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Housing the Dead: A lense through local densification patterns

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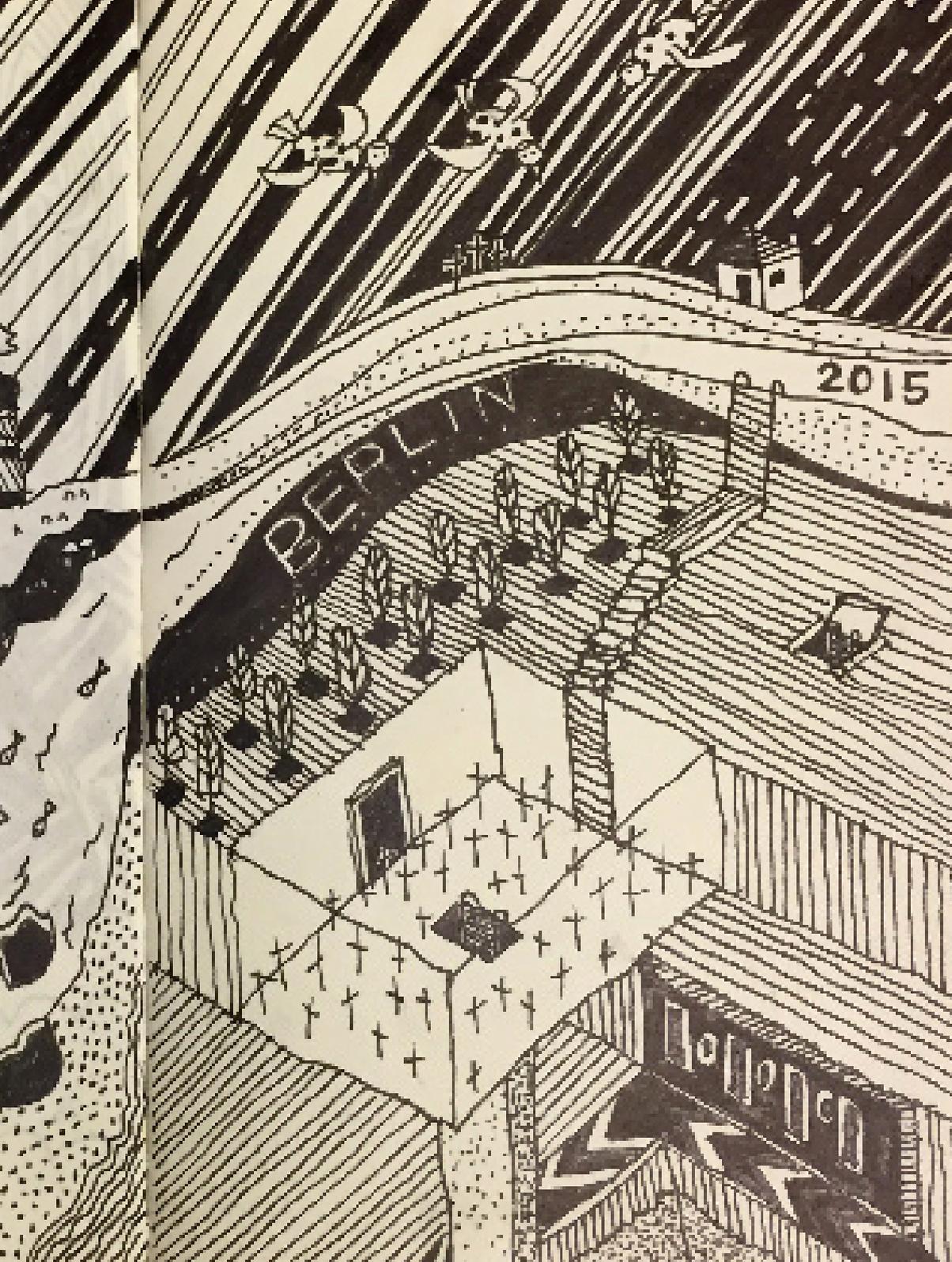
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# Housing the Dead

A lense through local densification patterns

Matthew Au

*"If we find a mound in the forest, six feet long and three feet wide, formed into a pyramid shaped by a shovel, we become serious and something within us says, 'Someone lies buried here.' This is architecture."*

- Adolf Loos

It is a fact - Death will find us, eventually. It is not a subject architects - or people in general - enjoy conversing about over dinner. Any slight consideration about death releases anxiety, confronting us to think - what's life after death? Because of our fear of mortality, not much time is spent thinking about the subject, design of funereal architecture has not developed as much as other architectural typologies. Until we can clearly answer the cliché *"Does it serve the dead or the living?"* - we will only have marginal understanding of expertise.

