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THE HISTORICAL MUNICH CITY IN GERMANY

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Abstract

The author's trips to Germany were mostly of a study nature, and some of them were just trips to other European cities (Amsterdam, Nice and Oslo). The study trips (1999, 2007 and 2011) were related to a visit to the famous trade fair (the world's leading one of its kind) for architecture, materials and systems (BAU Munich), which takes place every two years in Munich. Visits to this fair were of great importance for the Author, since (at the end of the 20th and beginning of the 21st centuries) he was intensively engaged in architectural design, and since 1989 at the Faculty of Architecture in Sarajevo he taught subjects that by their nature followed contemporary trends in architecture (Architectural physics, Structural systems in architecture, Detailed materialization of envelopes of architectural objects, New approach to conceptualization and materialization of architecturally defined space, Architecture as an energy system...). As the fair was held for four days (it was held in mid-January), the author used the opportunity to get to know the architecture of Munich on the spot, as well as its architectural cultural and historical heritage (Maximilianeum, PrinzregentenstraÙ, LudwigstraÙe, Marienplatz, Alte Pinakothek, Bayerisches Nationalmuseum, Neues Rathaus, Nationaltheater, Glyptothek ...) as well as contemporary architecture. In particular detail, the Author visited the Olympic Park in Munich (Der Olympiapark in München), BMW Hochhaus and BMW Welt, Allianz Arena...

Keywords: Germany, Munich, Synergy of natural environment, social environment and man

1. Introduction

The author's trips to Germany were mostly of a study nature, and some of them were just trips to other European cities (Amsterdam, Nice and Oslo). The study trips (1999, 2007 and 2011) related to a visit to the famous trade fair (the world's leading of its kind) for architecture, materials and systems (BAU Munich) held every two years in Munich (Figures 1, 2, 3, 4).



Figure 1. Author at BAU Munich 2007

Source: Haris Bradic (January 15, 2007)

Source: Author (January 15, 2007)



Figure 2. Author at Das Hofbräuhaus am Platzl

Source: Haris Bradic (January 15, 2007)



Figure 3. Author visiting Der Olympiapark in München

Source: Author (January 17, 2007)



Figure 4. Author visiting BMW Welt

Source: Author (January 17, 2007)

Munich is a city (with about 1.55 million inhabitants, April 2018)^[1], the capital of the German federal state of Bavaria, the third largest city in Germany (after Berlin and Hamburg). The city is located on the banks of the Isar River, north of the Bavarian Alps. Munich is the center of finance, culture, technology, art, innovation, education, business and tourism. The name of the city originates from the Middle Ages, from the term "munichen" meaning "by the monks" (since there was a Benedictine monastery there, around which the Old Town of Munich developed). Munich was mentioned for the first time in written documents in 1158, when Guelph Henry The Lion (1131-1195), duke (prince) of

Saxony and Bavaria, built a customs office on the bridge over the river Isar next to the monastic settlements, on the road to salt. Already in 1175, Munich received the status of a city and a fortress. Otto I Wittelsbach (1117-1183) became Duke of Bavaria (1180) (dethroning Henry the Lion), and Munich became the capital of Upper Bavaria. (The Wittelsbach dynasty ruled the city until 1918). Louis IV (1282-1347), a native of Munich, was elected King of Germany in 1314 and crowned Holy Roman Emperor in 1328. The significance of the city that had a monopoly in the salt trade was strengthened. At the end of the 15th century, Gothic art was restored in Munich (the Old Town Hall was expanded, and the largest Gothic church in Munich (Frauenkirche), now a cathedral, was built in 20 years, starting in 1468). During the Thirty Years' War (1618-1648, war between Catholics and Protestants), Munich was the residence (1623) of Maximilian I (1573-1651), Duke of Bavaria, and in 1632 it was occupied by Gustav II Adolph (1594-1632), King Sweden. The Catholic Church in Munich successfully resisted the Reformation movement. During the plague epidemic (1634-1635), one third of the city's population died. In the period (1704-1742), the city was under the administration of the Habsburg dynasty. In 1806, the city became the capital of the Kingdom of Bavaria (with the state parliament, the Landtag) and the main European center of art, architecture, science and culture, during the reign of Ludwig I (1786-1868). During the German Revolution (1918), a socialist (Soviet) republic was proclaimed when the ruling Wittelsbach family (which had ruled Munich continuously since 1180) gave way to a short-lived republic (October 29, 1918-August 11, 1919). Since then, Munich has entered a very turbulent time period with the emergence of a large number of political parties with different agendas, including the Nazi movement. Adolf Hitler and his supporters, who were concentrated in Munich, tried (1923) to overthrow the Weimar Republic and seize power. The attempt failed, resulting in Hitler's arrest and the temporary incapacitation of the Nazi Party (Nationalsozialistische Deutsche Arbeiterpartei, NSDAP). The city became important again for the Nazis when (1933) they took power in Germany. The party created its first concentration camp at Dachau, 16 kilometers northwest of the city. Because of its importance to the rise of National Socialism, Munich is called the Hauptstadt der Bewegung ("Capital of the Movement"). The headquarters of the NSDAP was in Munich, and many Führerbauten ("Führer-buildings") were built around Königsplatz, some of which have survived to this day. On the eve of the Second World War, the city was known as a place of intense politics between Britain and France, on the one hand, and Germany, on the other. Here, British Prime Minister Neville Chamberlain (1869-1940) approved the annexation (1938, Munich Agreement) of the Judiciary Region (in Czechoslovakia) to Greater Germany in the hope of satisfying the wishes of Hitler's Third Reich. Munich was the base of the "White Rose", the student resistance movement (from June 1942 to February 1943). Core members of this movement were arrested and executed after distributing leaflets at the University of Munich. During the war, Munich was seriously damaged in 71 air raids by the Allied armies. After the end of World War II, the city came under the influence of the USA, when its intensive reconstruction and development began (about 90% of the physical structures in the city were destroyed during the war). The city soon became an "economic miracle" (Wirtschaftswunder) where its economic growth and development was accompanied by a large influx of new population. As early as 1972, the city hosted the Summer Olympics, after which a new wave of economic progress began. Munich is the center of major global corporations, such as: BMW, Siemens, MAN, Linde,

Allianz and MunichRE. It is a city of high standards and quality of life (highest in Germany and third in the world in 2018 ^[2]). Today, Munich is an extremely multi-ethnic and multi-religious city where 37.7% of its population is of non-German origin. According to data from 2017 ^[3], 50.7% of citizens from the European Union lived in Munich. The most numerous immigration populations were: Turks (37,998), Croats (36,655), Italians (27,060), Greeks (26,360), Austrians (20,990), Poles (19,456), Bosnians (18,987), Romanians (17,415), Serbs (13,758), , Iraqis (12124), Bulgarians (12035), Albanians from Kosovo (11114), French (9983), Hungarians (8621), Spaniards (8614), Russians (8603), Chinese (7624), Indians (7440), Afghans (7234)... Ethnic diversity also results in religious diversity: Roman Catholics (31.8%), Protestants (11.4%), Muslims (5%), Orthodox (3.6%), various Christian religions (1%), Judaists (0.3%) ^[4]. Munich is one of the most economically developed cities in Germany. It is a global city ^[5], a huge financial center (only Frankfurt is a bigger financial center in Germany) and the headquarters of a large number of German and international companies, including: DAX, Siemens AG, BMW, MAN AG, Linde, Rohde & Schwarz, KGaA, Deutsche Pfandbriefbank AG, MTU Aero Engines AG, Osram GmbH, ADVA Optical Networking SE, Cancom SE, MediGene AG, MorphoSys AG, Nemetschek AG, Siltronic AG, Telefónica Germany GmbH & Co. OHG and Wirecard AG, McDonald's, Microsoft... The city's GDP in 2015 was 104.2 billion euros, and its GDP per capita was 98,041 euros ^[6], which makes it one of the richest cities in Germany. Munich is also known as the second largest publishing center in the world (about 250 publishing houses operate in the city), where many national and international publications are published (such as Art in Munich, publisher LAXMag and Prinz). Munich is a leading place in Germany in the field of science and research, as evidenced by the large number of Nobel Prize winners (among them Wilhelm Conrad Röntgen (1845-1923, winner of the Nobel Prize for Physics in 1901) and Theodor Wolfgang Hänsch (1941-, winner of the Nobel Prize for physics in 2005). Munich became a spiritual center from the time of Emperor Louis IV (1282-1347) when philosophers such as Michael Cesena (1270-1342), Marsilius of Padua (1275-1342) and William of Ockham (1285-1347)) were protected at the imperial court. Ludwig Maximilian University (LMU) and Technische Universität München (TU, TUM) were two of the first three German universities to receive the status of elite universities by a commission composed of academics and members of the German states' ministries of education and research (Länder). Only the two Munich universities and the Technical University of Karlsruhe (now part of the Karlsruhe Institute of Technology) have maintained this status with the chances of attracting research funds since the first evaluation round in 2006. Munich has one of the most efficient urban public transport systems in the world: U-Bahn (subway), S-Bahn (suburban trains), trams (introduced in 1876) and buses. The system is supervised by the Munich Transport and Tariff Association (Münchner Verkehrs-und Tarifverbund GmbH).

The main railway station in Munich (German: München Hauptbahnhof) is located in the center of the city. The first railway station was built (1839) about 800 meters to the west, and the railway station at the current location was built in 1849.

Franz Josef Strauss International Airport in Munich (German: Flughafen München) is the second largest airport in Germany (after Frankfurt Airport) and the seventh largest in Europe (after Heathrow in London, Charles de Gaulle in Paris, Frankfurt, Amsterdam, Madrid and Atatürk in Istanbul). The airport is located about 30 km northeast of the city. The airport has an annual

passenger traffic of 34 million. It is connected to the city by suburban city lines, S8 from the east and S1 from the west of the city. From the main train station in Munich, the journey takes 40-45 minutes.

Munich is included in the highway network in southern Germany that connects the city with: Stuttgart (autobahn W), Nuremberg, Frankfurt and Berlin (autobahn N), Deggendorf and Passau (autobahn E), Salzburg and Innsbruck (autobahn SE), Garmisch Partenkirchen (autobahn S) and Lindau (highway SW) and further to other parts of Germany, Austria and Italy (Figure 5).



Figure 5. Munich. Location

Source: Google Earth. Accessed: July 6, 2024.

The aim of the study trips was to get to know the cities on the spot and through their analysis (through 'cabinet work') to contribute to the author's theory of "Architecturally defined space" [7,8,9,10,11,12,13,14,15,16, 17,18,19,20,21,22,23].

2. Natural resources and sights

Munich is located in an extremely rich natural environment, on slightly hilly fertile terrain (with an altitude of about 520 m above sea level), 50 km north of the edge of the Alps. The local rivers are the Isar and the Würm. Depending on the geological background, there are frequent occurrences of temporary water accumulations (ponds), especially in its northern part.

Munich has a transitional type of climate, between humid continental (type Dfb, according to the Köppen climate classification) and oceanic climate (type Cfb, according to the Köppen climate classification). The highest winter temperature is 5.0 °C (February), and the lowest is -2.5 °C (January), while the highest summer temperature is 24.4 °C (July), and the lowest is 12.5 °C (June). The lowest temperature on record is -25.5 °C (January), and the highest temperature on record is 37.5 °C (July). The average annual amount of precipitation in Munich is 944 mm/m². The most sunny hours are in July (238), and the least in December (79), while the annual average is 1777 hours ^[24].

Fertile arable soil with abundant drinking water (generated by the nearby Alps), extensive mountain pastures and rich forests gave this area a broad and rich basis for human life from the very beginning of its settlement.

Munich has a large number of city parks (Figures 6-14). The English Garden (German: Englischer Garten, geographic coordinates: 48°09'59"N, 11°36'25"E) is located in the immediate vicinity of the city center, developed on an area of 3.7 km² (it is larger than Central Park in New York, is one of the largest urban public parks in the world). It contains a naturist area, numerous cycling and jogging paths (Figure 6). It is considered the "green lungs" of Munich and one of the city's most popular attractions.

The park was designed by Benjamin Thompson (1753-1814). Today it is entirely a park, and the southern half is dominated by wide and exceptionally well-preserved open areas, hills, monuments and beaches (along the rivers Eisbach and Schwabinger Bach). Its northern part is much calmer, more idyllic and more natural, at times similar to the original natural environment: there are many old trees, winding streams, meadows with numerous romantic paths.

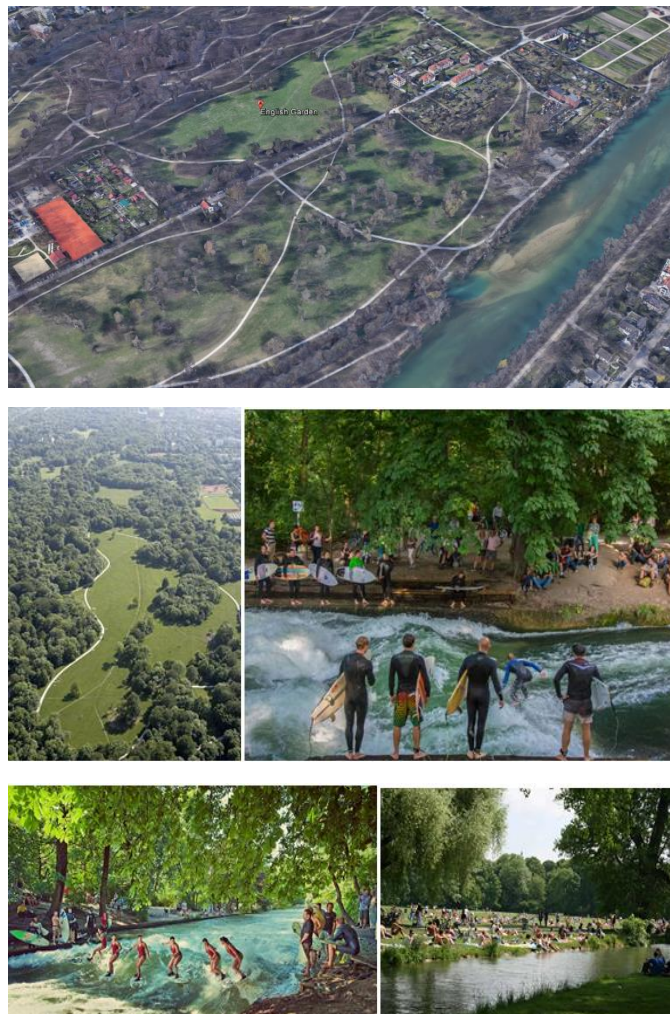


Figure 6. English Garden (Englischer Garten)
 Source: Google Earth, Accessed: July 8, 2024.
 Source: <https://www.pinterest.com/pin/417075615485441602/>, Accessed: July 8, 2024.
 Source: <https://www.pinterest.com/pin/370421138087192700/>, Accessed: July 8, 2024.
 Source: <https://visit-muenchen-bayern.de/englischer-garten-muenchen>, Accessed: July 8, 2024.

