AIRBNB AND/AS SUPPLY:
FAILED LISTINGS, SCRAPED DATA,
AND REFUGEE RELOCATION

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Making supply first requires making that which is to be supplied perceptible to the supplier. In other words, provisioning—the act of providing or supplying something for use—requires the dual process of apprehending and objectifying that which is to form supply’s content. It is in this way that platform-mediated home-sharing intervenes upon housing supply. Much of the critical attention that has gone to Airbnb, the San Francisco-based short-term rental tech company established in 2008, has demonstrated how it diminishes housing supply. For instance, Airbnb reduces housing for long-term residents by making it into temporary, short-term housing for tourists: a lucrative asset for landlords. In such stories of supply transformation, apprehension and objectification are equally key as they are when objects that were previously not supply are made into supply for the first time, as when new housing is built. Yet observations of Airbnb and similar platforms have tended to black-box the process of making and transforming supply. Opening that box reveals not only the originary moment—apprehension—as a critical step in how home-sharing platforms shape prospects for housing supply; it also helps explain more generally the processes by which supply is created.


The story of this essay reveals an emergent relationship between humanitarianism and platform capitalism. Drawing on fieldwork conducted in Greece beginning in 2017, it examines one case in which two private corporations—Airbnb and AirDNA, the data-scraping company that sells short-term rentals data to investors—came under consideration by government and humanitarian actors as tools for providing refugee housing. A small but pioneering refugee relocation program, for which I will use the pseudonym Finding Home to protect my interlocutors’ identities, perceived the corporations to be vehicles for making unoccupied Airbnb listings apprehensible. This was especially important because the Greek state lacked data on unoccupied properties, whose number program workers estimated was considerable. The story of the program thus offers insights into how housing supply can operate in the absence of an all-seeing state. It also demonstrates the volatile ways in which the failures of start-up industries can be captured to produce supply and capitalist value, while intervening upon conditions of governance and urban livability. While the “public good” of housing was on the brink of becoming corporatized through Airbnb and AirDNA, these private corporations were also nearly appropriated, redirected against themselves, in order to supply that public good.

Housing is a useful lens for thinking about supply in part because it spans multiple categories conventionally used for thinking about supply, whether in the context of supply chains or natural resources: it is both material (as physical structure) and service (shelter), infrastructure (i.e., facilitator of life’s processes) and resource (material or service being supplied). The Greek housing case is specifically interesting because, though the homes were materially present, they were functionally unavailable. That is, vacant housing could not be turned into actual supply—a transferable reserve to be given to those in need—until the state was made aware that it existed.

The relocation program sought to apprehend the housing supply in spite of the closed doors, solid walls, and undocumented occupancy status that made it an invisible resource. Much like underground oil or water, the presence and location of available housing units could be imagined, but their exploitation required certain tools of extraction. Platforms like Airbnb and its derivatives like AirDNA are being revalued as tools in making goods—here, both housing as a material product and the housing supply as a possibility—as a reserve for the future. Tech industry tools are thus opening up new horizons for population management and for people to belong and make claims to a city.

Supply as a Problem of Apprehension

With a population of about eleven million, Greece became home and passageway for more than one million displaced persons fleeing violence in the Middle East and South and Central Asia as war and economic unraveling forced people to flee their homes in the mid-2010s. At the end of 2019, the UN High Commissioner for Refugees office in Greece reported that it was hosting 190,900 “people of concern,” meaning refugees, people in “refugee-like situations,” asylum seekers, and stateless individuals. European Union border restrictions placed the responsibility on Greece (as well as Italy) to care for most of those who crossed into the EU. Greece, for its part, has a long history of xenophobia, most recently manifest in anti-immigration policies and social dynamics after Greece became a destination for people seeking better lives after the fall of the Berlin Wall in 1989. Together these factors have politicized the process of housing Greece’s newest communities, not least because the question of whether and how long they are welcome to stay remains unresolved.

Greece became home to Moria, Europe’s largest refugee camp, in the last five years; it burned to the ground in 2020, leaving 13,000 refugees
also from French-speaking African Afghanistan and Syria, with some of the eligible refugees were from independent apartments in the city. Most by transitioning asylees to indefinite camps and other temporary shelter. Finding Home, aimed to relieve pressure in refugee relocation program, finding two hundred refugees from temporary space that can be made available challenging, beginning with identifying housing supply presents its own demonstrates, procuring this kind of housing and a symbol of Europe’s conditions of temporary refugee site for thinking about the inhumane unhoused. It remains a paradigmatic space of exception, scholars have thought of camps as tools of segregation from existing, outlying communities and of political containment. These depictions often understandably feature housing constructed to house refugees. Tent cities such as Calais Camp in France and Moria on Lesbos, built on the outskirts of existing urban or semi-urban centers, or camp land that refugees themselves built over time, as is the case of Palestinian camps throughout the Middle East, serve as icons; they are simultaneously spaces of isolation, dehumanization and political mobilization. Questions of how those spaces became camps are often bracketed in favor of thinking about life there once they exist. Yet in Greece, as elsewhere, tens of thousands of refugees have also ended up in other forms of temporary or long-term housing that fall outside of the camp model. This housing is often built for other purposes and already integral to an urban fabric. As this essay demonstrates, procuring this kind of housing supply presents its own challenges, beginning with identifying space that can be made available to incoming displaced persons.

