforms have adopted a decentralized operational logic often referred to as *modulation*:¹⁴ “[i]n their position as an intermediary, platforms gain not only access to more data but also control and governance over the rules of the game.”¹⁵ Platforms capitalize on two contemporary cultural phenomena: an increasing fixation on self-optimization¹⁶ and the growing demographic of the precarious subject.¹⁷ Platforms appear to sell the vision and the means of achieving a lifestyle that fosters self-actualization while providing a way to resist financial and social precarity.

2.3. Once people have entered the platform, market logics of competition and self-optimization inevitably but subtly

influence user response—in turn altering how they relate to everything from their job to their domestic sphere. As these logics extend outward to markets beyond the platform, this spread engulfs even non-participants.¹⁸ In both technology and urbanism, platforms are increasingly “becoming owners of the infrastructure of society.”¹⁹ In this manner, platforms become a new mode of privatized governance.

3.0. To situate the impact of platforms on the domestic sphere, one can trace three independent but overlapping trajectories in the history of domestic space: the austere dwelling, the collective dwelling, and the networked dwelling.

3.1. The model of centralized domesticity has begun to transform in the face of contemporary economic shifts, blurring the distinctions between home/work, unit/network, solitary/collective. This is far from the first time that economic shifts have driven a renegotiation of the domestic condition. The modern notion of the home as the isolated, gendered sphere of social reproduction is a historically recent phenomenon, emerging during the early nineteenth century concurrently with the birth of the ‘private individual’ of industrial capitalism.²⁰ Throughout the past century, the isolated domicile housing the nuclear family was fundamental to the organization of the welfare state, and has, ostensibly, outlived its neoliberal dismantling.²¹

3.2. However, the ongoing shifts in lifestyles, employment, and communication propelled by platform urbanism are eroding the hegemony of the single-family home and the condominium unit. *Decentralized* forms of domesticity have come to the fore, unbundling the home from the individual domicile and intertwining it with larger networks of urban space. These new models vary dramatically in tenor—from the most precarious of existences to generous sites of collective life. Handled poorly, they pose a significant degradation in domestic condition; handled well, they harbour a potential to become new sites of urban coexistence—a convivial domestic-city.

3.3. To understand this emergent condition, three independent but also overlapping trajectories become crucial points of analysis. The first is the reduction of components of the domestic unit to an austere minimum. The second is the decentering of components from the unit into a localized collective realm, which forms an amenity of physical resources and sociability. The third is the distribution of domesticity across urban networks, extending it through multiple spatial and temporal frames. These trajectories of decentralization are discernible in contemporary housing experiments and hold particular relevance to the contemporary platform-urbanism condition.

4.0. Decentralized domesticity is characterized by a trajectory toward the *austere dwelling*, in which the components of the domestic unit are minimized and reduced.

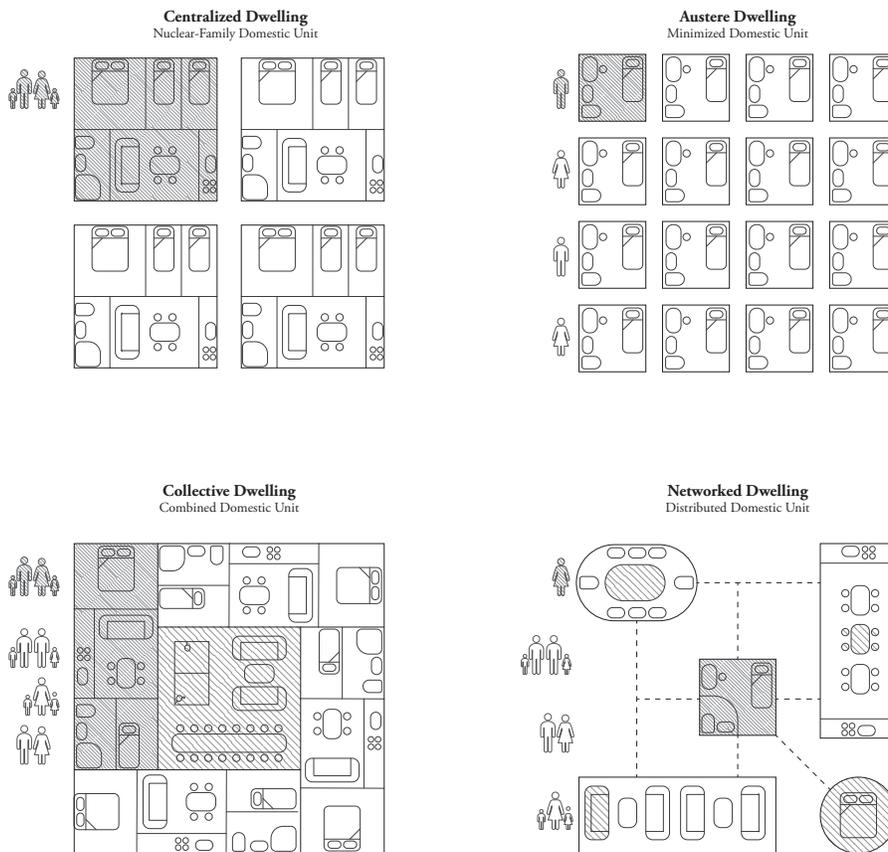


Figure 1. Models of dwelling. Conceptual diagrams, authors.