The Court Garden (German: Der Hofgarten, geographic coordinates: 48°08'34"N, 11°34'48"E) is located between the Residenz and the Englischer Garten (English Garden). The garden was built (1613-1617) by order of the then ruler of Bavaria (Elector of Bavaria, from the house of Wittelsbach), Maximilian I (1573-1651), in the style of Renaissance gardens. In the center of the garden is the pavilion of the goddess Diana, built (1615) by Heinrich Schön the elder. On the roof of the Diana pavilion is a replica of the sculpture of Bavaria, made by the Dutch sculptor Hubert Gerhard (1540-1620). The garden was destroyed during the Second World War, and was restored with a partial redesign (which threatened the character of the landscape garden from the

nineteenth century and the original formal form from the seventeenth century), (Figure 7).



Figure 7. Court Garden (Der Hofgarten)
 Source: Google Earth, Accessed: July 8, 2024.
 Source: <http://www.sehenswuerdigkeitenmuenchen.com/hofgarten/>, Accessed: July 8, 2024.

The Nymphenburg Palace Parks (German: Parks des Schloss Nymphenburg, geographic coordinates: 48°09'29"N, 11°30'13"E) were designed by the French landscape architect Dominik Girard (1680-1738). There is a botanical garden in the northern part of the complex. The park, which is divided into many walkways, is dominated by the central axial canal (Figure 8).



Figure 8. Nymphenburg Palace Parks (Parks des Schloss Nymphenburg)
 Source: Google Earth, Accessed: July 8, 2024.
 Source: <http://www.schloesser-schleissheim.de/englisch/lustheim/history.htm>, Accessed: July 8, 2024.

The Schleissheim Palace Parks (German: Parks des Schloss Schleißheim, geographic coordinates: 48°14'55"N, 11°34'06"E) are baroque gardens (Figure 9). Its basic canal structure, designed by the Swiss landscape architect Henrico Zuccalli (1642-1724), existed until 1684, and in 1705 the entire park was completed. The cascades were built (1715) according to the project of Dominique Girard (1680-1738), a student of André Le Nôtre (1613-1700). The central canal dates back to 1781. The comprehensive reconstruction of the park was done (1865) by the Bavarian landscape architect Carl von Effner (1831-1884). The courtyard garden was seriously damaged (1945), and was gradually restored (the last interventions, in 1999).



Figure 9. Schleissheim Palace Parks (Parks des Schloss Schleißheim)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.munich.travel/en-gb/pois/sports-leisure/a-ride-down-the-royal-canals>, Accessed: July 8, 2024.

Source: https://www.videoblocks.com/video/view-of-the-neues-schloss-schleissheim-castle-with-castle-gardens-oberschleissheim-near-munich-upper-bavaria-bavaria-germany-europe-bsar_rpygiesfl360, Accessed: July 8, 2024.

The Deer Garden/Hirschgarten (German: Der königliche Hirschgarten) is arranged around the famous restaurant (Königlicher Hirschgarten) which was built (1791) at a time when deer and roe deer roamed freely in the area around it (Figure 10).



Figure 10. Deer garden (Der königliche Hirschgarten)

Source: Google Earth, Accessed: July 8, 2024.

Source: https://www.youtube.com/watch?v=LHH_5NkXjVQ, Accessed: July 8, 2024.

Source: https://www.stadtgui.de/staedteuebersicht/muenchen/gastro/guide/biergaerten/muenchen/09_neuhausen-nymphenburg/hirschgarten.html, Accessed: July 8, 2024.

Source: <https://www.bauwerk.de/en/object/friends/location>, Accessed: July 8, 2024.

Tierpark Hellabrunn Zoo (German: Tierpark Hellabrunn, geographic coordinates: 48°05'50"N, 11°33'15"E) is a park and zoo located on the right bank of the Isar River, in the southern part of Munich, near the district Thalkirchen (Figure 11). The zoo was founded in 1911. The garden was developed on an area of 40 hectares, and it contains 767 species of animals (in 2014) with 18,943 individuals. About 2.3 million visitors visit this garden annually. Since the groundwater level here is very high and the water quality is good, the zoo can cover its fresh water needs using its own wells. This is the first zoo in the world that is not organized by species but by geographic characteristics. Tierpark Hellabrunn was (2013) the 4th best zoo in Europe (out of twelve ranked). Tierpark Hellabrunn is a member of the European Association of Zoos and Aquariums (EAZA) and the World Association of Zoos and Aquariums (WAZA) and participates in the European Endangered Species Program (EEP).





Figure 11. Zoo Tierpark Hellabrunn
 Source: Google Earth, Accessed: July 8, 2024.
 Source: <https://www.hellabrunn.de/en/news/the-latest-news/news/frei-otto-architekt-der-hellabrunner-grossvoliere-ist-gestorben/e2d6e1de4e5b1771e5cafe468dd09d87/>, Accessed: July 8, 2024.
 Source: <https://www.pinterest.de/pin/537335799286031122/>, Accessed: July 8, 2024.

Source: <https://www.hellabrunn.de/en/news/the-latest-news/news/hellabrunner-eisbaerenzwillinge-beginnen-mit-kistentraining/f2e73b5c790558735b6f84b6e1dc8d69/>, Accessed: July 8, 2024.
 Source: <http://www.cityscouter.com/pictures/munich/Munich-Zoo-Photos.html>, Accessed: July 8, 2024.
 Source: <https://www.muenchen.de/sehenswuerdigkeiten/tierpark-hellabrunn/rendevouz-mit-lieblingstier.html>, Accessed: July 8, 2024.

The Olympic Park in Munich (German: Der Olympiapark in München, geographical coordinates: 48°10'12"N, 11°33'06"E) was built (1972) on an area of 0.85 km², for the purpose of holding the 1972 Summer Olympics. (Figure 12). Located in the Oberwiesenfeld district of Munich, the park continues to serve as a venue for cultural, social and religious events (such as worship events). The park includes four separate areas: the Olympic Zone (which includes Olympic sports facilities such as the Olympic Stadium, the Olympic Hall with the Olympic Tower, the Aquatic Center and the Olympic Hall for organizing various events), the Olympic Village (which consists of two villages, one man and one for women), Olympia-Pressstadt (today home to the Olympic shopping center) and the Olympic Park (including the Olympic lake). The park continues to serve as a venue for cultural, social and religious events (open-air mass).

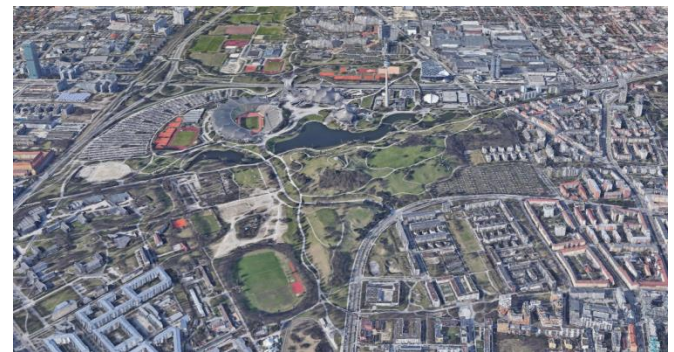


Figure 12. Olympic Park in Munich (Der Olympiapark in München)
 Source: Google Earth, Accessed: July 8, 2024.
 Source: <https://blog.parkinn.com/15-ways-to-be-entertained-at-munichs-olympic-park/>, Accessed: July 8, 2024.
 Source: <https://b2b.olympiapark.de/en/olympic-park-locations>, Accessed: July 8, 2024.

Ostpark (German: Ostpark, geographic coordinates: 48°06'49"N, 11°38'17"E) is located in the district of Ramersdorf-Perlach, which is also home to Michaelibad, the largest water park in Munich (Figure 13). It is the largest park in Munich, which was planned in 1960 and opened in 1973. The park is decorated with a large number of wooden cabins, swings, climbing frames, merry-go-rounds, seating groups, areas for playing with water and sand, (...), all adapted for people with disabilities.



Figure 13. Ostpark

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.pinterest.com/pin/339951471865601662/>, Accessed: July 8, 2024.

Source: <https://www.luxos.com/munich/things-to-do/6868-where-to-go-running-in-munich>, Accessed: July 8, 2024.

Source: <https://www.triphobo.com/places/munich-germany/ostpark>, Accessed: July 8, 2024.

Source: https://www.tripadvisor.de/Attraction_Review-g187309-d1887794-Reviews-Ostpark-Munich_Upper_Bavaria_Bavaria.html Accessed: July 8, 2024.

Westpark (German: Der Westpark, geographical coordinates: 48°07'21"N, 11°31'21"E) is a spacious urban park in Munich (arranged on an area of 720,000 m²) which was completed (1983) according to the project of a landscape architect Peter Klusko (Figure 14). Garmischer Straße divides the park into eastern and western parts. This park hosted the International Garden Expo '83.



Figure 14. Westpark

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.youtube.com/watch?v=wXbmsuYZsyc>, Accessed: July 8, 2024.

3. Architectural cultural and historical heritage

The history of Munich is most clearly expressed in its architecture. There are numerous historical buildings as well as modern and contemporary buildings that represent Munich as a city of exceptional technical achievements that, transposed into architecture, represent strong strides in architecture on a global world level.

Church of St. Petra (German: Peterskirch/Alter Peter, geographic coordinates: 48°08'11"N, 11°34'33"E) is located near Marienplatz. It is the oldest church in the city, built during the Romanesque period in the monastery quarter, before Munich received (1158) the status of a city (Figure 15). Before the construction of the Romanesque church, a pre-Merovingian church from the 8th century stood on this site. Today's church was built in the 12th century in the Bavarian-Romanesque style, and was expanded (1327) in the Gothic style. The church was destroyed in a fire, immediately after the Gothic extension. The church was renovated (1368), and its neo-Renaissance tower (91 m high) was built in the 17th century. The interior of the church is dominated by a high altar with the image of St. Peter painted by Erasmus Grasser (1450-1518). Among the other masterpieces in the interior of the church are five Gothic paintings by Jan Polack (1435-1519) and several paintings by Ignacio Günther. The church was last renovated (1999-2000).

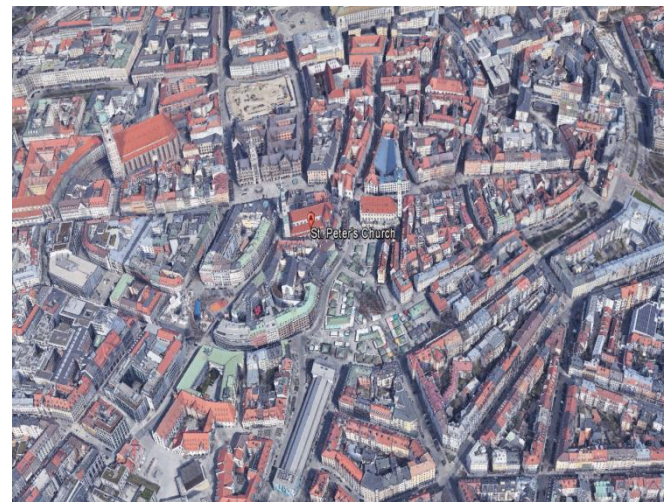


Figure 15. Church of St. Peter (Peterskirch/Alter Peter)

Source: Google Earth, Accessed: July 8, 2024.

Source: https://commons.wikimedia.org/wiki/File:2297_-_M%C3%BCnchen_-_St_Peterskirche_and_Heiliggeistkirche_viewed_from_Frauenkirc he.JPG, Accessed: July 8, 2024.

Source: <https://www.flickr.com/photos/thisisbossi/2972517432>, Accessed: July 8, 2024.

Church of St. Maria in Ramersdorf (German: st. Maria Ramersdorf, geographic coordinates: 48°06'50.7"N, 11°36'54.5"E) is the oldest church within the city limits, located on the Heilig Kreuz in Fröttmaning, next to the Allianz-Arena (Figure 16). The church is mentioned for the first time (1315) in written documents. The building was redesigned and expanded shortly before 1400 in the Gothic style. The dome with the arch was built in 1791 after it was damaged by lightning. The interior was decorated in the Baroque style during the 17th century.

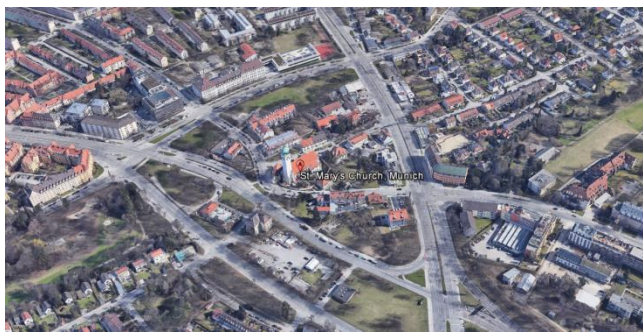


Figure 16. Church of St. Mary in Ramersdorf (St. Maria Ramersdorf)

Source: Google Earth, Accessed: July 8, 2024.

Source:

<https://www.flickr.com/photos/26095468@N04/7438605108>,

Accessed: July 8, 2024.

Source: <https://www.youtube.com/watch?v=LwGnSzRF3V8>,

Accessed: July 8, 2024.

The Munich Christmas Market (German: Münchner Christkindlmarkt, geographical coordinates: 48°08'14"N, 11°34'31"E) is organized on Marienplatz (in front of the City Hall) and other squares in the city during Christmas (usually from 27.11. until 24.12.). It is one of the largest Christmas markets in Germany (whose tradition dates back to the 14th century) where homemade honey products, cakes, art, wooden toys, knitted clothes, various types of bread and pastries and other Christmas gifts are sold (Figure 17).



