

Have the historical transitions of the area around the Vienna University of Technology influenced today's human perception, analyzed through Kevin Lynch's elements?

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LVA: 260.039 Wahlseminar Städtebau: Literaturkolloquium: „Theorien zur Stadt“

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Abgabe: 2020/ 02

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Abstract

This essay will examine the question, “Have the historical transitions of the area around the Technical University of Vienna influenced modern human perception, analyzed through Kevin Lynch’s elements?”.

Vienna is full of rich history, from Roman foundations to socialist community buildings. The colorful facades are a mix of baroque, rococo, modern and postmodern styles. It has withstood the test of time, medieval city walls making way for the future, a mighty monumental avenue around the inner city of Vienna, fit for an emperor and his empire. Yet how do these everchanging facades, monuments and streets shape the way we view Vienna? How does modernization affect our perception and understanding of our ‘mental map’ of the city?

According to Kevin Lynch, the perception and mental understanding of a city is just as important as the architectural space, if not greater. A successful city has an identity that is shaped through the perception of its inhabitants and understood throughout. According to Lynch, people categorize their understanding of a city into 5 main elements; paths, nodes, edges, districts and landmarks. But how is the perception of a city influenced when these elements are constantly changing over time?

I will be analyzing a section of Vienna through Lynch’s elements. The chosen area will be the Technical University of Vienna and its encompassing square ‘Karlsplatz’ as well as surrounding parts of the 4th district. Analyzing the historical and modern changes made, a number of citizens familiar with this area will be interviewed to gain insight into their perception of the area. Through this analysis I will be able to form an answer to my research question.

Introduction

To understand a city, one must first define the term. According to the Merriam-Webster dictionary, 'a city is an inhabited place of greater size, population, or importance than a town or village'. (Webster, kein Datum). This brings us to the next question, how big of a population is needed for a city to be designated as a city? In Austria, a city is defined as a municipality with more than 10 000 citizens for it to be statistically counted. In Germany on the other hand, there are more detailed guidelines for cities. A small sized 'city' is defined between 5000 – 20 000 citizens, a medium sized city between 20 000 – 100 000 citizens and a large-scale city from 100 000 citizens and more. As Germany has more than 10 times the number of citizens as Austria, it makes sense that as such, more guidelines are set in place for statistical analyses of cities. (indexmundi.at, kein Datum)

While Germany and Austria have a rather distinct definition of what size a city needs to be, other countries in Europe, such as the United Kingdom, are rather vague in their description. The UK is still rooted in historical laws where only the reigning monarch is able to grant the status of a city. Historically there was no given criteria, though it was generally accepted that a town must have a cathedral and strong ties with the monarchy (thus more cities are located in England than in Northern Ireland or Scotland). Size, unlike most other European countries, was not of big consequence, Dundee being a city of 143 000 residents whereas St. Davis with only 1600 residents is the UK's smallest city. The status of a city has no special benefits in the UK unlike in most other European nations, it is simply a term of prestige. (McClatchey, 2011)

With such varying definitions, or no definitions at all, it is difficult to understand a city through factual statistics. Rather than understanding a city through its size and data, maybe one should consider its residents and the essence of the city shaped by its citizens. Kevin Lynch was one of the first individuals to understand the significance of a person's 'mental image' of a city and its relation to reshaping a city through professionals such as city planners. Lynch conducted his own experiment, interviewing a group of residents from Boston, Jersey City and Los Angeles to understand how these residents viewed a specific area of their city. For this interview Lynch created a conceptual framework which every 'successful' city should have; legibility, building the image, structure and identity and lastly, Imageability. (Lynch, 1960) Each person was asked to sketch their own map of, for example, their daily commute through that specific area of the city, whether they walked or drove by public transport or car. Through this Lynch established 5 common elements with which people created their mental maps.

These elements are paths, edges, districts, nodes and landmarks and Lynch argues that if all these elements work harmoniously in a city, even a clueless tourist would find his way around. Lynch states in his book, *'The Image of the City'* - *"Not only is the city an object which is perceived (and perhaps enjoyed) by millions of people of widely diverse class and character, but it is the product of many builders who are constantly modifying the structure for reasons of their own. While it may be stable in general outlines for some time, it is ever changing in detail. Only partial control can be exercised over its growth and form. There is no final result, only a continuous succession of phases."* (Lynch, 1960: pg. 2) Lynch understands a city is not a sentient object but is shaped through the constant change of modern life and technology. (Lynch, 1960)

So how can residents of cities today understand and perceive their cities when these main elements are constantly changing? How does modernization affect the way we create mental maps and perceive our cities? We are surrounded by technological advances every day, reflected in the way cities are shaped and built, for example the car having priority over the pedestrian. To understand the changes made today, I will have to analyze the historical root cause, going back nearly 2000 years.

Methodology

The city chosen for my thesis is the city I personally live in, Vienna. To better understand how the historical changes affect the modern perception, I will strive to answer my question, "How have the historical transitions of the area around the Technical University of Vienna influenced modern human perception, analyzed through Kevin Lynch's elements?".

I will analyze the area around my university, TU Wien, which is part of the 4th district 'Wieden' in Vienna. The surrounding areas of the university will include the Karlsplatz square, the Freihaus building and the beginning of Wiednerhauptstraße (Wiedner main street). Both the historical and modern changes will be analyzed from an architectural and urban planning viewpoint.

Arguably this 'modern perception' will only analyze a small portion of the people in this district and therefore the viewpoints would differentiate if I had a wider subject base. Wanting to keep the university as a focal point, it is historically and in modern times strongly linked with this area, I believe students are the best subjects to interview. An example for this is that even though the university campuses are publicly accessible and even provide shortcuts to other streets, only students and staff tend to make use of these shortcuts, tourists and normal residents being oblivious to this.

I will interview 5-10 students from TU Wien to understand the way students view the area around the university as arguably, students are most familiar with this area in and around the university campuses. Needing a framework for the basis of my interview, I will use Lynch's main elements to analyze the chosen area and use the same method Lynch applied to his interviews to guide my own.

Personal Interview

While understanding the historical aspect of the area, it was important to understand the people's perspective. Inspired by Kevin Lynch's book 'The Image of the City', I applied Lynch's interview to my own, for which he has a detailed description of both the field examination and the office interview. *"The basic office interview consisted in its essentials of a request for a sketch map the city, for the detailed description of a number of trips through the city, and for a listing and brief description of the parts felt to be most distinctive or vivid in the subject's mind."* (Lynch, 1960, p. 140) Like Lynch, I applied the same questions he used in his interviews, changing them slightly to match my subject, listed below.