4.1. While the reasons for this reduction vary dramatically from case to case, it is often the protean point from which a turn toward decentralized dwelling begins. The ‘minimum dwelling’ has made a return to discourse and practice in the face of escalating housing crises in Western countries.²² The rise of studios, microunits, ‘Tiny Homes,’ and the like follow a deeply familiar logic—bearing an operational and spatial (if rarely ideological) resemblance to the many socialist, feminist, and modernist experiments that preceded them.

4.2. The austere dwelling is often motivated by a move toward economy for efficiency and plentiful provision of housing. As epitomized by the modernist *Existenzminimum* social housing experiments of the twentieth century, a desire to standardize production and reduce costs often prompts designers to minimize the space of the individual unit as well as the number of types of units.²³ In turn, questions of what the ideal minimal unit is and how it should be configured have driven generations of architectural investigation—most notably the Weißenhofsiedlung exposition, the social housing projects of Weimar Germany and Red Vienna, and the constructivist housing experiments of Soviet Russia.²⁴

4.3. In response to contemporary housing crises and soaring housing costs, a reduction in unit size and quality has become a crucial subject in current debates on housing. Developers and neoliberal governments alike have invested heavily in this narrative, posing the increased provision of housing as contingent upon a reduction in personal living quality. Perhaps unsurprisingly, there is a direct relationship between decreased size of unit and increased per-square-foot profit—making ‘micro’ living an increasingly profitable proposition both monetarily and via the ‘progressive’ branding and symbolic capital it generates for private developers. Yet as microunits spread, concerns have emerged about their implications on sociality, health, and equity,²⁵ leading citizens and governments to push back on them in favor of maintaining or restoring unit size and amenity minimums.²⁶

4.4. Throughout these varied examples of the austere dwelling, the question of collective space continually re-emerges as a key locus of experimentation. An implicit bargain is often struck: reduce the individual unit, but enrich locally shared space in response. In doing so, the austere dwelling ties into a second trajectory in the history of decentralized housing: *the collective dwelling*.

5.0. Decentralized domesticity is also characterized by a trajectory toward the *collective dwelling*, in which components of domestic space are held collectively within a localized cluster.

5.1. The collective dwelling treats the unit as a private enclosure in a collective field. Domestic activities occur in spaces held in common but still distinct from the city at large—a localized sphere typically tethered to the single building or development. The many variations of this model exist along a wide spectrum of generosity of the collective realm, likewise enabling varying degrees of control and agency over its management and transformation.

5.2. As political and market challenges to ‘shoebox’-style microunits mount, developers have begun to turn to a version of microunits that, perhaps ironically, closely mimic early socialist experiments in collective living. Referred to most generally as ‘share-houses,’ these projects often resemble dormitories with shared kitchens, living rooms, ping-pong lounges, and more. Such developments—increasingly re-branded as ‘co-living’ spaces or ‘roommate communities’—have experienced a particular resurgence in a number of housing-strapped cities.²⁷ Share-houses are rarely cooperatively owned or managed, instead being owned and run by companies—including a generation of ‘co-living startups’ with names like Bungalow, Startcity, X Social Communities, WeLive, or Common.²⁸

5.3. Share houses can be understood as a privatization and financialization of cooperative housing developments—a parallel lineage that continues apace. Cohousing models are increasingly touted both as a sociable alternative to the isolation of the single-family model and an affordable, non-financialized alternative to the housing-as-investment-asset model.²⁹ In the case of R50, a *baugruppe* in Berlin designed by Jesko Fezer and Heide & von Beckerath, this opens potentials for both collective space and a larger engagement with the city. The ground-level collective space is explicitly designed to interface with the city beyond the bounds of the development—welcoming friends and neighbors in for movie nights and dinners.³⁰

5.4. In these projects as in the socialist collective-housing experiments of the twentieth century, the often-austere nature of personal space serves a function both functional and ideological. When coupled with a generous collective realm, austerity of the unit promotes forms of communal life. While examples of collective housing like the Narkomfin Building in Moscow or the Isokon Flats in London have long held an outsized influence in the discipline,³¹ an example attracting renewed attention in theory of late is Hannes Meyer’s Co-op Interieur. This is perhaps unsurprising given its oddly timely character—as Pier Vittorio Aureli puts it, “we can imagine Co-op Interieur dialectically, as both the rendering of our increasing precarious domestic life and as the harbinger of space for anyone like a universal basic right.”³² In it, we see a shift in attitude not only to collective space as a counterweight to private-property-based

models of domesticity, as Aureli emphasizes in his writings, but also to a larger, networked conception of collective space.

5.5. Co-op Interieur points to a model of domesticity in which shared space need not be tethered to an individual development. Instead, it could be treated as a system of domestic space bursting forth from the unit and weaving itself throughout the urban fabric. In doing so, the collective dwelling overlaps with a third trajectory—that of a *networked* conception of home.

6.0. Decentralized domesticity is similarly characterized by a trajectory towards the *networked dwelling*, in which components of domestic space are distributed beyond the individual unit and localized aggregate into the city.

