



tram (1881)

operators

**■** BAPU

https://bapu-restaurant.de

war crimes

www.berliner-geschichtswerk-statt.de/projekte/ns-zwangs-

Secret armaments industry

Stahnsdorfer Damm 81

www.julius-kuehn.de/sf

14532 Kleinmachnow

From crime scene to educational hub

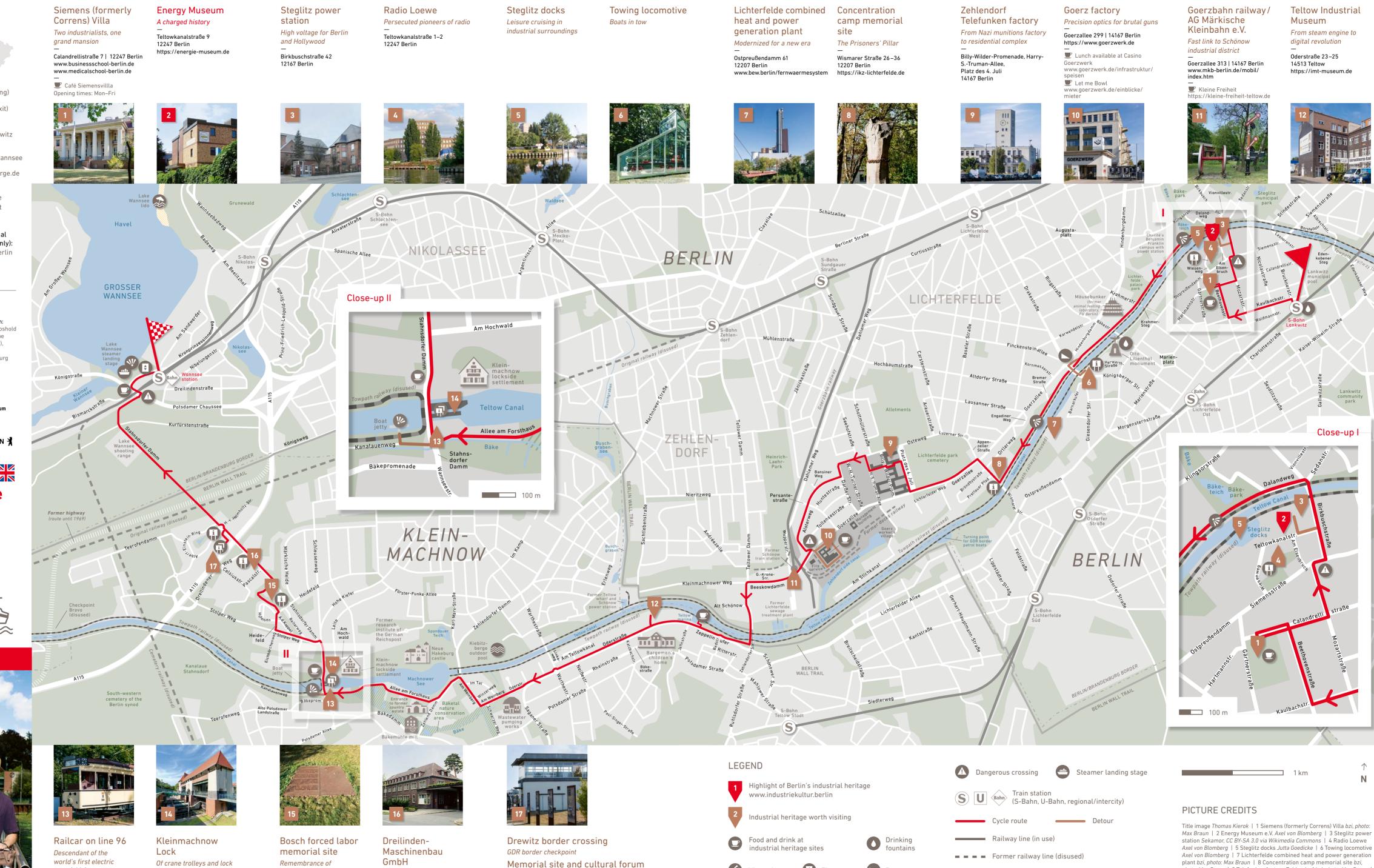
Albert-Einstein-Ring 45a

www.checkpoint-bravo.de

Loretta am Wannsee

https://loretta-wannsee.berlin

14532 Kleinmachnow



information panel(s)