1. What first comes to your mind when you think of Vienna as a city? Are there any strong symbols that stand out? How would you broadly describe Vienna in a physical sense?
2. I would like you to draw a quick map of the Karlsplatz surrounding area. Draw it just as if you were making a rapid description of the city to a stranger covering all the main features.
3. Please give me complete and explicit directions for the trip that you normally take going from home to University. Picture yourself making the trip, and describe the sequence of things you would see, hear, or smell along the way, including the path markers that have become important to you, and the clues that a stranger would need to make the same decisions that you have to make. ,

4. Do you have any particular emotional feelings about various parts of your trip? How long would it take you? Are there parts of the trip where you feel uncertain of your location?
5. What elements of TU Wien and the surroundings are most distinctive? What is easiest for you to identify and remember?
 - a. For each of two or three of the elements listed in response to 5, the interview goes on to ask question 6.
6. Describe ____ in more detail. What elements of ____ do you think are most distinctive?
 - a. Show me on the map that you drew where ____ is placed.
 - b. Show me on your map the direction of north.

After the spoken interview I gave the subjects several photographs of the area in a random order. Several photographs of other cities were also inserted into the collection. First, the subjects were asked to group the photographs in whatever order were most logical and were then requested to identify as many of the pictures as they could. The subjects were to explain what clues they used to make their identification. The photographs that were recognized were then reassembled and the subject was asked to lay them out as if they were placing them in their proper position on a large map of the city.

In the second part of his experiment, Lynch used trained field observers to analyze the various cities and to be able to have a professional opinion to compare to the subjects. While I did not have a trained field observer like Lynch, I used my own knowledge to go into the field and analyze, using Lynch's elements, to map out the area. Using the various interviews, I looked at the number of common elements the subject had with my own analysis. I would then analyze the most distinct elements and how these may have been historically influenced.

Historical Analysis 100 - 1900

Vienna's Technical University and surrounding main buildings are synonymous with the 4th district Wieden and more closely, directly linked to Karlsplatz square today, a gateway either into the city center just beyond or travelling along a forgotten Roman road south. Today the 4th district is an important juncture, one can travel west, connecting Vienna to Salzburg through the A1 highway or south into Italy. Yet, while is an important intersection for vehicles it also contains large recreational parks with temporary uses throughout the seasons such as Christmas Markets and summer open air cinemas.

Vienna is divided by the Danube, which prior to the technological advances of the 20th century, was a far-reaching riverbed with flood and swamplands. Along with the Danube, the Wien river flows through the city center, nowadays most of the river has been covered and flows underground, allowing space for trams, subways and cars. These changes in the cityscape only took place in the last 150 years, influenced by 2000 years of history.

2000 years ago, Karlsplatz and the beginning of the Wieden district were covered by flood lands from the Wien river which then flowed into the Danube marshlands. The Wien river was slow and had several small streams edging into the nearby forests, filled with wildlife. It was much smaller than the various arms of the Danube and therefore easier to cross, the Romans would use this geography to their advantage. (Doppler, E., 2008)



Figure 1 – Wien river landscape

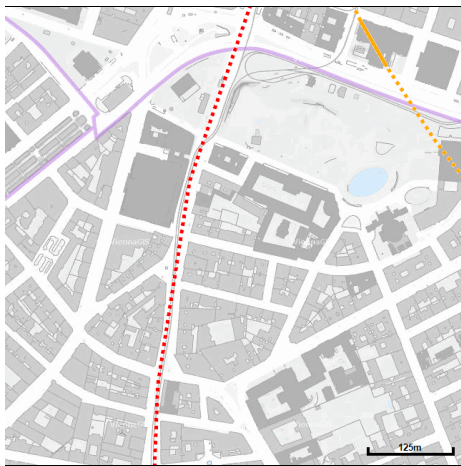


Figure 2 – Historical Roman roads

The Romans founded Vienna, then known as Vindobona, a legionnaires camp set up around 100 AD to protect the northern border (effectively the Danube) from the Germanics. To maintain power and influence, the Romans understood that a large network of roads were necessary, connecting Rome to even the furthest outposts. Even then the Romans were capable of building an intricate system of roads, designed to be 7-9m wide and slightly arched in the middle to allow water to trickle down the sides. (Doppler, E., 2008) While modern day Karlsplatz and Wieden were not within the Roman settlement's walls, two main avenues led out of Vindobona, both having left historical traces today. These roads had to cross the smaller Wien river, which was slowest around the area of present day Karlsplatz. These roads led through the square, even then cementing it as an important juncture. The 'Limes road' (orange road) linked the various Roman fortifications along the Danube border, travelling from modern day Klosterneuburg through Karlsplatz and beneath

the Vienna city Museum, towards the Roman fortress Carnuntum in the east. The second road (red road) also traveled through the square and while it had no name, this road would lay the foundations for the modern day 'Wiednerhauptstraße' (Wiedner main street). The road led from the south of the legionnaires camp, Vindobona, to most likely Rome. (Doppler, E., 2008)

After the descent of the Roman Empire in 550AD, its buildings were left to fall to decay and for 800 years Vienna was left to its surrounding nature. It was not until the Babenberger family made Vienna their seat of power in the 13th century, allowing Vienna to become a populated and prosperous city again. (Doppler, E., 2008) Vienna was rebuilt on the Roman foundations in the center and even spread out past the Roman settlement's walls. Small villages would settle just outside the city gates, which were separated from the center through the Wien River, becoming a distinct border. One of these villages is today's 4th district 'Wieden'.

The suburb Wieden became prominent for Vienna's first hospital, the 'Heiligengeist' hospital and a second hospital known as 'Bürgerspital' in the 13th century. Both hospitals needed sufficient running water which they received through the Wien River that separated them from the city. (Doppler, E., 2008) The city itself was overcrowded and did not allow for sufficient space for a hospital, as well as those sick of disease were rather not seen inside the city walls. The hospitals had their own breweries and mills, which allowed for a lucrative business that caused many craftsmen and tradesmen to settle in various small villages of Wieden, named 'Lucken'. Many streets today still remember these mills and breweries through various street signs, which will be touched on later.