6.1. Dispersion of domestic elements can happen across multiple spatial and temporal frames, propelled by a spectrum of conditions: the pursuit of emancipation through opening up the domestic to the urban political arena; the convenience of consuming domestic activities within commercial establishments; the blurring of spaces of production, reproduction and consumption by digital platforms; or the desire for (or precarious circumstance of) dwelling entirely in the network.

6.2. A key tendency toward networked domesticity emerges from feminist conceptions of ‘homes without housework.’ As Heynen describes, the suffragettes of the late nineteenth and early twentieth centuries redefined and redesigned domestic space in a shared, networked manner. Domestic activities are decentered from the individual home, instead providing communal kitchens, laundry facilities, and childcare as a way to “rationalize the extent to which each individual woman [has] to cater for her family, thus freeing them from the narrow bonds of one-family domesticity.”³³ One of many architects inspired by the advocacy of Charlotte Perkins Gilman to develop designs for cooperative housekeeping,³⁴ Alice Constance Austin’s scheme for a garden city in Llano del Rio, California comprises an urbanized domestic network of kitchenless houses. In “a clear statement about the possible form of a town without private housework,”³⁵ each house was to be connected to a central kitchen through a complex underground network of tunnels used to deliver cooked food, laundry and other items. A more recent but similarly influential example are the urban kitchens of Lima, Peru. In existence since the 1970s and operating as publicly accessible spaces inside private dwellings, the kitchens provide food at a reduced price to nearly half a million people daily and employ over one hundred thousand women. According to Anna Puigjaner, these are not only networks of food distribution but that of empowerment: “infrastructures to develop critical awareness, literacy, and a sense of belonging, to improve health education, to obtain personal income.”³⁶

6.3. Another tendency toward networked domesticity has been observed in the megacities of Tokyo and Seoul, where the combination of high urban densities and extensive public transportation networks have precipitated the dispersion of certain domestic activities—such as singing, net-surfing, movie-watching,

comic-reading, bathing, or sex—into commercialized spaces. Jorge Almazán and Yoshiharu Tsukamoto define the phenomena of monetized access to personal spaces on an hourly basis as ‘dividual space.’³⁷ They argue that dividual space embodies and enacts a liminal form of domesticity in urbanity: it “compensates, reproduces or replaces spaces and qualities associated with home. [It] serves as a kind of buffer zone for disparate and fragmented lifestyles produced by rapid demographic and cultural shifts in East Asia.”³⁸ These temporary, non-committal forms of socialization recast domesticity “as a social condition that expands the possibilities of city dwelling.”³⁹

6.4. This movement toward the network is further exacerbated by the integration of the digital platforms of Web 2.0 into domestic life, eroding the boundaries between consumption, production and reproduction. For theorist Georges Teyssot, the contemporary condition of living has become ‘topological,’ with former limits between interior and exterior, and private and public shifted or altogether erased by the continuity of digital networks.⁴⁰ The space of the home and even its most mundane contents are being recast as services provided by and exchanged across platform-capitalist networks, contributing to “the colonisation of everyday life by information processing.”⁴¹ Similarly, the home is increasingly mobilized by capital through the expansion of ‘work’ into the reproductive sphere. The constant engagement and interaction demanded by the telematic milieu of digital networks foster a “new model of normativity ... that requires 24/7 temporalities for its realization”—from which sleep, a profoundly useless and intrinsically passive activity, constitutes the only escape.⁴² In their recent project “A Civilization Without Homes,” amid.cero9 explores the idea of sleep as a form of resistance to this condition, serving to ground a new mode of collective domesticity.⁴³

6.5. ‘Being-networked’ thus can variously mean liberation and precarity—a contradiction inherent to the fully distributed condition of domesticity, *nomadism*. The figure of the nomad⁴⁴ has appeared repeatedly throughout architectural experiments in the twentieth century, such as the drifter of Constant’s *New Babylon*, the urbanite of Archigram’s *Cushicle and Suitaloon*, or the ‘nomad girl’ of Toyo Ito’s *Pao*. By reducing domesticity to portable, near-immaterial enclosures or eliminating enclosure altogether, such projects present a form of inhabiting that questions existing boundaries and suggests “new locations where exchanges are produced, the new locations where, perhaps, parallel ways of living the public and the private are currently emerging, ways more suited to the processes of transformation our lives are submitted to.”⁴⁵ Yet whereas the generative creativity of this ephemeral existence remains a virtue for these theoretical vagabonds, nomadism in practice is often far less idealized. Displacement, homelessness, and other forms of precarious urban life are, in a sense, an ultimate decentralization of domesticity—a complete erasure of distinction between the will of the economy and the life of the individual.

7.0. Emerging forms of domesticity entangle aspects of the austere, collective, and networked in novel ways—and do so with a variety of attitudes to technology, control, politics, and design.