Outdoor pool Swimming beach

photo: Max Braun | 9 Telefunken factory, Zehlendorf bzi, photo: Max Braun |

Max Braun | 14 Kleinmachnow Lock Axel von Blomberg | 15 Bosch forced

labor memorial site bzi, photo: Max Braun | 16 Dreilinden-Maschinenbau

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Memorial site and cultural forum bzi, photo: Max Braun

10 Goerz factory *bzi, photo: Max Braun* | 11 Goerzbahn railway/AG Märkische Kleinbahn e.V. bzi, photo: Antje Boshold | 12 Teltow Industrial

Museum e.V bzi, photo: Max Braun | 13 Railcar on line 96 bzi, photo:

Route of towpath (disused)

Former industrial

Berlin Wall Trail Berlin/Brandenburg

///// Bäketal nature

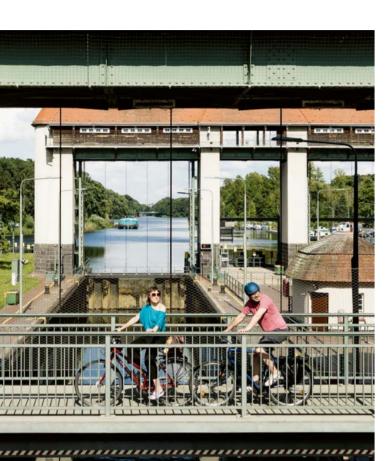
/////// conservation area

Route 8

**CANAL AND** 

# **INDUSTRY**





## BIKE ROUTE **CANAL AND INDUSTRY**

Kaiser Wilhelm II officially opened Teltow Canal when his imperial yacht Alexandria left Machnow Lock on June 2, 1906. This was the culmination of a major project driven by local politician Ernst von Stubenrauch, who was searching for a solution to the rising water levels in his district.

The engineers cut the canal deep into the terrain, while at the same time bringing decades-old plans to fruition for a southern bypass of Berlin's shipping canals.

The 39km canal linked the Havel river in the west to the Dahme and Spree rivers in the east. The larger ones of the 15 docks had their own goods railway links, while modern trams ran across many of the canal's 55 bridges. No waterway had ever been so comprehensively electrified. Power stations on the canal also supplied energy to the new industrial parks. This attracted Berlin's booming industry, which found itself constrained by the lack of space in the city center. Companies in the optical and precision engineering sectors settled here, followed later by electronics and communications technology, chemicals, and automation. During the Third Reich, many of the firms were complicit in forced labor crimes.

The canal, on whose banks an industrial landscape arose along the border between Berlin and Brandenburg at the beginning of the 20th century, would later divide East and West Germany for 40 years during the Cold War. Today, it once again links historical and contemporary industry.

## INDUSTRIAL HERITAGE IN BERLIN **BIKE ROUTES**

Berlin is a gigantic open-air museum of industrial heritage. Our five bike routes invite you to discover a new side of the city. Each route traces a different chapter of the city's history:

- Route 1: Bright Lights and Cold Beer
- Route 2: Manufacturing and Munitions
- Route 3: Water and Power
- Route 4: Innovation and Elegance • Route 5: Railroads and Runways
- Route 6: Nature and Infrastructure
- Route 7: Pilots and Skylarks
- Route 8: Canal and Industry

The routes are each 20–25 km long. There is a lot to see, so plan a whole day for them. All the routes run through diverse urban environments and stick to relaxing waterfront paths, quiet side streets, and official bike lanes. If you feel like taking a break, there are many restaurants and cafés with a special industrial flair.