The Roman roads were still used during the middle ages, in fact, the historical center of Wieden would settle around this road leading south, today Wiedenerhauptstraße. While the city center of Vienna had outgrown its Roman foundations, it had been expanded at the end of the 12th century with new walls and garrisons. With the founding of hospitals, the suburb of Wieden became an important aspect of the city, which was given its own fortification in the mid 15th century. (Doppler, E., 2008)



Figure 3 – Turkish siege with the Laszla tower in the background

When reaching Vienna from the south, by the historic road built by the Romans, one would first encounter the city's suburbs, one being Wieden. A somewhat temporary looking wattle fence and palisades enclosed the suburb with a large stone tower, Laszla Tower, allowing entry into Wieden. From there one would follow what is present day Wiedenerhauptstraße to Wieden's center, located near today's 'Rilkeplatz' by the main street. (Doppler, E., 2008) The Wien river was, as in Roman times, still a border between the inner city and outskirts, only now, the then wooden bridge had been replaced by a stone bridge, a rarity for medieval times. The placement of this bridge is reflected throughout history into modern times, today most notably where Kärntnerstraße and Karlsplatz meet. While Wieden thrived for 400 years, in 1529 with the oncoming

siege from the Turks, Wieden was burnt to the ground by command of the King. This was due to the outskirts and small villages being used as cover and fortifications by the Turkish. All suburbs were subsequently destroyed, with villagers fleeing past the 'Kärntner' gate and into the city center for refuge.

For the next 150 years the walls around the city center would be strengthened and fortified creating nearly 30m strong fortress

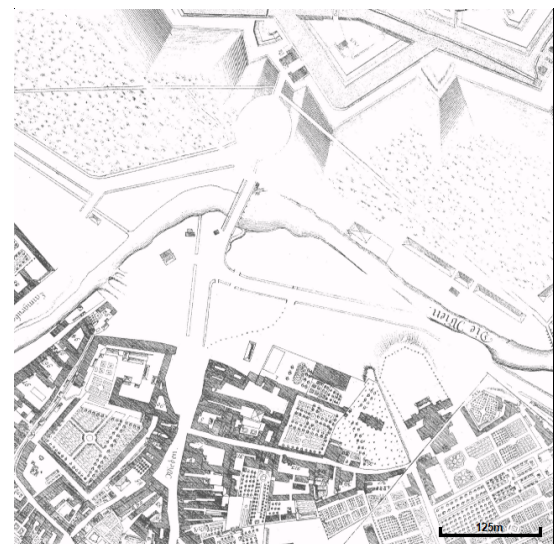


Figure 4 – Fortifications and No – man's land

ramparts, bastions and ravelin's. Along with these fortifications, a 20m wide moat was constructed around these ramparts. (Doppler, E., 2008) Having learnt from the invasion of 1529, a construction ban was placed for 450m after the city's fortifications. On the premises of today's Karlsplatz square, a 450m wide 'No-man's land' was created, giving the invading Turks no chance of using previous ruins as cover. The suburb of Wieden was effectively pushed outward, away from the city, the stone bridge and main street being the only connection from the south into the city center and still remain standing. (Doppler, E., 2008)

The suburb Wieden began blossoming again in the early 17th century, the emperor creating his summer residence in Wieden, in Favorita, and several rich citizens owned a second property in the suburb. While the Turkish invasions were not over, industry and trade were reestablished in Wieden. It was during this time in 1643 that a large real estate project was started, today still known as 'Freihaus' ('Free house'), but no longer standing in its original form. Around this establishment, then planned as a castle, a chapel, gardens and small one room apartments were created to be rented out to citizens, mainly used by the surrounding workers of Wieden. After several invasions and fires caused major damage to the Freihaus it was decided in 1785 to build a large social housing complex on the grounds. It was no longer a princely establishment but rather a large 25 000 m² complex for the people in desperate need of housing, at its peak with 1000 people living on site. (Doppler, E., 2008)



Figure 5 – St. Charles Church in the east

With the creation of the Karlskirche (Karl's church) in the early 18th century the Karlsplatz was given its most iconic building and is the first time the square was given an identity. Without this icon, the square would have most likely ended up as a large street, a pass through to the outskirts, as it had been throughout history. The church was part of an architectural competition in 1715 as a celebration to the end of the plague, with Johann Fischer von Erlach winning this competition and the monument was finished in 1737. (Doppler, E., 2008)

It was to be a sacred monument, a symbol of the empirical family and their might. The church was therefore strategically placed along the way to the summer residence of the emperor in Favorita. While the church is one of the area's biggest symbols, it is also arguably the biggest failure. The church was placed diagonally to the Wien River and has therefore never allowed for an integration into the city scape, the Wiedner main street travelling at a 45°

angle away from it. From an architectural standpoint it was never given a true chance to shine, at the time placed just past the 'no man's land' and the only viewpoint was facing the empirical family's residence. (Standard, kein Datum)

With the lessening threat of the Turks invading, it was in the mid 18th century that the city center and the outskirts were growing together again. The ruined and difficult to pass through 'no man's land' underwent a large reshaping that allowed for green areas along avenues, essentially a large recreational space for the Viennese. With the building of the



Figure 6 – View across the Wien river

church, the surrounding areas were also adjusted, with new buildings such as the present-day Technical University built in 1816. Most of the traffic leading to and from the city center would lead through the 'Kärntner gate' and by default through the square, which in turn created a second gate opening in the fortifications to relieve some of the transit. (Standard, 2019)



It was in 1857 that the emperor ordered the destruction of the fortifications around the city center which were no longer needed and in fact stifled the growth of the city. Through this, the large barricades, moat and no man's land were suddenly ripe building grounds. Until then, the Karls square was always separated by not only the river but by the large 'Glacis', the greenery separating the fortifications with the outskirts. With this expansion of the inner city, the Karlsplatz suddenly received a man-built border through various buildings. In a sense the square became an architectural experiment, the Karls church showing its imposing Baroque origins whereas the university mirrors its classicism beginnings and the future neighboring buildings creating an altogether new style. (Doppler, E., 2008)

Figure 7 – 1858 General Plan

In 1854 an homage to the new empress Elisabeth, the 'Elisabeth bridge' was built. It replaced the old stone bridge connecting the inner city to the Wiedner main street leading south over the Wien river, the same bridge leading back to Roman times. The bridge had 8 stone monuments fitted on its sides, (Doppler, E., 2008) creating an early picturesque landscape of the square with the Karls church in the background.