7.1. By returning to these historic trajectories, we find new lenses to contextualize contemporary trends under platform urbanism. A formerly centralized domesticity is becoming relational in different ways through its decentralization. Once freed from a normative relationality (the nuclear family), people are free to establish alternative forms of association. New models are emerging, and can be placed via an analysis of their topologies—the ways in which they connect and disconnect, engage and disengage from networks, and in turn shape domestic relations. Topology, as Robert Alexander Gorny puts it, is a way to trace “the fine conceptual line between forms of separation (addressed in terms of living ‘alone together’) and modes of relationality (as living ‘together apart’).”⁴⁶ He continues, “[i]n this relational view, rather than being an apparatus of enclosure, or having the function to separate, architecture works as a ‘machine’ determining what is related to what”—a connecting and separating enclosure as much as it is a ‘platform.’

7.2. Topology draws attention to, on one hand, engagement or disengagement with each of the tendencies, while on the other hand also qualifying the tenor of that engagement (acceptance, rejection, and innumerable middle grounds and qualified reframings). For instance, one could have a partial rejection of the austere dwelling but a deep engagement with collectivity and networks—similar to the R50 baugruppe. One could have a total withdrawal from ideas of collectivity and the urban network, but also a total rejection of the austere dwelling—as in the ‘Fortress for Four’ conception of single-family suburban homes. This *yes/no* but also *yes, and* qualified logic permits a proliferation of interpretations to emerge from the simple form of the three trajectories. Similarly, the models charted with this approach make no intrinsic value judgements—accommodating both optimistic and pessimistic manifestations. In this way, it not only allows placement of the examples previously discussed, but also to project beyond them. As such, we might envision a series of models of decentralized dwelling similar to the incomplete menagerie shown in the diagrams.

8.0. Platform domesticity requires a renewed conception of conviviality and agency.

8.1. A common error is to conflate the idea of *being embedded in a network* with *being collectively-controlled* or *fostering shared life*. Time and again, the refrain goes: *the more connected something is, the more collective it is*—an elision used to advocate for digital networks from the early Internet onward to contemporary platform-capitalist networks. Rather, as media theorist Alexander Galloway reminds us, power and control persist and take on new forms in the move to decentralized networks.⁴⁷ Platform technologies open new potentials for emergent forms of collectivity, but by no means guarantee them—rather, it hinges on the design and disposition⁴⁸ of the platform.

8.2. Instead of ‘networked-or-not,’ the key question is one of *agency*. Who has control over the platform and its constituent components? Who is able to request, enact, or prevent change? Are the platforms collectively produced and democratically

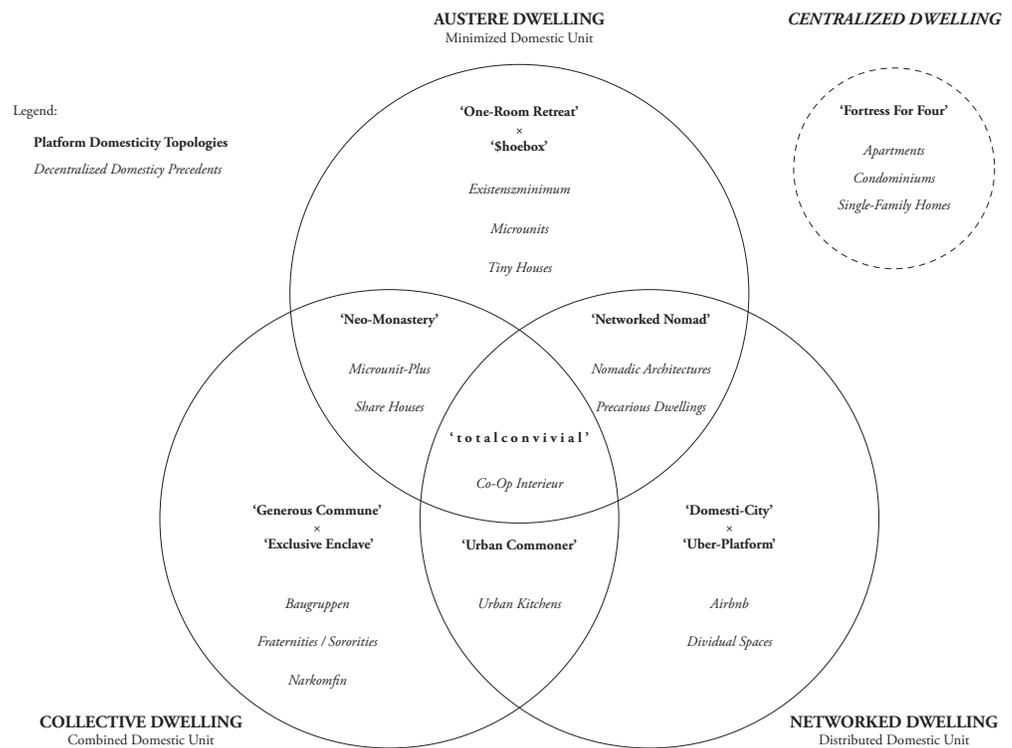


Figure 2. Hybrid models of domesticity. Conceptual diagram, authors.

contestable, or are they rigid, managerial, and indirect in their exercise of power? Whether a social media platform or a network of domestic space, the same questions of agency, politics, democratic control, and collective production apply.⁴⁹

