Nomadic Family Homes

Inflecting Typologies to Accommodate the Nomadic Family

by

Brant York
Bachelor of Architectural Science, Ryerson University, 2018

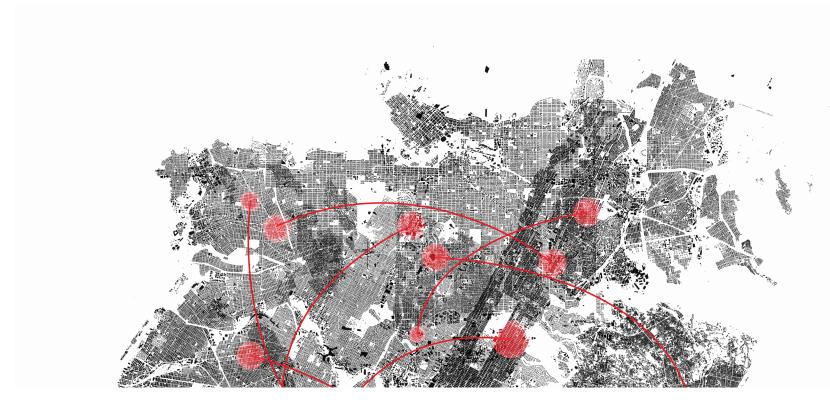
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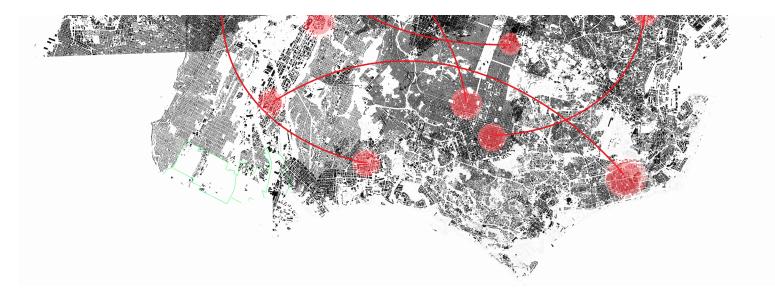
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Faculty Chair: Chris Macdonald Committee Members: Leslie Van Duzer, Judy Arnall

GP1 Instructor: Matthew Soules



NOMADIC FAMILY HOMES



ABSTRACT

Nomads have existed forever, but over time the emergence of family structures and the formats of housing, schools and workplaces that surround them have resulted in communities trapped in an endless monotonous loop of common experiences, often becoming ignorant of their global neighbours and humanity's diversity.

In an effort to escape this status quo, contemporary nomadic families work tirelessly to explore new places and cultures across the globe, while constantly faced with the tremendous challenges associated with traveling with children. The most prominent of these challenges are related to obtaining adequate child education, socialization, and building a sense of community while frequently moving from one destination to another for extended periods of time. Ultimately, families that have been able to withstand the challenges of denying the status quo are rewarded with varied educational, developmental, and experiential advantages.

Today we can see an increase in nomadic families, as schooling and working online becomes more widely available, and our digital connectivity promotes long distance social connections. While these new communication systems have the potential to allow the nomadic family lifestyle to be more accessible, the issue remains that there are no suitable architectural provisions for long term family travel that directly accommodate the needs of this family-oriented demographic.

Nomadic Family Homes proposes a network of exclusive family residences whose intent is to promote a greater sense of community and socialization among the demographic, and to provide the child-specific support currently lacking. Architecturally, the ambition is for these residences to engage the Nomadic Families with the local culture that they are eager to take part in by thoughtfully considering and reflecting the local material fabric, being respectful towards ongoing typological conditions, and refraining from the tendency to provide an inauthentic tourist caricature.

Each of the residences is an experiment to prove the capacity of traditional typologies across the globe to accommodate the nomadic families' unprecedented programme. They individually take into consideration the influences of site, scale, and the ability to retain local influences and culture. While providing Nomadic Families with a supportive housing strategy, collectively this proposal also suggests a broader approach for ongoing architectural intervention that accommodates a mobile and global population.

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DEDICATION

To my family.

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NEO-NOMADISM & MOBILITY

An Introduction

A DEFINITION & INTRODUCTION

I have decided to forego an extensive historical exploration of nomads throughout time, and the architectures they established. For the purposes of this thesis I will assume that it is common knowledge that nomadic lifestyles have always been a part of human life, and that the desire for individuals to move and explore holds a firm and valid foundation throughout history.

As elegantly put by Alverto Perez Gomez in his contribution to *Transportable Environments*; "mobility and contemporary cosmopolitanism only appears new and revolutionary when seen against a civilization obsessed with permanence and predictability...its destiny to dominate....¹

In order to appropriately address the topic of nomadic families, their challenges, and the educational and cultural benefits that these families seek and experience, I must first address the dominant nomadic demographic. There are perhaps several ways to describe this contemporary traveler, although the term *digital nomad* seems to be a popular choice among the young working class

I will use the term neo-nomad and digital nomad interchangeably, and define them as followed:

An individual who utilizes their own labor mobility to pursue a nomadic or temporal lifestyle, often in the pursuit of new experiences, contemplation, and consciously or subconsciously, greater human and cultural understanding.

These neo-nomads embrace temporarily as a strategy of existence to experience new cultures, ideas and perspectives on the realities that surround daily life on earth.

The neo-nomad is an exponentially growing demographic, and it becomes rather obvious to see the appeal of this form of living²; culture, experiences, intellectual and creative stimulation. It's the two week vacation you

dream of every year, but extended to encapsulate your day to day life.

These nomads cling to community to enhance their experiences, in the same way that individuals in towns and cities cling to groups of like-minded individuals. A sense of belonging is developed, and that network of neo-nomads is growing.

The following chapters will discuss the neo-nomad, how this demographic achieves their lifestyle, as well as a brief look into various architectures that have been utilized and developed for this traveling demographic. Once a basic understanding of individual nomadism is achieved, I will shift the conversation to bring attention to the nomadic family module — a similar but quite distinct demographic — and the lack of current support for these families, despite the glaring benefits that come with the nomadic family's needs.

The intention behind this research is to gain an understanding of family nomadism, to provide a foundation upon which a new architectural imagination with which to better accommodate and support the nomadic family unit. This thesis seeks to propose the nomadic family lifestyle not as a niche condition, but as a legitimate and possibly superior approach to living and educating contemporary families, bringing awareness and access to better education and youth development.

"This lifestyle asks to **break traditional categories**, to free itself of all convention and prevention, to seek **multiple supports for reflection** in order to provide the means for understanding and, in turn, **thinking differently**."

"For me, nomadism is to be creative whilst being inspired by 'the other: **other cultures, other people, other nature, other languages, other environments**. Nomadism is a mobility without limits, and at the same time keeping up with all your tasks and duties thanks to an ubiquitous online connection."

"Nomadism is mobility, impermanence, being transient yet able to survive on any means. Adapted to nowadays lifestyle— a modern nomad is an ephemeral node, **part of a larger network**, wandering and **seeking subsequent solutions of creation** and survival."

"The word "nomadism" to me means accumulating more and more visual, spatial, and personal empathy for different parts of the world - what makes them unique, similar, complicated. It also means letting the activity travel and multi-sited living push the edges of my perception and identity."

Figure 1 [Above]: Quotes from Neo-Nomads on their Mobile Lifestyle. Neo Nomad. Accessed November 18, 2020, http://neonomadproject.com/nomadism.html.

^{1.} Kronenburg, R., & Klassen, F. (2008). Transportable environments 3. London: Taylor & Francis. pp.2

^{2.} Ramiro, J. (2019). Nomadism is a reality for 21st-century humans: Roca Gallery. Retrieved October 18, 2020, from http://www.rocagallery.com/the-new-nomads

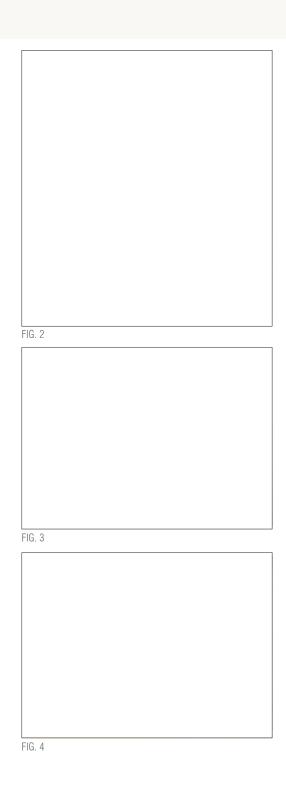
MOBILE LABOR POWER & CAPITALISM

In order to argue the proliferation of the neo-nomad, it is important to understand the current shift in labor power, and its relationship to the economy that allows individuals to seek and achieve mobility.

In the eyes of Marx, Labor Power is "the aggregate of those mental and physical capabilities existing in the physical form, the living personality, of a human being, capabilities which he sets in motion whenever he produces a use-value of any kind". To simplify this, Aureli in his article *Labor and Architecture; Revisiting the Potteries Think-belt* rephrases and clarifies Labor Power as – above all – Potential.²

Labor Power can be "bought and sold just like another commodity" resulting in human life itself becoming the "productive potential"³. In this understanding, knowledge and information, cooperation, and social exchange, all become forms of production and thus produce economic value. To elaborate on this understanding within the context of the capitalist market, Aureli revisits Cedric Price's Pottery Think-belt project, proposing that it now offers "one of the most remarkable vantage points from which to reconsider the way capitalism today has subsumed all of human subjectivity within it's productive logic".⁴

The Think-belt project extended over the area of the Staffordshire Potteries and was "designed to be an infinitely extendable network". The project used radical concepts tied to the existing railway that would transport people between housing and learning areas, but more significantly, the cars themselves would also become teaching and studying units, even while in motion. This university concept comprised of inflatable theaters fold-out desks, and units that could be combined and transferred to various sites, clearly taking on a level of modularity and flexibility as a distinct and pertinent strategy in order to operate. *Its enabled "human"*



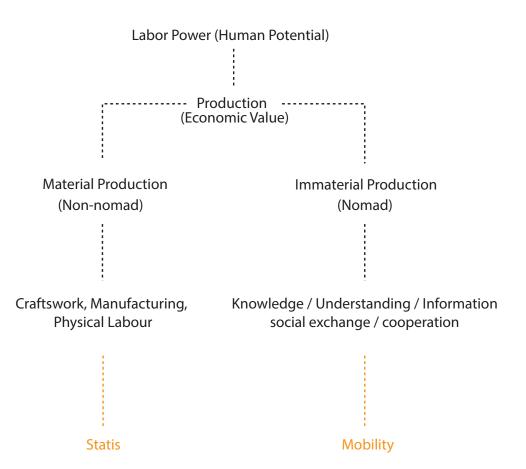


Figure 5 The Two Avenues of Labor Power, created by Author

Figure 2 Cedric Price, Price Potteries Thinkbelt, 1964, Accessed from https://architizer.com/blog/practice/tools/soft-architcture/

Figure 3 Master diagram, between 1963 and 1966. Accessed from https://discoversociety.org/2014/07/01/the-thinkbelt-the-university-that-never-was/

Figure 4 Housing types – crate housing, 1963-1967. Accessed from https://discoversociety.org/2014/07/01/the-thinkbelt-the-university-that-never-was/

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MOBILE LABOR POWER & CAPITALISM

creativity through an environment devoid of usual spatial constraints of traditional architecture".7

One key aspect of this proposal today is that the project essentially suggests economic and political conditions that are now "fully realized" in contemporary society: where labor, creativity, an education have merged and "become the core of the working class's labor power", and the "production of services, information, and knowledge" (immaterial production) have become the focus of first-world economies.8 In essence, Aureli argues that because of the transition to immaterial production (that Cedric Price's pottery think-belt suggests), "every moment of ones daily social existence is an opportunity for production".

