RailTransit O‘ahu

The Discipline of Organizing
Carlo Liquido
1. What is being organized?

The new railway transit system in O’ahu is under construction and set to be completed within the next five years. It will run along the southwest region of the island spanning a total of 20 miles, from East Kapolei to Downtown Honolulu with a total of 21 stops strategically placed throughout. There are a number of ways in which one could scope this project. What are the cultural and political limitations? What are the environmental effects and resources that will be indirectly affected? What are the topographic constraints of a railway system in Hawaii? In terms of the scope of my analysis, however, the ‘people’—namely the things the organizing system is intended for—are the primary resources. The principle guiding the organizing system is to reduce traffic and make more efficient the travelling experience as a whole.

The first artifact, as shown below, depicts population density on Oahu around the focal points of the transit stops. Taken from census data, darker areas represent high-density tracts while lighter areas represent low-density tracts. In terms of population density, the train stops hit the most frequent neighborhoods and are spread across the 20-mile railway in a ratio proportionate to the respective density. The stretch from Keahi Lagoon to Honolulu Downtown, for instance, represents the highest density of traffic. It makes sense that this portion of the rail system constitutes almost half the number of total stops and a quarter of the total mileage.

![Figure 1](image)

2. Why is it being organized?

The guiding principle behind the organizing system of a rail transit system is to reduce traffic and make commuting more efficient. According to the ‘Department of Business, Economic Development and Tourism’, the amount of traffic on almost
every major highway on O‘ahu has increased from 2012-2014. Moreover, the dearth of job creation on other parts of the island, namely the west side, has focused traffic into and out of downtown Honolulu. It is this coupled with a unique mixture of limited real estate and inflexible road infrastructure that has necessitated the need for an above-ground railway system linking the west side of O‘ahu with the burgeoning downtown area of Honolulu. There is clearly a market imbalance that needs to be rectified.

This new organizing system seeks to rebalance the system by reorganizing its resources, that is, by taking drivers and bus commuters off the road and onto the rail. Traditionally the infrastructure of O‘ahu has supported only three major freeways, the H1, H2, and H3. The freeway H2 bottlenecks from the west into H1. Drivers and bus commuters are organized in such a way that peak hours of traffic are unavoidable. The new transit will conceivably provide an additional layer of organization to the currently static system.

3. How is it being organized?

As mentioned above, there are 21 total stops that run along the 20-mile span of track. Why those stops have been selected boils down to organizing resources, i.e. people, efficiently in high population dense areas. Income per household also plays a vital role in how these stops were selected. As seen in Figure 2, the rail transit system predominately runs along areas of low-income neighborhoods (red indicates low income per household, while green indicates high income per household). This makes sense, as income should be acknowledged as a property significant to the organization of the line, where it can be assumed that individuals with less income may be reallocated from buses to rail.

Figure 2
A second property that dictates the organizing principles of the transit line is that of traffic. Given the static nature of road infrastructure on O'ahu, other creative means of transportation (such as car sharing systems) have a limited effect on the commuter population as a whole. Similar to the effect of population density, Figure 3 shows high density of traffic around the rail transit line. One could make the assumption that income per household would only organize individuals with low income if taking the rail transit line was no more efficient or comfortable than driving oneself. In this way, the organizing system fails to account for each type of individual. Traffic adds an extra property to the categorization of people on O'ahu that income alone fails to do.

Figure 3

4. When is it being organized?

The project has begun development and will continue for the following three to five years. As with any construction project of this magnitude put on by the government, the organizing system was planned before construction—the number of pillars, the amount of concrete, the imported steel for rail cars, etc. However, the social implications of such a project in Hawaii has caused mass reorganization throughout the process. Burial remnants from recent excavations have evoked deep-rooted uproar from the Native Hawaiian community. As such, although the number of stops has remained the same, the route has changed dramatically. This means new contracts for where the rail can be built, additional excavation processes, and additional construction materials.
The ‘where’ component of the organizing system is not as important for the scope of this analysis. What resources and the guiding principles for why those resources are being organized are the more critical components. However, it should be afforded some level of importance as the physical nature of the project puts extreme limitations on how the resources can be organized. The topographic nature of O’ahu, being volcanic in geological makeup, does not allow for a belowground rail system. The limited real estate, similarly, does not allow for a ground-level system. If the rail system were to be extended to the North Side or East Side the undulating peaks of O’ahu provide natural barriers to entry.