Some 56 million people pass away every year worldwide (about 0.8% of the world's total population), and estimations predict this number will rise and peak in 2050 as Baby Boomers start to age. Yet most urban developments only focus on accommodating the living, building luxury apartments to profit the highest price per square footage.

We are at a time when the rapid expansion and development of dense urban cities has created a scarcity of land. This has resulted in soaring costs for living, which is familiar to anyone living in a city of density, from San Francisco to London to Hong Kong. The difficulty of finding a marginally affordable micro-apartment housing unit can be experienced for the living and the same can be said for the dead. Cemetery overcrowding is an issue around the world, especially in highly populated cities where religion and cultural traditions have a strong presence.

Death is a subject understood by tradition and superstition. Changes regarding burial are often met with skepticism. Because nobody really knows what happens after death, deviating from tradition is a risk—a psychological factor not everyone can overcome.

We also need to consider the permanence of the cemetery as land-use makes planning unusually more important. Unlike civic buildings, which can go up and come down with a relatively simple procedure, cemeteries run into many legal obstacles that make removal or relocation nearly impossible.

I had the opportunity to explore cemeteries in different countries, each place an expert in responding to its local conditions of culture, religion and economy.



[Figure 1] Interior of Shinjuku Ruriko-in Byakurenge-do. Kiosk of where retrieved tombstone will appear.

## Japan

Japan's built environment has always been influenced by earthquakes and population density. It has been their driving force to innovate and create new technology to achieve higher standards with systematic efficiency.

A few blocks down from the infamous Shibuya crossing, a spaceship-like Buddhist Temple is hidden on a small street. (Figure 2) Inside the smooth concrete curved form is an ossuary designed by Toyota Industries, an advanced 7-floor vault system housing up to 7,000 cremated remains.

The system is similar to the automatic parking structures typical in Japan, only not with cars, but with small boxes filled with urns. With the swipe of a personalized smart card, the mechanical system behind the wall can be heard retrieving the box linked with the card. The family gathers around a viewing kiosk, waiting for the doors to open to reveal the named tombstone. (Figure 1)

The building has been engineered to withstand 3 times the standard seismic regulations, ensuring with confidence that the building will stand more than 300 years (contrary to the typical short Japanese building lifespans).

Maybe only in this fast-paced, digitized world of Japan, where everything is controlled by robots, can this type of burial method be rationalized. This culture and lifestyle of constant flux is Japan—continuing this notion after death may be inevitable.



(Figure 2) Exterior of Shinjuku Ruriko-in Byakurenge-do. Architect: AMORPHE Takeyama & Associates Architectural Design. Completed 2014. Location: Shinjuku, Tokyo, Japan



(Figure 3) Livelihood inside the cemetery. Manila North Cemetery, Manila, Philippines. One of the oldest public cemeteries in metro Manila.

## Philippines

Thousands of people move from the outer provinces to Manila, the capital of Philippines, with nothing but hope for better job opportunities. Most migrate with very little to no money, connecting with distant relatives before them and hoping to find a place to settle by constructing illegal, makeshift homes in slums and even cemeteries. Although these illegal residents live rent-free, they risk being evicted with no warning. Their electricity is usually tapped into electrical lines governed by the city (made possible with bribes), and drinking water is carried back from local stores gallons at a time. I made a visit to Manila's North Cemetery<sup>1</sup> with a local guide (it was not advised for foreigners to stroll through Manila's cemeteries alone). 3,000 residents live in this cemetery which is actively burying the dead every day. Most of these families work as caretakers and gravestone masons, and most of the work has been passed down the family from previous generations. Newer caretakers, who have been hired to help, have taken advantage of the informal settlements by inviting their extended families and creating a growing community. Walking through the cemetery, there were stalls selling drinks and food stores set up inside mausoleums. One mausoleum even had a running internet cafe business inside. Speaking with one of the older caretakers, he expressed concern for his children because there is no education system within the cemetery and he does not intend to pass down his work. I saw children running and playing around tombs as if they were forts and castles. (Figure 3) They were too young to worry about their future. Although outsiders would see their living conditions as severe, the residents prefer these conditions in Manila than the lack of job opportunities in the provinces. To them, this is their livelihood.

<sup>1</sup> The largest and oldest cemetery in Metro Manila, owned by the City of Manila. Area of 130 acres.

## Prague

The Old Jewish Cemetery in Prague addresses the issue of overcrowding quite visually. The cemetery dates back to the 15th century, serving the Jewish town in Prague. This was the only site where Prague Jews were allowed to be buried from 1439 – 1787.<sup>2</sup> The layout of the tombstones in this cemetery is unique - it has no alignment and does not follow a grid, but in contrast almost every tombstone is slanted and leaning against one another. (Figure 4) The Jewish faith does not allow the removal of bodies or tombstones, and when there was nowhere else to bury the dead, the reaction was to add more layers of soil and bury on top. A cross-section will reveal at least 10 layers of soil as the cemetery grew, hence the chaotic and overlapping placement of tombstones.