Figure 17. Munich Christmas Market (Münchner Christkindlmarkt)

Source: Google Earth, Accessed: July 8, 2024.

Source:

<https://www.hallo-muenchen.de/muenchen/mitte/muenchner-christkindlmarkt-marienplatz-2017-heuer-9385262.html>

Accessed: July 8, 2024.

Source:

<https://www.muenchen.de/veranstaltungen/events/weihnachtsmarkt-christkindlmarkt.html>, Accessed: July 8, 2024.

The Residenz palace complex (German: Residence, geographic coordinates: 48°08'28"N, 11°34'41"E) was originally built (1385) on the edge of Munich's Old Town. It is the largest city palace in Germany, and its interior is considered one of the most significant interiors of its time in Europe. The palace has been remodeled several times. It is famous for its treasury and the Rococo Cuvillies Theatre. The National Theater was built near the Residenz. Among the baroque and neoclassical palaces that still exist in Munich are: Palais Porcia, Palais Preysing, Palais Holnstein and Prinz-Carl-Palais. All these palaces are located in the immediate vicinity of the Residenz. There is also the Alte Hof, a medieval castle and the first residence of the Wittelsbach princes in Munich (Figure 18).



Figure 18. Residenz Palace Complex (Residence)

Source: Google Earth, Accessed: July 8, 2024.

Source:

https://www.schloesser.bayern.de/englisch/palace/objects/mu_res.htm, Accessed: July 8, 2024.

Source: <http://www.residenz-muenchen.de/englisch/museum/>,

Accessed: July 8, 2024.

Frauenkirche/Cathedral of Our Lady (German: Frauenkirche/Dom zu Unserer Lieben Frau, geographic coordinates: 48°08'19"N, 11°34'26"E) is the most famous building in the city center and serves as the cathedral for the Catholic Archdiocese of Munich and Freising. This late Gothic church was built (1468-1494) on the site of an earlier Romanesque church from the 12th century, according to the project of the architect Jörg von Halsbach (?-1488). The two towers of the cathedral (the northern tower is 98.57 m high, and the southern tower is 0.12 m lower) were built (1488-1525). Interestingly, the domes on top of the towers are designed after the dome of the mosque/Dome of the Rock in Jerusalem. The cathedral can host 20,000 visitors. During World War II, the cathedral suffered serious damage, and it was completely restored only in 1994. The north tower of the cathedral today serves as an observation tower with a wide view of the city of Munich). The

city ordinance prohibits the construction of buildings higher than 99 m in the vicinity of this cathedral (Figure 19).



Figure 19. Frauenkirche/Cathedral of Our Lady (Frauenkirche/Dom zu Unserer Lieben Frau)

Source: Google Earth, Accessed: July 8, 2024.

Source:

[https://commons.wikimedia.org/wiki/File:M%C3%BCnchen_-_Frauenkirche_\(Luftbild\).jpg](https://commons.wikimedia.org/wiki/File:M%C3%BCnchen_-_Frauenkirche_(Luftbild).jpg), Accessed: July 8, 2024.

Source: http://www.bayern-einfach-anders.de/website/var/tmp/image-thumbnails/0/109/thumb_fancybox/frauenkirche_luftbild.jpeg

Accessed: July 8, 2024.

The Old Pinakothek (German: Alte Pinakothek, geographic coordinates: 48°08'54"N, 11°34'12"E) is an art museum located in the Kunstareal in Munich. It is one of the oldest galleries in the world and has a significant collection of artworks by old masters. The Alte Pinakothek collection was created in the 1500s in the private collection of the Wittelsbach family. The name Alta (Old) Pinakoteka refers to the time period covered by the collection - from the fourteenth to the eighteenth century. The collection reflects the eclectic tastes of the Wittelsbachs over four centuries, and the exhibits are arranged by school on two floors. Among the most important exhibits are: Portrait of Christ by Albrecht Dürer (1500), Four Apostles, paintings Canigiani Holy Family and Madonna Tempi (1508, works by Raphael) and Judgment Day (The Great Last Judgment, work by Peter Paul Rubens, 1914-1917). The gallery houses one of the most extensive collections of Rubens paintings in the world. The Neue Pinakothek (New Pinakothek), built in 1981, covers nineteenth-century art, and the Pinakothek der Moderne (opened in 2002), shows contemporary art. All three galleries are part of the Bavarian State Painting Collection, an organization of the Free State of Bavaria (Figure 20).



Figure 20. Old Pinakothek (Alte Pinakothek)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.muenchen.de/int/en/sights/museums/alte-pinakothek.html>, Accessed: July 8, 2024.

Source:

http://www.getty.edu/research/exhibitions_events/exhibitions/display_arthistory/epilogue.html, Accessed: July 8, 2024.

Source: <https://www.muenchner.de/museumsnacht/en/2018/detail-page-of-location/alte-pinakothek-1/93-tour-schwabing-3/>

Accessed: July 8, 2024.

The Hofbräu House on the Platzl (German: Das Hofbräuhaus am Platzl, geographical coordinates: 48°08'15"N, 11°34'47"E) is a beer hall in Munich, originally built (1589) by Bavarian Duke Maximilian I (1573) -1651). The building was completely remodeled (1897) according to the project of architect Max Littmann (1862-1931) when the brewery was moved to the suburbs. All the rooms except the historic beer hall ("Schwemme") were destroyed in the bombing during World War II. The reopening of the Festival Hall (1958) marked the end of the post-war restoration work on the Hofbräuhaus (Figure 21).



Figure 21. Hofbräu House on the Platzl (Das Hofbräuhaus am Platzl)

Source: Google Earth, Accessed: July 8, 2024.

Source: https://www.tripadvisor.com.au/LocationPhotoDirectLink-g187309-d9868964-i256707737-Platzl-Munich_Upper_Bavaria_Bavaria.html, Accessed: July 8, 2024.

Church of St. Michael's Church (German: Michaelskirche, geographic coordinates: 48°08'20"N, 11°34'14"E) is a Jesuit church in Munich, the largest Renaissance church north of the Alps. The church was built (1585-1597) during the reign of the Duke of Bavaria, William V the Pious (Duke of Bavaria, 1548-1626), after his father Albert V (1528-1579) granted (1556) the Jesuits to establish their order (Wilhelmsgymnasium) in Munich. The design of the church was modeled on the design of Il Gesù church in Rome (1568). The physical dimensions of the church are 78.2 m x 20.3 m x 28.2 m. The facades of the church are impressive, with bronze statues of Duke Wilhelm and earlier rulers of the Bavarian Wittelsbach dynasty. A large bronze statue (by the Dutch sculptor Hubert Gerhard, 1550-1620) between the two entrances shows the archangel Michael fighting for the faith by slaying evil in the form of a humanoid demon. The interior of the church reflects the triumph of Roman Catholicism in Bavaria during the Counter-Reformation. The deep entrance aisle, as well as the short side aisles and side chapels, are shaped like triumphal arches. On the altar is the painting "Annunciation" made (1587) by the Belgian painter Peter Candid (1548-1628). The sculpture of a holy angel in a boat, made (1595) by the sculptor Hubert Gerhard, was originally intended for the tomb of William V, which was not completed. The church was seriously damaged in an air bombardment during World War II, and was rebuilt (1948-1983). year (Figure 22).



Figure 22. Church of St. Michael's Church
Source: Google Earth, Accessed: July 8, 2024.
Source: <https://www.muenchen.de/sehenswuerdigkeiten/orte/120361.html>, Accessed: July 8, 2024.

Schleissheim Palace (German: Schloss Schleißheim, geographic coordinates: 48°14'55"N, 11°34'06"E) is a large baroque residence of Bavarian rulers (from the house of Wittelsbach) located in the suburb of Oberschleissheim. The palace has three separate suites: the Old Palace (Altes Schloss Schleissheim, founded in 1598), the Lustheim Palace (Schloss Lustheim, built 1684-1688) and the New Palace (Neues Schloss Schleissheim, built 1701-1704). Most of the palace complex has been arranged into museums and art galleries. The Deutsches Museum Flugwerft Schleissheim, a flight exhibition center, is located on the Schleissheim Landing Field. The Neoclassical Ruhmeshalle monumental bronze statue from the 19th century is located in Theresienwiese. Grünwald Castle is the only medieval castle in the area of Munich that still exists (Figure 23).

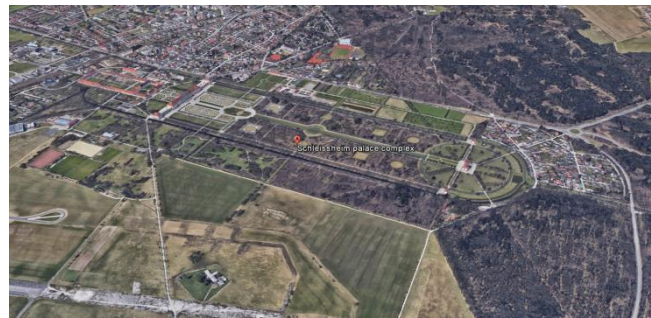


Figure 23. Schleissheim Palace (Schloss Schleißheim)
Source: Google Earth, Accessed: July 8, 2024.
Source: <https://www.muenchen.de/sehenswuerdigkeiten/orte/120417.html>, Accessed: July 8, 2024.

Source: <https://www.fotocommunity.de/photo/schloss-schleissheim-muenchen-nopf/20851149>, Accessed: July 8, 2024.

Dominican Church of St. Kajetana (German: Theatinerkirche St. Kajetan, geographic coordinates: 48°08'31"N, 11°34'35"E) is a Catholic church built (1663-1690) in the Italian High Baroque style, modeled on the Sant'Andrea church della Valle in Rome. This church is a significant influence on Baroque architecture in the southern part of Germany. The dimensions of the church are 72 m x 15.5 m, and its dome (71 m high) dominates the Odeonsplatz. The rococo-style facades of the church were completed in 1768, according to the design of the Belgian architect François de Cuvilliés (1695-1768). With its Mediterranean appearance and yellow color, the church has become one of the symbols of the city (Figure 24). Other baroque churches in the inner city are: Bürgersaalkirche, Dreifaltigkeitskirche and St. Anna Damenstiftskirche.

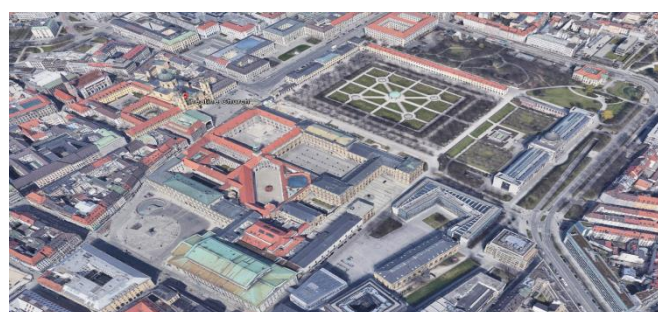


Figure 24. Dominican Church of St. Kajetan (Theatinerkirche St. Kajetan)
Source: Google Earth, Accessed: July 8, 2024.

Source:

https://upload.wikimedia.org/wikipedia/commons/0/0b/M%C3%BCnchenTheatinerkirche_a.jpg, Accessed: July 8, 2024.

Source:

<http://exotictravelsdestinations.blogspot.com/2010/07/theatinerkirche-st-kajetan.html>, Accessed: July 8, 2024.

Mary's Square (German: Marienplatz, geographic coordinates: 48°08'14"N, 11°34'31"E) is a spacious city square that got its name from the Marienule, a Marian column in its center, which was erected in 1638 in the honor of ending the occupation of the city by Sweden. Today, the square is dominated by the New Town Hall building (Neues Rathaus, on its northern side) and the Old Town Hall building (Altes Rathaus, on its eastern side). It has been the main city square of Munich since 1158. Three gates of the demolished medieval fortress have been preserved: Isartor in the east, Sendlinger Tor in the south and Karlstor in the west. The square is dominated by the Palace of Justice (German: Justizpalast) and the fountain. In the Middle Ages, markets and knightly tournaments were held on this square. The Glockenspiel in the tower of the New Town Hall was inspired by these tournaments, which is why it is a tourist attraction today. The pedestrian zone between Karlsplatz and Marienplatz is full of numerous shops and restaurants (Figure 25).



Figure 25. Marienplatz

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.flickr.com/photos/hhover/36782204661>, Accessed: July 8, 2024.

Nymphenburg Palace (German: Schloss Nymphenburg, geographic coordinates: 48°09'29"N, 11°30'13"E) is located about 6 km northwest of the city center. The palace was built (1664-1675) according to the project of the Italian Baroque architect Agostino Barelli (1627-1687). It is surrounded by an impressive park and is considered one of the most beautiful royal residences in Europe. About 2 km northwest of Nymphenburg Palace is Blutenburg Castle (Schloss Blutenburg), the old seat of the duke (prince) in the late Gothic style. The Fürstenried Palace (Schloss Fürstenried) is a baroque construction similar to the Nymphenburg structure, but much smaller, built at the same time in the southwest of Munich (Figure 26).

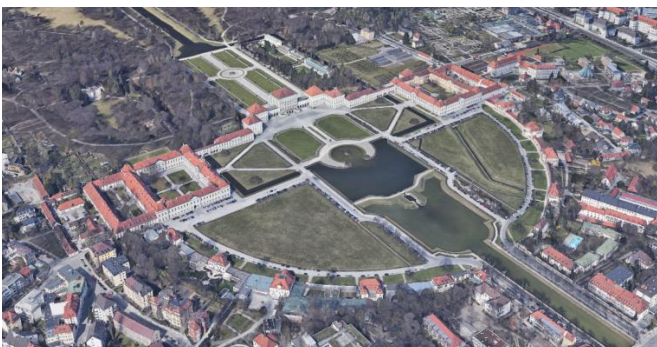


Figure 26. Nymphenburg Palace (Schloss Nymphenburg)

Source: Google Earth, Accessed: July 8, 2024.

Source:

<http://www.schloss-nymphenburg.de/deutsch/schloss/index.htm>, Accessed: July 8, 2024.

Source:

https://upload.wikimedia.org/wikipedia/commons/1/1a/Schloss_Nymphenburg_M%C3%BCnchen.jpg, Accessed: July 8, 2024.