In 2018, the Greek government decided to relocate around two hundred refugees from temporary shelters to long-term housing in one particular urban center. The refugee relocation program, Finding Home, aimed to relieve pressure in camps and other temporary shelters by transitioning asylees to independent apartments in the city. Most of the eligible refugees were from Afghanistan and Syria, with some also from French-speaking African countries. The city government, a university, two international aid agencies, and one state development agency jointly coordinated and funded the program. The hope was to provide seventy-five households with twelve months of housing while individuals found jobs and settled into being recognized Greek residents. In January 2019, at the home of a friend who worked in the municipality coordinating the relocation, I was introduced to a woman working in one of two international aid agencies involved in the project. I began a series of conversations with the woman, whom I will call Stella, first in person and then via email, Skype and, once the pandemic began, on Zoom. I include here material from these conversations, supplemented with information I gleaned from other interlocutors, including a former Airbnb employee and a researcher studying vacant housing.

Housing supply presented major challenges to the project. The municipality coordinating Finding Home only had the budget to cover part of each apartment’s costs. Rents had gone up despite Greece’s economic crisis, in part due to the explosion of platform-mediated home-sharing through companies such as Airbnb, and in part due to intensified international speculation since the crisis had caused real estate prices to plummet. A single refugee received just one hundred and fifty euros, for example, while a one-bedroom apartment could easily go for well over four hundred euros monthly. Furthermore, even when refugees could cover the balance through other channels, landlords were reluctant to rent to refugees. Some were xenophobic; others balked at not knowing whether their new tenants would be able to stay and pay long-term. Before questions of price, however, there was a more basic challenge: identifying available apartments. Finding Home workers felt confident that the municipality they had chosen for the project had a sufficient number of vacant apartments. Since the mid-nineteenth century, Greeks have been building or purchasing real estate beyond their home residencies as investments for their families. Some rent these properties out long term, but many also leave them empty, occasionally using them to house a relative transitioning between housing situations. It was up to Finding Home to locate these vacant apartments. However, while Greece’s bureaucracy has information on property ownership, it does not collect data on whether properties are inhabited. The most recent data collected about housing occupancy—for a study conducted privately by a Greek university—was from around 2010, finding Home workers told me. Tectonic shifts in housing occurred during the crisis, making any available data outdated and unusable. Finding Home, like the state itself, was thus blind to its own potential housing supply. The housing “apples” were on the tree. How could the project shake the tree to make them apprehensible?

Failed Airbnbs and AirDNA

In the early stages of trying to locate available housing, finding Home hired a consultant from a Greek university, who suggested Airbnb as a potential source of information. Airbnb had begun operating in Greece around 2010, coinciding with the sovereign debt crisis that sent the Greek economy into a tailspin. By the mid-2010s, short-term rentals were booming across the country, rising in popularity just as the number of refugees seeking shelter was increasing. In 2012, Airbnb established a subsidiary program called Open Homes, designed to help hosts offer free housing to evacuees during natural disasters. It later expanded to facilitate free accommodation of relief workers, medical patients, and refugees. Everyone in Greece heard about Open Homes after Airbnb facilitated provision of free accommodations to survivors of wildfires that had swept through East Attica and Kineta near Athens in August 2018. Those in the business of housing refugees also knew that Open Homes was working quietly with a Greek NGO since 2017.
to offer up to two weeks of housing to refugees with special travel needs, such as medical appointments.

A city employee with Finding Home emailed Airbnb to ask if the company could help with long-term refugee relocation. She received no response. Then the consultant emailed, this time reaching out to a senior manager at Airbnb’s Social Impact offices in Europe (Airbnb has no office in Greece). The Airbnb manager responded that the person responsible for Open Homes in Europe had just left the post, but that once the post was filled the new person would be glad to follow up. No follow-up ever took place. It looked to Finding Home workers that collaborating directly with Airbnb was not going to work. Still, members of the team felt that Airbnb held potential, especially if they flipped their approach from looking for eager, active Airbnb hosts (as the Airbnb Open Homes program did) to trying to access the shadow world of hosts failing to rent out their properties. However, the Airbnb platform does not publicly aggregate data searchable by listings’ occupancy rates. It was possible to land on an unused Airbnb property by chance while browsing the platform, assuming that a lack of reviews and long-term presence on the platform indicated a failed listing, but it was not possible to quickly see all the failed Airbnb listings together in one place. Searching via Airbnb’s own platform was going to be inefficient.