Stepping outside, souvenir stalls surrounded the cemetery wall. As I walked further away, the different layers of soil became evident - tombstones were visible above the 12 feet wall. (Figure 5)

<sup>2</sup> Tracy A Burns "The Old Jewish Cemetery in Prague's Jewish Town"  
[www.private-prague-guide.com/article/prague-jewish-cemetery-jewish-town-josefov/](http://www.private-prague-guide.com/article/prague-jewish-cemetery-jewish-town-josefov/)



(Figure 4) Old Jewish Cemetery, Prague, Czech Republic.



(Figure 5) Old Jewish Cemetery, Prague, Czech Republic. Tombstones can be seen behind the souvenir stalls, above the cemetery wall. Layers of bodies, 10 deep, lay one on top another.



Diamond Hill Cemetery, Kowloon, Hong Kong. Compact wall niches holds up to two, photos of the deceased is part of the Chinese tradition.



Tsuen Wan Cemetery, Kowloon, Hong Kong. Amphitheatre-like cemetery, following the topography.



(Figure 6) Wo Hop Shek Columbarium, New Territories, Hong Kong. "Lawned area for scattering cremated ashes, please keep off."

## Hong Kong

Fear, superstitions and property value are some of the biggest challenges that the Hong Kong government faces when it proposes new cemetery locations. Land shortage has forced Hong Kong to stop traditional burials since the 1980s - however, space for cremated remains still remains an issue. Burial plots have become a hot commodity that only the wealthy can afford. It is not unusual to wait several months to secure a final resting place in a one-square-foot wall niche in a public columbarium.

One of the more recent strategies cemeteries have been adopting is scattering of cremated ashes into memorial gardens/ landscapes - areas that serve as green space for the cemetery.(Figure 6) The name plaques can then be smaller and placed in a wall-niche that would be able to provide for more families. However, it will take a lot more persuading, as traditions of remains have always been more permanent and tangible.



Mount of Olives, Jerusalem, Israel. One of the most sacred sites for Jewish burials, approximately 150,000 graves on the Mount, has been used for over the past 3000 years.

## Israel

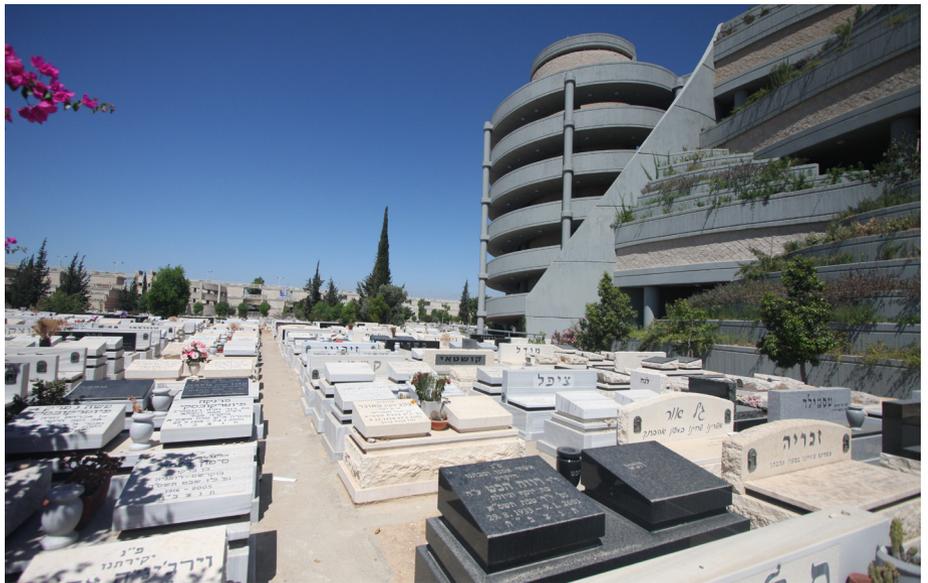
Jewish faith stipulates the dead be buried in a layer of dust and earth in its entirety - cremations are strictly forbidden.<sup>3</sup> Tel Aviv has devised a new typology of funereal architecture, multi-story buildings for ground burials. After setting foot inside the Yarkon Cemetery gates, multiple paths lead to a horizon of graves in every direction. At the end of the north-east axis, the recently completed building stands out from a distance. (Figure 7) Inside the building, there are columns that measured more than a foot in radius. (Figure 8) The reason for the severe columns is to hold up the floors above, where several feet of soil fills the bed of each floor, providing sufficient depth for burial. The soil which runs inside the columns connects each floor to the ground, creating a natural connection to earth.<sup>4</sup> This method of space-saving re-creates the ground plane on each floor and provides a more traditional strategy compared to alternatives, like stacking of tombs one on top of another.