It is this condition that capitalism has opted to exploit. The ambitions of man have transitioned to an overtly productive mentality towards living "to the point that life itself has become the substratum of production".9

Yet, neo-nomads have learned that they can take advantage of this transition to immaterial production. With technology as the medium through which we achieve mobile labor power (immaterial production), we also achieve autonomy from place: there is an innate degree of mobility and flexibility ingrained in the labor power of this production method; "advanced communication systems that make immaterial production possible at any time and in any place". 10

It is this mobile production that is the basis of the proliferation of the neo-nomadic demographic in contemporary society, which experts estimate will reach over 1 Billion by 2035, a pre-Covid19 estimate. 11

Even in the continued battle against the pandemic, multiple countries are making it easier for nomadic individuals to move to their countries to work remotely through the development of nomadic visas (a permit to live and work in a foreign country, usually without being subject to that nation's tax laws, and without having to apply for citizenship)¹². Estonia, Barbados, Bermuda, Georgia, Cayman Islands, Anguilla, and Dubai are some

of the countries allowing this visa currently, with more countries working to join. Beyond this, tourist companies have shifted their mentality as well, catering now to mid-to-long term renters, expanding their demographic to remote working populations (digital nomads). One company called NomadX has seen a dramatic growth in bookings as the number of remote workers increases due to the Covid-19 Pandemic, especially at top tech firms like Twitter, Amazon, and Apple. 13 Mobile opportunity is only increasing in a post-Covid world.

TRAVEL SEX ■ FULL TIME ■ PART TIME MALE FEMALE Countries Per Year AGE Residence ■<38 YRS ■>38 YRS ■ 5+ ■ 4-■ Hotel ■ Hostel ■ Other

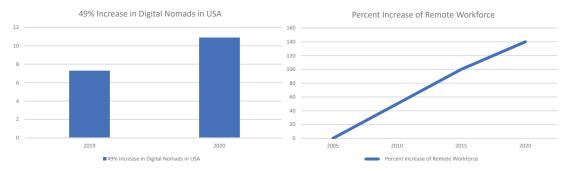


Figure 6 Statistics on Digital Nomads, Graphs created by Author

9. Ibid

^{8.} Aureli, 2011. pp.104

^{11.} Von Zumbusch, J.S.H., Lalicic, L. The role of co-living spaces in digital nomads' well-being. Inf Technol Tourism 22, 439-453 (2020). https://doi.org/10.1007/s40558-020-00182-2

^{12.} Kucheran, Kashlee, November 1, November 25, and November 26. "Countries with Digital Nomad Visas: The Complete List." Travel Off Path, November 5, 2020. https://www.traveloffpath.com/countries-with-digital-

^{13,} Turner, A. (2020, September 25). The rise of the 'half-tourist' who combines work with a change of scene. Retrieved October 18, 2020, from https://www.theguardian.com/travel/2020/sep/25/the-rise-of-the-half-touristwho-combines-work-with-a-change-of-scene

¹ Aureli Pier Vittorio "Labor and Architecture: Revisiting Cedric Price's Potteries Thinkhelt" Log. no. 23 (2011): no.100

^{2.} Aureli, 2011. pp. 100

^{5.} Bevin Cline and Tina di Carlo, in Terence Riley, ed., The Changing of the Avant-Garde: Visionary Architectural Drawings from the Howard Gilman Collection, New York: The Museum of Modern Art, 2002, p. 58. 6. Cline & di Carlo, 2002-

^{7.} Aureli, 2011. pp.103

DIGITIZATION OF SELF & HOME

Self

It has long been theorized that our perception of 'self' has a significantly relationship to the objects that we surround ourselves with. 1 Russel W Belk posited that "knowingly or unknowingly, intentionally or unintentionally, we regard our possessions as parts of ourselves" and that these possessions "are a major contributor to and reflection of our Identities". 2 It is believed that what makes these objects significant to our sense of self are the memories and emotions that these objects cue.

In today's culture, consumerism takes advantage of this affect, and capitalizes on our attachment to objects, resulting in an accumulation of objects that further contributes to static living styles. This has caused a reality where - for most individuals - frequently moving becomes too difficult and undesirable; too much memory is attached to each physical objects or place to leave them behind.

Early contemporary nomads - in comparison to the average individual - have largely been individuals who see little value in consumer culture and are able to maintain a sense of self and home without attaching to large quantities of objects.

Today, however, we see a significant shift that puts the average individual in a position more similar to the nomad; the physical objects that we attach to are now becoming overwhelmingly digital.

"Many technological changes have dramatically affected the way we consume, present ourselves, and

These digital attachments are inherently mobile in nature, and as a result, the nomadic lifestyle is now more accessible to the general masses. They can bring their digital attachments with them to any location, and so the level of detachment required of the individual diminishes significantly. Mobile digital objects and mobile relationships have liberated the contemporary person

to be able to choose a life of mobility and diversity, a lifestyle previously difficult to grasp without these aids of contemporary technology.

"Digital space is embedded in the larger societal, cultural, subjective, economic, imaginary structures of lived experience and the systems within which we exist and operate"4

Certain elements about our extended self are even arguably expanded beyond what was possible historically. For instance, ever since the advent of social media, human participation in sharing – a communal and social act — has exploded in contemporary culture. We have new means of creating community, of accessing other people thoughts and ideas, of sharing creativity, imagination, and individuality. These social networks not only give a better sense of our aggregated self, but are now seen as important "sites of psychological development, especially between adolescence and adulthood"5

"Self-transcendent possibilities are magnified in the digital world...Just as our family photo albums were selective representations of happy times, new possession, and smiling people on celebratory occasions, so are our online memory repositories."6

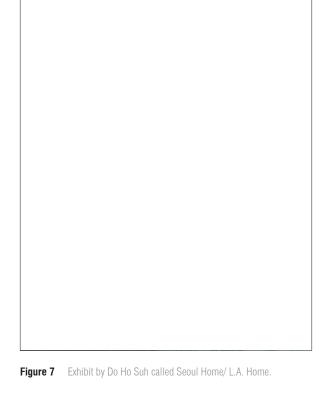
Home

In the same way that Neo-nomads can retain and develop their self of self through these digital mediums, so do they challenge the idea of home as being attached to an architecture or location. They derive both their identity and their sense of belonging and home from immaterial entities; memory, emotion, and community.

"Home compacts into 'the feeling of home' and scatters in multiple containers. [they] cling to what is necessary, containers that enable that connection"7

Yasmine Abby discusses the concept of "containers" as a method of describing the various ways in which people can attach and detach from "the feeling of home"8. This can be most obviously understood through the Internet, allowing us to connect with friends, family, and communities at any given moment, and in a myriad of ways (video, text, email, etc). One container may be your phone or laptop, another a recipe of your mothers', or simply an image that holds memory, allowing one to "feel at home" in a multiplicity of locations.9 Entities that enable one to feel an emotion that they identify with "home" are thus the means by which neo-nomads can retain notions of familiarity and identity despite their constantly changing environments.

Neo-Nomads take advantage of technology to free themselves from physical attachments and limitations, and thus can begin a search of something more meaningful.



This exhibit was an exploration of bringing a sense of place to different spaces. Fabric was chosen as it can be easily carried and moved around: "the experience was about transporting space from one place to another". The artist of this exhibit was specifically interested in understanding one's perception of home and believed that "home is something you can indefinitely repeat". 10

This immediately assumes that the home is not a static entity, and thereby one might ascertain that the contemporary and capitalist predisposition to ownership has perpetuated an inaccurate understanding of home, as something static to place, when in reality, home can hold a far less material reality, if any at all.

In the same way that the artist chose the fabric due to its capacity to told and easily pack for travel, the neo-nomad "packs" their sense of home into a digital cloud, accessible from anywhere with an Internet connection.

^{1.} Belk, W. Russell. (1988). "Possessions and the Extended Self" Journal of Consumer Research Vol. 15. pp.139-166

^{2.} Belk, 1988. pp.139

^{3.} Belk, W Russell (2013) "Extended Self in a Digital World". Journal of Consumer Research, Vol 40, No.3. pp.477

^{4.} Sassen, S. (2003). Reading the City in a Global Digital Age. Retrieved October 18, 2020, from https://revista.drclas.harvard.edu/book/reading-city-global-digital-age
5. Steinfield, Charles, Nicole B. Ellison, and Cliff Lampe. "Social Capital, Self-Esteem, and Use of Online Social Network Sites: A Longitudinal Analysis." Journal of Applied Developmental Psychology 29, no. 6 (2008):

^{6.} Belk, W Russell (2013) "Extended Self in a Digital World". Journal of Consumer Research, Vol 40, No.3. pp.490

^{7,} Abbas, Y. (2006), Neo-nomads; Designing environments for living in the age of mental, physical and digital mobilities (Unpublished doctoral dissertation), Harvard University, pp. 105

^{10.} Do Ho Suh, seoul Home/L.A. home – Korea and Displacement. Art21.org, 2003

FIG. 7: Do Ho Suh, seoul Home/L.A. home - Korea and Displacement. Art21.org, 2003

SELF & HOME local community relationships memory & emotion & culture static objects possessions consumerism

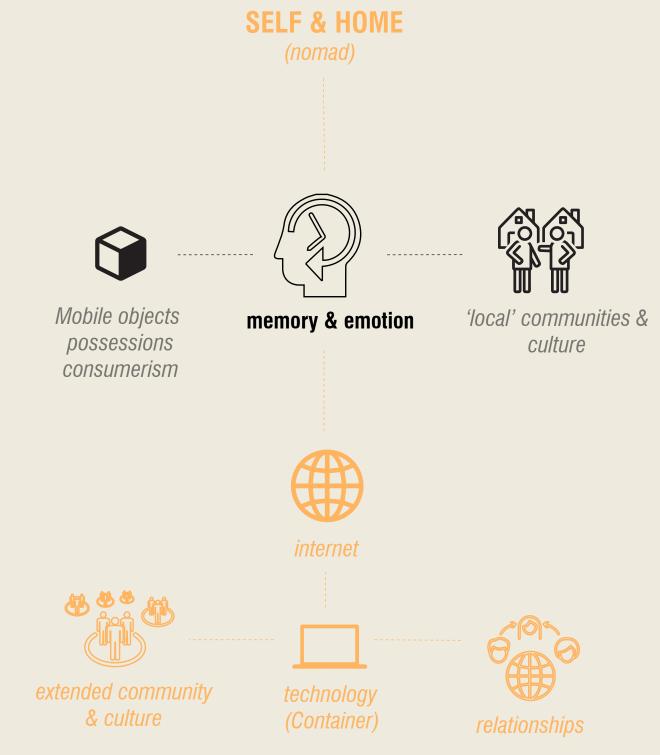


Figure 8 Interpreting Notions of Self and Home, created by Author

EXISTING ARCHITECTURES & CONCEPTS FOR THE NEO-NOMAD

Given the growing trend in nomadic lifestyles described in the previous chapter, it comes to no surprise that architecture has caught on to this demographic and its needs.

Co-Working Spaces

Perhaps the most obvious example of nomadic-friendly program is the recent proliferation of co-working spaces. While these are not specifically geared towards a traveling wonderer, or nomad, they are popular among the demographic as a reliable and useful space where they can have access to the tools and equipment needed for immaterial production (to do their job). These shared spaces also work to "facilitate innovation and human connections" that "contribute to the digital nomad's overall well-being".1

In some ways, these spaces reflect a form of Agora, a space where a variety of people with different perspectives and backgrounds might socialize and connect to influence one another. What is important to remember, is that a clear boundary between work and leisure is essential for digital nomads' well-being.²

In addition to co-working spaces, co-living spaces are now actively marketing themselves as the perfect accommodation for neo-nomads, as a way of combating the isolation loneliness that this demographic often feels.³ The challenge with these more traditional co-living spaces for many nomads are that they lack a decent structure for short-mid term lease lengths, and often don't include co-working spaces in-house or nearby.

1.von Zumbusch, J.S.H., Lalicic, L. The role of co-living spaces in digital nomads' well-being. Inf Technol Tourism 22, 439–453 (2020). https://doi.org/10.1007/s40558-020-00182-2 2.lbid 3.lbid



Figure 10 WeWork Carioca Torre Almirante in Rio de Janeiro. Photographs by The We Company. Accessed by https://www.wework.com/ideas/city-guides/the-best-coworking-spaces-in-rio-de-janeiro

Tinyhouse

The TinyHouse on wheels is a more direct architectural model geared towards people who do not wish to live permanently, but still enjoy the luxuries of owning a home. Tiny-homes have become an affordable method of living, and provides the possibility of blending the neo-nomadic mentality with the consumerist object-dependent individual. While it is often seen as a new version of trailer living, Tiny homes are less "vehicles equipped with amenities of a residence" and more-so "homes equipped with tools that enable their mobility"¹.