Figure 8 – Elisabeth bridge 1854



Figure 9 – View across the Glacis

While the first buildings flanking the new empirical boulevard, 'Ringstrasse', sought to emulate the classicistic style of the then polytechnical university, the next 50 years would see various differences in the buildings built around the empirical boulevard, the square was after all seen as an experiment, until then not thought to play a big role in the vast changes of the city.

The western part of the square was to have various housing buildings while the east was to have several cultural institutions meant for the residents rather than the nobility. The first building, the protestant school built by Theophil Hansen in 1860 saw a chain of buildings being erected clockwise around the square, the commercial college in 1862, 'Künstlerhaus' in 1868 and the 'Musikverein' in 1870. (Doppler, E., 2008)

Figure 10 – 1887 General Plan



All of these buildings were planned separately and were not seen to be connected to one another, especially not the buildings on the other side of the river, still a strong border. In fact, the only architect that built separate buildings on either side of the riverbanks was Theophil Hansen and even then, the buildings had no connection to one another, whether in the façade or the orientation. It was a square of various different institutions trying to plan a sense of identity to an identity less area, which still had no official name.

Figure 11 – Naschmarkt located next to the Wiedner main street.



A regulated market that proved to be immensely efficient and very profitable for the Freihaus that rented out its land by the Wiedner main street to market stalls. Yet at the end of the 19th century, the market was suffering from bad hygiene standards and lacked the grandeur of other western European markets with covered halls and permanent sites. It was here that the need for a permanent space for the market became evident, the later covering of the Wien river allowing for such a long area to be created. (Standard, kein Datum)

It was not until 1900 that the square first received its name, 'Karlsplatz', as well as its recognition as an urban space. In order to create a new expanse, the Wien river, which was seen as an unhygienic entity, had to be covered. This would allow for new space above ground and would eventually enable a new boulevard to lead outwards, the 'Wienzeile'. At the same time another large project was planned, the building of a city railway line that was to be built below ground and therefore required the river to be contained. After 10 years of planning and building, the river was covered in 1899 as well as the famous railway station by Otto Wagner and railway line finished. (Doppler, E., 2008) Unfortunately, the railway line at the time of opening was already outdated with its steam engine. Because of this, two 15m by 90m sections had to be cut into the station by Otto Wagners buildings, to allow the smoke to dissipate, creating yet another border between Karls square and the inner city.

An important aspect of the square was the location of market since the early 17th century. It was based from the Freihaus towards the stone bridge, on today's 'Karls Garden', and by the 18th century had received a permanent standpoint where fruit, milk and vegetables were sold. It was even decreed that all produce coming into the city by wagon had to be sold at this market, then known as the 'Kärntnertor market'. (Doppler, E., 2008) It became the main market for the city, other than the Schanzelmarkt for produce arriving by boat, and by the 19th century was known as 'Naschmarkt', most likely because of the imported sweets from the Orient. It was a strongly

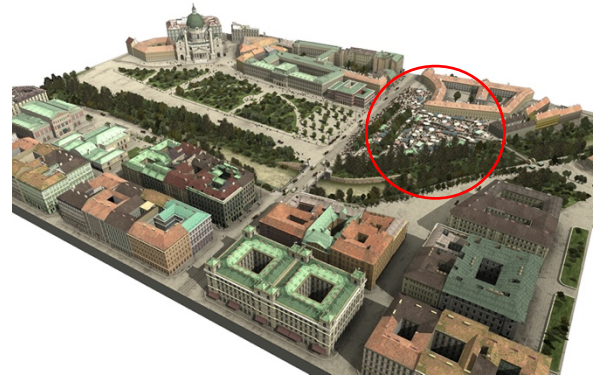


Figure 12 – Naschmarkt and Karlsplatz circa 1890

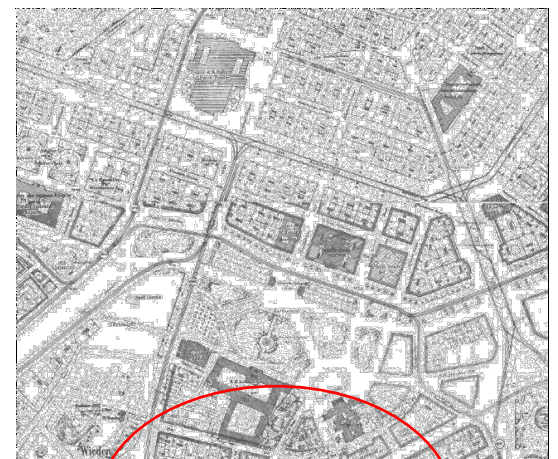


Figure 13 – General Plan 1904

The shaping of the actual square was finalized in 1902 with new trees and park areas. While the Karl square was an image of architectural splendor, it was here that a second face emerged. The various canals and underground tunnels were used by the homeless and stranded people as a refuge or as a place to hide. This second face would stay synonymous with the square until the late 2000s. (Doppler, E., 2008)

Modern Analysis 1900 – 2000

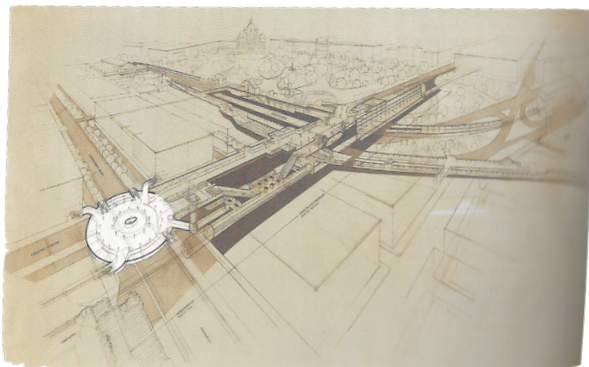
The square had been given a new face at the turn of the century, yet several plans were still not realized. With the start of World War I all plans were halted and subsequently never realized due to years of inflation following, including the recently vacated area of the Naschmarkt. The only planned aspect that was fulfilled during the war was the relocation of the Naschmarkt to its present-day location at 'Wienzeile'. The square was characterized in the late 1920's and early 1930's with rapidly built commercial edifices that lacked architectural ideals. (Doppler, E., 2008)

Mainly due to lack of projects during WWII and after, many architects tried planning the square anew, including Friedrich Ohmann, Josef Hoffmann and Roland Reiner. Yet these plans were of little consequence as larger problems were afoot. A very important impact on the square during this time was the internal political tensions rather than any architectural conflicts that were to come. These political differences were often protested by hostile groups and their demonstrations frequently took place in front of the Karls church. The plaza in front of the church was popular among rioters as it was easier to gather such a large mass of people and fill the area. The heightened base of the church connected by wide stairs allowed for the speakers to stand above the crowd and gain a better vantage point. The church stands as a landmark in both tumultuous and harmonious times.

