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### Zermatt, Switzerland – City Without Cars

The city we live amongst is dominated by cars. There are personal choices made and some people choose to live a life car-free, only using them when necessary. Now, think about living in a place where cars are not allowed at all. Zermatt, the famous ski resort town in southern Switzerland, is just this type of town. They do not allow cars. If you want to visit, you may drive, but only as far as the neighboring town of Tasch. Then you must park and either grab a cab or take the train. And there is only one road in or out of Zermatt. It sits on the southern end of a long valley surrounded by 3000-4000 meter mountains. It lies just north of the Italian border and is home to one of the most famous mountains in the world, the Matterhorn. The purpose of this paper is to further understand the capabilities of eliminating cars and to comprehend the application of this idea in American towns.

Zermatt sits at an elevation of 1620 meters in the German-speaking canton of Valais. Zermatt sits at the end of a high alpine valley surrounded by massive snow covered peaks. It is predominantly known as being the base site for many mountaineering routes in the Alps and has been the home of world class skiers. It is home to 5,000 full-time residents and during the winter and summer tour seasons can accommodate 15,000 more people in various establishments. When the mountaineering, rock-climbing, skiing, and biking in Zermatt has been exhausted for the day, the restaurants, shopping, and sun are ready to be enjoyed. Because adventure tourism is the only reason for the prosperity of Zermatt, early on in its history they realized the need to protect the natural beauty of its town. This led to a car ban within the whole of the town. There are huge benefits doing this and it has been in effect since the beginning of the automobile age itself.

The dramatic views of the Alps, and most importantly, the Matterhorn, is the reason for the existence of Zermatt in the way we know it. The best way to protect that magnificent view from the potential of disastrous air pollution is to limit the input of air toxins. Easily, the idea to ban cars came

into practice. Zermatt sits in a valley that would also just hold the air pollution like a constant cloud over the city. No more views of the Matterhorn, no more fresh mountain air and therefore, no more tourists which means no more money. Now, there are some combustion engines allowed in the town, and there is a small parking lot on the north side of the town for people who work in Zermatt. The town also allows car permits for certain full time residents, and the local police are allowed to give out various termed permits. There are also service vehicles allowed in Zermatt that use the traditional engines. Trash trucks, tractors and construction vehicles are sometimes found within city limits. And in 2005, Zermatt residents voted to approve a public road from the outlying town of Tasch to the parking lots near the northern end of Zermatt while keeping the town itself still car free.

Electric vehicles have been the main transport within Zermatt since 1947. They shuttle people to and from the many hotels looking like large golf carts. These are predominantly used by the hotels to move people and their luggage. There are also electric trucks and vans that can haul freight and people along with an electric taxi service controlled by four Zermatt families. There are two large electric bus routes that lazily circle the town providing a more traditional public transportation and serve the major hotels, the ski lifts, and the outlying rural villages.

One of the most common complaints against using electric vehicles is that the creation of the electricity used for power generally comes from polluting sources and negates any environmental gain. In Zermatt, however, all of the generation is hydroelectric. There are enough glacier-fed streams that end eventually down valley in waterfalls that all of the electrical needs of Zermatt are met this way. The car batteries are charged, the houses are lit and the ski-lifts are powered by the clean, zero-emission hydro power.

Another benefit that is tough to quantify is the aesthetic value associated with a town that is able to develop without the need for cars. Roads in Zermatt are just big enough to accommodate the electric automobiles, the horse-drawn carriages and the high levels of pedestrian foot traffic. Therefore, noise pollution is virtually non-existent. The sounds in the middle of the town are limited to conversation at

the cafe's, the low buzz of an electric cart, or the laughing of local children running through the streets. The town just *feels* better, fresher, and healthier. Fresh air, no manufactured noise and outdoor enthusiasm build a town capable of entralling anyone.

The result of a car-less high density town like Zermatt is a safe, healthy, vibrant and personable destination. The next step is to take the lessons learned in this European mountain town and try to apply them to the towns and villages here. First off, there are probably people who would argue that something like what Zermatt has would never work here due to the already very oil dependent infrastructure. Secondly, the geography of that region makes it very easy to limit private transportation. However, there should be enough proof in the simple fact that *it works*. There is nothing stopping the residents from attempting to allow cars into their beautiful city. No one wants them.

Here in Philadelphia, we are quite larger than Zermatt. However, I feel that we are able to learn quite a lot from them. If we test the banning of cars in certain specific locations, like shopping districts, or in certain neighborhoods, then we would be able to accurately judge if such a condition would be able to exist within Philadelphia limits. Take, for example, the Walnut Street shopping near Rittenhouse Square, or Main Street in Manayunk. I fully believe that any type of vehicular allowance change would be beneficial to those two districts. The atmosphere would increase, the aesthetics would change, and the true goal of the city, to increase the advantages of living near other people, would be seen more clearly. Certain parts of cities are not meant to harbor self-containing automobiles. Particular restrictions would change the face of the area. Restaurants would greatly increase their outdoor dining capabilities. Sidewalk sales would not be limited to the small sidewalks. No one would have to inhale the exhaust of the truck that just passed.

Manayunk, where I reside, has a current population that is close to equal with Zermatt. The zip code 19127 has just over 5500 people and most of them live in non-family homes, with a very small portion even having children. It is a very young neighborhood currently with the median income in

each age bracket continuing to decrease after the late 30's to early 40's bracket. This shows the incoming trend of educated, career-minded individuals. It is very close to a number of universities and has quick access to center city by light rail. It is the perfect chance to experiment with a no private transportation policy. Various options could be explored; tax breaks, subsidies, or some form of minor monetary relief would help to alleviate any totally outrageous public backlash. Plus, the ban could start small, just on Main Street where there are over 65 boutiques and 30 restaurants. The time is now, and Zermatt is the model.



View of the streets a few blocks south of the train station.



View of Zermatt and the Matterhorn from the northeast of the city

References

<http://homes.point2.com/Neighborhood/US/Pennsylvania/Philadelphia-County/Philadelphia/Manayunk-Demographics.aspx> - Census Data on Manayunk

<http://www.zermatt.ch/index.e.html>

<http://en.wikipedia.org/wiki/Zermatt>

[http://www.insurgent49.com/yanity\\_zermatt.html](http://www.insurgent49.com/yanity_zermatt.html)

<http://presscorner.zermatt.ch/e/wissenswertes/>

[http://www.gozermatt.com/zermatt\\_photos\\_oldzermatt.php](http://www.gozermatt.com/zermatt_photos_oldzermatt.php)

<http://www.hotelsofzermatt.com/photos/zermatt-village.jpg>