The Academy of Fine Arts in Munich (German: Akademie der Bildenden Künste München, geographical coordinates: 48°09'11"N, 11°34'49"E) is one of the oldest and most important art academies in Germany. It is located in the Maxvorstadt district in Munich. The history of the academy dates back to the 18th century (before 1770) when it was built (as the "Drawing School", "Akademia Maler und Bildhauer" Zeichnungs Schule) by order of Maximilian III (Maximilian III Joseph, Elector of Bavaria, 1727-1777). The academy building has been extended and remodeled several times. The large Renaissance building was built (1886) according to the project of the architect Gottfried von Neureuther (1811-1887). The new building (as an extension of the earlier construction) was built (2005) in the style of deconstructivism, according to the project of the Viennese architectural firm Coop Himmelb (l) au (Figure 27).

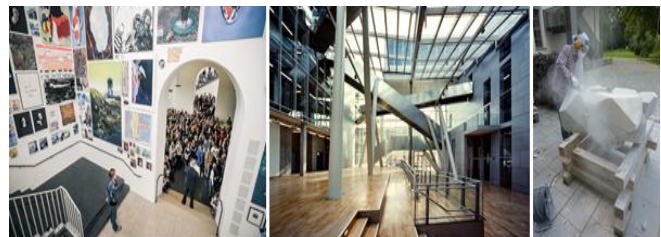
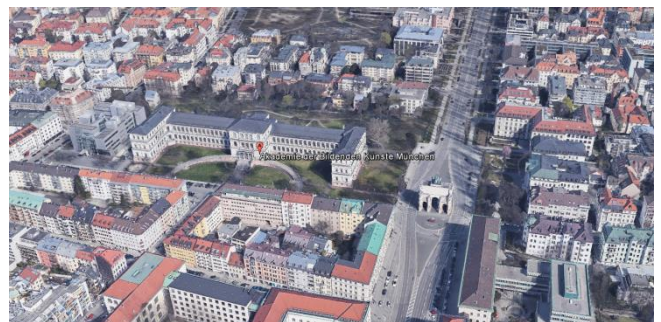


Figure 27. Academy of Fine Arts in Munich (Akademie der Bildenden Künste München)

Source: Google Earth, Accessed: July 8, 2024.

Source:

<https://www.made4you.com/Photogallery/photogallery.php?action=thumbs&catno=32&from=87&tab=1&noa=1>

Accessed: July 8, 2024.

Source:

<https://www.study-in-bavaria.de/de/was-und-wo/kunsthochschulen/akademie-der-bildenden-kuenste-muenchen/>
Accessed: July 8, 2024.

The chamber theater in Munich (German: Münchner Kammerspiele, geographical coordinates: 48°08'17"N, 11°34'57"E) is located in the Schauspielhaus, it is one of the most important German chamber theaters (Figure 28). Since the premiere (1775) of Gotthold Ephraim Lessing (1729-1781), many important writers staged their plays in this theater (Friedrich Hebbel (1813-1863), Henrik Ibsen (1826-1906) and Hugo von Hofmannsthal (1874-1929), on example).



Figure 28. Chamber Theater in Munich (Münchner Kammerspiele)
Source: Google Earth, Accessed: July 8, 2024.

Source: <https://pam2018.de/locations/munchner-kammerspiele/?lang=de>, Accessed: July 8, 2024.

Source: <https://www.merkur.de/kultur/mm-spielplan-kammerspiele-muenchen-281907.html>, Accessed: July 8, 2024.

Viktualienmarkt (German: Viktualienmarkt, geographic coordinates: 48°08'07"N, 11°34'34"E) is a daily market in Munich located in the immediate vicinity of the New Town Hall (Figure 29). The open market has been developed on an area of 2.2 hectares, where about 140 stalls can be set up for the sale of flowers, exotic fruits, meat products from game and poultry, spices, cheese, fish, juices... Most of the stalls and shops are open during the official working hours (from Monday to Saturday, from 8 a.m. to 8 p.m.). When today's Marienplatz (formerly Schranenplatz), as a store for grain and other agricultural products, became too small, the Viktualienmarkt was arranged (1807) as its official successor. That's how the "green market" got its place. Later, the name "Viktualien" ("food") began to be used for this place. During World War II, this square was heavily damaged. There was even talk of closing down the market to put up high-rises in this important location. Instead, the municipal authorities revitalized the Viktualienmarkt with considerable financial support, and the citizens of Munich enriched the space with monuments-fountains of folk musicians and comedians (Karl Valentin, Weiß Ferdl and Liesl Karlstadt), and later monuments-fountains of folk musicians and comedians (Ida Schumacher, Elise Aulinger and Roider Jackl).



Figure 29. Viktualienmarkt

Source: Google Earth, Accessed: July 8, 2024.

Source:

<https://www.muenchen.de/rathaus/Stadtverwaltung/Kommunalreferat/markthallen/viktualienmarkt.html>, Accessed: July 8, 2024.

Source:

<https://www.muenchen.de/sehenswuerdigkeiten/orte/120340.html>, Accessed: July 8, 2024.

The New Town Hall (German: Neues Rathaus, geographic coordinates: 48°08'15"N, 11°34'32"E) is located on the northern part of Marienplatz in Munich. The building houses the headquarters of the city government, the city council, the mayor's office and the offices of the city administration. The first part of the complex in the eastern part of Marienplatz is the result of an architectural competition won by the architect Georg von Hauberrisser (1841-1922), and the building was built (1867-1874). The second part of the complex was built (1889-1892) at the corner of Diererstrasse and Landschaftstrasse. The Magistrate and the City Council decided (1897) to extend the buildings on Marianplatz, as well as Weinstrasse and Landschaftstrasse in order to create a four-part complex. The entire area between Marienplatz and Landschaftstrasse, between Weinstrasse and Diererstrasse was used. Construction began (1898) with the tower (Rathausturm), according to the project of the architect Georg von Hauberrisser. The third section of the complex was completed in 1905. The architecture of the New Town Hall complex in Munich was inspired by the architecture of the Brussels Rathausturm and the architecture of the New Town Hall in Vienna. The 96-meter late Gothic bell tower was built (1449-1455) by the Flemish architect Jan van Ruysbroeck. The complex was completely completed (1906) with a 98.5 meter wide facade towards Marienplatz. The city hall building in Munich was seriously damaged in the aerial bombing of Munich (1944), and was rebuilt shortly after the end of World War II. On the first floor of the building, there is a large balcony facing Marienplatz, which is used for large festivals and concerts during the Weihnachtsmarkt (Figure 30).



Figure 30. New Town Hall (Neues Rathaus)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://hochzeitsgezwoitscher.de/trauung-im-neuen-rathaus-muenchen-feier-im-urigen-wirtshaus-in-der-au-von-stephanie-smutny/>

Accessed: July 8, 2024.

Lehel (geographical coordinates: 48°08'10"N, 11°34'20"E) are middle-class urban districts, located east of the Altstadt (Old Town) with a large number of well-preserved (and excellently reconstructed) urban houses that provide an image of "old Munich". Church of St. Anna im Lehel is the oldest (built 1887-1892) rococo church in Bavaria. Church of St. Lukas (built 1893-1896) is the largest Protestant church in Munich (Figure 31).

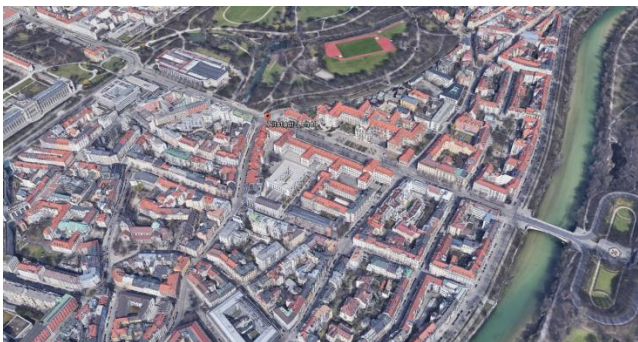


Figure 31. Lehel

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://tropki.com/germany/bavaria/munich/marienplatz>, Accessed: July 8, 2024.

Source: <https://www.muenchen.de/stadtteile/lehel.html>, Accessed: July 8, 2024.

Ludwigstraße (geographical coordinates: 48°08'44"N, 11°34'44"E) is a large royal avenue from the 19th century (after King Ludwig I

of Bavaria, 1786-1868) with a large number of state- official buildings (Figure 32). The avenue connects the center of Munich with the (then) suburbs. It was also used to organize official military parades and large funeral ceremonies. The southern part of the avenue was built (from 1816) in the style of the Italian Renaissance, according to the project of the architect Leo von Klenze (1784-1864). The last building designed by Klenze was the Royal Ministry of War (today the Bavarian State Archives, 1824-1830). The northern part, starting with the Royal Library, was built in 1827 according to the plan of the architect Friedrich von Gärtner (1791-1847). The design of this part of the avenue was made under the strong influence of Italian-Roman architecture, in the "arched style" (Rundbogenstil). Some buildings on the avenue were built during the Third Reich, such as the Bavarian Ministry of Agriculture and the new construction that replaced the former Herzog-Max-Palais. One of the most beautiful palaces designed by Klenze was demolished and the Bavarian headquarters of the Deutsche Bundesbank was built in its place. After the Second World War, the Altstadttring circular road was built in the middle of Ludwigstraße, which caused the demolition of the buildings found, which turned out to be an ill-considered planning act.

The extension of the avenue north of Siegestor, in Schwabing, is called Leopoldstraße. At the entrance to this extended part, northwest of Siegestor, is the building of the Academy of Fine Arts. Lines U3 and U6 of the Munich Metro (U-Bahn) run under Ludwigstraße, with stops at Odeonsplatz and at Ludwig-Maximilians-Universität.

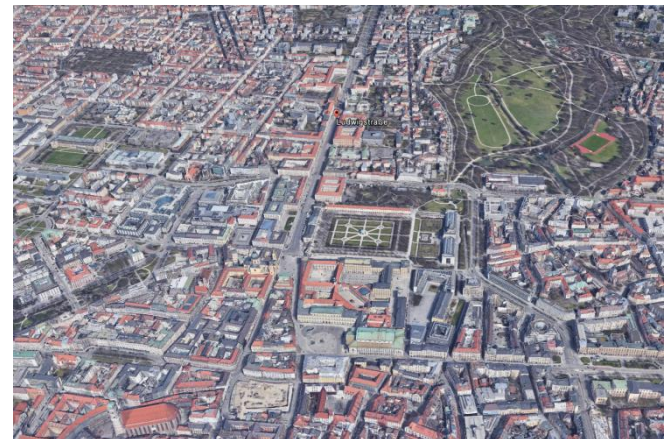


Figure 32. Ludwigstraße

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.satelliteoffice.de/muenchen-ludwigstrasse/>, Accessed: July 8, 2024.

Source: <https://www.trekearth.com/gallery/Europe/Germany/West/Bayern/Garmisch-Partenkirchen/photo758667.htm>

Accessed: July 8, 2024.

Oktoberfest is one of the most famous mass events that takes place in Hofbräuhaus am Platzl and throughout Munich. The event takes place in October (or at the beginning of the last week in

September) and lasts for two weeks. The first event was held on October 12, 1810. in honor of the marriage of Prince Ludwig and Princess Therese of Saxe-Hildburghausen. The festivities close with a traditional horse race. Brienner Street (German: Brienner Straße, English: Brienner Street) is a neoclassical avenue, one of the four royal avenues (alongside Ludwigstraße, Maximilianstraße and Prinzregentenstraße) in Munich, which starts at Odeonsplatz, on the northern edge of the Old Town near the Residenz, and runs towards they fall. The avenue was built (1812), during the reign of King Maximilian I (Maximilian I Joseph of Bavaria, 1756-1825) and his successor King Ludwig I (Ludwig I of Bavaria, 1786-1868), according to the plan of architects Karl von Fischer (1782-1820) and Friedrich Ludwig von Sckell (1750-1823). The avenue was named after the Battle of Brienne (1814). The avenue widens at the site of the impressive Königsplatz (with the "Doric" Propylene, the "Ionskic" Glyptothek and the "Corinthian" State Museum of Classical Art). Behind it was built the Opatija of St. Boniface. The area around Königsplatz is home to the Kunstareal, the Munich Gallery and the Museum Quarter. The obelisk on Karolinenplatz was built (1833) by Leo von Klenze as a memorial to the 30,000 Bavarian soldiers who lost their lives during the French invasion of Russia. The monument is 29 meters high. Most of the villas in the avenue were built in a strict neoclassical style (such as the Almeida Palais built (1824) according to the project of the architect Jean Baptiste Métivier). During World War II, several buildings were destroyed (Figure 33).



Figure 34. Glyptothek

Source: <https://en.wikipedia.org/wiki/Glyptothek>, Accessed: July 8, 2024.

Source: Google Earth, Accessed: July 8, 2024.

The University of Music and Performing Arts in Munich (German: Hochschule für Musik und Theater München, geographic coordinates: 48°08'46"N, 11°34'04"E) is one of the most respected traditional vocational universities in Germany, specializing in music and performing arts. The main building of this university is the former Führerbau located on Arcisstraße, on the eastern side of Königsplatz in Munich. Classes and other events take place on Luisenstraße (Gasteig), Prinzregententheater (theatre studio) and Wilhelmstraße (ballet). A private institution called the Royal Music Conservatory (Königliches Conservatorium für Musik) was

founded (1846), and at the suggestion of Richard Wagner (1867), King Ludwig II (1845-1886) transformed this institution into the Royal Bavarian Music School (Königliche bayerische Musikschule), which was financed by the king himself, until it acquired the status (1874) of a state institution. Since then, this school has changed its name several times: Royal Academy of Music (Königliche Akademie der Tonkunst), State Music Academy (Staatliche Akademie der Tonkunst), University of Music (Hochschule für Musik) and finally (1998) its current name. The original location of this school (at the Odeonsgebäude) was destroyed in 1944. The current building was built for the Nazi Party and was called the Führerbau. Neville Chamberlain (1869-1940) and Adolf Hitler (1889-1945) signed (1938) the Munich Agreement in this building. Hitler's former office (remodeled according to the new purpose), on the second floor above the main entrance, is now a rehearsal room (Figure 35).



Figure 35. University of Music and Performing Arts in Munich (Hochschule für Musik und Theater München)

Source: <http://www.ipernity.com/doc/79648/album/241942>, Accessed: July 8, 2024.