Route 8 Canal and Industry Digital route planner: Komoot

GPX Track and additional information (German only):

## HIGHLIGHTS OF INDUSTRIAL HERITAGE IN BERLIN

Our 18 highlights are representative of Berlin's industrial development. They testify to the city's exceptional rise as an 'electropolis', to hard times and many fresh starts. Beginning with the Industrial Revolution in Prussia, they illustrate Berlin's transformation into the most modern metropolis on the Continent. Traces of the First and Second World Wars can still be seen in many places. Some of the sites also bear witness to changes entailed by the building and fall of the Berlin Wall. The highlights include museums, historical locations, and even actively operating businesses. Some are open every day, others only by appointment.

www.industriekultur.berlin/en/

The network of Berlin's industrial heritage highlights is part of the European Route of Industrial Heritage. www.erih.net





# Siemens (formerly Correns) Villa Two industrialists, one grand mansion

Friedrich Correns made his fortune as the commercial director of Accumulatorenfabrik AG [see bike route no. 3]. The company's VARTA batteries initiated the first boom in electric vehicles at the start of the 20th century. Thanks to his connections to the imperial court, Correns had access to the best construction materials to build his grand mansion despite the First World War. Werner Friedrich von Siemens bought the estate in 1925. Large parts of the interior and furnishings are still in their original condition. Two private universities have shared the building since 2012.

See inside the building on campus open days

www.medicalschool-berlin.de/offener-campustag

# Energy Museum | since 2001 A charged history

Germany's political reunification in 1990 was followed by the reintegration of power grids. Steglitz power station was decommissioned, and with it the then largest battery storage facility in the world, which had only opened in 1986. Berlin's Energy Museum moved into the old battery storage facility in 2001. Visitors to the museum are encouraged to touch, try, and learn. One highlight is the model of a gas and diesel power station, which people can start up themselves. Anyone with a question about heat pumps, fuel cells, or wind power will find the answer here. How much longer for is uncertain, however, as the building housing the museum is to be demolished for a new grid hub.

## 3 Steglitz power station | 1911–1994 High voltage for Berlin and Hollywood

Teltow Canal provided the cooling water for the power station designed by Hans Heinrich Müller, while the coal it needed arrived by barge. An efficient heat-power cogeneration system introduced in the 1930s supplied electricity and district heating at the same time – a first in Germany. The site had to remain innovative during the Cold War to keep up the supply to West Berlin, which was cut off from all surrounding grids. The city's first gas turbine was followed by the world's largest battery storage facility in 1986. At the time, nobody could anticipate that reunification would soon bring an end to power generation here in 1994. Today, local power grid operator Stromnetz Berlin still runs a transformer station on the site. The empty buildings are regularly used as film sets,

and feature in parts of the Matrix saga. Opened in 2001, the Energy Museum in the former battery storage facility tells the story of supplying power to Berlin.

### 4 Radio Loewe | 1924–1979 Persecuted pioneers of radio

Radiofrequenz GmbH was the name given by brothers David and Siegmund Loewe to the company they founded in 1923. Manufacturing moved to Steglitz in 1924. The Loewe OE 333 rapidly became the best-selling radio receiver in the German Reich thanks to its pioneering electron tubes. When the Nazis seized power, the Jewish-Christian family was slandered and subjected to smear campaigns. The now renamed company Loewe was expropriated in 1938 and later renamed again to Loewe-Opta. The manufacture of radios in Steglitz ended in 1979. Today, the company is a global operation with an HQ and production facility in far-away Kronach.

#### 5 Steglitz docks | 1906 Leisure cruising in industrial surroundings

As hoped, the docks and loading facilities along Teltow Canal drove the region's development. Starting in 1901, a total of 15 docks were built along the canal, including four larger facilities in Britz-Ost, Tempelhof, and Lichterfelde, and here in Stealitz in 1906. Following the construction of Stealitz power station [see 3] the docks became the unloading point for coal and, later on, heavy fuel oil. Oil tanks dominated the area right into the 1970s. When the power station was decommissioned in 1994, the docks were transformed into a water sports and leisure facility.