<sup>3</sup> Cremations are strictly forbidden in Jewish beliefs, exceptions for extraordinary circumstances.

<sup>4</sup> According to Jewish law, a Jew is to be buried as he was born - complete with all his limbs and organs. The human body is considered as sacred in death as it was in life as it contained a Godly soul. He must be buried in a grave in the ground, so that the body may return to the earth.



(Figure 7) Yarkon Cemetery, Tel Aviv, Israel. Exterior of the multi-story building for burial.



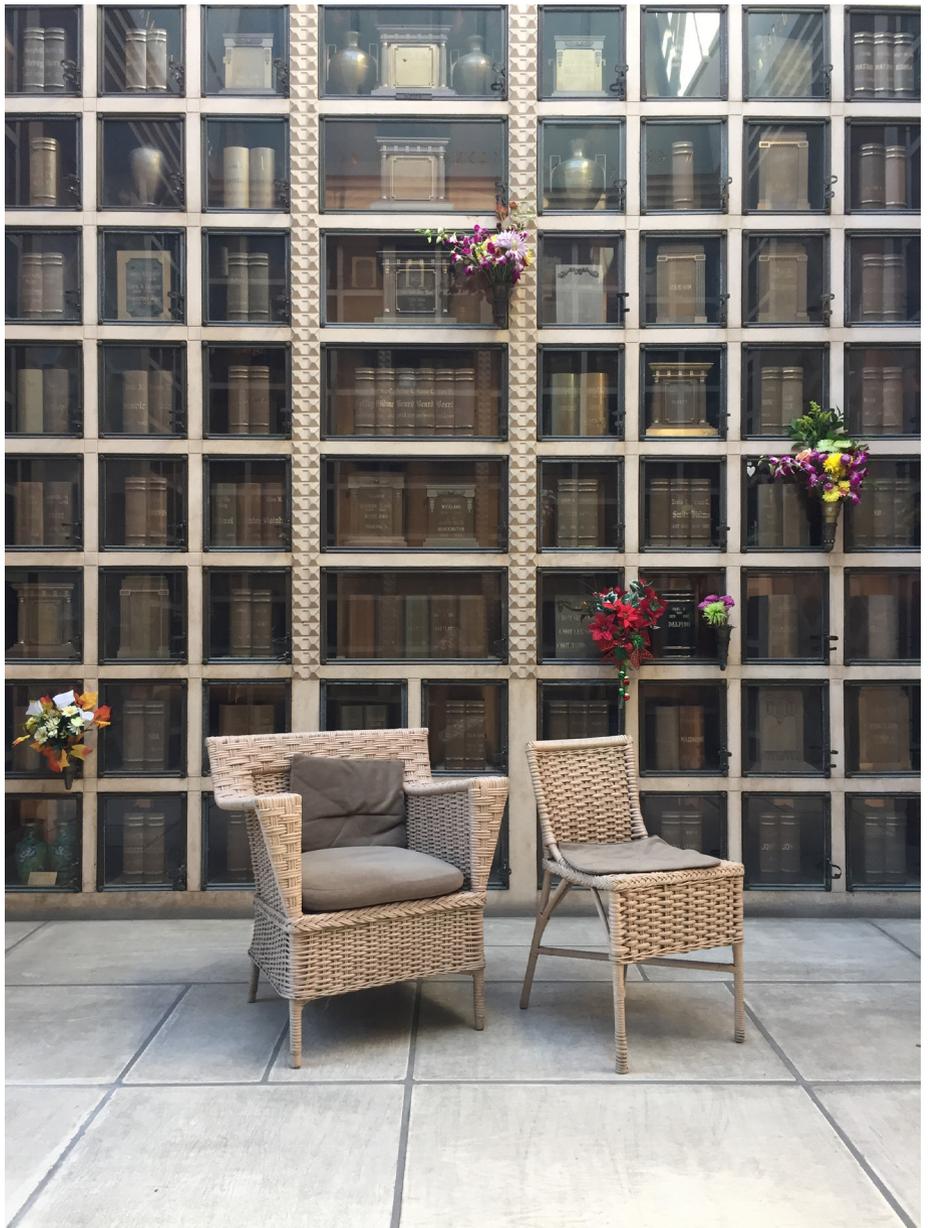
(Figure 8) Yarkon Cemetery, Tel Aviv, Israel. Exterior of the multi-story building for burial.



Montjuic Cemetery, Barcelona, Spain. Empty grave after exhumation.



Chapel of the Chimes, Oakland, California. Architect: Julia Morgan. Gothic inspired interior, many small rooms make up the columbarium of the chapel. The rooms resemble study rooms of a library, where the urns are in the form of books.



Chapel of the Chimes, Oakland, California. Closer view of the book-shaped urns inside the glass niches. Seating area for visitors.