Source: <https://kunstareal.de/en/haeuser-und-institutionen/hochschulen/hochschule-fuer-musik-und-theater-muenchen/>

Accessed: July 8, 2024.

Source: Google Earth, Accessed: July 8, 2024.

The National Theater (German: Nationaltheater, geographic coordinates: 48°08'23"N, 11°34'44"E) is a historic opera house, home to the Bavarian State Opera, Orchestra and Ballet. The building is located on Max-Joseph-Platz in Munich. The first theater was built (1818-1823) by order of the Bavarian king Maximilian I (1756-1825). This theater was destroyed (1823) in a fire.

The second theater was built (1825-1943) according to the project of the architect Leon von Klenze (1784-1864) in the neoclassical style, but it burned down after the bombing (1943).

The third (today's) theater was built (1963) according to the model of the building of the Second Theater by the architect Klenze. The theater was built according to the project of the architect Gerhard Moritz Graubner (1899-1979). The capacity of the auditorium of this theater is 2100 seats. The stage of this theater is spacious

(2500 m²), the third largest in the world (after the stage of the Opera Bastille in Paris and the stage of the Grand Theater in Warsaw). The theater is known for the extraordinary acoustics of its main hall (Figure 36).



Figure 36. National Theater (Nationaltheater)

Source:

https://commons.wikimedia.org/wiki/File:Nationaltheater_in_M%C3%BCnchen.JPG, Accessed: July 8, 2024.

Source: <http://www.germany.travel/en/towns-cities-culture/music-shows/gallery-national-theatre-munich.html>, Accessed: July 8, 2024.

Source: Google Earth, Accessed: July 8, 2024.

The main train station in Munich (German: München Hauptbahnhof, geographical coordinates: 48°08'27"N, 11°33'18"E) is located in the center of the city. The first railway station was built (1839) about 800 meters to the west, and the railway station at the current location was built in 1849 (Figure 37). The Munich station was built (1839) about 800 meters west. The station at its current location was opened in 1849, and has been renovated several times to date. München Hauptbahnhof is one of three intercity train stations in Munich. The other two train stations are Ost (in the east) and München-Pasing (in the west). All three stations are connected to the public transport system and serve as transport hubs. Munich Hauptbahnhof has a daily traffic of about 450,000 passengers, which puts it in line with other major stations in Germany, such as Hamburg Hauptbahnhof and Frankfurt Hauptbahnhof. ICE high-speed trains only stop at Munich-Pasing and Munich-Hauptbahnhof. InterCity and EuroCity trains to destinations east of Munich stop at München Ost. Since May 28, 2006, Munich has been connected to Nuremberg via Ingolstadt by a high-speed railway (300 km/h).

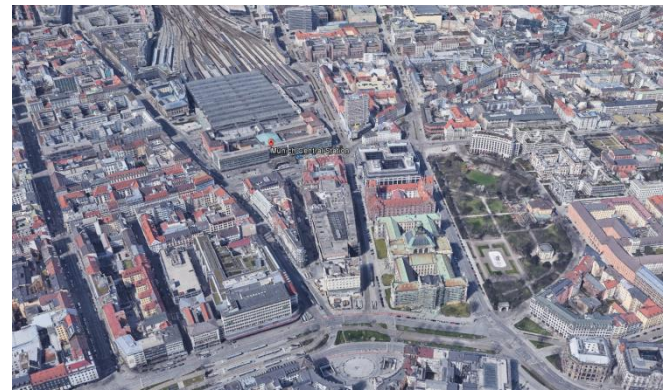


Figure 37. Main train station in Munich (München Hauptbahnhof)

Source:

<https://www.merkur.de/lokales/muenchen/zentrum/hauptbahnhof-muenchen-wird-grossbaustelle-4787541.html>

Accessed: July 8, 2024.

Source: https://www.accu-rate.de/de/project/simulation-der-passagierstroeme-des-hauptbahnhof-muenchen/slider_muenchen-hauptbahnhof_john_m_flickr-1920x670/, Accessed: July 8, 2024.

Source: Google Earth, Accessed: July 8, 2024.

The Museum of the Five Continents (German: Museum Fünf Kontinente, geographic coordinates: 48°08'15"N, 11°35'09"E) is located in Maximilianstraße. The museum keeps the second largest collection (the largest collection is in Berlin) of artifacts in Germany from outside Europe. The museum got its current name (2014) after its earlier name - Bavarian State Museum of Ethnology (German: Staatliches Museum für Völkerkunde) was renamed. The building in Maximilianstrasse in Munich, (one of the four royal avenues of the city), was originally built (1859-1865) according to the order of the Government of Upper Bavaria and the design of the architect Eduard Riedel (1813-1885). The museum collection was founded (1868) based on the art collection of the Wittelsbach dynasty. Today, the museum has a collection of about 200,000 artifacts, which has been developed on an area of 4,500 m² (Figure 38).



Figure 38. Museum of the Five Continents (Museum Fünf Kontinente)

Source: https://en.yelp.com/ph/biz_photos/museum-f%C3%BCnf-kontinente-m%C3%BCnchen?select=ntOwWNpFbh5aLYcQBVLKQ

Accessed: July 8, 2024.

Source: Google Earth, Accessed: July 8, 2024.

The German Museum (German: Deutsches Museum/Deutsches Museum von Meisterwerken der Naturwissenschaft und Technik, geographic coordinates: 48°07'48"N, 11°35'00"E) was founded (1903) by the initiative of engineer Oskar von Miller (1855-1934). It is the largest museum of science and technology in the world, which exhibits about 28,000 objects from 50 areas of science and technology (Figure 39). The Deutsches Museum (its three buildings) is located on an island on the Isar River. The museum is visited annually by about 1.5 million visitors. Music concerts are also held in the museum premises (including famous musical groups and musicians The Who, Jimi Hendrix and Elton John).



Figure 39. German Museum (Deutsches Museum/Deutsches Museum von Meisterwerken der Naturwissenschaft und Technik)

Source: Google Earth, Accessed: July 8, 2024.

Source:

<https://www.muenchen.de/int/en/sights/museums/deutsches-museum.html>, Accessed: July 8, 2024.

Source: [https://www.euro-t-](https://www.euro-t-guide.com/See_Coun/Germany/D_S/D_See_Deutsches_Museum_Munchen_3-1.htm)

[guide.com/See_Coun/Germany/D_S/D_See_Deutsches_Museum_Munchen_3-1.htm](https://www.euro-t-guide.com/See_Coun/Germany/D_S/D_See_Deutsches_Museum_Munchen_3-1.htm), Accessed: July 8, 2024.

The Bavarian National Museum (German: Bayerisches Nationalmuseum, geographic coordinates: 48°08'36"N, 11°35'28"E) is one of the largest art museums in Germany and one of the most famous in the world (Figure 40). The museum keeps two main collections of exhibits, the art-historical and the folklore collection. The museum was founded (1855) by Bavarian King Maximilian II (1811-1864). The museum building was built (1894-1900) on Prinzregentenstraße, according to the project of the architect Gabriel von Seidl (1848-1913). The art collection consists of works from late antiquity to the beginning of the 20th century, with a particularly rich collection of works of art from the early Middle Ages. The main building of the Bavarian National Museum comprises exhibition rooms on three floors with a total exhibition area of about 13,000 m². In the courtyard of the museum is the famous Narcissus fountain, which was built (1896) according to the design of the sculptor Netzer Huber (1865-1939).

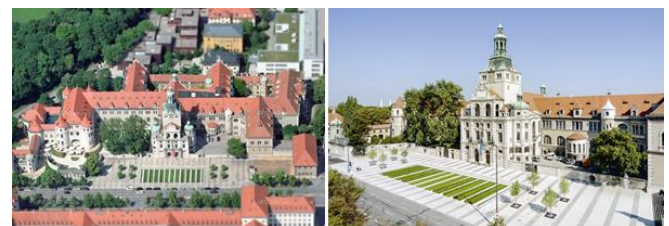
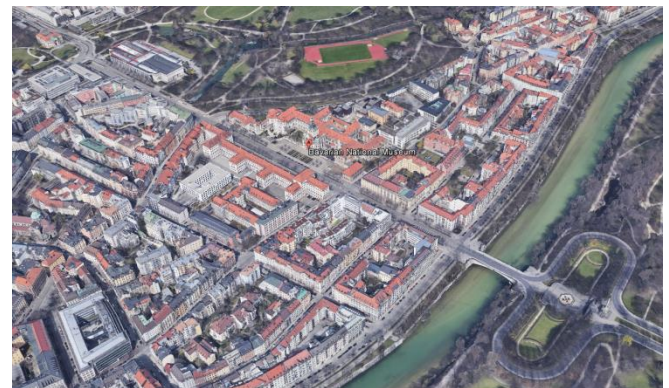


Figure 40. Bavarian National Museum (Bayerisches Nationalmuseum)

Source: Google Earth, Accessed: July 8, 2024.

Source:

<https://www.m-luftbild.de/luftbild/bayerisches-nationalmuseum-280.html>, Accessed: July 8, 2024.

Source:

<https://www.bayerisches-nationalmuseum.de/index.php?id=981&L=0>, Accessed: July 8, 2024.

Source:

<http://www.bayerisches-nationalmuseum.de/index.php?id=278>, Accessed: July 8, 2024.

The Technical University of Munich (German: Technische Universität München (TUM), geographical coordinates: 48°08'53"N, 11°34'05"E) is a research university with campuses in Munich, Garching and Freising-Weihenstephan (Figure 41). He is a member of TU9, the corporate society of the most important German technological institutes. The university was founded (1868) by King Ludwig II (1845-1886). this university produced seventeen Nobel laureates and eighteen winners of the prestigious Leibniz Prize¹.



Figure 41. Technical University of Munich (Technische Universität München)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.pinterest.com/pin/120119515036015723/>, Accessed: July 8, 2024.

Source: https://commons.wikimedia.org/wiki/File:Technische_Universit%C3%A4t_M%C3%BCnchen,_Arcisstra%C3%9F_e_21_%E2

¹ Nobel Prize winners. Chemistry: Joachim Frank (2017), Bernard L. Feringa (2016), Gerhard Ertl (2007), Rudolph A. Marcus (1992), Johann Deisenhofer (1988), Robert Huber (1988), Ernst Otto Fischer (1973), Hans Fischer (1930), Heinrich Wieland (1927). Literature: Thomas Mann (1929). Medicine: Erwin Neher (1991), Konrad Bloch (1964). Physics: Wolfgang Ketterle (2001), Wolfgang Paul (1989), Ernst Ruska (1986), Klaus von Klitzing (1985), Rudolf Ludwig Mößbauer (1961).

Winners of the Leibniz Prize: Daniel Cremers (2016), Hendrik Dietz (2015), Vasilis Ntziachristos (2013), Barbara Wohlmuth (2012), Franz Pfeiffer (2011), Susanne Albers (2008), Martin Beneke (2008), Holger Boche (2008).), Arthur Konnerth (2001), Ernst W. Mayr (1997), Jean Karen Gregory (1997), Gerd Hirzinger (1995), Manfred Broy (1994), Karl-Heinz Hoffmann (1991), Joachim Milberg (1989), Gerhard Abstreiter (1987), Wolfgang A. Herrmann (1987), Hubert Schmidbauer (1987).

Source: Technical University of Munich, <https://www.tum.de/en/about-tum/our-university/facts-and-figures/> Accessed: July 8, 2024.

[%80%94_Eingangsbereich_mit_Fahnen.JPG](#), Accessed: July 8, 2024.

Source: <https://www.br.de/presse/inhalt/pressemitteilungen/150-jahre-tu-muenchen-100.html>, Accessed: July 8, 2024.

Source: <https://educaro.in/study-in-germany/universities-in-germany/technische-universitaet-muenchen/>, Accessed: July 8, 2024.

The Maximilianeum (German: Maximilianeum, geographic coordinates: 48°08'11"N, 11°35'39"E) is a neo-Gothic Maximilianstraße that begins at Max-Joseph-Platz (where the Residenz and the National Theater are located) and continues eastward. The avenue is framed by neatly structured Neo-Gothic buildings, including the Schauspielhaus, the district building of the Upper Bavarian Government and the Museum of Ethnology. After crossing the river Isar, the avenue circles the Maximilianeum, which houses the state parliament. The western part of Maximilianstraße is known for its luxury boutiques, jewelry stores and one of Munich's most famous five-star hotels, the Hotel Vier Jahreszeiten (Figure 42).



Figure 42. Maximilianeum

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://kern-energie.com/hotels/referenzen/kempinski-hotel-vier-jahreszeiten-muenchen>, Accessed: July 8, 2024.

Prince-Regent Street (German: Prinzregentenstraße, geographic coordinates: 48°08'26"N, 11°36'00"N) is an avenue that runs parallel to Maximilianstraße and starts at Prinz-Carl-Palais. The avenue was named after Maximilian II (1811-1864), as a symbol of the prosperity of the 1900s and the harmonious relationship between the bourgeoisie and the educated (middle) class. Many museums are located on the avenue, such as the Haus der Kunst, the Bavarian National Museum and the Schackgalerie. The avenue crosses the Isar and circles around the Friedensengel monument, and then passes Villa Stuck and Hitler's old apartment (Figure 43).





Figure 43. Prince-Regent Street (Prinzregentenstraße)

Source: Google Earth, Accessed: July 8, 2024.

Source:

[https://de.wikipedia.org/wiki/Datei:M%C3%BCnchen_Prinzregentenstra%C3%9Fe_\(Blick_nach_Osten\).JPG](https://de.wikipedia.org/wiki/Datei:M%C3%BCnchen_Prinzregentenstra%C3%9Fe_(Blick_nach_Osten).JPG)

Accessed: July 8, 2024.

Source: https://commons.wikimedia.org/wiki/File:20060416-Prinz-Carl-Palais_Muenchen.jpg, Accessed: July 8, 2024.

Source: <http://www.artcollector-magazin.de/2015/11/24/sammlung-schack-in-muenchen/>,

Accessed: July 8, 2024.