Due to size limitations, it is uncommon for even these architectures to be occupied by more than a single individual or couple (the most common demographics are digital nomads or unmarried older women), and the majority of these Tiny-homes on wheels move rather infrequently, perhaps a few times in its life-time, unless designed for more frequent travel. However, their adaptability allows them to be incorporated in a variety of contexts. One main downside is that these architectures are not yet welcome in the urban core, and find themselves limited to suburban and rural environments, under strict certifications and laws.²

"Architecture on wheels, or "mobitecture" as it has been dubbed, is another typology that emerged from the desire to adventure off-grid into the great unknown...these tiny homes foster social interaction between people and create a sense of solitude with their surrounding environment"



Moreira, S. (2020, September 18). Tiny Houses on Wheels: Flexibility and Mobility in Small Scale Architecture. Retrieved October 18, 2020, from https://www.archdaily.com/947663/tiny-houses-on-wheels-flexibility-and-mobility-in-small-scale-architecture?ad_source=search

Overstreet, K. (2020, May 15). Nomadic Architecture: A New Way Of Living on the Go. Retrieved October 18, 2020, from https://www.archdaily.com/939292/nomadic-architecture-a-new-way-of-living-on-the-go

Figure 11 Westwind Tinyhouse, Designed & Photographed by Author.

Tricycle House

While not a true architectural typology per-say, this project was completed as a representation of how mobility and ownership in the urban core might be imagined in a new way. While it is unlikely that a neo-nomad would choose to live in one of these tricycle homes, or that they should even be considered be a reasonable solution, it bodes as a unique critique of both housing availability, and the degree to which mobility is a desirable and achievable reality.

Its also a unique example of an architectural strategy of transforming spaces, being able to accommodate a variety of programs in one space, which might be a useful strategy when discussing solutions for a typology geared towards a transient and fluctuating demographic.

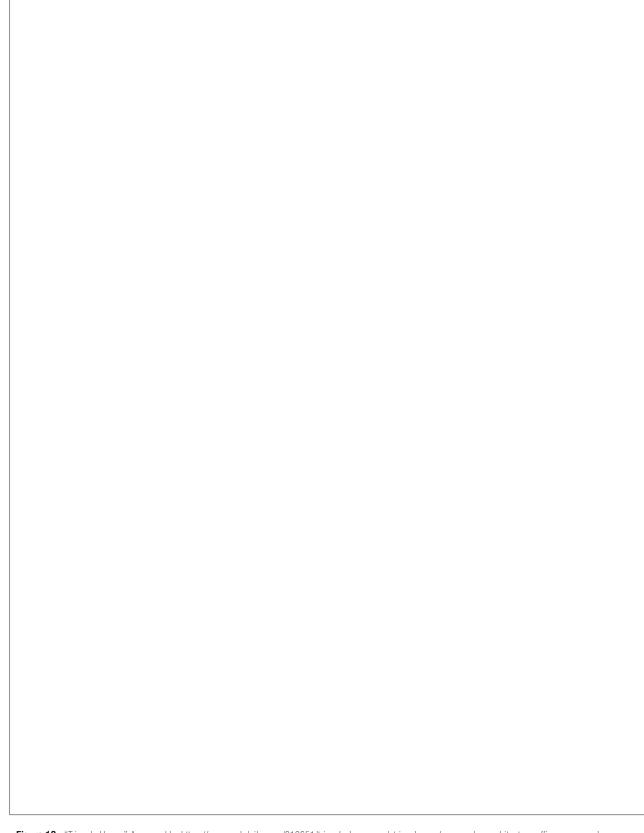


Figure 12 "Tricycle House" Accessed by https://www.archdaily.com/312651/tricycle-house-and-tricycle-garden-peoples-architecture-office-pao-peoples-industrial-design-office-pido

Figure 13 Furniture Assemblies. Accessed by https://www.designboom.com/design/tricycle-house-and-garden-by-peoples-architecture-office/

^{1.} Furuto, A. (2012, December 27). Tricycle House and Tricycle Garden / People's Architecture Office (PAO) + People's Industrial Design Office (PIDO). Retrieved October 18, 2020, from https://www.archdaily.com/312651/tricycle-house-and-tricycle-garden-peoples-architecture-office-pao-peoples-industrial-design-office-pido

Co-op Zimmer

Removed from conceptions of property (anticonsumerism), the minimal style of Co-op Zimmer is driven by necessity. The idea is that it reflect a conscious choice by the inhabitant to live this way; to be liberated from oppressive (or perhaps controlling) forces of property and objects, and instead re-frame the place of dwelling to be "the office, the club, [or] the street". Meyer actually proposed this form of living as a solution to an increasingly mobile population, and so it is unsurprising that it fits rather seamlessly with the lifestyle of a neo-nomad. These spaces inherently make clear that "permanent occupation is impossible", and that the real value comes from experiencing the outside world, not your residence.

Now, whether or not this concept in its extreme is actually a marketable and realistic proposal is debatable, but the notions of temporality that the space embodies is something to consider when considering a mobile demographic, and attempting to find a fine balance for temporal livability.

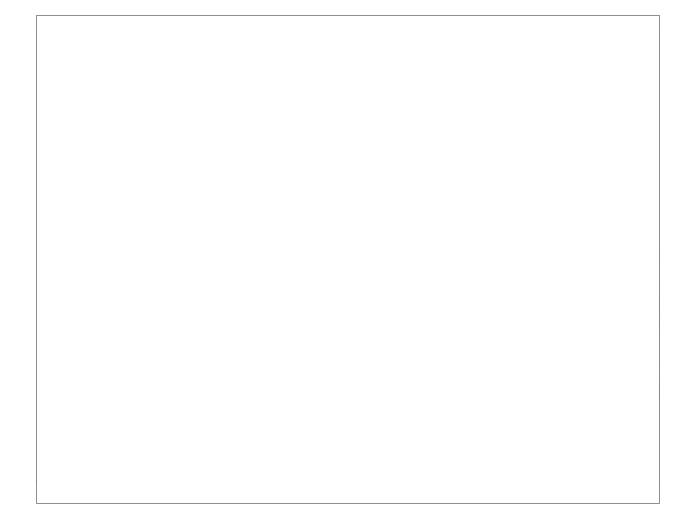


Figure 14 Sparsely furnished interior composed by Hannes Meyer. Image courtesy of Galerie Berinson, Berlin. Access by https://www.architectural-review.com/essays/soft-cell-the-minimum-dwelling

1. Aureli, Pier Vittorio. (2013) The Theology of Tabula Rasa: Walter Benjamin and Architecture in The Age of Precarity . Log, No 27 pp.111-127. Anyone Corporation

Co-Living & Selina.com

This precedent is by far the most compelling and relevant existing architectural strategy towards neonomads. While it is predominately fixated on tropical, vacation-like locations, Selina.com is one of a handful of organizations that specifically create spaces designed for the neo-nomad. Short term stays, access to work spaces, communal kitchens, lounges and recreation. They gear their architectures - which to date includes 60 buildings internationally - towards a mobile and technologically liberated demographic. It becomes a relatively affordable means of living for these nomads, as they are fitted with everything they might need to work digitally, and offer a range of price points based on desired living standards (hostel-like communal rooms vs private bedrooms).

This company, and a few others like it, are embracing a form of living that I would argue is not only becoming more popular, but offers substantial new benefits to ones life; *Subscription Living*.

Figure 15 Selina.com Nomad Locations, Accessed by https://www.selina.com/.

^{1. &}quot;Selina." Accessed December 11, 2020. https://www.selina.com/.

SUBSCRIPTION LIVING MODEL

Selina.com is a significant precedent, not only because it directly seeks to accommodate the neo-nomad, but because it insinuates a different type of living model. As the world continues to develop into an ever-increasing digital humanity, mobility and opportunity (and therefore the neo-nomadic demographic) will only continue to increase. This I would argue, combined with the increasingly impossible and unfordable housing market, will likely create an international network of "subscription style" living buildings.

Subscription living would be a form of short-term renting that could (and should) be international in nature; a housing model that welcomes diversity, community, unique encounters and explorations.

The idea of home as a singular entity or location will continue to diminish, traded for the understanding of home being simply a feeling. This subscription network of places that we could have constant and unlimited access to would afford home to be in a myriad of locations, fluctuating as we move from place to place and experience to experience.

From January till April you may live in Paris, wine with locals, learn some French, befriend the local cafe barista. From May to August you may reside in Seattle, and see the California coast. The remainder of the year you might spend in New-Zealand climbing mountains and seeing vast beautiful landscapes. You may even run into friends along the way, accidentally or on purpose, from previous encounters in different cities.

All of this would be made possible by a series of architectures that accommodate temporary residents, accommodating their living and working needs, and enabling them to experience more of the world than they could have ever imagined. The best part is that technology could be so ingrained into the system that dealing with bookings, new keys or codes, or other annoying and time-consuming activities could simply be streamlined into a single subscription system. Perhaps it becomes a single subscription to multiple architectures, or multiple subscriptions to different networks of architectures owned

by a corporation or individual, or co-op. Regardless of who owns it, or how the subscription services function, the reality of this form of living only seems to becoming more and more feasible and desirable among young (digitally affluent) individuals. Freedom to explore culture, landscapes, and begin to gain an understanding of humanity that far exceeds the biased perspectives of isolated communities.

With this form of living and the continual advances in transportation and digital technologies, one can begin to see how the concept of distance becomes significantly less daunting or concerning to the modern digital individual. Frequently transitioning from location to location could be understood as common practice, as the appeals of static living begin to be replaced with the appeals and benefits of travel.

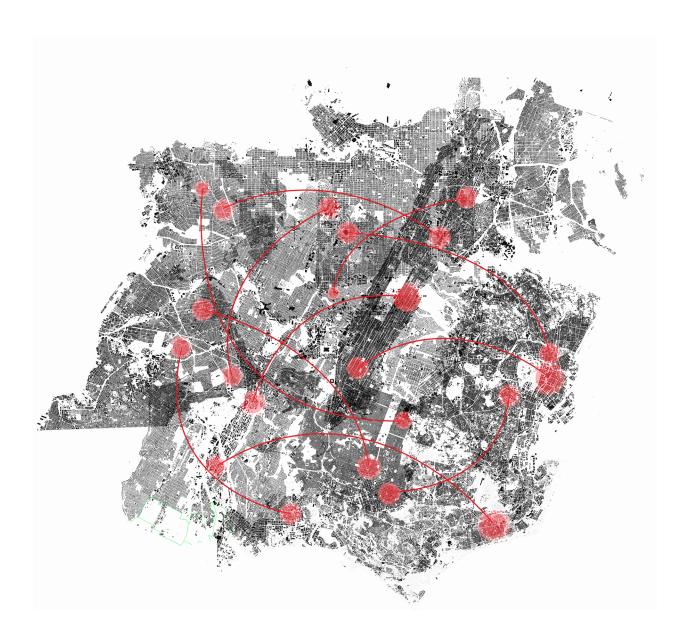


Figure 16 Urban Fabric Pangaea. Illustration by Author

The perceived distance of potential habitats continues to decrease as our digital and physical connective networks allow more immediate transitions between places, and our social relationships blur between the physical and digital.

2
NOMADIC FAMILY

IDENTIFYING AN ARCHITECTURAL GAP

The down-sizing architectures (Tinyhouse & Tricycle house) and the digital-nomad architectures (Selina.com) seem to target the working class individual, or at best a couple. Each of these precedents do an acceptable job of addressing the digital nomad, providing single or shared rooms, working spaces, and recreational opportunities like bars and pools. Yet, none of these architectures significantly address one nomadic demographic; the family unit. The nomadic family is also a growing demographic, and they have significantly unique needs, wants and opportunities that are quite different from the individual neo-nomad.

While there are those who would argue that the family unit is not the 'type' of demographic that would - or wants - to be nomadic, the reality is that not only does this demographic exist in full force today, but as the digital generation ages, and as they begin to have families of their own, would it not be valuable and significant to permit the same level of mobility to this demographic as they transition from individual nomads to families?

Of course a whole new set of challenges arise when traveling as a family, and while beyond our current status quo, there are significant psychological, educational, and developmental advantages for these nomadic families as a result.

The next chapters will highlight the nomadic family community and their needs, the challenges they face, and the rewards that they reap from embracing a world outside the status quo.