The landmark and its surroundings were mainly spared from the bombing of WWII. Yet with the oncoming Cold War and the division of Vienna between several countries. The square was once again a border, this time between various occupying forces, the border again running between the natural divide of what was once the Wien river. This gave rise to the opportunity for another market at Karls square, yet this time it was for the trade of illegal goods.

After the retreat of the Soviet Union forces from Vienna, a new beginning was forming for Austria, and specifically for Karls square. New visions arose for the area, especially between the axis of the opera to the Wiedner main street. This axis was often planned anew and based on ideas of monuments. While there were plenty of ideas, these ideas were never realized as by the 1950's growing traffic became the bigger problem. The urban planners Karl Heinrich Brunner and Roland Reiner saw the square as an important transit junction that allowed traffic from the west to flow into the city center and merge, a modern node. (Doppler, E., 2008)

Figure 15 – Subway development



It was during the 1970s that heavy construction was started again to create the square we know today. The 'Freihaus' was finally demolished and enabled the university to construct new institutional buildings including the library in 1987. Karls square was turned into Europe's biggest construction site from both an architectural and landscape point of view. Three subway lines were planned to meet below ground while above, a complete reorganization of transit lines, traffic and parkways were planned. Once again, we see a divide in the square, on one side 'a city highway' and on the other a 'city

paradise'. These divides still exist today. This juxtaposing concept was also mirrored vertically below ground, a complex subway network and pedestrian passageways below and above a green oasis. It was here that the plaza in front of the church and the Resselpark were to be combined as one large park area. A landmark of today's Karls square are the Otto Wagner stations or pavilions, which have been kept in their original positions. Yet, during the modernization of the square it was planned to move these pavilions to another area, which under heavy protest did not occur. (Standard, 2019)

Only after the concepts for the underground expanses were finalized, did the commissioning of the park and traffic ways begin. Five teams were asked to solve various tasks including a pedestrian crossing between Kärntner Street and Wiedner Main Street which once used to be the Elisabeth bridge. At the same time the Swedish landscape architect Sven-Ingvar Andersson developed a new landscape concept for the park, in which the church and its surroundings were combined with the Resselpark as one. A central axis towards the church was not realized and instead the terrain between the church and the subway entrance was sloped downwards to allow for a more natural setting. The trees were arranged in various elliptical shapes which were to provide a distinct identity to the park and move away from the historical symmetrical shapes. Various elliptical shaped pools of water were also planned yet only one was finalized, a large pond in front of the church which in winter is used as a petting zoo at Karls square Christmas market.

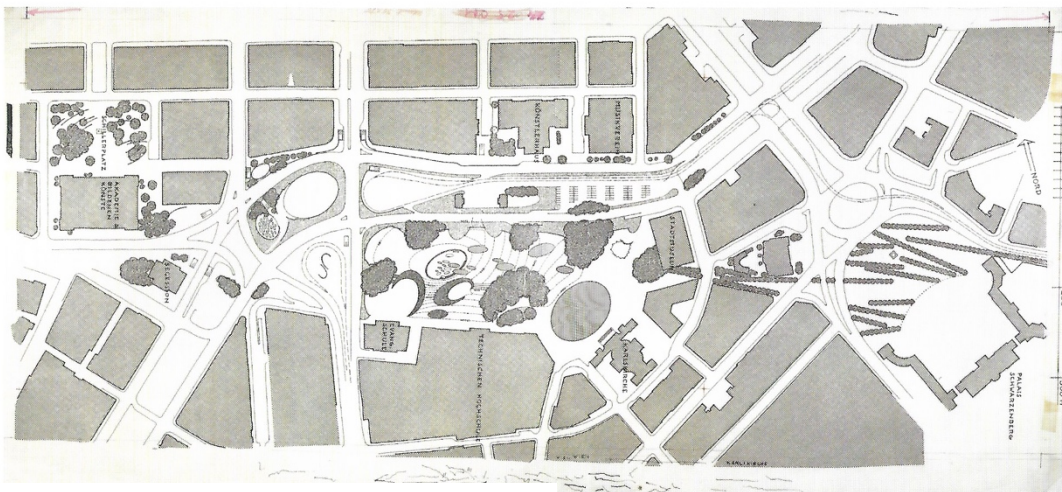


Figure 16 – Resselpark General Plan

The Karls square is a composition of a variety of spaces that differ based on one's needs and interests. While the square was overshadowed by heavy drug-related issues in the 1990's and early 2000's, the majority of the area is considered a secure space. The Karls square has evolved into a place of art and culture beginning with the 'Kunsthalle'. Many artists used this contradictory history and varying facades to inspire their art. One of the most interesting qualities of this multifunctional square is that it is never quite complete. (Doppler, E., 2008)

Kevin Lynch

Elements

After interviewing various residents from each city, Lynch found 5 common elements that people used to perceive the city around them. According to Lynch all elements are interrelated and must harmonize to create a legible city.

(Lynch, 1960)



PATH

- a. **Paths:** channels along which the observers move and is the most common way from which the city is experienced. Other elements of the city are arranged and related to these paths. Examples include: streets, walkways, canals, railroads



EDGE

- b. **Edges:** provide a spatially distinct arrangement to elements of the city. Edges can be strong, but planners must ensure they are still penetrable enough to allow connections across them. They are linear breaks in continuity and are lateral references rather than coordinate axes.

Examples include: shores, railroad cuts, edges of development, Berlin Wall



DISTRICT

- c. **Districts:** relatively large areas that have enough identity to be named. Each district should be set apart from others through thematic, visual clues. Districts often become defined in terms of class or special use. Districts have a two-dimensional extent, meaning the observer can 'mentally enter inside of'.

Examples include: Bezirk (Vienna), park vs. residential area



NODE

- d. **Nodes:** Points which are strategic spots and points of reference for the observer and one can enter and pass through it. They should be limited to a reasonable amount and made distinct through edges and landmarks.