Schwabing (geographic coordinates: 48°10'02"N, 11°35'10"E). In Schwabing and Maxvorstadt one can see many beautiful streets with unbroken rows of Gründerzeit buildings (Figure 44). Rows of elegant townhouses and spectacular urban palaces in different colors, often decorated with details on their facades, make up large parts of the area west of Leopoldstraße (Schwabing's main shopping street), while in the eastern areas between Leopoldstraße and Englischer Garten, similar buildings alternate with almost rural houses and mini-castles, often decorated with small towers. Numerous small streets and shady paths connect the larger streets and small squares of this area, conveying the atmosphere of the legendary art district at the turn of the 20th century. The affluent district of Bogenhausen on the east side of Munich is another area rich in extravagant architecture, especially around Prinzregentenstraße. One of the most beautiful buildings in Bogenhausen is the Villa Stuck, the residence of the painter Franz von Stuck (1863-1928).

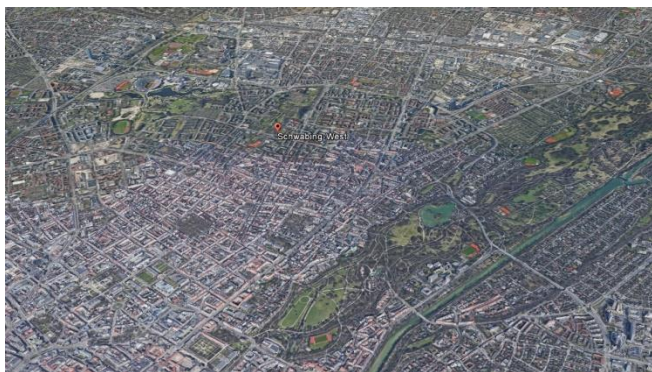


Figure 44. Schwabing

Source: Google Earth, Accessed: July 8, 2024.

Source:

<http://www.globalblue.com/destinations/germany/munich/area-guide-munich-schwabing-district/>, Accessed: July 8, 2024.

Source: <https://www.muenchen.de/stadtteile/schwabing-west.html>, Accessed: July 8, 2024.

Munich has more than 100 nightclubs and thousands of bars and restaurants. Some of the most important night clubs are: MMA club (Mixed Munich Arts, geographic coordinates: 48°08'37"N, 11°34'0"E), (Figure 45), Blitz Club (geographic coordinates: 48°07'53 "N, 11°35'8.2"E), (Figure 46), Harry Klein, Rote Sonne, Bahnwärter Thiel, Bob Beaman (geographic coordinates: 48°08'45.62"N, 11°34'29.24"E), (Figure 47), Pimpernel, Charlie and Palais. Popular music clubs are: Call me Drella, Cord, Wannda Circus, Tonhalle, Backstage, Muffathalle, Ampere, Pacha, P1, Minna Thiel and Alte Utting. Some of the most famous bars are: Cocktail Bar Charles Schumann, Havana Club, Sehnsucht, Bar Centrale, Ksar, Holy Home, Jedi Rich, Negroni, Die Goldene Bar and Bei Otto.

Bahnwärter Thiel is an alternative cultural center and techno-club in Munich. It was named after the novel "Bahnwärter Thiel" (1888) by the German author Gerhart Hauptmann (1862-1946), winner (1912) of the Nobel Prize for Literature. The center was opened in 2015. The place was built from assembled-dismantled intermodal containers and cars. In which club evenings, lectures, exhibitions, improvisational theater, concerts...

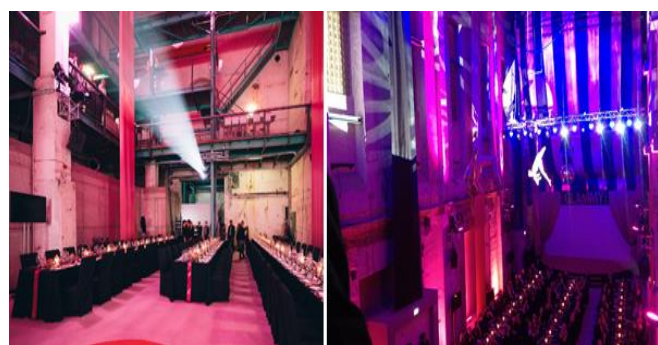
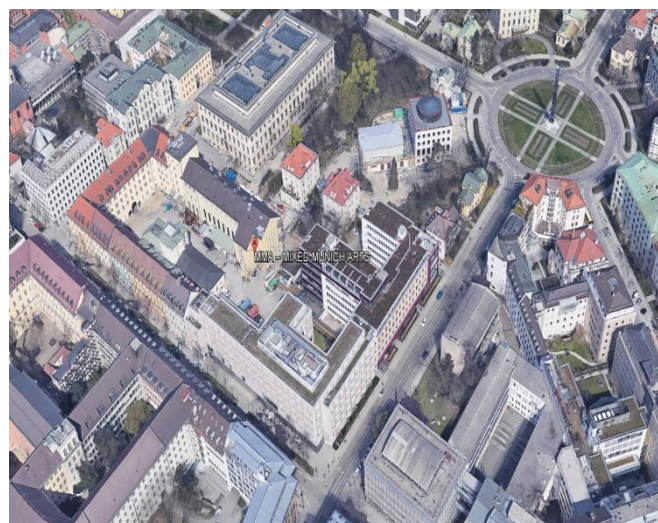


Figure 45. MMA club (Mixed Munich Arts)

Source: Google Earth, Accessed: July 8, 2024.

Source:<https://www.google.com/url?sa=i&source=images&cd=&ved=2ahUKEwibpL680P7fAhWC5-AKHYh3DFYQjRx6BAgBEAU&url=https%3A%2F%2Fgetsocialclub.com%2Flisting%2Fnightclub-munich-mixed-munich-arts%2F&psig=AOvVaw1nLg5qC02hKUx15bf3QtVx&ust=1548151503522048>, Accessed: July 8, 2024.



Figure 48. Catholic Foundation for Education in Munich (Die Katholische Stiftungshochschule München, KSH)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.br.de/mediathek/video/katholische-stiftungsfachhochschule-muenchen-soziale-arbeit-pflege-oder-religionspaedagogik-av:585dc7f03e2f290012a8e958>, Accessed: July 8, 2024.



Figure 46. Blitz Club

Source: Google Earth, Accessed: July 8, 2024.

Source:

<https://www.baunetzwissen.de/akustik/objekte/sonderbauten/blitz-club-in-muenchen-5185513>, Accessed: July 8, 2024.

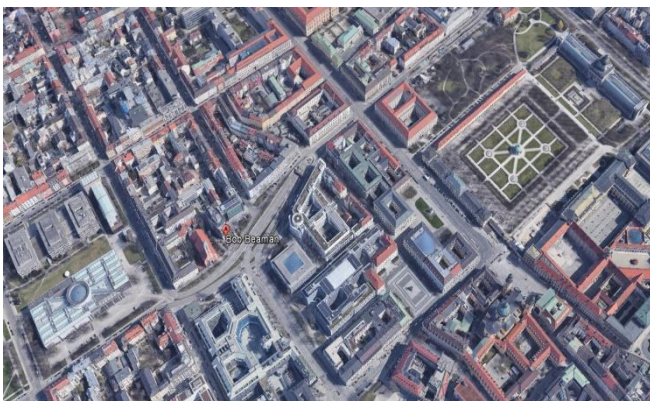


Figure 49. Bavarian Film Studio (Bavaria Filmstadt)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://deutschlandjaeger.de/bavaria-filmstadt-muenchen/>, Accessed: July 8, 2024.



Figure 47. Bob Beaman Club

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.residentadvisor.net/club.aspx?id=35893>, Accessed: July 8, 2024.

Source: <http://conciierge.hotel-buddy.de/2016/03/31/bob-beaman/?lang=en>, Accessed: July 8, 2024.

The Catholic Foundation for Education in Munich (German: Die Katholische Stiftungshochschule München (KSH), geographical coordinates: 48°07'55.8"N, 11°36'4.7"E) is a university, founded in 1909 (for the education of poor girls), as the second largest educational institution of the Catholic Church in Bavaria (after the Catholic University of Eichstätt-Ingolstadt), (Figure 48).



Source: <https://www.muenchen.travel/artikel/touren-ausfluege/stadtrundfahrt-mit-bavaria-filmstadt>, Accessed: July 8, 2024.

Source: https://www.bayerischerhof-online.de/bavaria_filmstadt_muenchen.aspx, Accessed: July 8, 2024.

McGraw Barracks (German: Die McGraw-Kaserne, geographic coordinates: 48°06'0.1"N, 11°34'59.6"E) is a former US military base (after the end of World War II) located near the Stadelheim prison (Figure 50). The barracks building is one of the first buildings in Germany that was built in a constructive system of steel frames. The barracks were named after the American soldier Francis X. McGraw (1918-1944). A farm (1876-1910) previously stood on the site of the barracks. The main building of the Reichszeugmeisterei (building number 7) is intended for holding classes, and was built (1937) according to the project of architects Paul Hofer and Karl Johann Fischer. The staff was housed in facilities no. 6, 8, 10, 11 and 12. During World War II, the Allied forces bombed only building no. 19.



Figure 50. McGraw Barracks (Die McGraw-Kaserne)

Source: Google Earth, Accessed: July 8, 2024.

Source: <http://www.usarmygermany.com/Communities/Munich/Articles/McGraw%20Ksn%201950%20super.htm>, Accessed: July 8, 2024.

Ukrainian Free University (German: Ukrainische Freie Universität (UFU), geographic coordinates: 48°09'49"N, 11°30'34"E) is a private university, founded in Vienna (1921). The idea of founding this university (in exile) came from Ukrainian academics, some of whom taught at universities in Russia and the Austro-Hungarian Monarchy. After its foundation, the university moved its headquarters to Prague (1921), and after the end of World War II to Munich (1945). The university has become a recognized Western European scientific center, specializing in the study of Ukraine within the USSR and Ukrainians in the diaspora. Emphasis is placed on the study of Ukrainian history, literature, culture, law and politics. German and Bavarian financial aid ceased in the years after Ukrainian independence, as it was assumed that Ukraine would provide patronage for the university. Since the

expected help was not provided, the Ukrainian Free University has been relying on its own funds since 2009 (Figure 51).



Figure 51. Ukrainian Free University (Ukrainische Freie Universität)

Source: Google Earth, Accessed: July 8, 2024.

Source:

https://commons.wikimedia.org/wiki/File:M%C3%BCnchen_Ukrainische_Freie_Universit%C3%A4t.JPG, Accessed: July 8, 2024.

The Faculty of Philosophy in Munich (German: Hochschule für Philosophie München, geographic coordinates: 48°08'56.1"N, 11°34'59.8"E) is a Jesuit faculty specializing in the study of philosophy (Figure 52). The faculty was founded (1925) as a seminary in Pullach, and then moved (1971) to Munich. Most of the students are not members of the Jesuit order, and now women and students from all over the world are included. It is accredited by the Bavarian State Ministry of Science, Research and the Arts (German: Bayerisches Staatsministerium für Wissenschaft, Forschung und Kunst). Since 2009, the Munich Faculty of Philosophy has held an annual lecture in memory of the German Jesuit and theologian Karl Rahner (1904-1984).

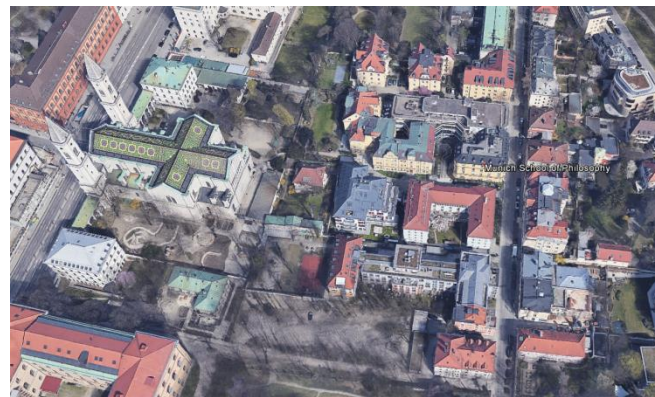


Figure 52. Faculty of Philosophy in Munich (Hochschule für Philosophie München)

Source: Google Earth, Accessed: July 8, 2024.

Source: <http://www.slu.edu/organizations/pje/international.html>, Accessed: July 8, 2024.

Source: <https://www.studiere-in-muenchen.de/studium-in-muenchen-an-der-hochschule-fuer-philosophie/>, Accessed: July 8, 2024.

The Max Planck Institute for Astrophysics (German: Das Max-Planck-Institut für Astrophysik (MPA), geographic coordinates: 48°15'40"N, 11°40'18"E) is a research institute located in Garching, north of Munich (Figure 53). It is one of the many

scientific research institutes belonging to the Max Planck Society. MPA is considered one of the leading institutions in the world for theoretical astrophysics². The Max Planck Society was founded (February 26, 1948) when it replaced the Kaiser Wilhelm Society for the Advancement of Science, which was dissolved after World War II. The society was named after Max Planck (1858-1947), one of the founders of quantum theory. The MPA was founded (1954) as the Max Planck Institute for Physics and Astrophysics and was split (1991) into the Max Planck Institute for Astrophysics and the Max Planck Institute for Physics.



Figure 53. Max Planck Institute for Astrophysics (Das Max-Planck-Institut für Astrophysik)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.mpifr-bonn.mpg.de/pressreleases/2016/9>, Accessed: July 8, 2024.

Source: <https://physicsworld.com/a/max-planck-institute-for-astrophysics-hit-by-bullying-allegations/>, Accessed: July 8, 2024.

The Pioneer School and Technical Faculty of the Army for the Field of Construction (German: Pionierschule und Fachschule des Heeres für Bautechnik, geographic coordinates: 48°45'15"N, 11°27'02"E) is located in Ingolstadt as one of the military schools for training and development of a special pioneer group in the German army (Figure 54). Since 1994, there has been a partnership with the pioneer schools of the French armed forces in Angers. Until January 2009, the school was located in Munich (where it was founded in 1956).