8.4. In turn, this essay concludes by repurposing a concept from philosopher and critic of institutions Ivan Illich: the notion of *conviviality*. For Illich, conviviality is a way of analyzing the social implications of tools, broadly construed—from the most prosaic daily implements to society-spanning networks like those that form platform capitalism. Conviviality, then, denotes “a society in which modern technologies serve interrelated individuals rather than managers.”⁵⁰ These should be “complementary, enabling tools which foster self-realization”—tools that “do not enslave people, but serve them, helping them to communicate, develop and live together.”⁵¹

8.5. From these quotes we can develop a revised, clarified definition of conviviality for the era of the platform: *tools controlled by, and conducive to the formation of, a collective*. This notion appears clearly in a number of proto-decentralized models of domesticity; for instance, baugruppen with their self-determining, democratically-controlled property rights and investment platforms. Many similar models of commoning and collective control over space exist,⁵² though they tend to skew toward public and open spaces rather than dealing explicitly

with domesticity. As such, the full potential of such a model—a networked ‘domesticity held in common’—remains to be extrapolated and explored.

9.0. Platform domesticity calls for a Right to the Platform.

9.1. In many ways, Illich’s notion of conviviality points to a potential reworking of the idea of the *right to the city* developed by Henri Lefebvre and his followers. What is needed today is a notion of a *right to the platform*:⁵³ a critique of platforms, both digitally-mediated and architectural, based on individual agency in the production of (platform) space. As geographer Maroš Krivý states, “[e]ven if we are all platform urbanists, some are in a position to design platforms, which others are compelled to use, the ‘nudgers’ and ‘nudgees’ so to speak.”⁵⁴ For architects and designers in particular, who are implicated in the creation of platforms both physical and digital, this critical engagement is of utmost importance.

9.2. What are the architectures—the collective forms—of such a model, and how might they point toward new modes of urban coexistence? The specific agency of architecture in drawing and articulating the bounds of individual and collective, shared and urban, forces us to “reconsider the formation of [domesticity]

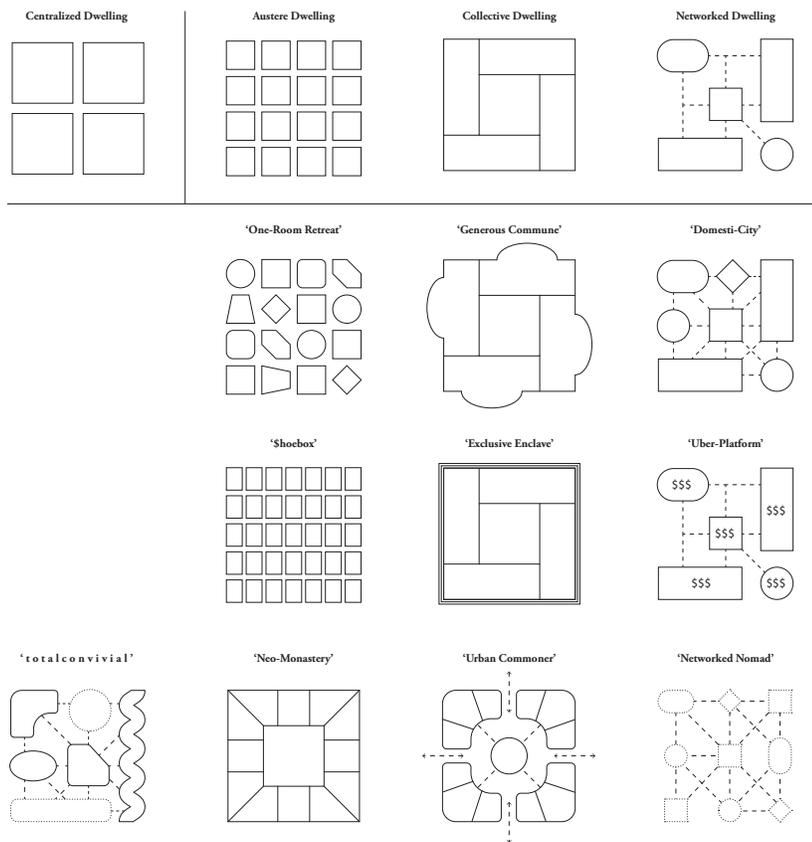


Figure 3. Hybrid models of domesticity. Conceptual diagrams, authors.

as a boundary-drawing practice,⁵⁵ in turn examining how the topologies of domestic space make new forms of urban togetherness possible. Re-telling the histories of austere, collective, and networked forms of dwelling draws out the potentials latent in such models—in response suggesting new capabilities for the architect.

9.3. The distributed, immanent forms of power that underlie sharing platforms raise a host of questions—not least around issues of agency and ethics. How might collective domesticities recapture their heritage in commoning and solidarity? Could spatialized counter-platforms form a basis for sharing of both space and agency itself? In such a reworking of the dominant spatial practices of neoliberalism, architects can open new ways to reclaim platform domesticity from *platform capitalism*. Yet more fundamentally, this examination can refract back onto architectural practice itself: in this way, decentralized domesticity becomes an avatar for understandings of agency in architecture.