	HOTEL			8			Selina	NFH
	HOTEL	AIR BNB	HOSTEL	COUCHSURF	TINYHOUSE	RV	SELINA.COM	NFT
COWORK SPACES								
GROUP & PRIVATE KITCHENS								
COMPREHENSIVE CHILD SUPPORT								
FAMILY ORIENTED UNITS								
EASY BOOKING								
RELIABLE RATES								
COMMUNITY FOCUS								
CHILD -CHILD SOCIALIZATION								
REASONABLE STAY LENGTHS								
DEDICATED CHILDREN ZONES								
STUDY/LEARNING PROGRAM/SPACES								
CHILD CARE RENTALS								
CLINIC AND PHARMACY PLANS								

Figure 17 Comparing Housing Options for Nomadic Families in relation to their Needs. Created by Author

A COMMUNITY

As we continue to transition to a growing mobile world, there will be more young travelers starting their own families. Even today, nomadic family retreats have become more prevalent, and are a great source to begin to understand the needs of this demographic. One company called "Unsettled" recently hosted a family work retreat and spoke with the parents about the logistics of the retreat. Immediately one can begin to see the unique needs that a traveling family would need that is unique from the individual: they mentioned baby carriers and cribs, babysitters and teachers, homeschooling and other logistics that no architectural typology has yet to accommodate.1

Besides the practical logistics, these families also showed incredible interest in the idea of community. A community of nomadic families that can share in the adventure and the struggles that comes with traveling.

Hotels, Airbnb, Hostels, you name it: none of these solutions offer a sense of community, none of them are inclusive enough to support a nomadic family and their children, nor make this lifestyle more accessible to the greater public. This is really where the a Nomadic-Family Housing strategy comes into play.

What can we learn from these nomadic families, and how might an architecture contribute and facilitate their lifestyle to its fullest potential?

Community is an excellent place to start, and by simply suggesting an exclusive nomadic-family housing strategy immediately implies bringing these families together into an architecture where a multitude of opportunities to foster community and engagement can be implemented. If a strategy is to be developed for the family module, it would do best to follow the subscription-style method of living, becoming a network - a global community - of nomadic family architectures that connect to one another as a single accessible platform.

"We travel a lot and work from all over the world. Traveling with a kid is a whole new beast for us. Sharing that with other nomadic families, coming together as a community, it's critical for us and our kid."2

"I'm looking for a safe space, where I can travel, come and go, and come back to the same group of people, "3

1. Nerenberg, Jenara. "Unsettled Is Making It Possible For Families To Be Digital Nomads, Too." Fast Company, Fast Company, January 10, 2017. https://www.fastcompany.com/3060898/unsettled-is-making-it-possible-

^{2.} Nerenberg, Jenara, 2017

NOMADIC FAMILY CHALLENGES

There are significant barriers when it comes to family travel that current architectures have yet to attempt to address, and is likely why many family's never even consider the nomadic life to be a reasonable choice for them and their kids. Regardless of that, some families take on the challenge, and reap the incredible rewards.

What nomadic-family housing could offer, however, is the ability to make this lifestyle more accessible to the world, and give more families the opportunity to reap those same rewards. Especially if done so within the context of an international subscription-style network, these residences could be a game changer in how families choose to raise their children - out in the world, and not in the stuffy classroom and monotonous suburban expanse.

Throughout my research one of the more fruitful locations to obtain information about family-nomad life was though blogs written by those living as a nomadic family. From those blogs I compiled a list of challenges that some of the writers noted. I have then diagrammed out these various struggles, and posited initial architectural or programmatic ideas that — while simple — could make the world of a difference if made available in a single architectural approach.

Some of the challenges however are more significant than others, and deserve slightly more detailed discussions; the education of their children, the development and health of their children, and the socialization of their children.

THE EDUCATION OF THEIR CHILDREN



SOCIALIZATION & COMMUNITY



AFFECTS ON CHILD DEVELOPMENT



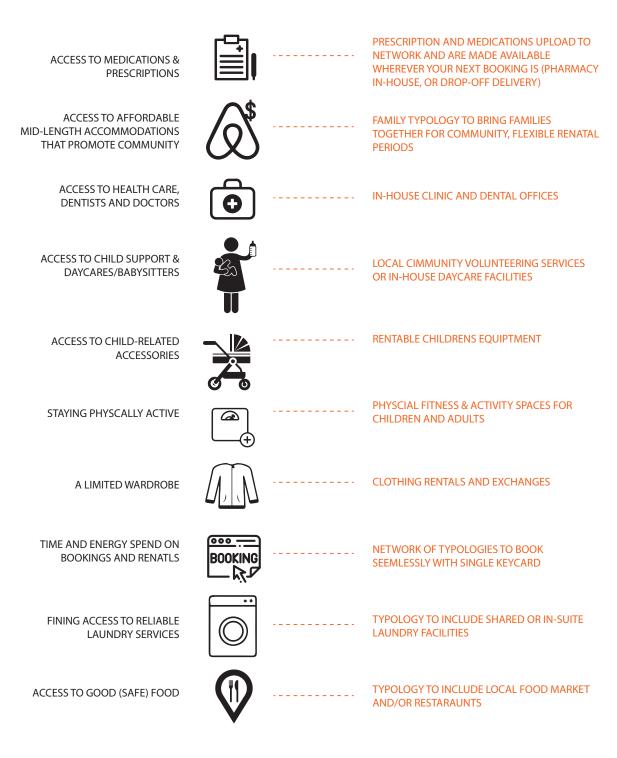


Figure 18 Common Challenges of Extended Family Travel, Illustration by Author

EDUCATION & SOCIALIZATION

When talking about education for nomadic children, and in an effort to further justify the nomadic family lifestyle, there are two main elements to discuss: the failures of current standardized education, and the alternative forms embraced by nomadic families that actually might be giving them an advantageous edge.

Remembering the Think-belt project, their was real interest in the idea that by removing constraints, the result will produce greater human creativity, a key component to learning.

Sir Ken Robinson, a New York times best selling author, leader of international projects on creative and cultural education, and most watched speaker in TED Talks history, speaks compellingly about American educational systems failures - due to authoritarian constraints - and describes alternative strategies towards education that are likely — and have been proven — so better support youth learning and engagement.

In an enlightening and comprehensive TEDtalk on education in 2013, Sir Robinson describes the downfalls of the American educational system — a system that sees 60% drop out rates in numerous states across the nation due to its inability to properly engage students. He implies that any success of students in American education is actually in spite of the overly prescriptive education culture, rather than because of it. He describes education as a human activity, and therefore needs to be more comprehensive in engaging students in a much broader capacity. To summarize his analysis, I've broken his main points into two categories that education culture needs to consider.

1. Human Beings are Naturally Different and Diverse.

American education is currently based on conformity, and instead needs to be focused on diversity. Both the diversity of people as well as diversity of education. The arts, humanities, physical education, all should be

held to the same standard of importance as the STEM programs. He insists that children will — and do — thrive best in a broad curriculum that celebrates their various talents, not just a small range of them. A system that gives them choices and options to pursue what interests them, not only what the government deems "important".

2.Human Curiosity and Creativity

"If you can light the spark of curiosity, they will learn without any further assistance".2

The reason children thrive in some subjects over others has little to do with their intelligence, and all to do with their interests. Curiosity leads to achievement, and so if a student is not curious or engaged – on a personal level – with a subject or topic, there is little one can do to change that. The issue he describes is that in place of curiosity, American education has developed a culture of compliance. "Children and teachers are encouraged to follow routine algorithms rather than excite that power of imagination and curiosity".3

Currently, educational culture is based on standardization. Testing does not engage them. It does not encourage curiosity or creativity. If the system is designed to achieve learning, then the system has to engage the student, not control them. It needs to spark their curiosity, their creativity, their individuality. "that's how you get them to learn". ⁴

"The real role of leadership in education is not and should not be command and control, the real role of leadership is climate control – creating a climate of possibility."⁵

It is perhaps unsurprising to learn that nomadic families choose an educational strategy that is in alignment

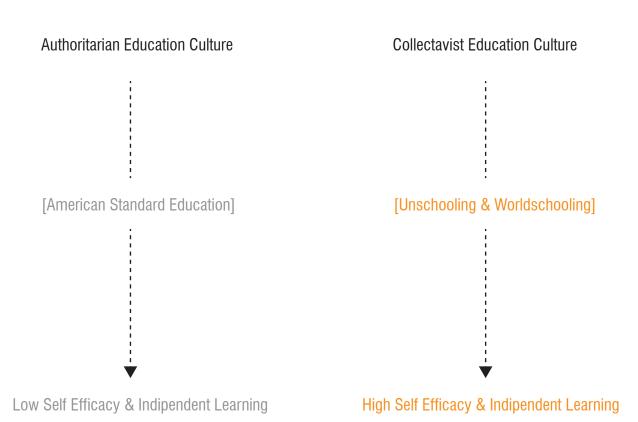


Figure 19 Educational Cultures & Affects on Student & Motivation and Independent Learning Skills as described by Albet Bandura. Digram by Author

with the main elements described by Sir Robinson. Along with their "alternative" lifestyle, they are open to and rely on "alternative" educational methods; ones that according to Ken Robinson — and various other educational professionals — should be more widely adopted and embraced, as they have proven to result in significantly more advantageous learning outcomes.

A common method of education for nomadic families is through a method called Unschooling, and/or Worldschooling. While Sir Robinson does not address these teaching methods directly, both methods approach education on a more experiential level and seek to promote education by following the interests of the child (child-lead learning), seeking to engage them on a personal level, through real-world experiences. Of course, the basics of math and language are worked into the methodology, but are done so on an individual basis, and their own speed⁶ (which more often than not is results in faster and more effective learning than standard school programs, which often play to the lowest denominator).

World-schooling specifically ties travel into the mix as the main medium through which the children learn. One does not, however, need to unschool in order to world-school, as many home-schooled parents have approached their homeschooling (which includes textbooks and workbooks) from a world-schooling methodology. Yet, it is clear that travel and unschooling are quite naturally symbiotic, and only enhance the outcome of the other.

In a comprehensive report regarding the challenges and benefits of unschooling, Peter Gray and Gina Riley convincingly establish Unschooling as a legitimate educational method, one with a sort of collectivist culture that closely resembles the culture described by Sir Ken Robinson.

With a survey of over 250 parents who chose to remove their children from the standardized education and embrace unschooling, challenges and benefits are brought forward that may become useful in justifying and establishing a family-nomadic architecture that might help mitigate the challenges of unschooling, while enhancing the benefits.

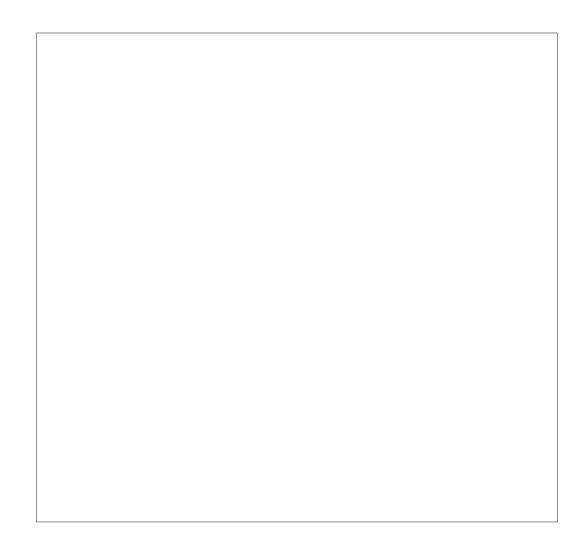
The benefits described in the survey are identical to sentiments described by Sir Robinson. Parents are perceiving their children as learning more efficiently, and more eagerly. They are learning more life-relevant material, and can spend more time in the real world, learning real life skills, conversing with people of all ages. A large portion of the respondents also felt that unschooling gave their children social and emotional advantages as well, describing them as more confident, happier, less stressed, and more socially outgoing than when they were enrolled in standardized education. Parents described that their personal relationships with their children and between siblings had grown significantly since embracing unschooling.

"The respondents felt that their children had a social advantage, not disadvantage, because they were regularly in contact with individuals of all ages and from different backgrounds, in the larger community as well as at home...The reported benefits included, for the children, improved learning, improved attitudes about learning, and improved social and emotional wellbeing; and, for the whole family, greater closeness, harmony, and freedom."

As with any education method, there are also challenges. Without even considering the travel aspect, unschooling parents described these five entities as the main challenges they face with unschooling:

1. Feelings of Social Pressure or Criticism Concerning the Decision to Unschool¹⁰

Many unschoolers met the challenge partly by forming in-person and online communities, conferences, and conventions to provide one another with social support



Estonian neuroscientist and psychobiologist (who coined the term "affective neuroscience", the name for the field that studies the neural mechanisms of emotion) explains the behavioral profile of emotions to embody seeking, rage, fear, lust, care, panic, and play. One of these elements - Play - is vital for social skills, bonding and boundaries. But Seeking - a foundational element of travel - produces enthusiasm. According to the John Hopkins school of medicine, a significant symptom of depression is diminished or lacking emotional enthusiasm. Panskepp thus believed that by stimulating our seeking system, there would be significant improvements in mental health, and potentially prevent depression.¹⁵

Figure 20 Jaak Panskepp "Science of Emotion", Retrieved from http://www.stacoscimus.com/panksepps-affective-neuroscience/

as well as information. This is an indication that the desire for community is strong, and a housing approach that can encourage and promote community of nomadic families that engage with unschooling practices could be a key element to not only promoting unschooling as a legitimate educational system, but support the larger nomadic community in one of their most crucial elements; the education of their children.