Examples include: junctions, places of break in transportation, moments of shift from one structure to another



LANDMARK

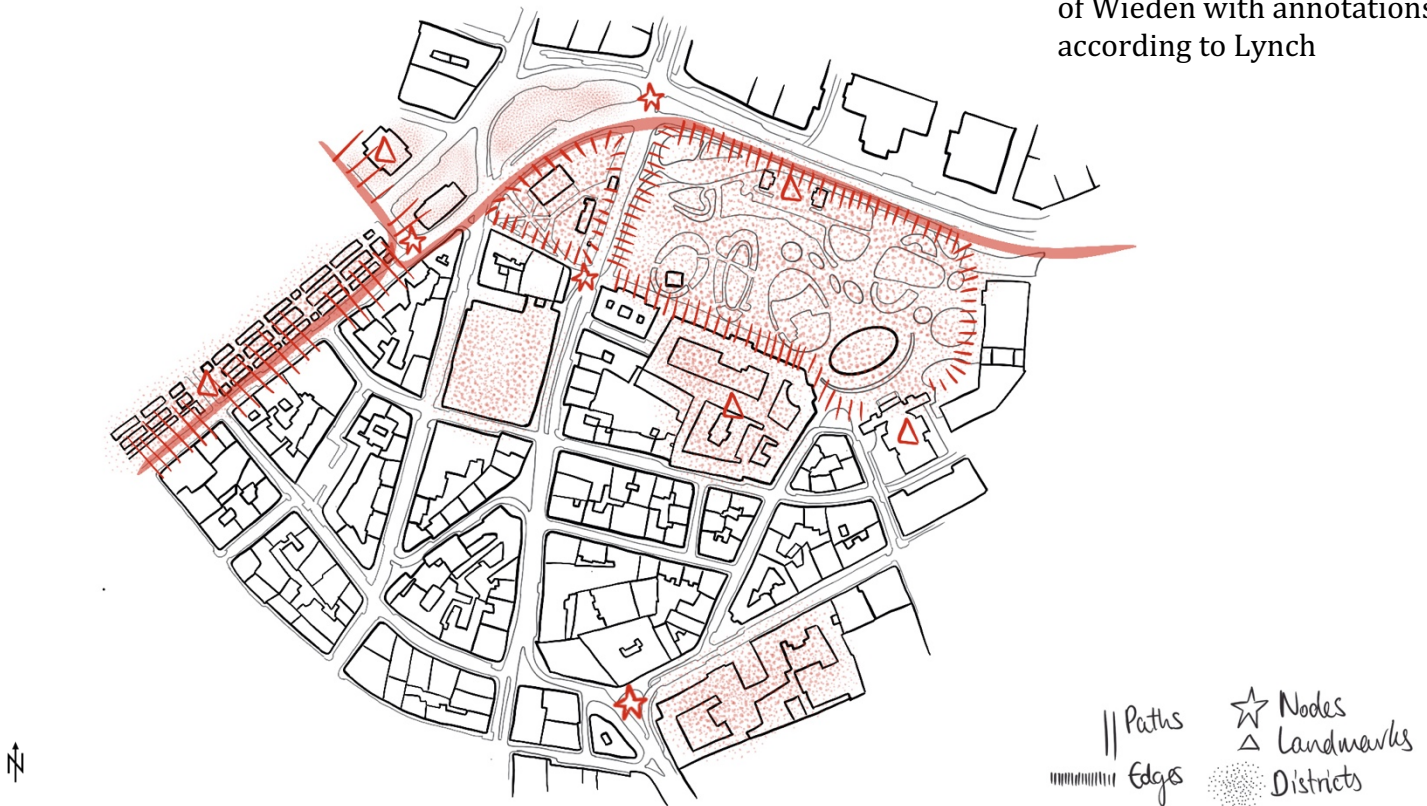
- e. **Landmarks:** anything that stands out that can help an observer orient himself. It could be lavish and visually appealing, or it could simply be a foreground that contrasts sharply with the background.

Examples include: sun, historic monument

All of these elements are influenced by several other subsequent factors. Lynch argues that there are ten important design qualities that apply to each element:

1. **Singularity.** Sharp contrasts can be used to draw attention.
2. **Simplicity.** Forms should be easily conceivable geometric shapes.
3. **Continuity.** Individual elements must be understandable as a whole.
4. **Dominance.** Some elements stand out from the others.
5. **Clarity of Joint.** Emphasize strategic intersections and boundaries.
6. **Directional differentiation.** Asymmetry can help the observer detect direction.
7. **Visual Scope.** Points at which the larger picture can be taken in.
8. **Motion Awareness.** Make the traveler visually aware of one's speed.
9. **Time Series.** Designing "melodies" in a series that is experienced over time.
10. **Names and meanings.** Non-physical attributes that enhance design features. (Lynch, 1960)

Figures 17, 20, 22 – 24 – Map of Wieden with annotations according to Lynch



This chapter will analyze Lynch's individual elements through the various answers from subjects and identify historical influences, if applicable. In order to understand the thought process of the subjects, like Lynch, I had to conduct my own field analysis. I ventured through the field, taking photographs and notes that would later be used for the interviews with the subjects. I started from the front entrance of the TU Wien through the 'Resselpark' towards the Kalrskirche (Karlschurch), and into the various alleyways behind the church. Heading south until reaching the Gußhaus campus building where from I headed west until reaching the Naschmarkt. Moving east through various streets until reaching the Wiedner main street and venturing back to university in a full circle. Using a map of the area while walking, I took notes and analyzed the area using the 5 main elements that Lynch identified to form my own analysis. Through this process I was able to form my own mental map and understand the subject's answers in the interview.

An important aspect to understand is that everything is experienced in relation to its surroundings, influenced by the people around, the architecture and past memories. Therefore, when it comes to understanding a city as a whole, there will be similar answers in regard to distinct landmarks or cultural identity. Yet when it comes to details in the surroundings, people will notice different details based on aspects such as their upbringing or occupation, i.e. an urban planner versus a taxi driver. Lynch states that, *"Not only is the city in object which is perceived (and perhaps enjoyed) by millions of people of widely diverse class and character, but it is the product of many builders who are constantly modifying the structure for reasons of their own. While it may be stable in general outlines for some time, it is ever changing in detail."* (Lynch, 1960: pg. 2) The cultural identities as a whole may stay stable and only slightly change over decades, yet with the constant changes to keep up with evolving technology buildings and areas will vary in detailed understanding in people.