AirDNA, a Denver-based data-scraping company that has been collecting just such data since 2012, surfaced as a viable next point of call. Its team analyzes over ten million listings in 80,000 markets globally on Airbnb, Homeaway, and similar platforms, collecting occupancy rates that are invisible to Airbnb users in order to calculate how much any given property listed as a short-term rental is earning. The company uses this data to predict top markets for short-term rentals to help investors, entrepreneurs, and large real estate companies target the most lucrative markets. It has also become a vital source for researchers and journalists seeking up-to-date statistics on short-term rentals worldwide.11 AirDNA provides information including rental channel (e.g., Airbnb, Homeaway), size (e.g., number of bedrooms), and average nightly rates. Finding Home workers hoped that it could also provide information on the least booked listings.

**Airbnb and/as Supply Intervener**

From one perspective, Finding Home was on already trodden terrain when they considered using one company, AirDNA, to unlock the promise of another, Airbnb. The two platforms are symbiotic: as long as Airbnb is a significant player in the short-term rental market, AirDNA can profit by supplying its data to investors, which in turn creates further short-term rental supply. Airbnb, in turn, presumably profits from targeted investments in certain short-term rental markets, because a greater and more finely tuned supply may increase the rates or availability of listings in a given locale. Airbnb and AirDNA work together to transform long-term housing supply into supply of financialized home-assets used for short-term stays.

Yet this symbiosis does not only take place when the short-term rental market is hot. Airbnb captures housing and holds it in liminal status, even in cooler periods. The host’s act of listing a property on Airbnb launches the impact of the platform on supply, not the tourist’s act of occupying it. Much of the literature on Airbnb’s gentrifying and “touristifying” effects assumes that tourists book the available listings as short-term rentals. However, my research among hosts in Greece demonstrates that bookings are only one part of the story. Airbnb’s popularity eventually oversaturates many short-term rental markets, sending prices downward. Some listings inevitably fail to book guests, as has been happening in urban areas of Greece for the past couple of years. Even hosts in well-visited areas struggle to keep properties occupied; some keep their
properties “active” but fail to attract guests. The continued unavailability of these properties to long-term renters contributes to rent increases and gentrification, even without generating income.

Finding Home’s idea to track down these failing Airbnbns through AirDNA was a move to redirect the kind of supply transformation that Airbnb is designed to perform by mobilizing AirDNA’s capacity to make them apprehensible. Airbnb’s typical solution to failing listings is to inundate hosts with messages about how to improve their hospitality. Guests receive algorithmically personalized suggestions based on nearby listings and guest reviews about better pricing, response time with guests, photographs of properties, and amenities. AirDNA now plays a similar game to improve listings, because the more listings that are occupied, the more lucrative investors’ investments become. For instance, while writing this essay, I received an email from AirDNA (whose algorithm has mistaken me for a host), telling me that with a new feature called “Custom Comps,” I can customize data about my competition to outcompete other hosts. The feature “allows you to create a hand-picked list of your closest competitors and receive personalized recommendations for your specific listings.” That is, the platforms’ answer to failure is self-improvement: hosts must become more diligent neoliberal subjects in and of the so-called “sharing economy.” Rather than reconceptualizing how sharing might serve as shelter for those who need it, hosts are instead supposed to work even harder on hosting short-term guests for ever-greater profit.

Yet the story of Finding Home considering identifying failed Airbnbs through AirDNA suggests that there is room to appropriate failure to redirect the supply process. Program workers imagined that tech industry failures could be harnessed for alternative, even progressive, aims in the manner of recycling or reuse. As discard studies scholars have shown, reuse is usually complex. It tends to leave excesses, wastes, and remainders that exceed expenditure for the new use to which objects are put and that must eventually be addressed and accounted for. To mobilize Airbnb to create long-term refugee housing opportunities would have been to deploy the same monopolistic corporations that are undermining both longer-standing and newer communities “right to the city,” thereby extending the corporations’ reach into daily life and giving them a humanitarian face, even while pushing toward the goal of restoring that right—and for a small, if highly vulnerable, few.

Conclusion: Affect and the State as Failed Realtor

Stella reminded me via Zoom in September 2020 of the three most effective means of procuring housing: working through realtors, publishing expressions of interest in newspapers and on the radio, and allowing refugees to locate affordable housing through their own networks. Of these, by far the most effective method was refugees finding the housing themselves. Of the 166 households relocated through Finding Home, most moved into housing they had found by themselves. Refugee participants were able to accept or refuse housing, and they chose what they had found themselves. Stella observed that most participants gravitated to the lowest rents. This allowed them to save some of the subsidy they were receiving for other uses. Refugee-chosen housing was also usually shared and located in neighborhoods with large, newly arrived populations. This meant that participants could live near their own communities or with others with whom they shared the experience of having been displaced.