2. Difficulty on the part of one or both parents in ridding themselves of their own culturally-ingrained beliefs about the value of school or curriculum¹¹

This could become an opportunity for an architecture to promote an education style that is more responsive to its students. By offering unschooling opportunities through an architectural program, it may bring ease and structure to parents. They would gain the assistance they need and want, when they want it. If this strategy could engage more people to live as nomadic families, it could simultaneously encourage better education methods for our youth.

3.Practical Issues Concerning Time, Career, and Income¹²

By offering unschooling support in the nomadic family housing strategy, children could be engaged without the constant oversight of a parent. This would give the nomadic parents more time focus on their career and income — the elements allowing their experiences and travel to occur – and allow unschooling professionals to handle a portion of their child's educational experiences (some, not all). This would also be an excellent mentoring opportunity, as the teachers could engage with the parents to help them make the most of their child's unschooling or world schooling experiences.

4.Difficulty Arranging Opportunities for Their Children to Socialize with Others¹³

This is perhaps one of the most obvious advantages to a nomadic family housing strategy; the demographic of the building being all nomadic families would provide ample opportunities for children to engage with other children — of similar age or not. Spaces for safe socialization with other traveling children would allow for the development of the community that these traveling families so clearly desire.

5.Legal Issues Associated with Unschooling¹⁴

As with all things, when something becomes popular, the world follows. An architecture that supports these families, and can make this lifestyle more accessible to the average family, would only promote countries and governments to critically re-consider the state of their education systems and legalities, perhaps leading to better defined nomadic educations, or ideally more acceptance of unschooling and world-schooling as legitimate and preferential educational styles. Having said this, Unschooling and World-schooling do not negate an individuals ability to enter universities. In fact, most unschooling and world-schooling students score higher on their SAT's than students from standardized education.

These educational methods assist nomadic families in embracing their travel lifestyle, and combining these education methods with real-world experiences and travel, the opportunities for learning and socializing are virtually limitless.

"Travel is fatal to prejudice, bigotry, and narrow-mindedness, and many of our people need it sorely on these accounts. Broad, wholesome, charitable views of men and things cannot be acquired by vegetating in one little corner of the earth all one's lifetime."

- Mark Twain

"The best part of this survey is that regardless of ethnicity, family income, age and gender, travel's benefits to education and future success are universal,"

- Roger Dow, president and CEO of the U.S. Travel Association.

^{1-5.} Robinson, Ken. "How to Escape Education's Death Valley." TED Talks. Lecture presented at the TED Conference , May 2013. https://www.naturalchild.org/videos/ted_ken_robinson3. html?/fbclid=lwAR01bWWNcbW0hqQ7gGlG2ChomuschAtF GuM9qDbiRGtdlpAnh8mJOmSjNc.

^{6.} Judy Arnall, BA. Unschooling International, April 4, 2017. https://unschoolinginternational.org/.

^{10. 30}dy Arman, D.K. Onsordoning international, April 4, 2017. https://onsordoninginternational.org/.
7-14. Gray, Peter, and Gina Riley. "The Challenges and Benefits of Unschooling, According to 232 Families Who Have Chosen That Route1 By: Peter GRAY & Gina RILEY." Journal of Unschooling and Alternative Learning.
7-10. 14 (2013)

^{15.} Panayotova, Liya. "Are Digital Nomad Parents Robbing Kids of a 'Real' Childhood?" SheKnows, September 21, 2018. https://www.sheknows.com/parenting/articles/1141237/digital-nomad-families/.

DEVELOPMENTAL ADVANTAGES TO TRAVEL & CULTURAL DIVERSITY

Recent studies around the benefits of travel have virtually unanimously indicated that having the opportunity to experience various places and cultures has dominantly positive impacts on developing youth.

Below are some of the highlighted advantages to traveling at a young age - this includes extended family travel, shorter family vacations, as well as study-abroad opportunities.

- It has a positive and lasting impact on young peoples for their future careers, political involvement and goal orientation.¹
- Benefits young people's confidence and selfsufficiency.²
- Benefits their cultural awareness acceptance, and adaptability.³
- Some studies indicate that young travelers tend to be more outgoing and open-minded.⁴
- It teaches new responsibilities (packing your own luggage, making decisions on what is important, etc).⁵
- Strengthens the family unit by enhancing bonds through shared experiences developing and collecting memories rather than collecting objects.⁶
- Studies show that it even boosts school grades, and well-traveled young people have a higher ambition to pursue post-secondary and succeed in their careers.⁷
- Provides unique opportunities to practice Tolerance and Acceptance.⁸
- Travel promotes incredible Socialization; allows them to connect with people of all ages, nationalities, cultures - all that will enrich their understanding of life 9
- Provides opportunity to learn Self-Reliance and resilience, and to combat boredom.¹⁰

- By grouping kids with other children in similar age groupings, it aids in their development even if they don't speak the same language.¹¹
- While new experiences may provoke anxiety, these become opportunities for "transformative Learning" where one's assumptions and beliefs are challenged. Transformative Learning can be emotionally exhausting but by traveling with the family unit, the family acts as an emotional buffer and stabilizer for children.¹²

One of the main components of travel is experiencing various cultures. This alone has significant developmental advantages for children, and is complimentary to the ideology of unschooling and world-schooling. Research indicates that children that are exposed to culturally diverse and responsive educational or social experiences increases their awareness and appreciation of diverse beliefs and cultures. Children even as young as 2-3 years old are absorbing cultural information, and begin to "take on socially prevailing ideas, feelings, and stereotypes about people and themselves". 13 By creating access to environments where young children interact with various age groups, communities, medias, etc, we inevitably shape their perception of others. Children as young as 3-5 have already developed racial biases, and children as young as 2 years old use racial categories to reason out peoples behaviours. 14 The issue is that too often children are not exposed to a large enough diverse range of cultures and people that they end up developing inaccurate biases, and wrong or hurtful stereotypes. Unschooling, and the nomadic traveling lifestyle, offer opportunity to have guestions about culture, race, beliefs, and more, to be not only answered but experienced, reducing the chances of children developing stereotypes and biases towards or against various cultures.

"I think that my kids have a broader outlook than they did before we left, and I think that they have learned a few lessons in gratitude by seeing how some people in the developing world live. Perhaps most importantly, I think my kids have become more resourceful, and there are intangible benefits to being trilingual and comfortable in several cultures." ¹⁵

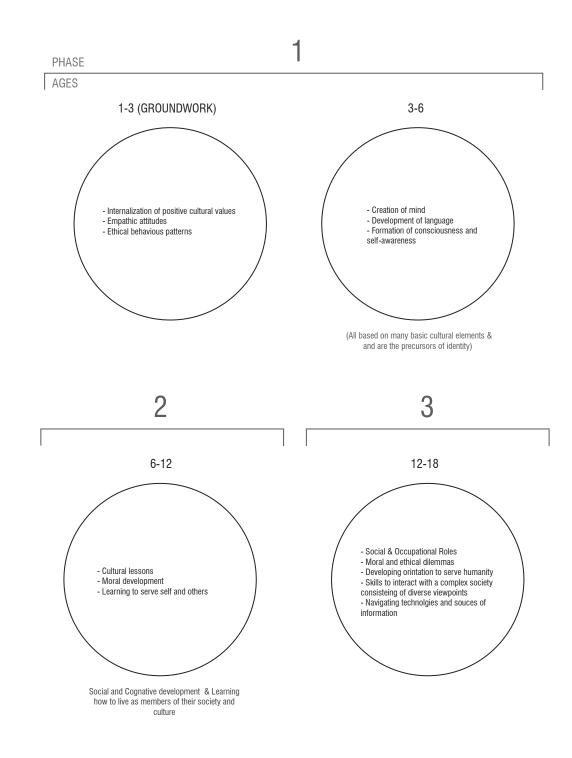


Figure 21 Summary Diagram of Maria Montessori's Theory of Culture and Development Stages in Children and Youth, Illustrated by Author

39

^{1-3 :} Kochneva, Tetyana. "Travel Effects on Young People." Wherever Family, October 1, 2019. https://whereverfamily.com/travel-effects-on-young-people/.

^{4-10:} Ferguson, Jayde. "Why Travel Is an Important Part of Your Child's Development." Mama Disrupt®, August 25, 2016. https://mamadisrupt.com/why-travel-is-an-important-part-of-your-childs-development/.

11: Fox January 02, Alison, and Alison Fox. "How Traveling With Kids Can Help Them Later in Life." Travel + Leisure, January 2, 2020. https://www.travelandleisure.com/trip-ideas/family-vacations/why-travel-is-important-

^{12:} Boulard, Florence Monique. "New Cultures, New Experiences: 4 Ways to Keep Kids Learning While Traveling." World leading higher education information and services, December 30, 2019. https://world.edu/new-cultures-new-experiences-4-ways-to-keep-kids-learning-while-traveling/.

^{13. &}quot;Cultural Diversity." Cultural Diversity | Early Childhood Development. Accessed December 10, 2020. https://child.unl.edu/cultural-diversity.

^{14.} Winkler, Erin N. "Children Are Not Colorblind: How Young Children Learn Race." PACE 3, no. 3 (2009): 1-8.

^{15.} Logue, Grälinne: "An Epic Education With A Digital Nomad Family." Medium. Buckets Blog, October 27, 2016. https://blog.buckets.co/an-epic-education-with-a-digital-nomad-family-50bc40e85228.

NOMADIC FAMILY HOMES PROPOSAL

ETHOS

I have chosen to present the design portion of this thesis in the format of a fictional organization that provides nomadic families with international housing and support through a subscription style service. As such, the thesis is presented in the format of a website, which can be found here, and may better represent the intentions of the thesis due to its interactive format unavailable in this book:

https://brantyorkubc.wixsite.com/nomadicfamilies

I will first walk through the home page, describing the ethos of the organization and housing strategy, and then discuss each of the three buildings that I have designed to showcase and test these ideas.

When you first enter the home page, you are greeted with a brief description of the organization - Nomadic Family Homes - which essentially describes the intention to provide housing and support for traveling families, with specific attention given to the challenges that come with traveling with kids.

Scrolling down the visitor is presented with key components about the organization: .

We do the Work describes how the organization does thorough site analysis and data research to ensure that the locations chosen are safe, affordable, family friendly, authentic, and offer nearby educational experiences that the children can engage in. Nomadic Family Homes would also give recommendations for stay lengths and child ages that would most likely benefit from that location, making it much easier for families to plan their next trip.

Bringing a Community Together establishes the exclusive nature of Nomadic family Homes. This is not meant for couples or singles, this is exclusive for individuals who have children, and who want to connect with other nomadic families, and build and participate in that community.

Family Friendly Approach highlights the intention for every building to have a support program for the families. This can be in the form of rental shops for kids equipment - such as sports gear or beach equipment- or in the form of services such as baby-proofing an apartment prior to moving in. The intention is that there are both physical spaces as well as programmatic and logistical support for the children and parents.

Local Inspiration describes the intention to have local designers collaborate with Nomadic Family Homes to ensure an authentic interpretation of the local culture. By inviting these local designers to collaborate, western ideals may be mitigated, and the design of the residence would offer a more genuine experience. In the same way, the residence should refrain from being placed in overly touristy neighbourhoods, but rather be situated and expressed authentically into the built fabric of the city.

Security is a rather obvious priority, for the ease of mind of the parents, given that they are in a foreign place with their children.

Finally, **Stay Lengths** describes how the rental periods are far more flexible than existing options, with a range of possibilities from 1 month to a year, which is all booked through an online subscription calendar.



Who are we?