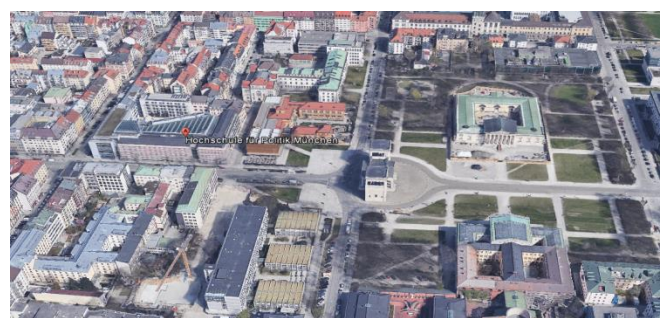


Figure 54. Pionierschule und Fachschule des Heeres für Bautechnik

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.augsburger-allgemeine.de/neuburg/Pionierschule-in-Ingolstadt-fast-fertig-id14174676.html>, Accessed: July 8, 2024.

The Bavarian School of Public Policy/Munich Faculty of Political Science (German: Hochschule für Politik München, geographic coordinates: 48°08'45"N, 11°34'46"E) is an independent institution within the Technical University of Munich, founded in 1950 (Figure 55). It is a unique institution engaged in future-oriented, transdisciplinary and applied research and teaching. In cooperation with the Technical University of Munich (TUM), the Bavarian School of Public Policy (HfP) is dedicated to the education of the new generation of political scientists. Technological advances in areas such as energy, environment, climate change, databases, data security and mobility are having an increasingly important impact on society. In order to keep pace with the key technologies of the future, the course program at HfP offers students the opportunity to combine traditional political science content with technological modules offered by various TUM departments.



² According to Thomson Reuters, from 1999-2009 The Max Planck Society, as a whole, publishes more papers and accumulates more citations in the field of physics and space science than any other research organization in the world.

Source: Archive ScienceWatch, <http://archive.sciencewatch.com/>, Accessed: July 8, 2024.

Figure 55. Bavarian School of Public Policy/Munich Faculty of Political Science (Hochschule für Politik München, HfP)
 Source: Google Earth, Accessed: July 8, 2024.
 Source: https://lh6.googleusercontent.com/-jpbSB3CAAxg/Xj5gykXthDI/AAAAAAAAABL98/ZGAnWNsCF-cd7dL5sOtN_e3nvykKg6E0wCLIBGAYYCw/w408-h544-k-no/, Accessed: July 8, 2024.

The German Faculty of Journalism (German: Deutsche Journalistenschule e.V. (DJS), geographic coordinates: 48°08'14.2"N, 11°38'6.1"E) is the first faculty of journalism in Germany, which was founded in 1959 (Figure 56). Today it is one of the most prestigious faculties of journalism in Germany. The faculty was founded by Werner Friedmann (1909-1969), co-head of the newspaper Süddeutsche Zeitung (1949), after visiting the Columbia University journalism faculty. The original name of the faculty (Institut Werner Friedmann) was later changed to Deutsche Journalistenschule e.V. Over the following decades, the Deutsche Journalistenschule e.V. biO is the only vocational faculty for journalism in West Germany. His students were taught by expert journalists from prominent German media such as Der Spiegel, Süddeutsche Zeitung or ARD. Only 45 students were enrolled each year. The curriculum consists of written teaching, research, TV production and other appropriate aspects. In May 2012, the faculty moved from its former location in the city center (Alzheimer Eck) to the east of Munich (in Hultschiner Straße), sharing the address with Süddeutsche Verlag, the publishing house of Süddeutsche Zeitung³.



Figure 56. German Faculty of Journalism (Deutsche Journalistenschule e.V.)
 Source: Google Earth, Accessed: July 8, 2024.

³ The most famous journalists who graduated from this faculty include: Götz Aly (journalist and historian), Alice Bota (Die Zeit), Maxim Biller (writer), Günther Jauch (TV presenter), Kurt Kister (publisher and owner of Süddeutsche Zeitung), Timm Klotzek (publisher and owner of Süddeutsche Zeitung Magazin), Ludger Kühnhardt (political scientist), Sandra Maischberger (TV presenter), Bastian Obermayer (investigative journalist), Jan-Eric Peters (publisher and owner of Die Welt), Andreas Petzold (publisher of Der Stern), Walther von La Roche (journalist), Christine Westermann (TV and radio presenter), Ulrich Wilhelm (director of Bayerischer Rundfunk, BR).

Source: <http://journalistische-praxis.blogspot.com/2012/09/zu-gast-bei-der-deutschen.html>, Accessed: July 8, 2024.

Source: <https://philosophia-perennis.com/2018/11/27/djs-seminar/>, Accessed: July 8, 2024.

The University of Applied Sciences in Munich (German: Hochschule für angewandte Wissenschaften München (HM), geographical coordinates: 48°09'18.1"N, 11°33'13.1"E) was founded in 1971 as the largest university of its kind in Bavaria (with about 17,800 students), (Figure 57). The university unites several faculties (Architecture, Civil Engineering, Mechanical, Automotive and Aeronautical Engineering, Electrical Engineering and Information Technology, Building Services Engineering, Paper and Packaging Technology and Print and Media Technology, Applied Sciences and Mechatronics, Computer Science and Mathematics, Geoinformatics, Engineering and Management, Business Administration, Applied Social Sciences, Design, General and Interdisciplinary Studies, Tourism)^[25] which rely on the respective business companies for their programs and teaching (Figure 57). The university cooperates with more than 200 partner universities in Europe, North and South America and in Asia (where foreign students make up 13% of the total number of students).

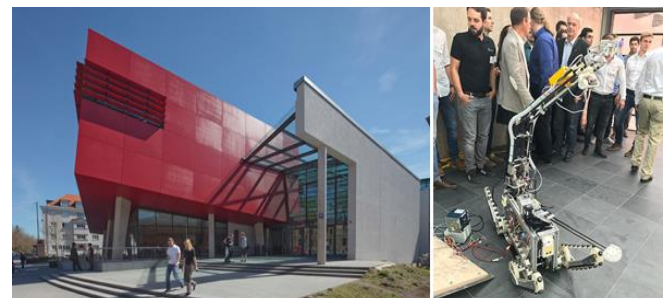


Figure 57. University of Applied Sciences in Munich (Hochschule für angewandte Wissenschaften München, HM)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.hm.edu/en/muas/profile/index.en.html>, Accessed: July 8, 2024.

Source: <https://www.coffee.de/blog/coffee-news/projekt-crawler-coffee-unterstuetzt-studierende-der-hochschule-muenchen/>, Accessed: July 8, 2024.

UniCredit Bank Tower (German: Die Unicredit Bank AG/UniCredit (HVB), geographic coordinates: 48°08'30"N, 11°34'28"E) is the headquarters of the fifth largest bank in Germany, which mainly deals with private clients. The central building of the bank was built (1975-1981) in Munich, according to the project of the architects of the firm Betz Architekten (Walther and Bea Betz). The building was developed through 27 floors (in addition to four underground levels) on a total usable area of 140,000 m². The bank's center in Munich employs 17,980

people. The building was renovated (2013-2015) when its energy efficiency was increased (Figure 58).



Figure 58. UniCredit Bank Tower (Die Unicredit Bank AG/UniCredit)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://amuc.hypotheses.org/die-archive/historisches-archiv-der-unicredit-bank-ag>, Accessed: July 8, 2024.

The headquarters of BMW (German: BMW-Vierzylinder/BMW Hochhaus, geographic coordinates: 48°10'37"N, 11°33'36"E) is the headquarters of a well-known company manufacturing cars and other motor vehicles in Munich (Figure 59). The building was built (1968-1973) according to the project of the Austrian architect Karl Schwanzer (1918-1975). The main tower of the complex is designed with the emphasis on its four cylinders, which symbolize the cylinders of the engine, while the museum building represents the "engine head". The height of this 22-story building is 101 m, and its usable area is 72,000 m². This building received (1999) the status of a protected historical building, and was renovated (2004-2006).



Figure 59. BMW headquarters (BMW-Vierzylinder/BMW Hochhaus)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.muenchen.de/int/en/sights/attractions/bmw-welt-munich.html>, Accessed: July 8, 2024.

Source: <https://www.pinterest.com/pin/393572454917044301/>, Accessed: July 8, 2024.

The Bundeswehr University in Munich (German: Universität der Bundeswehr München/UniBw München, geographic coordinates: 48°04'49"N, 11°38'17"E) is located in Neubiberg, and was founded in 1973 (Figure 60). It is a research university of the German Armed Forces (Bundeswehr). The original name was Hochschule der Bundeswehr München. The institution was supposed to offer civilian academic education for officers, and today an increasing number of civilian and international students study there. The Universität der Bundeswehr München has well-established scientific research and forms part of two clusters of excellence, the German government's initiative for university excellence.

The Gasteig (German: Der Gasteig) is a cultural center in Munich that was built (1978-1985) according to the project of the architects Raue, Rollenhagen & Lindemann. Gasteig hosts the Munich Philharmonic. The Richard Strauss Conservatory, the Volkshochschule and the Municipal Library have their place there. Most events related to the Munich Film Festival (Filmfest München), as well as many events of the Munich Biennale (München Biennale), are held in Gasteig. The Philharmonic Hall has 2387 seats, the Carl-Orff-Saal 528-598 seats, the Black Box Hall 120-225 seats, and the small Kleiner Konzertsaal 191 seats.



Figure 60. Bundeswehr University in Munich (Universität der Bundeswehr München/UniBw München)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.study-in-bavaria.de/what-where/universitaet-der-bundeswehr-muenchen/>, Accessed: July 8, 2024.

Source: <https://www.master-and-more.de/nc/mastersuche/detailansicht/profil/hochschule/universitaet-der-bundeswehr-muenchen-980000280/>, Accessed: July 8, 2024.

The Bavarian Academy of Foreign Trade (German: Bayerische Akademie für Außenwirtschaft e.V. (BAA), geographical coordinates: 48°08'18.83"N, 11°31'15.48"E) was founded in 1989 in Munich as a private university of cooperative education and training of highly qualified young professional and management

personnel for the international business world. The Academy includes study programs in the fields of business economics, international business, financial services, logistics, transport industry and facilities management. Companies (such as BMW, Airbus, VW, Wacker Chemie and Audi) have integrated Bayerische Akademie curricula into their training and encourage their employees to participate in BAA exams (Figure 61).



Figure 61. Bavarian Academy of Foreign Trade (Bayerische Akademie für Außenwirtschaft e.V., BAA)

Source: Google Earth, Accessed: July 8, 2024.

Source: <http://www.bayerischeakademie.de/kontakt/>, Accessed: July 8, 2024.

The Academy Gallery (German: Die AkademieGalerie, geographic coordinates: 48°09'04"N, 11°34'54"E) is a contemporary art gallery of the University of Munich located in an underground train station near the university (Figure 62). In this gallery, students of the Academy exhibit their works (since 1989). The exhibition space provides information about the work of the Academy and the achievements of its students. For the students of the Academy, this unusual place to present works became a challenge, and this is part of the concept of the teaching process of the Academy: random visitors from all walks of life, instead of the usual exhibition where the audience comes targeted.

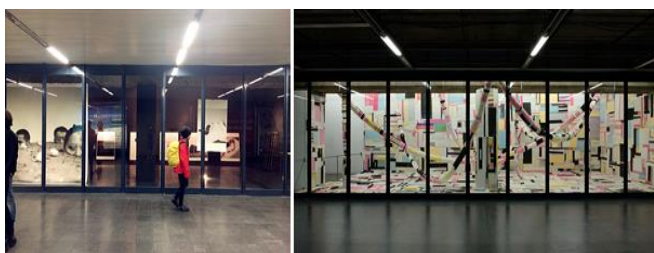
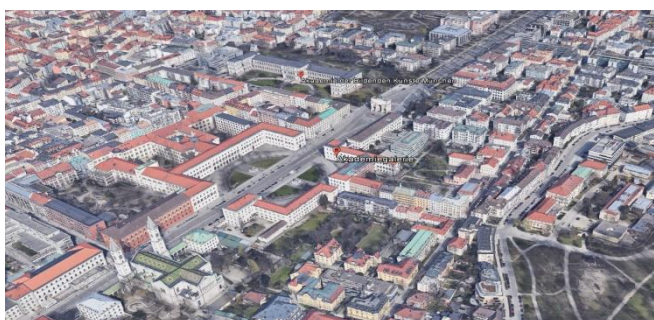


Figure 62. The Academy Gallery (Die AkademieGalerie)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://kunstareal.de/haeuser-und-institutionen/kulturelle-einrichtungen/akademiegalerie/>, Accessed: July 8, 2024.

The Munich Business School (German: Die Munich Business School, MBS), geographic coordinates: 48°08'10"N, 11°31'28"E) is a private international business school in Munich (founded in 1991) that awards degrees for business administration. In addition, the school offers one undergraduate program, 4 graduate studies (Master and MBA) with a final diploma (DBA) in cooperation with Sheffield Hallam University, as well as study programs in cooperation with numerous other business schools from around the world (Figure 63).



Figure 63. Business School in Munich (Die Munich Business School, MBS)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://collegetimes.co/munich-business-school/>, Accessed: July 8, 2024.

Source: <https://www.studycheck.de/hochschulen/mbs>, Accessed: July 8, 2024.

Franz Josef Strauss International Airport in Munich (German: Flughafen München, geographical coordinates: 48°21'14"N, 11°47'10"E) is the second largest airport in Germany (after Frankfurt Airport) and the seventh by size in Europe (after Heathrow in London, Charles de Gaulle in Paris, Frankfurt, Amsterdam, Madrid and Atatürk in Istanbul). The airport is located about 30 km northeast of the city (Figure 64). The airport has an annual passenger traffic of 34 million. It is connected to the city by suburban city lines, S8 from the east and S1 from the west of the city. From the main train station in Munich, the journey takes 40-45 minutes. This airport got its current name after former Bavarian minister-president Franz Josef Strauss (1915-1988), who was born in Munich. The old city airport (Munich-Riem) served Munich from 1939 to 1992. The first plans for the expansion of the airport date back to 1954. The Bavarian government (1969) decided to build a new airport in the area called "Erdinger Moos". When the construction started (1980) the small village of Franzheim disappeared and about 400 inhabitants were relocated. The airport is located on the territory of four different municipalities: Oberding (terminal location; district of Erding), Hallbergmoos, Freising and Marzling in the district of Freising. The new airport in Munich began operations on May 17, 1992, and during one night the entire airport moved to a new location. The former Munich-Riem airport was closed on May 16, 1992. Among the designers of this airport

(Terminal 2, completed in 2003) is the architectural firm Arhitekti Koch + Partner. Apart from this airport, Munich also has other airports: Oberpfaffenhofen (since 2008), Memmingen (München West).