#### A Teltow Canal | 1901–1906 The blueprint for the Panama Canal

At the start of the 20th century, the district of Teltow lacked the financial resources to reinforce the banks of the canal so that they could withstand the waves caused by steamboats. The company Siemens & Halske looked at the traditional method of towing vessels [see 6], and came up with a highly successful alternative: towing by electric train. This became the blueprint for towing along the Panama Canal, which opened

# Towing locomotive | 1906–1949

Even the Romans would tow boats on the Rhine. They used people or animals on the riverbank to pull vessels against the current with a towline. On Teltow Canal, 20 electric locomotives pulled barges and tows along the canal at 4 km/h. If there was a danger that the taught towline might catch on a vessel at anchor, the locomotive driver would raise the towline with a mast and lift it above the obstacle. Special bridges across basins and branch canals ensured there was one continuous towpath track. At the end of the canal, the locomotives switched to the other bank and pulled the next vessel in the opposite direction. At the height of electric towing along Teltow Canal in the 1930s, three to five barge trains might be on the move in both directions every day. Most of the facilities were blown up by German troops in a defensive action in 1945.

Edenkobener Steg across Teltow Canal (near Stadtbad Lankwitz swimming pool) incorporates parts of the historical towpath bridge at Steglitz docks.

#### Lichterfelde combined heat and power generation plant | 1972/2020 Modernized for a new era

The combined heat and power generation plant, operated by BEWAG, came on stream in 1972. Its location was not chosen at random as Lichterfelde docks was the place where ships unloaded the heavy fuel oil that was burned at the time. In order to channel cooling water into the power station more effectively, the docks lost their characteristic spit of land, which was once crossed by the towpath. In 1983, the power station was fitted with a flue-gas desulfurization system, and all three power station units were converted to natural gas by 1998. Utility company Vattenfall brought the new cogeneration plant with more efficient powerthermal coupling on stream in 2020. Today, it is operated by BEW Berliner Energie und Wärme AG. The district heating generated here is fed into Berlin's heating grid through two large pipes that cross the canal. The three prominent chimneys are set to be demolished by 2026. The docks are now used by a recycling company.

#### 8 Concentration camp memorial site 1942-1945/2000 The Prisoners' Pillar

Construction of Lichterfelde satellite concentration camp began in 1941 in full view of the public. The prisoners were forced to erect barracks, buildings for the camp administrators, and a yard for storing building materials for the SS. Situated on the corner of Wismarer Strasse and Teltow Canal, it was one of around

80 satellite camps serving Sachsenhausen concentration camp. The 1,000 to 1,500 prisoners from across most of occupied Europe walked from Lichterfelde on foot, and took the local railway or tram, to their work assignments throughout Berlin. They were forced to labor in horrendous conditions for ministries, police stations, and the SS. Private companies didn't shy away from exploiting them either, for example Telefunken [see 9] in Lichterfelde. The Prisoners' Pillar erected in 2000 is a memorial to their suffering.

Memorial event on May 8 run by the Lichterfelde concentration camp initiative: https://ikz-lichterfelde.de

#### Zehlendorf Telefunken factory 1937-1940/2000 From Nazi munitions factory to residential complex

From 1903 onward, rivals AEG and Siemens joined forces in a company to develop innovative radio and telecommunications technology – including for the military. In 1940, the Wehrmacht played an important role in bringing the many production facilities together into a single factory site. The modern, functional ensemble of buildings for 6,000 employees was designed by architect Hans Hertlein [see route 2]. A clock tower sits above the administrative wing. The huge expanse of asphalt in front is part of the city ring Albert Speer had planned for Hitler's 'World Capital Germania' [see route 6]. After 1945, the US Army turned the complex into one of its bases, and the broad asphalt became a marching ground for American Gls. Starting in 2000, the former barracks were converted into apartments, with another story added on top of the long buildings. Half of the former parade ground is set to be dug up and used for climate change mitigation measures by 2025.