ENDNOTES

1. Matthew Stewart, "The Deceptive Platform Utopianism of Google's Sidewalk Labs," *Failed Architecture*, 25 July 2019, <https://failedarchitecture.com/the-deceptive-platform-utopianism-of-googles-sidewalk-labs/>.
2. Airbnb, "Samara," <https://www.samara.com/>.
3. Matthew Stewart, "Amazon Urbanism: Patents and the Totalizing World of Big Tech Futures," *Failed Architecture*, 23 May 2018, <https://failedarchitecture.com/amazon-urbanism-patents-and-the-totalizing-world-of-big-tech-futures/>.
4. See Nick Srnicek, *Platform Capitalism* (Cambridge: Polity, 2017).
5. The term 'platform urbanism' featured prominently during the 2018 annual meeting of the American Association of Geographers. For an overview, see also "Platform Urbanism," *Mediapolis* 4, no.3 (2018), online at: <https://www.mediapolisjournal.com/roundtables/platform-urbanism/>.
6. Sarah Barns, "We Are All Platform Urbanists Now," *Mediapolis* 4, no.3 (2018), online at: <https://www.mediapolisjournal.com/2018/10/we-are-all-platform-urbanists-now/>.
7. For a discussion of contemporary domesticity, see for example Bernd Upmeyer, "The Home as a Political Arena: Interview with Andrés Jaque," *Monu* 24 "Domestic Urbanism" (Spring 2016): 4-11.
8. Meagan Day, "Homeless People Don't Need an App, They Need a Fucking House," *Jacobin* 33, Spring 2019, 104-105.
9. The pavilion took the form of a showcase of new models of domestic life conceived across five scales of time (hours, days, months, years, decades). See Jack Self, "Home Economics: The British Pavilion at the Venice Architecture Biennale 2016," *The Architectural Review*, 23 February, 2016, <https://www.architectural-review.com/rethink/home-economics-the-british-pavilion-at-the-venice-architecture-biennale-2016/10003239.article>.
10. The exhibition explored new forms of domestic collectivity in Japan under the banner of 'Co-Dividual—Split and Connect/Separate and Come Together.' See "2016 TOKYO EXHIBITION HOUSE VISION," <http://house-vision.jp/en/exhibition.html>.
11. La Biennale di Venezia, "Biennale Architettura 2020: How will we live together?" 16 July 2019, <https://www.labiennale.org/en/news/biennale-architettura-2020-how-will-we-live-together>.