In one sense, it is perhaps not surprising that, in the end, more localized practices were superior for making housing supply apprehensible to Finding Home. They entailed less mediation and fewer steps by program workers, as we saw from the Airbnb emails left unanswered, the unavailable data, and the need
for AirDNA subscriptions. Refugees finding their own housing turned participants into their own realtors, allowing the program to skip the step of inquiring whether landlords were willing to rent to refugees or convincing them of the virtues of the program. Professional realtors similarly saved Finding Home the step of seeking out interested landlords by doing the footwork of getting landlords on board on behalf of the program. Stella leaned into her computer camera with a smile. "You didn’t have to call people!" By the time landlords reached Stella through the realtors, she explained, "[the landlords] wanted it!"

The success of these other efforts laid bare the fact that supply is not a preexisting fact about that which is supplied, but rather a quality with which objects must be imbued. Certain forms of supply—perhaps especially when a private good (real estate property) is being appropriated for a public service (refugee relocation)—require persuasion and affect to be paired with apprehension. Refugee participants, realtors, and media expressions of interest tapped into landlords’ affective orientations toward the program more immediately and directly. In other words, raw data about vacant homes was only one part of apprehension. The program needed to apprehend owner affect just as much as it needed to apprehend apartments’ occupancy status.

Although Finding Home did not ultimately use Airbnb and AirDNA to make housing apprehensible, the proposal to do so helps us think about the concept of supply in general, and more specifically, how platform-mediated home-sharing like that promoted by Airbnb can be understood to intervene in supply. Anthropology has tended to think about supply in the context of commodity and other supply chains within (global) capitalist exchange as processes, including labor, by which materials or services being supplied are made (e.g., extracted, treated, or packaged) and conveyed from supplier to demander. More recently, supply has been central to studies of infrastructure as source of or impediment to supply of life-sustaining resources such as energy and water, especially in urban centers. Many scholars have pointed to the ways in which understandings of supply—that is, how great a supply there is—can underpin entire political systems. In both sets of scholarship, one finds some attention to mechanisms for apprehending that which is supplied, usually accompanied by arguments about their technopolitical—that is, neither solely technical nor solely political—nature. Airbnb’s near-intervention on refugee housing supply in Greece highlights additional processes by which materials or services can be brought into being. It shows how a technology or a company designed to supply one type of product can be mobilized “against itself” to generate another, arguably opposite type of supply. Here elements of a state bureaucracy would mobilize the technology in order to circumvent that bureaucracy’s shortcomings. It was meant to harness the dual failures of financial capital (unoccupied Airbnb units) and state surveillance (missing data) to generate the possibility of a public good (long-term refugee housing), which was not on offer through conventional channels either of humanitarian governance or political mobilization. Airbnb’s existence as an exploiter of space in order to generate financial capital also generated the possibility for new political imaginaries that departed from Airbnb’s dominant logics.

Questions remain. Would using Airbnb and AirDNA have generated enough housing to meet the program’s needs? There are good reasons to think not. Airbnb hosts in Greece often renovate properties to obtain better rates. Given stories I have heard of xenophobic hosts, I can imagine that some failing Airbnb hosts would have refused refugees, fearing damages. Other hosts might have insisted on higher rents than Finding Home could afford in order to recuperate renovation costs. Many hosts I encountered preferred Airbnb to long-term renting because short-term rentals allowed them to recoup the properties themselves or to house family members in them as a means to buttress the family against financial instability. Such hosts might have been willing to forego short- or long-term rentals to keep their properties available for family contingencies, especially as austerity’s damaging effects were deepening annually. The fact that the most successful mode of obtaining housing for refugees was through the refugees themselves further suggests that, even if willing landlords were to have come forward after being identified through AirDNA, success would be relative to how happy refugee participants were with their options. Finding Home’s experience suggests that the more emphasis is placed on what people want from supply, the less useful apprehension through big data (like that collected and sold by AirDNA) becomes.

A related question emerges for thinking about the state, governance, and humanitarianism in the twenty-first century. Finding Home turned the state into a realtor, as Stella put it. The state considered mobilizing the tools of one American tech company to (literally) open up locals’ doors through a second American company, ostensibly to integrate refugees into the national fabric. What conclusions can we draw from this situation about the ways in which national belonging is being reconstituted in Greece? What does it tell us about humanitarian governance today that prominent international aid agencies require help from monopolistic corporations to generate housing supply? One thing is clear: given the growing force of austerity governance, deregulation, and economic weakening (including of platforms such as Airbnb) due to the coronavirus pandemic, it seems likely that such platforms will become increasingly important sites to examine the complex social and economic dynamics of efforts to create housing supply and hospitality for displaced communities in Europe and beyond.