Figure 64. Franz Josef Strauss International Airport in Munich (Flughafen München)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://en.munich.foravisit.com/travel-information/arrival-and-departure/munich-airport/>, Accessed: July 8, 2024.

The Center for Intellectual Property Rights in Munich (German: Das Münchner Zentrum für Geistiges Eigentum, MIPLC), geographic coordinates: 48°08'25.8"N, 11°34'52.3"E) is a center for research and education in the field of intellectual property (Figure 65). The center was founded in 2003. MIPLC is a project of the Max Planck Institute for Intellectual Property and Competition Law, the University of Augsburg, the Technical University of Munich (TUM) and the George Washington University School of Law. BMW World (German: BMW Welt, English: BMW World) is a multi-purpose exhibition center of the BMW company in Munich, which is used for vehicle sales, meetings and promotions. In one part of the center, there is a BMW museum. The center is located in the Milbertshofen-Am Hart district, next to the BMW headquarters (BMW HQ) and the Olympiapark. BMW Welt was built (2003-2007) according to the project of the Viennese architectural firm COOP HIMMELB (L) AU, after an international architectural competition was held (2001) in which the solution of the aforementioned firm won. The BMW Welt building is a modern construction with innovative "energy-efficient construction" solutions, whose roof surface is made with PV-panels (with an installed power of 800 kW) that transpose the energy of solar radiation into electricity.



Figure 65. Center for intellectual property rights in Munich (Das Münchner Zentrum für Geistiges Eigentum)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://www.inst4gram.com/tag/miplc>, Accessed: July 8, 2024.

Source: <https://lh5.googleusercontent.com/p/AF1QipPd669vqdNH07oo1tGVkoHJK3xG7mRJ5UB4xAo=h1440>, Accessed: July 8, 2024.

The New European School (German: Neues europäisches Kollegium, geographic coordinates: 48°05'35.96"N, 11°38'23.15"E) is a private international business school in Munich that offers state-accredited university programs in business administration and international management at English language. The school was founded in 2014, and the German Ministry of Education approved it (2015) for the needs of the European Union (Figure 66). All academic degrees offered by the New European School are awarded by the International University of Applied Sciences Bad Honnef (IUBH) with full German state accreditation. The International University of Applied Sciences Bad Honnef is officially recognized in Germany as a higher education institution and has the privilege of awarding academic degrees - undergraduate and graduate.

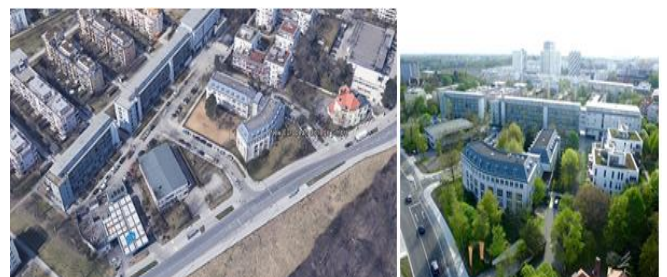


Figure 66. New European School (Neues europäisches Kollegium)

Source: Google Earth, Accessed: July 8, 2024.

Source: <https://lh4.googleusercontent.com/-fyHJVcqmfAY/VbX8mM5pQKI/AAAAAAAAAEI/ORwDfqI97kMhFZjbrs1gO7EwkdwwIXAJgCLIBGAYYCw/w408-h306-k-no/> Accessed: July 8, 2024.

Most of the modern and contemporary high-rise buildings are located on the northern edge of Munich: Hypo-Haus, Arabella

High-Rise Building, Highlight Towers, Uptown Munich, Münchner Tor and the BMW headquarters next to the Olympic Park. Several other tall buildings are located near the city center and on the Siemens campus in the southern part of Munich.

Arabella High-Rise Building (German: Arabella-Hochhaus, geographic coordinates: 48°09'04"N, 11°37'06"E) is a 23-story skyscraper, 75 m high. It is a hotel/apartment building on Arabellapark, in the Bogenhausen district in eastern Munich. The building was built (1966-1969) according to the project of architect Toby Schmidbauer. Until the nineties of the last century, the former Musicland Studios was located in the basement (Figure 67). To meet the need for hotel rooms during the 1972 Olympics, the building was partially converted into the 467-room Hotel Arabella Bogenhausen, one of Munich's largest hotels. In 1998, a joint venture was established between Arabella Hotel Holding and Starwood Hotel, and the hotel was renamed ArabellaSheraton Bogenhausen. It has since been renamed the Sheraton Munich Arabellapark Hotel. In addition to the hotel, the building is currently home to two clinics, 550 rented apartments and 100 offices and clinics. There is a large spa center on the roof.



Figure 67. Arabella High-Rise Building (Arabella-Hochhaus)

Source: <http://footage.framepool.com/en/shot/875573498-arabella-house-hypo-building-hypovereinsbank-hotel>, Accessed: July 8, 2024.

Source: <https://www.agoda.com/sheraton-munich-arabellapark-hotel/hotel/munich-de.html?cid=-218>, Accessed: July 8, 2024.

Source: Google Earth, Accessed: July 8, 2024.

Hochhaus Uptown München (geographic coordinates: 48°10'37"N, 11°31'54"E) is a 38-story skyscraper with a height of 146 m (the tallest in Munich), located in the Moosach district of Munich (Figure 68). The glass facade of the building envelops the structure of the building like a taut membrane. The 50,200 m² tower is surrounded by four seven-story buildings (approximately 8,525 m²), called the "campus", which are connected by a transparent roof. There are 139 apartments in the fifth building. With its simple form, the tower was perceived by many as anti-aesthetic. It drew criticism that it obstructed the view from the historic Nymphenburg Palace. Uptown Munich was probably one of the main driving forces behind the efforts of the "Our Munich"

initiative launched by former mayor Georg Kronawitter, culminating in a vote of citizens on November 21, 2004, preventing the construction of other buildings of this height in Munich. The building was built (2001-2004) according to the project of architects from Ingenhoven, Overdiek Architects from Düsseldorf. In August 2006, the skyscraper and one campus building were bought by the government of Singapore (for more than 300 million euros), and in 2017 the building was sold to Europa Capital and Bayern Projekt.



Source: Google Earth, Accessed: July 8, 2024.

Source: <https://inspiration.detail.de/uptown-munich-103621.html?lang=en>, Accessed: July 8, 2024.

The Munich Gate (German: Münchner Tor, geographic coordinates: 48°10'34"N, 11°35'28"E) is a skyscraper that was built in 2003 according to the project of Architekturbüros Allmann Sattler Wappner (ASW). The building consists of a low-rise building and an office tower. The tower has two basement floors, a ground floor, a gallery and 21 floors, while the lower building has two basement floors and six above-ground floors. The tower is 85 m high, and 1200 people are employed in it. The Münchner Tor tower gets its name from the urban context, since the opposite building with the Highlight Towers forms the gateway to the Mittlerer Ring, which stretches between skyscrapers (Figure 69).



Figure 69. Munich Gate (Münchner Tor)

Source: Google Earth, Accessed: July 8, 2024.

Source: https://en.wikipedia.org/wiki/M%C3%BCchner_Tor#/media/File:Muenchner_Tor-1.jpg, Accessed: July 8, 2024.

Source: <http://realgruenlandschaftsarchitekten.de/muenchener-tor/#slide/1>, Accessed: July 8, 2024.

Munich is a city where a large number of famous sports clubs operate, among which the most famous soccer club is Bayern Munich. There is the basketball club Bayern Munich and the hockey club EHC Munich. On the world map, Munich occupies an important place since it hosted the Summer Olympics (1972) and a large number of world and European football competitions (1974, 2006). Munich has ten indoor and eight outdoor Olympic swimming pools. Artificial lakes (the most famous of which is Riemer See or Lake Langwieder) are places for various water sports, including rowing and sailing.

Allianz Arena (geographic coordinates: 48°13'7.59"N, 11°37'29.11"E) is a football stadium located on Werner-Heisenberg-Allee on the northern edge of Munich's Schwabing-Freimann district on Fröttmaning Heath (Figure 70). Stadion (home of Bayern Munich football club) was built (2002-2005) according to the project of the architectural firm Herzog & de Meuron. The capacity of the stadium is 75,000 seats for spectators (making it the second largest stadium in Germany, after the Westfalenstadion in Dortmund). The stadium is known for its sophisticated structure that encloses the auditorium built of steel trusses and ETFE-membrane, which gave it the local name "inflatable boat" ("Schlauchboot"). The stadium is one of the most prestigious stadiums in the world, where important European and international football matches have been played. The Bayern Munich Museum (FC Bayern Erlebniswelt) is located within the stadium.

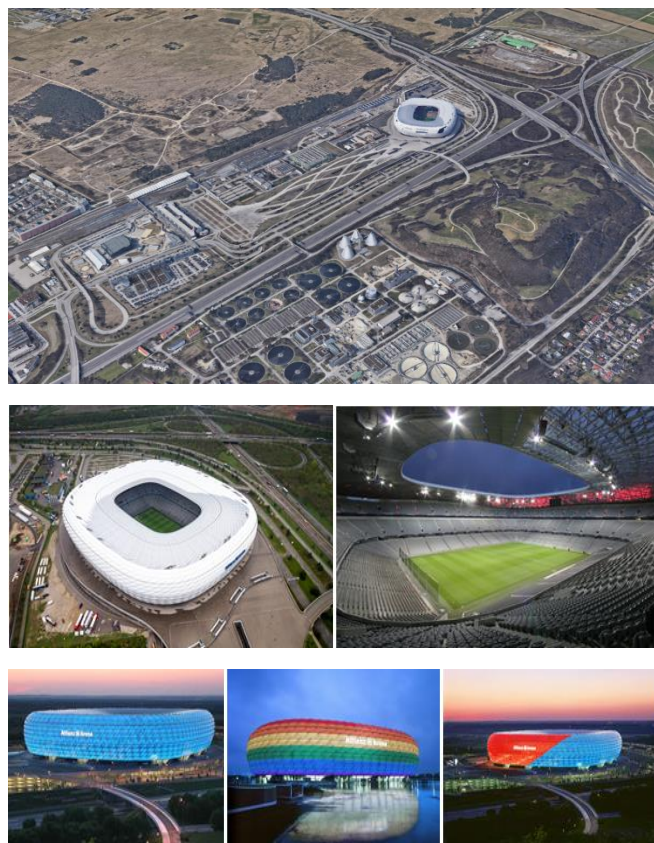


Figure 70. Allianz Arena

Source: Google Earth, Accessed: July 8, 2024.

Source: <http://moritzhomann.de/introduction-2/>, Accessed: July 8, 2024.

Source: <https://sportslens.com/allianz-arena/92352/>, Accessed: July 8, 2024.

Source: <https://www.e-architect.co.uk/munich/allianz-arena-munich>, Accessed: July 8, 2024.

Source: <https://www.nssmag.com/en/sports/14389/il-bayern->

[monaco-pronto-a-rinnovare-l-allianz-arena](#), Accessed: July 8, 2024.

Conclusion

Munich is the capital of the German federal state of Bavaria, the third largest city in Germany (after Berlin and Hamburg). The city is located on the banks of the Isar River, north of the Bavarian Alps. It is the center of finance, culture, technology, art, innovation, education, business and tourism. Munich was mentioned for the first time in written documents in 1158, when Guelph Henry The Lion (1131-1195), duke (prince) of Saxony and Bavaria, built a customs office on the bridge over the river Isar next to the monastic settlements, on the road to salt. Already in 1175, Munich received the status of a city and a fortress. On the eve of the Second World War, the city was known as a place of intense politics between Britain and France, on the one hand, and Germany, on the other. Here, British Prime Minister Neville Chamberlain (1869-1940) approved the annexation (1938, Munich Agreement) of the Judiciary Region (in Czechoslovakia) to Greater Germany in the hope of satisfying the wishes of Hitler's Third Reich. Munich was the base of the "White Rose", the student resistance movement (from June 1942 to February 1943). Core members of this movement were arrested and executed after distributing leaflets at the University of Munich. During the war, Munich was seriously damaged in 71 air raids by the Allied armies. After the end of World War II, the city came under the influence of the USA, when its intensive reconstruction and development began (about 90% of the physical structures in the city were destroyed during the war). The city soon became an "economic miracle" (Wirtschaftswunder) where its economic growth and development was accompanied by a large influx of new population. As early as 1972, the city hosted the Summer Olympics, after which a new wave of economic progress began. Munich is the center of major global corporations, such as: BMW, Siemens, MAN, Linde, Allianz and MunichRE. It is a city of high standards and quality of life (highest in Germany and third in the world in 2018). Today, Munich is an extremely multi-ethnic and multi-religious city where 37.7% of its population is of non-German origin. According to data from 2017, 50.7% of citizens from the European Union lived in Munich. The most numerous immigration populations were: Turks (37,998), Croats (36,655), Italians (27,060), Greeks (26,360), Austrians (20,990), Poles (19,456), Bosnians (18,987), Romanians (17,415), Serbs (13,758), Iraqis (12124), Bulgarians (12035), Albanians from Kosovo (11114), French (9983), Hungarians (8621), Spaniards (8614), Russians (8603), Chinese (7624), Indians (7440), Afghans (7234)... Ethnic diversity also results in religious diversity: Roman Catholics (31.8%), Protestants (11.4%), Muslims (5%), Orthodox (3.6%), various Christian religions (1%), Judaists (0.3%). Munich is one of the most economically developed cities in Germany. It is a global city, a huge financial center (only Frankfurt is a bigger financial center in Germany) and the headquarters of a large number of German and international companies, including: DAX, Siemens AG, BMW, MAN AG, Linde, Rohde & Schwarz, KGaA, Deutsche Pfandbriefbank AG, MTU Aero Engines AG, Osram GmbH, ADVA Optical Networking SE, Cancom SE, MediGene AG, MorphoSys AG, Nemetschek AG, Siltronic AG, Telefónica Germany GmbH & Co. OHG and Wirecard AG, McDonald's, Microsoft... The city's GDP in 2015 was 104.2 billion euros, and its GDP per capita was 98,041 euros, making it one of the richest cities in Germany. Visiting cities and towns in different natural environments around the planet enriched the author's 'file' of global architectural studies through the topic

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