12. Tarleton Gillespie, "The politics of 'platforms,'" *New Media & Society* 12.3 (2010): 352-13.
13. Leif Weatherby, "Delete Your Account: On the Theory of Platform Capitalism," *Los Angeles Review of Books*, 24 April 2018, <https://lareviewofbooks.org/article/delete-your-account-on-the-theory-of-platform-capitalism>.
14. Gilles Deleuze, "Postscript on the Societies of Control," *October* 59 (1992): 3-7. See also Roy Cloutier, "Absolutely Safe, Completely Unpredictable: Control And Indeterminacy In The Atomic Garden," *Site Magazine* 40 (2019): 92-102.
15. Srnicek, *Platform Capitalism*, 47.
16. See: Nick Axel, Beatriz Colomina, Nikolaus Hirsch, Anton Vidokle, and Mark Wigley, eds., *Superhumanity: Design of the Self* (Minneapolis: University of Minnesota Press, 2018), and Alexandra Schwartz, "Improving Ourselves to Death," *The New Yorker*, 8 January 2018, <https://www.newyorker.com/magazine/2018/01/15/improving-ourselves-to-death>.
17. As Marcela Escobari notes, much of the recent growth in the U.S. labour market comprises low-wage work, which is "often precarious, marked by unpredictable schedules, reduced benefits, and unsteady employment. (...) Technological advancement, by way of big data and artificial intelligence, has made it easier for companies to closely monitor workers' productivity and to break jobs into tasks that can more easily be contracted away. As a result, contract work now encompasses a third of the workforce and excludes many from benefits, training, and a career ladder that firms typically offer full-time employees." See Marcela Escobari, "The economy is growing and leaving low-wage workers behind," *The Brookings Institution*, 19 December 2019, <https://www.brookings.edu/blog/education-plus-development/2019/12/19/the-economy-is-growing-and-leaving-low-wage-workers-behind/>.
18. On Airbnb, for example, the spatially-endowed can rent out their apartments at a premium, while those without the means or desire to participate in the platform are affected through measurable increases in long-term rental prices and decreases in availability. See Combs, Jennifer Combs, Danielle Kerrigan, and David Wachsmuth, "Short-term rentals in Canada: Uneven growth, uneven impacts," 14 June, 2019, *Canadian Journal of Urban Research* (forthcoming), <http://upgo.lab.mcgill.ca/publication/short-term-rentals-in-canada/short-term-rentals-in-canada.pdf>.
19. As Víctor Muñoz Sanz points out, "The city and its architectures are being positioned as a test bed for new logics of production and management defined by platforms." See Víctor Muñoz Sanz, "Platform Architectures," *e-flux Architecture*, January 2018, <https://www.e-flux.com/architecture/positions/153887/platform-architectures/>. Also see: Srnicek, *Platform Capitalism*, 92.
20. As Hilde Heynen describes, in pre-capitalist times, "the house was not a private shelter for the members of a small family, but rather a large structure that comprised workshops as well as residential accommodation. It did not only house husband, wife, and children, but also members of the extended family, protégés, and servants." See Hilde Heynen, "Modernity and domesticity: Tensions and contradictions," in *Negotiating Domesticity: Spatial productions of gender in modern architecture*, eds. Hilde Heynen and Gülsum Baydar, (London and New York: Routledge, 2005), 7.
21. Pier Vittorio Aureli and Martino Tattara, "Production/Reproduction: Housing beyond the Family," *Harvard Design Magazine* 41 (Fall/Winter 2015), online at <http://www.harvarddesignmagazine.org/issues/41/production-reproduction-housing-beyond-the-family>.
22. See, for example, Pier Vittorio Aureli, *Less Is Enough: On Architecture and Asceticism* (Moscow: Strelka Press, 2013); Dogma, *Loveless: The Minimum Dwelling and Its Discontents* (Milano: Black Square, 2019); Pier Vittorio Aureli and Martino Tattara, "Soft cell: the minimum dwelling," *The Architectural Review*, 30 July 2018, <https://www.architectural-review.com/essays/soft-cell-the-minimum-dwelling/10033401.article>.
23. Stavros Stavrides, *Common Space: The City as Commons* (London: Zed Books, 2016), 112.
24. Ibid, 109. Also see Karel Teige and Eric Dluhosch, *The Minimum Dwelling = L'habitation Minimum = Die Kleinstwohnung* (Cambridge, MA: MIT Press, 2002). Teige's original volume was published in Czechoslovakia in 1932.
25. As Robert Alexander Gorny states, "Novel forms of shared living are not simply an extension of reformist/socialist debates on Existenzminimum spaces and collective forms of living. Quite different, shared forms of living must be approached through the (neoliberal) political economies (and ecologies) in which their capsular spaces facilitate a newly capturing form of relationality, which may well be at the verge of turning into a new kind of captivity." Robert Alexander Gorny, "A Relational Conception of Living Together / Apart," in: *The Architecture of Together and Apart: An Inquiry into Apartment Buildings*, eds. Matšis Groskaufmanis, Evelina Ozola, Anda Skrežāne (Riga: New Theatre Institute of Latvia, 2018), 179-87. Electronic preprint online at: https://www.academia.edu/36601484/A_Relational_Conception_of_Living_Together_Apart_.
26. For example, see Jacoba Urist, "The Health Risks of Small Apartments," *The Atlantic*, 19 December, 2013, <https://www.theatlantic.com/health/archive/2013/12/the-health-risks-of-small-apartments/282150/>.
27. This is particularly true of West Coast cities including Seattle and San Francisco, but numerous similar examples also exist in Japan and certain European cities; see Lizzie Widdicombe, "Happy Together," *The New Yorker*, May 9, 2016, <https://www.newyorker.com/magazine/2016/05/16/the-rise-of-the-co-living-startup>; Will Coldwell, "'Co-living': the end of urban loneliness – or cynical corporate dormitories?" *The Guardian*, 3 September 2019, <https://www.theguardian.com/cities/2019/sep/03/co-living-the-end-of-urban-loneliness-or-cynical-corporate-dormitories>; Alex Martin, "Downsized dwellings: Inside Tokyo's tiny living spaces," Anna Masui, "Japan's shared dwellings are evolving to meet diverse needs of tenants," *The Japan Times*, 17 January 2017, <https://www.japantimes.co.jp/news/2017/01/17/national/japans-shared-dwellings-evolving-meet-diverse-needs-tenants/>.
28. With branding and an app, of course, to perform the valuable service of distinguishing them from traditional landlords and rental agencies. "The new way of living is inhabiting time, space, and place that stirs inspiration inside of us," according to Welive's website. See Rani Molla, "'Co-living' is the new 'having roommates' — with an app," *Vox*, 29 May 2019, <https://www.vox.com/recode/2019/5/29/18637898/coliving-shared-housing-welive-roommates-common-quarters>.
29. The baugruppe approach developed in Germany, for instance, eschews the developer entirely. A group of prospective homeowners contracts directly with an architect to design a shared development, negotiating via the architect the degree to which and manner in which space is shared among the units. In examples such as R50, this results in not only generous units and generous collective spaces, but often also a reduction in per-square-meter cost over conventional development. See Jessica Bridger, "Don't Call It A Commune: Inside Berlin's Radical Cohousing Project," *Metropolis*, 10 June, 2015, <https://www.metropolismag.com/architecture/residential-architecture/dont-call-it-a-commune-inside-berlin-radical-cohousing-project/>.
30. Collective dwelling is, of course, not always so urbanistically generous. Community-focused models of housing also have a long legacy of neatly defining the boundaries of the collective to 'protect' shared spaces from those who would 'corrupt' them. This ties into long histories of exclusion and enclaving of space—consider gated communities with privatized, guarded parks, playgrounds, or pools. The definition of a community is always the definition of an out-group, a not-community—and, crucially for architects, a boundary between them that can be designed. For a discussion of the notions of openness and mutability within the collective, see Chapter 4 in Stavrides, *Common Space*, 2016, op. cit.
31. See Leyla Daybelge and Magnus Englund, *Isokon and the Bauhaus in Britain* (London: Batsford, 2019), and Robert Mull and Xenia Adjoube, "Ruins of Utopia," *The Architectural Review*, 29 March 2013, <https://www.architectural-review.com/essays/ruins-of-utopia/8644716.article>.
32. Op. cit. 22.
33. Heynen, "Modernity and domesticity: Tensions and contradictions," 10-11.
34. Architects influenced by Gilman and contemporaries includes Ebenezer Howard, whose experiments with kitchenless apartments complemented by collective domestic facilities remain an overlooked part of his Garden City designs, even if these radical schemes comprised smaller enclaves within a field of conventional housing. See Dolores Hayden, "Homes without Kitchens and Towns without Housework," in *The Grand Domestic Revolution*, Cambridge, MA: MIT Press, 230-237.
35. Ibid, 242-246.
36. Anna Puigjaner, "Bringing the Kitchen Out of the House," *e-flux Architecture*, 2019, <https://www.e-flux.com/architecture/overgrowth/221624/bringing-the-kitchen-out-of-the-house/>. For Puigjaner's ongoing investigation of kitchenless dwellings across the world, see "Kitchenless City: The House as a System", <https://www.maio-architects.com/project/kitchenless-city/>.
37. Jorge Almazán Caballero and Yoshiharu Tsukamoto, "Tokyo Public Space Networks at the Intersection of the Commercial and the Domestic Realms," *Journal of Asian Architecture and Building Engineering* 5.2 (2006): 301-308. The term 'individual' is a direct reference to the individual subject introduced by Deleuze in "Postscript on the Societies of Control," op. cit. 14.
38. Sanki Choe, Jorge Almazán, and Katherine Bennett, "The Extended Home: Dividual Space and Liminal Domesticity in Tokyo and Seoul," *Urban Design International* 21, no.4 (November 2016): 312.
39. Ibid, 314.
40. Georges Teyssot, *A Topology of Everyday Constellations* (Cambridge, MA: MIT Press, 2013), 29-30.
41. Adam Greenfield, *Radical Technologies* (London: Verso, 2017), 31.
42. Jonathan Crary, *24/7: Late Capitalism and the Ends of Sleep* (London: Verso, 2013), 15.
43. See "2019 Seoul Biennale of Architecture and Urbanism," <http://www.seoulbiennale.org/2019/exhibition.view.html?seq=28&cate=thematic>.
44. The concept of the 'nomad' has been most notably theorized by Gilles Deleuze and Félix Guattari in the chapter "1227: Treatise on Nomadology The War Machine" in *A Thousand Plateaus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1987), 351-423..
45. Inaki Ábalos, "Huts, parasites and nomads: The deconstruction of the house," in *The good life : A guided visit to the houses of modernity* (Zurich: Park Books), 163.
46. Gorny, "A Relational Conception of Living Together / Apart," 5.
47. Alexander Galloway, *Protocol: How Control Exists after Decentralization* (Cambridge: MIT Press, 2006).
48. Keller Easterling, *Extrastatecraft: The Power of Infrastructure Space* (London: Verso, 2014), 32.