The world should be larger than a tiresome loop between your suburban living room and your local school of office building. We recognize and help you chase after the opportunities and advantages of experiencing diverse interactions, cultural exchange, learning through first hand experience, and doing so on your own terms. We facilitate a progressive and liberated approach to raising and educating children, helping you empower them to take charge of their own passions, rather than fall in line with stereotypical expectations. Travel plays a crucial role in providing these first hand experiences and educational opportunities. Therefore we are here to help make living abroad with all members of your family, regardless of their age, easily achievable and virtually seamless

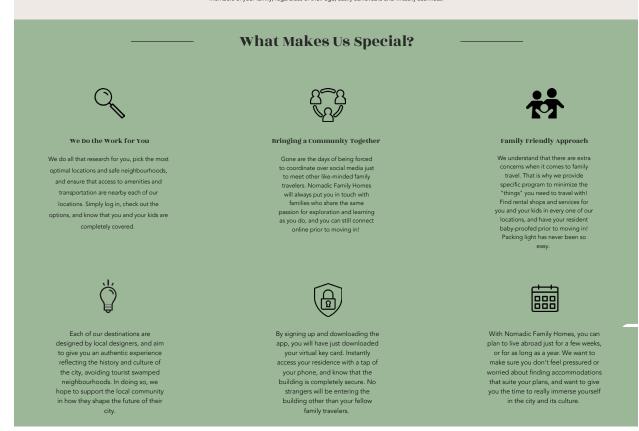


Figure 22 Home Page of Nomadic Family Homes Website. Created by Author

PROGRAM

Moving down the page, the visitor is informed of the four main spaces that every nomadic family home would entail:

Dedicated Play and Study Spaces:

The intention is to provide a sense of foundation for these traveling children to have a space they know will be available to them to play, play-learn, or study, based on the education methodology they are embracing. With access to computers, video games, reading nooks, and a storage room full of games and learning material, these rooms are able to support a wide range of kids and their curiosities. They are also a great place for kids to socialize with other children, something nomadic families often find difficult when renting from other services.

Shared Lounge, Kitchen, and Outdoor Space:

This is where community building happens, and international connections are made. Because of its exclusivity, families can feel more comfortable using the shared spaces, knowing that they have commonalities with the other residents that can make connecting more easy and mutually beneficial.

Shared Co-working Space:

Meant specifically for adults only, this space provides a reliable working environment that doesn't take up room in their private living room, and gives the parents a quaranteed child-free environment to focus.

Family Friendly Units:

The private residences are designed to have modular beds to accommodate a range of children, and units can sometimes expand (say from 2 bedroom to 3 bedroom) for families who need some extra space.

After an individual has familiarized themselves with the premise of the organization and housing strategy, they can then choose a location they wish to move to by clicking on "Destinations".

The visitor is then brought to a page with the options available. For the purposes of this thesis, I have designed three buildings in three different locations, each with unique culture and climate, and each with a unique local typology to reformat to accommodate this demographic.



Dedicated Play & Learn Space

Toys, books, video games, gardens, computers,

We know that play and study time are crucial to your kids growth and education, and so we have made it a priority to include spaces designed specifically to help facilitate both of these. These spaces aim to provide a consistent foundation for kids to rely on when embracing World-schooling and Unschooling methodologies. We even help suggest local learning opportunities to optimize on their (and even your own) education! Each room comes with a packed storage room filled with different games and learning tools that you have 24/7 access to. Find something you think is a valuable resource? Let us know, and we can incorporate it.

Shared Lounges &

Kitchens

Finally, a private space to connect with other travelina families

The nomadic family community can finally have spaces meant just for them. Make group dinners, coordinate movie nights with other the families in your home, or simply have a good conversation over some coffee. Whatever it is, these spaces are meant for you to get out of your bubble, and get to know your international travelling neighbors, and make life-long connections with people from around the world.



Co-Working Space

Wifi, printers, supplies, and plenty of space

We also understand that - as adults - work is an essential aspect of your lives. Yet, it's often hard to find a place to set up and feel productive. Each of our residences includes adult working spaces that are shared among you and the other residents to give you the option to work close to home, without having to set up shop in your living room. Whether it is exclusive for the residence, or open to the public, you will have access to unlimited high speed Wift, high quality printers, and a myriad of other supplies. How work space out of paper or pens? Just let us know via the app, and we will restock! Rentable equipment is also available for more intensive projects and works.

Family Friendly Units

Modular beds, plenty of space, safe guards, and more

Whether you are a small or large family, we will have a place for you. With units ranging from 1 bedroom to 3 bedroom, and sometimes expandable units, there will always be room for everyone in the family. Because your subscription makes you a member of the coop, prices are always responsible and stay durations are inhiby flexible.

In order to optimize for various family sizes, we use modular beds that can accommodate for how many kids you have. You can choose to have two single beds, or you can push them together and add the topper to form a queen size. Alternatively, you can pre-order exact beds desired for stays 6 months and longer, and we will have them pendly before your more.

If you have very young children, all units can be babyproofed before your arrival upon request.

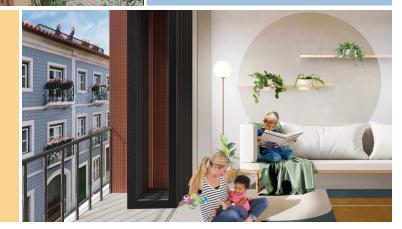


Figure 23 Nomadic Family Homes Website: 4 Main Programs of Nomadic Family Housing Strategy. Created by Author

SITE SELECTION

Twenty-five cities were selected based on popularity in the nomadic family community, and compared against one another based on a series of criteria: Walk-ability, Public Transportation, Affordability, Safety and Climate.

After comparing all of this data, three cities were chosen that maintained the highest overall scores, and are used as the starting point to establish the three building designed to test the ideas discussed in this thesis.

From that point, neighbourhoods were chosen within each city based on a secondary set of criteria. The neighbourhoods should not be overly touristy, but still maintain a close relationship with the city. The intention is to position the project in an authentic atmosphere, but also a highly functional and supportive neighbourhood; having access to public transit, nearby green-spaces, lots of commercial streets and amenities, walkable culture points (which act as educational opportunities), access to nearby food and grocery, etc.

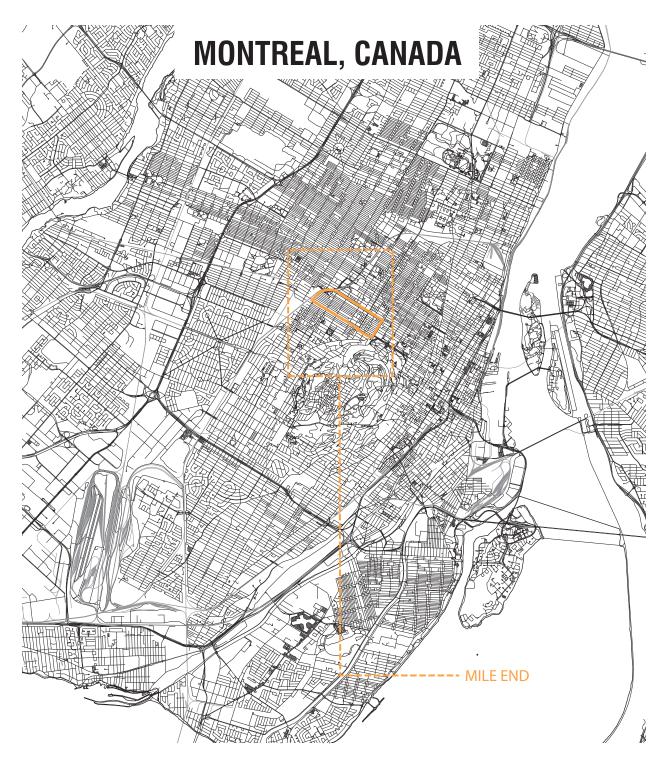
For the purposes of this design proposal, the locations chosen have unique cultural, typological, and climate conditions, in order to maximize the breadth of challenges the design interventions might encounter.

This analysis would be part of the organizations ethos of doing rigorous research into finding the most family-friendly neighbourhoods for these buildings to be located. By doing this, the nomadic families can focus their time and efforts on their work and kids, knowing that by booking through *Nomadic Family Homes*, their families will be in a safe, convenient, and authentic location, no matter which city they choose.

CITY	Walkabe neighbourhods	Transportation	Affordability	Safety	Climate
George Town, Malaysia			24-24		23/29~26/32
Copenhagen, Denmark			19-21	86	-1/3~14/22
Hong Kong, China			58-62	78	14/19~27/31
Prague,Czechia			30-32	76	-1/3~16/26
Bergen, Norway			24-27	72	0/4~12/18
Lisbon, Portugal			19-23	71	8/15~18/28
Montreal, Canada			19-21	71	-12/-4~18/26
Da Nang, Vietnam			9-12	70	19/25~26/35
Madrid, Spain			21-26	70	3/10~19/32
Girona, Spain			19-24	65	2/14~17/31
Oslo, Norway			26-32	65	-5/0~14/23
Porto, Portugal			15-19	64	6/14~16/25
Florence, Italy			24-27	62	2/11~18/32
Colombo, Shri Lanka			23-30	60	23/31~26/30
Nice, France			29-32	60	8/12~21/27
Bangkok, Thailand			28-29	59	22/32~26/35
Barcelona, Spain			20-24	55	9/15~23/29
Panama City, Panama			11-13	54	24/32 ~ 25/30
San Jose, Costa Rica			17-15	53	19/25~20/27
Brittany, France (Rennes)			25-29	53	3/9~14/24
Uraguay (montevideo?)			26-23	49	7/15~18-28
London, UK			21-30	48	4/9~15/23
Quito, Ecuador			16-17	40	9/19~9/20
Toluca, Mexico			10-24	35	-1/19~8/21

Figure 24 City Selection Criteria. Created by Author

3.1
SITE ANALYSIS



The Montreal Nomadic Residence is in a neighbourhood called Mile End, next to the infamous Little Italy and Little Portugal. With ample access to transportation, commercial streets, groceries and parks, this neighbourhood is perfect for families. Being comprised mainly of low-rise 3 story walk-ups, the area is one of Montreal's most historically rich neighbourhoods and is filled with permanent family residences.

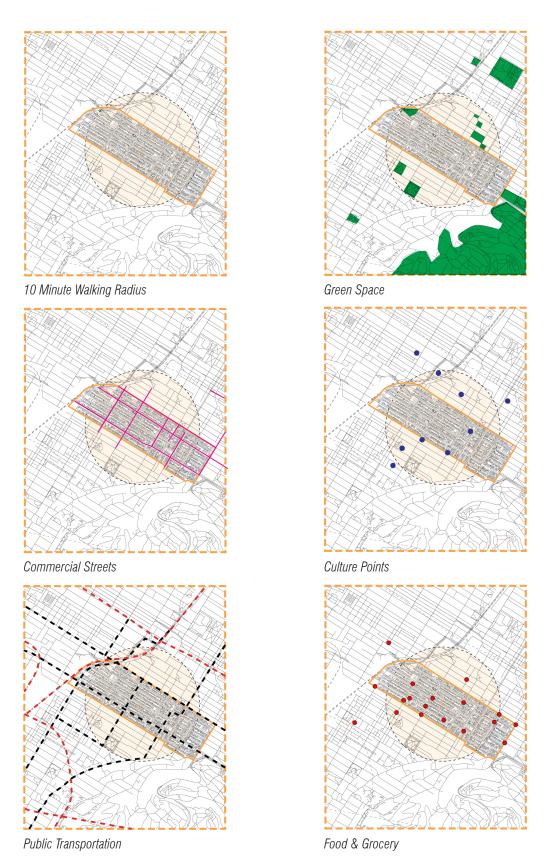
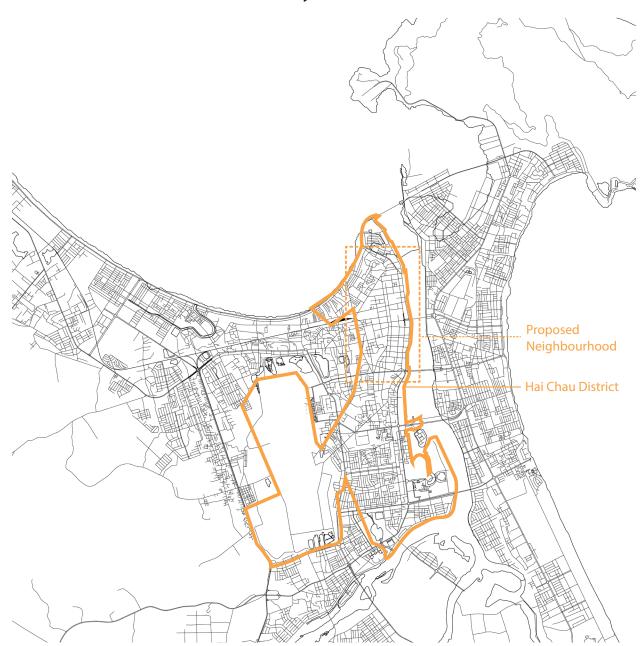


Figure 25 [Opposite]: Site Plan Indicating Neighbourhood of Mile End in Montreal, Canada

Figure 26 [Above]: Local & Nearby Amenities at Montreal Residence

DA NANG, VIETNAM



Da Nang is at the end of the East-West Economic Corridor, which stretches over Vietnam, Laos, Thailand, and Burma. Designated as a first class city, and withing 100km of several UNESCO World Heritage Sites, this city is a huge educational and commercial centre. Nomadic families would be in a position to explore both the city itself, as well as the countless sights within driving range. Due tho its rapid urbanization, and resulting lack of green space, close attention needs to paid to creating cool, comfortable, and open living environments in the design proposal. Hai Chau District however is a lively and unique neighbourhood, boasting dense housing while also being in close proximity to amenities, commercial streets, beaches, and recreational facilities.