#### Goerz factory | 1917 Precision optics for brutal guns

Founded in 1890, the Goerz company was one of the largest manufacturers of cameras, optics, and precision machinery in the German Reich, and also produced targeting technology for the military. This factory complex with its rail connection [see 11], docks, and worker's village was constructed during the First World War. The Treaty of Versailles forced a new strategy. Following a merger with Jena-based Zeiss in 1926, the company began to focus on cameras, studio technology, and locking systems. A successor company still manufactures locks on the neighbouring plot today, while the Goerz factory has been a commercial complex and center for culture since 2015.

Guided tours, cultural and family events

#### Goerzbahn railway | 1905–2018 AG Märkische Kleinbahn e.V. | 1981 Fast link to Schönow industrial district

An investor founded the Zehlendorfer Eisenbahn und Hafen AG railway company in order to develop his commercial real estate. The first trains, pulled by horses, ran between Zehlendorf side canal and Lichterfelde West train station in 1905. Steam locomotives didn't appear until 1915. The company was taken over by Goerz in 1918, and from then on the Goerzbahn railway transported raw materials, building materials, and its own employees. As recently as 2018, plastic parts for Cologne's Ford factory were still starting their journey from here. Now, however, the line is no longer in use. The Märkische Kleinbahn heritage railway has been forced to pause its operations as ownership of the track is uncertain.

#### Teltow Industrial Museum | 2005 From steam engine to digital revolution

Opened in 2005, Teltow Industrial Museum tells the story of the economic boom that started with the construction of Teltow Canal. The museum is located in the building that used to be home to the company VEB Zähler und Apparatebau Teltow. Electricity meters were once manufactured here, among other things. The newest exhibition area focuses on digitalization and the current challenges facing industry and society. As an information hub for careers adple together with 200 regional industrial companies every year.

Lectures and events covering the latest talking points in https://imt-museum.de/de/veranstaltungen-



#### B The 'Bäke' | until 1906 Canals and riverbank meadows

In the mid-19 century, the green meadows of the 'Bäke' were a popular destination for Berlin's residents. But then industrial wastewater started to silt up the small watercourse. The construction of Teltow Canal in 1906 transformed the watercourse into a mighty wastewater outlet for the south of Berlin. An area to the south of Machnow Lock gives a glimpse of what this landscape looked like in pre-industrial times. It has been a nature reserve since 1995.

#### 13 Railcar on line 96 | 1929 Descendant of the world's first electric tram (1881)

In 1881, Siemens & Halske opened an electric tram line between the military academy in Lichterfelde and Gross-Lichterfelde train station. Up to that point, trams were either steam-powered or pulled by horses, and Siemens wanted to prove that an electric drive could work. The new tram reached speeds of 40 km/h and was hugely popular. Kleinmachnow Lock, a popular place to visit, was connected to the tram line in 1905. Railcar no. 3587 has been parked here at the old terminus of tram line 96 since 2009. Built in 1929, the railcar was in use throughout West Berlin until the 1960s.

Take a look inside: Saturday and Sunday, April to October, 1 p.m. to 6 p.m. www.heimatverein-kleinmachnow.de/seite/579242/

stra%C3%9Fenbahn.html

#### Kleinmachnow Lock | 1905/1940 Of crane trolleys and lock operators

Since 1905, this heritage-listed lock has allowed vessels to

overcome a height difference of 2.7 meters or so between the Havel river in Potsdam and the Dahme and Spree rivers in Berlin. The lock's double chambers and the tight-fitting gates minimize the loss of water when the gates are opened. The complex system of gate chains, counterweights, and electric motors is hidden in the striking portal structures. Back in 1905, it took 30 minutes for two vessels to pass through the lock. The lock operators would attach one vessel to each of the crane trolleys above the upper and the lower water. These electric hoists would pull the vessels into the chambers once the gates were opened. A connecting channel, known as a Hotopp siphon, equalizes the water level in both chambers, reducing the amount of Dahme river water used by feeding it into one chamber and draining it from the other. The third, larger chamber was opened in 1940 and allowed U-boat parts to be transported to the sea ports. This northern chamber was only used for three years before it was filled in again due to fears that it might be bombed. Today, the northern chamber has been excavated and is back in use, as is the central chamber. The southern chamber is no longer in operation.