Interviewing 7 students from TU Wien using the method described in the methodology chapter, I analyzed their responses in terms of Lynch's elements grouped below. Along the way I tried to identify the causes for responses, if these are influenced due to historical changes. The cultural identity and overall aspects of Vienna as a whole garnered similar responses from most subjects, its clean, has great infrastructure and a world famous coffee culture. When asked about symbols or landmarks that define Vienna, everyone mentioned St. Stephen's cathedral as well as most mentioning either Schönbrunn palace or St. Charles church. These iconic buildings have withstood the test of time, even today standing above most structures in the city, in fact until recently no building in the inner city was allowed to be above the St. Stephen's cathedral tower. These edifices can be found on most postcards and tourist guidebooks and are without a doubt a landmark of Vienna. Of course, some subjects mentioned more specific aspects of Vienna that they may see as a landmark, yet others might not. This is based on previous experiences from a single individual, a particular subject mentioned the old Danube area as an iconic spot, long summer nights spent drinking with friends and enjoying oneself, this individual experience will vary from person to person. Another example of an individual experience is that subjects who were not born or raised in Vienna often viewed its people as cold or grumpy, something which people raised in Vienna never mentioned as that is what they consider the norm to be. As Lynch stated, we see that the overall idea of a city tends to be similar, yet details are shaped by our experiences and individual life choices.

PATHS

Starting with paths, Lynch argues that this is the most common way for people to form a map of the surrounding area to orientate themselves. This is most certainly true for both drivers and pedestrians in an urban environment, pedestrians (myself during the field trip included) having to navigate the sidewalks and cars forced to move along the paths and watch for one-way streets.

The most common path in the area is the Wiedner main street connecting the 5th district with the 4th and into the city center towards the 1st district. The other main street running parallel to the Wiedner main street is the Operngasse. It leads into the Margareten street which moves away from the city center towards the 4th and 5th district, eventually reaching the Gürtel and the outer districts. Both main streets are one-way streets, one leading towards the city center and one away from it. The Margareten street and Operngasse were not commonly drawn in interviews, if they were drawn only people living in either the 4th or 5th surrounding districts would specifically know their names as they would often take these roads to reach home. On the other hand, the Wiedner main street was recognized by almost everyone in both name and shape on the map. This road has existed since the Roman era and was for a long time the only way of entering the inner city from the south. It has always been an important pathway leading towards the city, with St. Stephen's cathedral towering over the surrounding buildings like a beacon. When subjects analyzed photographs I took of the surrounding area, the Wiedner main street was quickly recognized when St. Stephen's cathedral was identifiable in the background, a guide point.



Figure 18 – Wieden main street towards inner city

The smaller alleys around the building blocks were usually not known by name. When trying to identify these alleys, the subjects generally saw the building blocks the paths surround rather than the individual street. Subjects drew these alleys on a map, yet the building blocks were outlined and the

street was created from the negative space rather than outlining the street itself as was the case when identifying a main street. This stems from historical villages, 'Lucken', in the early 15th century fusing together and creating uneven and winding paths. (Doppler, E., 2008) The various villages that were combined together were of greater relevance than several side streets. Subjects that sometimes drove to university with a car or a motorcycle stated that they would navigate these alleys in order to find a parking space. Usually they drove aimlessly around several blocks without losing a sense of direction to find an empty spot. In the end it does not matter if you turn left twice or turn right twice around a rectangular block, you will still arrive at the desired location on the other side.

Where subject noticed the pathways less but rather the space between the paths, were the park areas, especially in the Resselpark. The park was once a symmetrical design of classicistic architecture at the turn of the century with wide paths and in between large expanses of greenery. (Doppler, E., 2008) These wide roads proved useful as drivable roads during the 1950's and 60's. The present-day pond in front of the church was used as a roundabout and there were even talks of creating a bus stop and several underground parking garages with openings in the park. Of these ideas only one parking garage was built at the edge of the park to the south east, with the entrance accessible from a side alley. The park received a new design during the 1970's, including new underground subway lines. The outer paths were kept close to their historical width while the inside of the park received an array of elliptical shaped green areas with pathways having no clear viewpoints to a destination. This was mentioned several times by subjects, when going to the main building campus from the Karls square subway station, they tended to use the wider paths on the outskirts of the park that have been kept in their original form. One subject even mentioned that she felt a sense of disorientation when walking through the inner area of the park as some of the paths cutting through the elliptical greenery leads nowhere and with large tree coverings does not provide a distinct vantage point to nearby landmarks.



Figure 19 – Karls square c. 1960

EDGES



Figure 20

The entire area analyzed can be seen as an edge (marked by the red line), where the 1st district and 6th district meet the 4th district. This border is further emphasized by several factors; the Resselpark, Naschmarkt and the smaller park Karls Garden. This district border originated from the natural landscape, the Wien river, which carved a way through present day Vienna. It was not until the river was covered at the turn of the 20th century, allowing for the Naschmarkt and 'Ringstraße' to be built above it and converge these districts together. This border was especially noticeable when subjects drew maps of the Karls square region, no one drew buildings north of the park structure (1st district)

and one subject even specifically mentioned that he could not pinpoint any buildings "on the other side" of the park.

This border edge has always been present throughout time, emphasized through the Wiedner main street and bridge as the only access point south of the center to cross the river. While the river is no longer visible, the difference in structure, greenery to built area, still emphasizes this border. The park is enclosed on all sides to the south, the university, Protestant school and church. To the west the Vienna museum and to the north varying buildings and cultural institutions belonging to the 1st district. All subjects recognized the bigger park, 'Resselpark', by name and location on the map and often identified as one with St. Charles' church, as was planned in the 1970's remodeling. On the other hand, the smaller park structure to the west, divided by the Wiedner main street, is sometimes drawn by subjects on the map but not a single person could identify it by name, 'Karls garden'. Once this park area belonged to the Naschmarkt, an identifiable landmark on its own. In 1916 the market was moved to its location today, its identity as a market space went with it. For a long time, the area had no particularly strong aspect that could compete with the landmark and monumentality of the church. It was not until the early 90's in the form of a cultural art space that the garden received a regard of identity, and even then, it is still overpowered by St. Charles' monumentality. (Doppler, E., 2008)



Figure 21 – Kars square c. 1960

Similarly, the Naschmarkt creates a distinct edge to the surrounding buildings. The Wien river that has now been covered, continued the line of the natural border visible at the Karls square. While the Naschmarkt has always been its own a landmark, it is no longer as synonymous with the Karls square area as it was before it moved locations, it is now recognized more strongly as an edge towards the square. When subjects were asked to draw the Karls square area, only one subject included the Naschmarkt in her drawing, she was also the only subject that mentioned the market as its own landmark of Vienna as a whole.