20 Minute Walking Radius



Commercial Streets



Public Transportation

Figure 27 [Opposite]: Site Plan Indicating District of Hai Chau in Da Nang, Vietnam

Figure 28 [Above]: Local & Nearby Amenities at Da Nang Residence



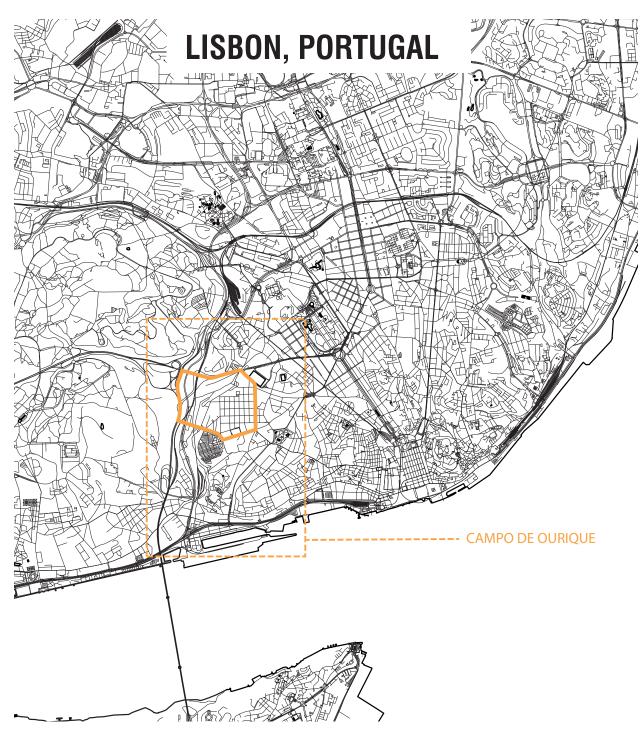
Green Space



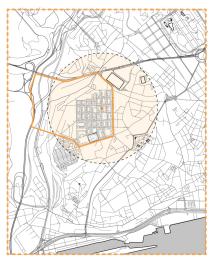
Culture Points



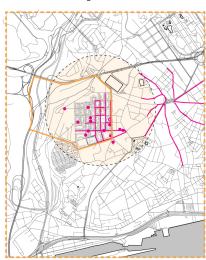
Food & Grocery



The Lisbon Nomadic Residence is in a neighbourhood called Campo de Ourique, east of Alcantara and west of San Antonio. Being the last stop of Tram 28, this neighbourhood is well connected to greater Lisbon and continues to grow as a popular cuisine destination. Near to markets and museums, this neighbourhood is perfect for a family to explore on foot, while still being connected to the rest of the city when further trips are desired. Built as a grid of courtyard blocks, the neighbourhood boasts 19th century homes next to modern constructions, becoming an interesting mix of architectural impressions and history.



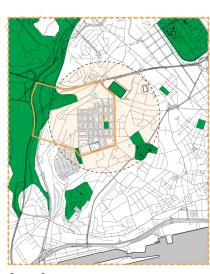
20 Minute Walking Radius



Commercial Streets



Public Transportation



Green Space



Culture Points



Food & Grocery

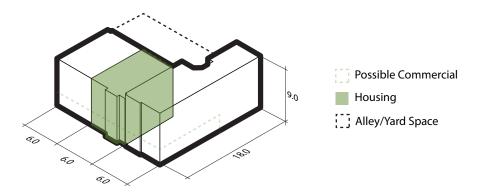
Figure 29 [Opposite]: Site Plan Indicating Neighbourhood of Campo De Ourique in Lisbon, Portugal

Figure 30 [Above]: Local & Nearby Amenities at Lisbon Residence

3.1

BUILDING DESIGNS

Inflecting Typologies for Nomadic Families



MONTREAL, CANADA

3-Storey Walk Up

Figure 31 3 Story Walk-up Typology, Montreal

MONTREAL APPROACH

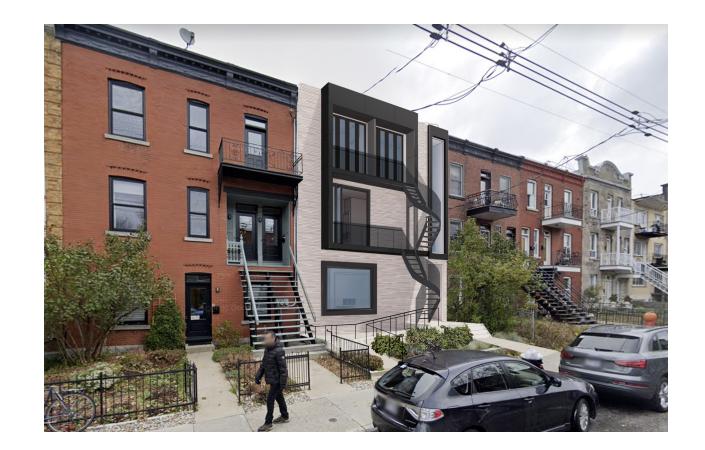
In order to reconfigure the classic three story walk up to be able to accommodate the nomadic family demographic, the strategy of creating bi-level units was used to allow for a double height communal space and light wells, and the addition of a basement for the children's play/learn space.

Of the three units, one is completely accessible. This is made possible through the inclusion of a residential elevator.

Architecturally the building retains exposed brick and hardwood features common in many traditional Montreal plexes, but contemporizes the experience through bilevel units, and gives access to more daylighting and views through large folding glazed doors. Black trim windows and balconies create a sense of privacy and bring the design into a contemporary aesthetic, while still giving homage to traditional Montreal plexes through the use of material and exterior steel stairs.

Each unit comprises of two bedrooms, and are perfect for any family from 2 - 4 members, with beds being modular. Light-wells are used to bring daylighting into the central circulation space, as well as into the two upper units.

Shared spaces included a combined lounge, kitchen, and office space, and a separated kids play space (containing a reading nook, computer access, games and learning material storage, and video games). This play space is located below grade level to provide a degree of privacy and noise control between the working space/units and the kids space. Also included is an exterior BBQ patio and yard, facing the back alley.



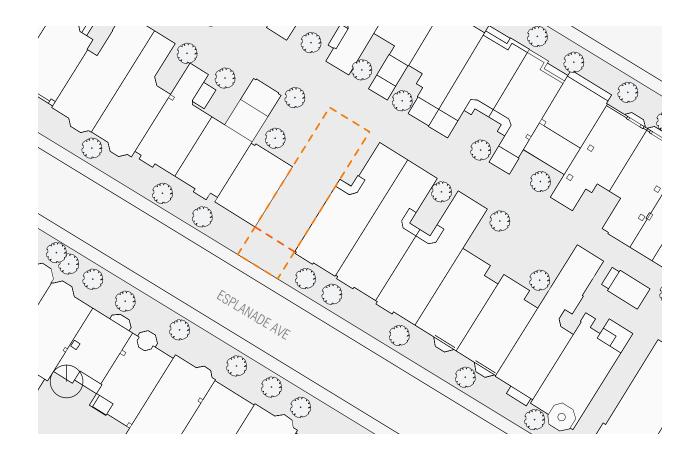




Figure 32 [Top-Left]: Montreal NFH Street View Render. By Author

Figure 34 [Above]: Montreal NFH Street Elevation Drawing. By Author

Figure 33 [Top-Right]: Montreal NFH Neighbourhood Site Plan 1: 500 | Mile End, Montreal Canada. By Author





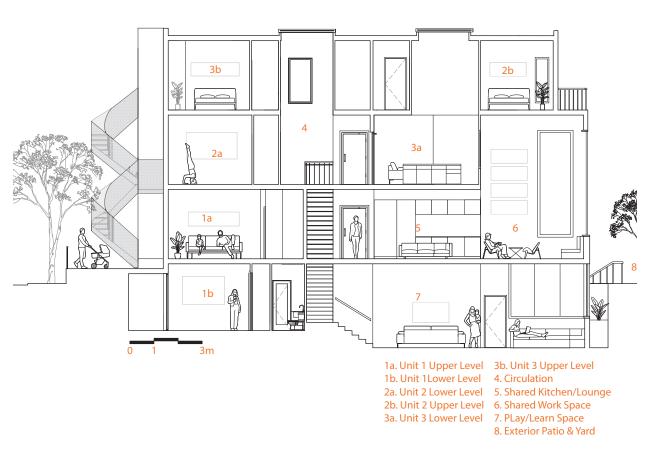
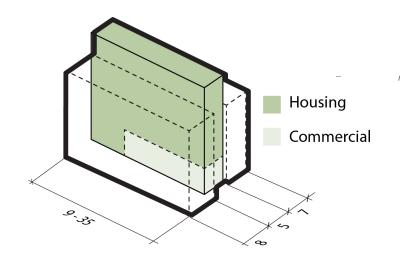


Figure 35 Opposite]: Montreal NFH Building Plans. By Author

Figure 36 [Top]: Montreal NFH Co Work Render. By Author

Figure 37 [Above]: Montreal NFH Building Section. By Author



DA NANG, VIETNAM

Narrow Mid-Rise

Figure 38 Da Nang, Narrow Mid-Rise Typology

DA NANG APPROACH

Given the spatial constraints of the narrow lots of Da Nang, significant attention was given to optimizing access to exterior space, incorporating greenery and plant life, and organizing the building in a way that provides a high degree of privacy between the units, while still encouraging a strong sense of community among the residents.

By stacking the units on the east side of the lot, each family has their own private access floor to their unit, and benefit from a two level apartment. Being situated at the back, they are given privacy and noise protection from the street, and gain access to morning light.

With the common spaces on the west face of the building, they engage directly with the street frontage, activating them as social communal spaces. The use of a large light-well brings light and ventilation down to all of the levels despite being an infill construction. Vertical shading and thermal massing (brick and concrete) are used to mitigate heat gain, keeping the building cool at all times. Materially, the building engages with exposed surfaces and wood tones, themes common in urban Da Nang.

Separating these two spaces (Residences & Communal Spaces) is an exterior circulation core. A perforated brick shaft brings light and air into the core, which aims to provide an atmospheric transition between residences and common spaces, allowing the building to feel like an open vertical neighbourhood, rather than an enclosed complex.

The rooftop takes advantage of the Da Nang heat, and offers a shaded patio space for children to run around, and a rooftop pool to cool off.