49. A nascent response can be identified in contemporary discussions of platform cooperativism as a counter to platform capitalism. Platform cooperativism seeks to repurpose the platform logic from its dominant current manifestations and instead instill democratic control over the creation and evolution of the platform—an approach seen in the emergence of counter-platforms like Fairbnb, MODO, and others that follow guidelines based on the Rochdale Cooperative Principles. The key component of these counter-platforms rests in their enabling of agency over the platform by those who take part in it and those who it affects. See Trebor Scholz et. al., *Ours to Hack and to Own: The Rise of Platform Cooperativism, a New Vision for the Future of Work and a Fairer Internet* (New York: OR Books, 2017). See also Trebor Scholz, “Platform Cooperativism vs. The Sharing Economy” *Medium*, 6 December 2014, <https://medium.com/@trebors/platform-cooperativism-vs-the-sharing-economy-2ea737f1b5ad>.
50. Ivan Illich, *Tools for Conviviality* (New York: Harper & Row, 1973), xxiv.
51. Kim Förster and common room, “A New Framework for an Architecture of Coexistence. Ivan Illich Re-Read,” *Project. A Journal for Architecture*, no.3 (Spring 2014): 14.
52. See, for example, community land trusts, and The Democracy Collaborative, <https://democracycollaborative.org>. Also see: Stavrides, *Common Space*, op. cit. 23.
53. John Stehlin, “Urban Platforms, Rent, and the Digital Built Environment,” *Mediapolis* 4, no.3 (2018), online at: <https://www.mediapolisjournal.com/2018/10/urban-platforms-rent-and-the-digital-built-environment/>.
54. Maroš Krivý, “We Are All Platform Urbanists, But Not All in the Same Way,” *Mediapolis* 4, no.3 (2018), online at: <https://www.mediapolisjournal.com/2018/11/platform-urbanists-not-in-the-same-way/>.
55. Gorny, “A Relational Conception of Living Together / Apart,” 5.