#### The historical lock-keepers cottage is open in the afternoon at weekends and on public holidays. Guided tours by appointment.

https://kurzlinks.de/Schleuse Kleinmachnow schleusnerbude

# Bosch forced labor memorial site

1941-1945/2006 Remembrance of war crimes

From 1941, this was the location of a camp for forced laborers of Dreilinden Maschinenbau GmbH [see 16], a subsidiary of the Bosch Group. Civilian forced laborers and prisoners of war from various occupied countries were housed here. After the Warsaw Uprising in 1944, over 700 Polish women from Ravensbrück concentration camp were also sent here. Crammed together in one of the factory's cellars, these women had no contact with the other forced laborers in the camp. A total of 2,600 people from all over Europe were forced to produce aircraft parts for the German Luftwaffe. The buildings were demolished after the end of the war, but in the 1990s, dedicated local historians and the Berlin History Workshop devoted themselves to unearthing this history again. The memorial site opened in 2006 and acts as a reminder of the camp. Large lengths of corten steel trace the outline of the camp's two barracks.

■ For further information, visit www.kleinmachnow.de/

- Kleinmachnow/Historie/Ein-dunkles-Kapitel
- The Berlin History Workshop's app features five tours that follow the stories of former forced laborers – on foot, by bicycle, or by S-Bahn railway https://zwangsarbeit-in-berlin.de/en
- Nazi Forced Labor Documentation Center www.ns-zwangsarbeit.de/en

#### Dreilinden-Maschinenbau GmbH 1935-1945 Secret armaments industry

During the Second World War, hardly any aircraft in the German Luftwaffe could have flown without alternators, starter motors, and injectors made by Bosch. These parts, so essential to the war effort, were manufactured in a wellcamouflaged factory under the inconspicuous name of Dreilinden-Maschinenbau GmbH. Manufacturing began in secret just outside the city as early as 1935. By the end of the war, more than half of the 5,000 workers were prisoners of war [see 15]. The company increased its revenue by a factor of 47 over the course of ten years. The facility here was one of twelve such shadow factories around Berlin. After 1945, the factory halls were blown up by the Soviet occupiers. The German Democratic Republic's Central Biological Institute moved into the intact entrance building in 1952. Following German reunification, the Federal Biological Research Center for Agriculture and Forestry took over the building, now known as the Julius Kühn Institute. A plaque was unveiled in 2003 in remembrance of forced labor at Dreilinden-Maschinenbau GmbH.

## Drewitz border crossing | 1948-1989 GDR border checkpoint Memorial site and cultural forum

since 2009 From crime scene to educational hub

A free exhibition run by the Checkpoint Bravo Society explores the complicated history of the border checkpoints between West Berlin and the German Democratic Republic. Starting in 1948, the GDR established military border checkpoints around West Berlin. The commandant's watchtower is all that remains of Drewitz border checkpoint. Nearby in Dreilinden, the Western Allies processed military transports at Checkpoint Bravo from 1969 onwards. The distinctive complex comprised a customs house in the bridge over the

Twenty years earlier, Checkpoint Bravo had been located in Berlin-Zehlendorf, where the Reichsautobahn highway crossed Teltow Canal. After the Berlin Wall was completed, the checkpoint ended up on a small spur of land belonging to West Berlin but surrounded by the GDR. This meant that vehicles that had passed through the checkpoint would once again cross GDR territory before reaching the edge of the city. To avoid this, the East German authorities moved the highway further east and Checkpoint Bravo to Dreilinden.

Exhibition at the tower: Sundays, May to October

road, a restaurant, and filling stations.

## Border trail and tank monument: all year round

## PICTURE CREDITS

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