Figure 39 [Top]: Da Nang NFH Street View Render. By Author

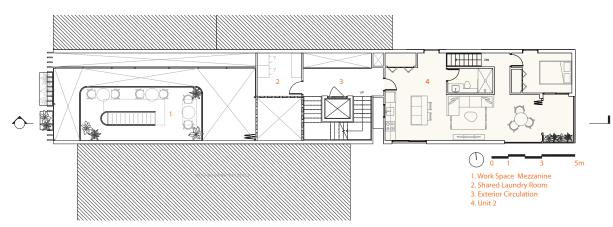
Figure 40 [Bottom]: Da Nang NFH Street Elevation Drawing. By Author



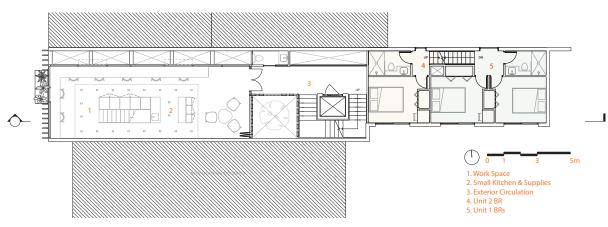


Figure 41 [Top:] Da Nang NFH Aerial View Render. By Author

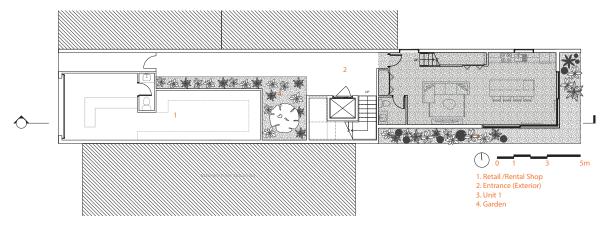
Figure 42 [Bottom]: Da Nang NFH Neighbourhood Site Plan 1:500. By Author



Level 2



Level 1



Level 0

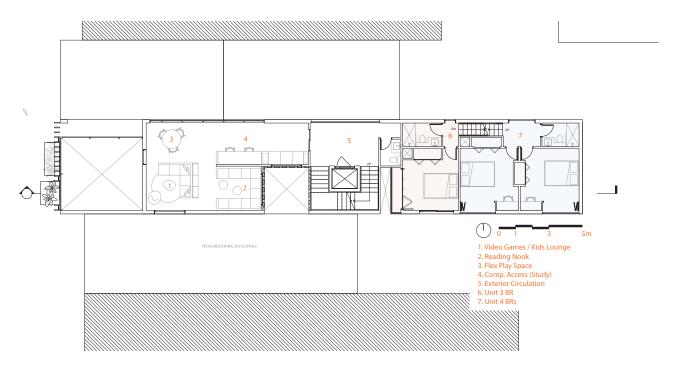
Figure 43 Da Nang NFH Floor Plans 0-2. By Author



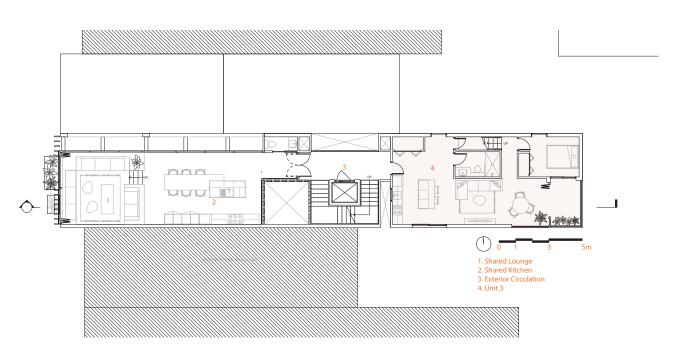


Figure 44 [Top:] Da Nang NFH Co Working Space Render. By Author

Figure 45 [Bottom]: Da Nang NFH Bedroom Render. By Author



Level 4



Level 3

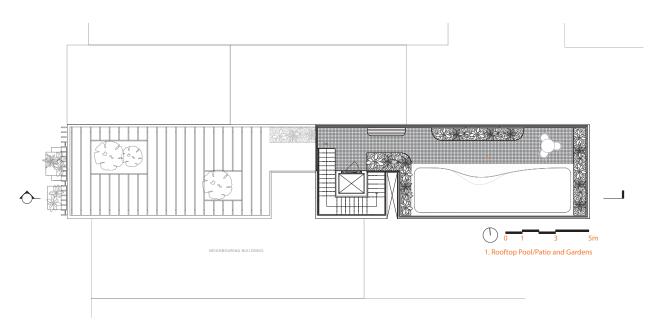
Figure 46 Da Nang NFH Floor Plans 3 & 4. By Author



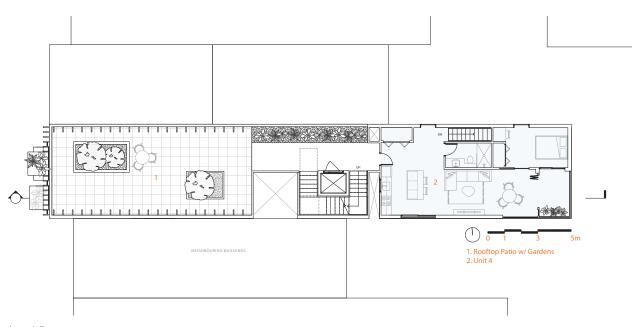


Figure 47 [Top:] Da Nang NFH Child Play/Learn Space Render. By Author

Figure 48 [Bottom]: Da Nang NFH Shared Lounge Render. By Author



Level 6



Level 5

Figure 49 Da Nang NFH Floor Plans 5 & 6. By Author



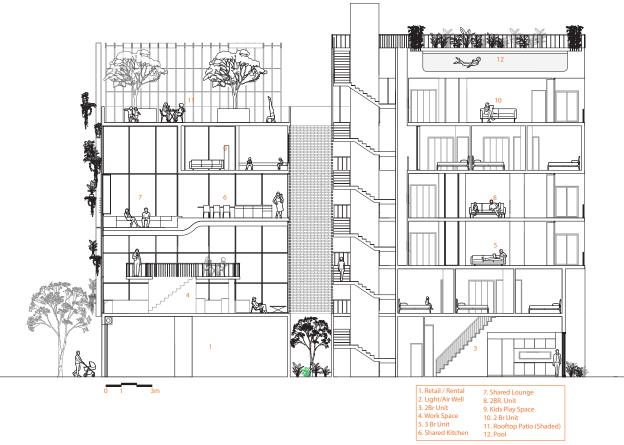
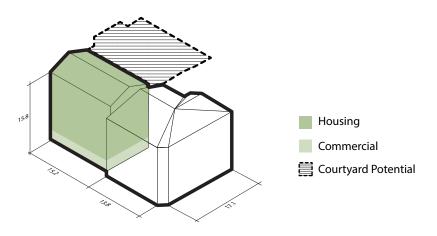


Figure 50 [Top:] Da Nang NFH Rooftop Patio & Garden Render. By Author

Figure 51 [Bottom]: Da Nang NFH Building Section. By Author



LISBON, PORTUGAL

Courtyard Block

Figure 52 Lisbon Courtyard Typology Diagram

LISBON APPROACH

Being the largest of the three proposals, Lisbon engages with the courtyard typology, a mid-rise building with a street facing facade, and a semi-private court-facing facade. Due to its size, and having access to a semi-private courtyard, the decision was made to house all of the common spaces on the first two levels, and use the remaining four story's to maximize unit count.

The main level (Level 0) houses the co-working space and the rental shop along the street frontage, to engage with the street. The shared lounge and dining face the east end of the building, onto the courtyard which contains outdoor lounge, dining, bike storage, a pool, and small yard.

The next level (Level 1) contains the kids play/learn space, facing the courtyard and disengaged from the main level to allow the kids their own space. Across the kids space is the shared fitness studio for the residents to have access to 24/7.

The units above (levels 2-5) provide a range of options; 1 bedroom (no kitchen), Studio (with Kitchen), 2bed/1bath, and 3bed/2bath. Their is one 2bed/1bath unit that can expand to be a 3bed/2bath unit, by combining with the bedroom unit. This allows for a degree of flexibility in regards to the occupants of the building, providing a range of 12-16 units based on the configuration. The rooftop contains another common space; a shared patio and minibar.

Architecturally, the building references traditional Portuguese themes by incorporating arches and tiled finishes (such as the blue tile facade, and feature walls on the interior).

Copper trims surround the balconies, giving the residents more privacy, and the balcony better protect from rain and wind. The incorporation of full height folding glass doors allows those balconies to become seamlessly part of the living space, expanding the unit and providing an indoor-outdoor living environment.







Figure 53 [Top-Left:] Lisbon NFH Street View Render. By Author

Figure 54 [Top-Right]: Lisbon NFH Neighbourhood Site Plan, 1:500 - Campo De Ourique. By Author

83

Figure 55 [Above]: Lisbon NFH Elevation Drawing. By Author

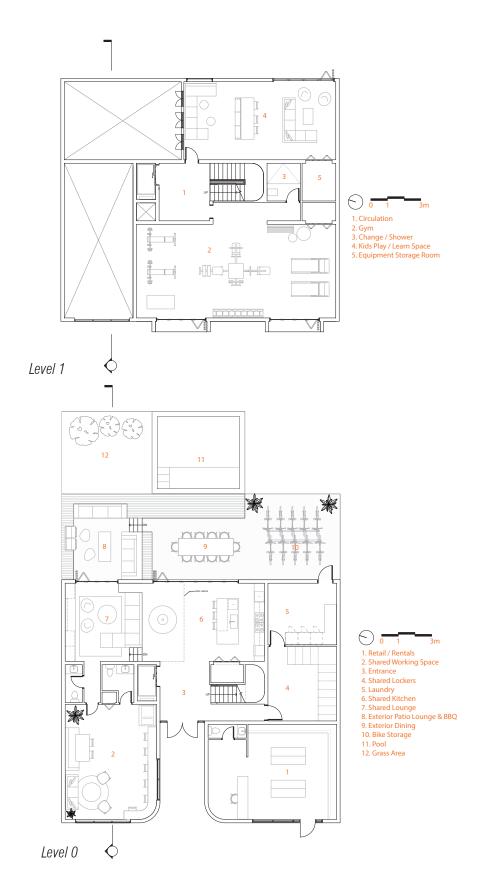


Figure 56 Lisbon NFH Floor Plans 0 & 1. By Author





Figure 57 [Top:] Lisbon NFH Shared Lounge and Kitchen Render. By Author

Figure 58 [Bottom]: Lisbon NFH Co Working Render. By Author

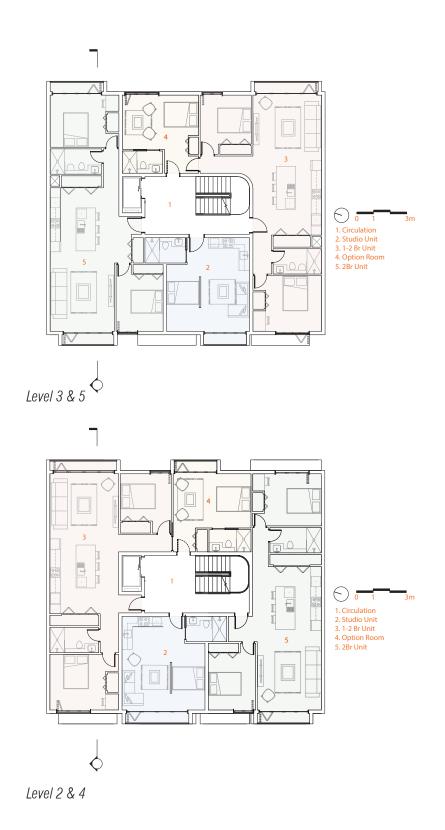


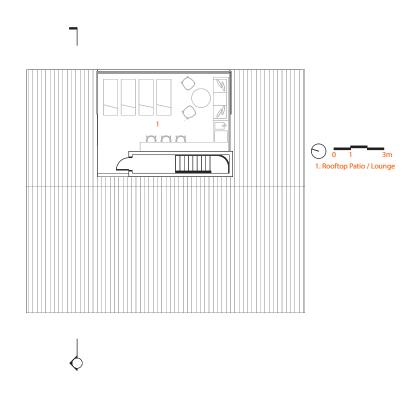
Figure 59 Lisbon NFH Floor Plans 2-5. By Author





Figure 60 [Top:] Lisbon NFH Unit Living Room & Balcony Render. By Author

Figure 61 [Bottom]: Lisbon NFH Child Play/Learn Room Render. By Author



Level 6 Rooftop



Figure 62 [Opposite] Lisbon NFH Rooftop Plan. By Author

Figure 63 [Above]: Lisbon NFH Building Section. By Author

CONCLUSION

Architecture's potential to influence how we perceive a sense of home, and how we approach living in its most basic sense has historically been framed by our limited perspective of static settlement. Thanks to the advances of technology and communication systems, architecture can now embrace and support a growing mobile population, beginning to explore new challenges and opportunities.

Each of the three buildings in this proposal take on an existing local typology that is evocative of their location, and incorporates the programmatic and spatial needs of the nomadic family. By doing this, they not only address a neglected demographic by providing a comprehensive and unique housing strategy, but also prove the capacity for architecture to consider the local fabric and culture more thoughtfully. The limitations of each of the typologies provide opportunities for new avenues of problem solving, and result in new architectural approaches that push the boundaries of design, all while being sensitive to the local built environment.

In addition, this proposal suggests a format of living that re-invigorates conventional housing practices. By encouraging an architecture that empowers families to discover international lives, new generations are likely to develop a more accurate world-view, be able to better understand and appreciate alternative cultures, and be less inclined to develop baseless prejudices.

This is an architecture born of optimism and hope, an architecture for humanity.

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