DISTRICTS

The entire area is grouped into the 4th district, a municipal district. While this is a municipal district, according to Lynch, similarly grouped areas of building types also create their own districts, an area with a different identity to the surroundings. The park is its own district, being an outlier in a sea of concrete buildings. Similarly, the university buildings form their own district, mainly students and staff being the only ones entering these public buildings even though shortcuts through these campuses to other streets are open to the public.



Figure 22

Several subjects mentioned the aspect of the municipal district and most, most likely subconsciously, were able to draw all parks and green areas in the area. Many subjects also drew the three main university buildings, a distinct and important area for students. Only one student drew the Naschmarkt and as previously discussed, that may be as the market has become more of an edge than

a district associated with the Karls square, as it is no longer in the same municipal district. Though the Naschmarkt is also considered its own district, a distinctively different building style found between typical historical Viennese buildings. It has its own culture, the Naschmarkt generally being a market for goods from the Orient, acting more like a bazaar than a typical shopping street.

NODES



Figure 23

The area contains various important junctions, also known as nodes, according to Lynch. The roads arriving from the outer districts reach a central point and converge together towards the 1st district (triangle indicated on the map). Subjects mainly drew the junction (3), where the Wiedner main street travels towards the inner city. Most subjects travel by public transport and the indicated junction is also an important tram stop for university students. The other junctions are intersections mainly used by cars or buses. The junction to the south of the map was also drawn by a couple of subjects mainly due to the confusing nature of the pedestrian crossings, merging with bicycle lanes and diverging roads.

Within an area of 10m² there are three crossings for pedestrians as well as two bicycle crossings, on top the two-lane street diverges into single lanes, one reaching the Wiedner main street towards the city center and one leading east towards the 3rd district. A subject that sometimes travels by motorcycle to university mentioned the traffic delay caused by these repetitive crossings during peak hours, “a nuisance” that he tries to avoid when driving to campus.

LANDMARKS

The area contains a variety of landmarks, arguably the most famous being the St. Charles' church after which the surroundings were named. The church is the tallest building in the area, easily viewable from various spots, an anchor point for one's location. When asked to analyze various photographs from the area, photos that showed the church in the background were more easily recognized. On the other hand, when it came to details from the church, i.e. only parts of the church were visible in a photograph, the subjects had trouble identifying several pictures. This may be due to the church being perceived as one large monument, individual details may seem similar to other historical buildings.



Figure 24

The technological university is considered an educational landmark in Vienna, being created and opened by the late emperor Franz Josef in 1816. (Doppler, E., 2008) It was the first higher technical institution in Vienna. All subjects mentioned the university in their drawings and discussions as the university is an integral part of their daily lives. When starting to draw a map of the area all students either began with a landmark to anchor their maps, either being the university or St. Charles' church. Both these landmarks are some of the oldest and largest edifices in the area. A strong aspect that was mentioned by several subjects was the main entrance of the university and its façade. Its strong symmetry is visible from even the opposite side of the park and a distinct image of classicism architecture. This symmetry and viewpoint was not planned by accident, the Otto Wagner designed train stations to flank the sides of the university and the main entrance to be seen in the middle. (Doppler, E., 2008)

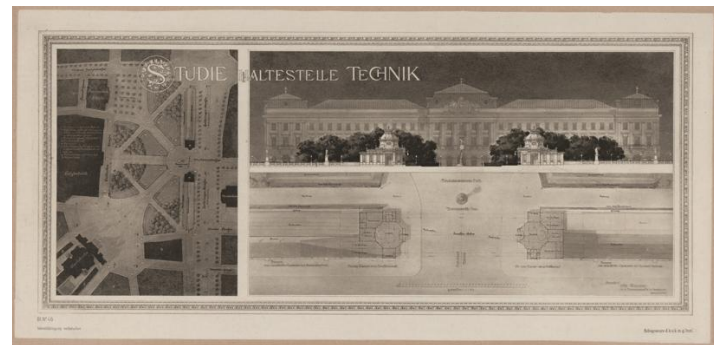


Figure 25 – Study by Otto Wagner showing symmetrical placement

Another important landmark that was mentioned by a few subjects is Otto Wagner train stations, today pavilions. After the remodeling of the park and the implementation of the natural slope of the park, the pavilions stand above the park on its edge, visible from all areas. The pavilions have a strong identity to the region through both the architect and the time they reflect, a time of technological change and urban redevelopment. Discussions in the 1970's during the remodeling of the square talked of moving the stations to a new area, which was met with harsh criticism and even protest and the idea was never realized. (Doppler, E., 2008)

An aspect that is important to remember is that landmarks are not always a place of beauty or cultural wonder. Various people mentioned current 'Freihaus' building which is part of the present-day university campus. Subjects did not mention it for their beauty but rather for the lack thereof. Even on a map, one sees the large rectangular shape overtaking an entire block while the historical buildings are wedged in between free spaces. The distinctly different façade style from the surroundings makes the edifice stand out in an uncomfortable way, not to mention the murky turquoise color that is at an impasse with the mostly neutral historical building façades. The only allusion the 'Freihaus' gives to its history is its name and the location, albeit a bit smaller. Its architecture on the other hand gives no hint of its grand history, something no subject mentioned. (Doppler, E., 2008)

CONCLUSION

In conclusion, the answer to my essay question, “Have the historical transitions of the area around the Vienna University of Technology influenced today’s human perception, analyzed through Kevin Lynch’s elements?”, is that the modern perception has been influenced by a variety of historical changes.

The natural landscape has created such a strong border over the past millennia, that it has in turn shaped several municipal districts of Vienna today. These borders have subsequently shaped the area we today know as ‘Karlsplatz’, throughout time situated at the edge of the inner city, always separated by the Wien river. The bridge crossing over the river from the south dates back to Roman times and has been an important aspect in connecting the southern edges with the city center. This connection is mirrored through the ‘Wiednerhauptstraße’ today, which has been paved above the Roman foundations, a road recognized by everyone. Buildings that have withstood the test of time and in turn shaped the surroundings such as St. Charles church have created an identity for the area, turning Karls square not only into an important transit junction but a place of culture and ideas, from the polytechnical institute to the Vienna Museum to a green oasis.

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