### **Stiftung Planetarium Berlin**

The Stiftung Planetarium Berlin (Berlin Planetarium Foundation) unites Berlin's astronomical institutions. The Archenhold-Sternwarte (Archenhold Observatory) and the Wilhelm-Foerster-Sternwarte (Wilhelm Foerster Observatory) are among the public observatories in Germany with the richest tradition, while the Planetarium am Insulaner and the Zeiss-Großplanetarium, as Europe's most modern science theatres, offer relevant and innovative forms of communication.

The foundation's buildings are modern bridges to the cosmos. As a joint institution, they are at the forefront of international technology and content, and form an essential part of Berlin's educational and cultural offerings. In addition to astronomy, the range of topics is being expanded to include related sciences. More than 400,000 guests visit the foundation's institutions every year.

Astronomy is one of the oldest sciences. Exploring the universe has not only afforded insights into distant stars, galaxies and the cosmos, but has also helped us to understand the place of mankind and planet Earth in the universe.

Today, planetariums and observatories are the forward-looking link to the cosmos. The projection planetarium, with its impressively lifelike depiction of the nocturnal firmament, is one of the great engineering masterpieces of the 20th century. Whereas the classical projection planetarium was limited to the representation of phenomena as seen from the solar system, today's digital video projection (fulldome) allows free choice of time and place. In observatories, on the other hand, the natural starry sky and astronomical objects are observed and brought closer to visitors. Good telescopes offer an impressive view of the stars and planets and allow a particularly deep view into the universe.

#### **The Archenhold-Sternwarte**

The Archenhold-Sternwarte (Archenhold Observatory) is the largest and oldest public observatory in Germany. Since 1896, people have been able to observe the sky here - in the middle of Treptower Park in Berlin - with the longest movable refracting telescope in the world. In addition to the »Great Refractor«, the historic Einstein Hall, the Zeiss-Kleinplanetarium (small planetarium), the Museum of Celestial Science and Berlin's largest meteorite are among the institution's attractions.

The 21 metre long giant telescope was erected for the Berlin Trade Exhibition in 1896. The »sky cannon« was built with the help of donations and on the initiative of Friedrich Simon Archenhold, and aroused great interest among visitors. When, after the end of the exhibition, no money was available to dismantle the telescope again in accordance with the contract, the Berlin magistrate gave permission for the telescope to remain in Treptower Park »until further notice«. Thus, this was the de facto foundation of the observatory, and its initiator, Friedrich Simon Archenhold, became its first director.

After just a few years, the new observatory had established itself as a permanent Berlin institution. The original wooden building was replaced in 1908 by a new building in the neoclassical style, which opened in April 1909. Great scientists also showed a keen interest in the building, and so on 2 June, 1915, Albert Einstein gave his first public lecture in Berlin (of four) on the general theory of relativity in the large auditorium of the Treptow Observatory. On 15 March, 1979, on the occasion of Albert Einstein's 100th birthday, the hall was given the name »Einstein Hall«.

When the National Socialists came to power, the Jewish Archenhold family was expelled from the observatory and part of the family emigrated. Friedrich Simon Archenhold died a few weeks after the start of World War II at the age of 78. His wife Alice and daughter Hilda were deported to the Theresienstadt concentration camp and murdered there. During the Second World War, the observatory and the giant telescope were damaged in air raids. After the war, the magistrate of Berlin, Edgar Mädlow, successfully campaigned for the observatory's operations to be resumed, and for the Great Refractor to be repaired, and he further expanded the building, including new telescopes and a library.

In 1946, on the occasion of its 50th anniversary, the institution was given the name »Archenhold-Sternwarte«. At the end of the 1950s, the GDR's first Zeiss-Kleinplanetarium was put into operation in the annex. During a major refurbishment of the Great Refractor in 1977, all the original main parts of the instrument were retained. A few years later, the planetarium was also modernised and the giant telescope was fully operational again for the first time in 25 years. With the opening of the Zeiss-Großplanetarium in Prenzlauer Berg in 1987, the Archenhold-Sternwarte and the Zeiss-Großplanetarium formed a joint institution.

After a recent renovation of the observatory, which is a listed building, the Archenhold-Sternwarte and the Zeiss-Großplanetarium became part of the Stiftung Deutsches Technikmuseum Berlin on 1 July, 2002, and thus became locations of the Museum of Technology in Berlin-Kreuzberg.

Under the direction of Tim Florian Horn, the Archenhold-Sternwarte together with the Planetarium am Insulaner, the Wilhelm-Foerster-Sternwarte and the Zeiss-Großplanetarium, have formed Stiftung Planetarium Berlin since 1 July, 2016. Under the umbrella of the new foundation, the Archenhold-Sternwarte will be further developed into a modern astronomy and science museum.

#### The Planetarium am Insulaner and the Wilhelm-Foerster-Sternwarte

The Planetarium am Insulaner, with its magnificent artificial night sky, is located at the foot of the hill of the same name. Here visitors can experience fascinating 360-degree programmes, live astronomical lectures, radio plays, readings, musical events and children's programmes. At the neighbouring Wilhelm-Foerster-Sternwarte (Wilhelm Foerster Observatory), interested visitors can observe numerous celestial objects through the large telescopes when the weather is clear.

The »Wilhelm Foerster Institute« began shortly after the end of the Second World War, when it was set up by the two street astronomers Hans Rechlin and Hans Mühle in a half-ruined officers' mess. Shortly afterwards, the Wilhelm Foerster Institute was transferred to the Verein Wilhelm Foerster Sternwarte e. V. (the Wilhelm Foerster Observatory Club) and, in 1955, received a large refracting telescope as a permanent loan from the former Urania Observatory, which is still the main instrument

of the Insulaner observatory: the 12-inch Bamberg refractor, built in 1889 in Carl Bamberg's workshop in Berlin-Friedenau. The complete telescope, including mount, weighs 4.5 tonnes.

In the years that followed it became apparent that the ruins were not suitable for the permanent operation of an observatory. So in the autumn of 1961, the foundation stone was laid for a new observatory on a heaped-up mound of rubble. Two years later, the Wilhelm-Foerster-Sternwarte was officially opened.

With the construction of the Wilhelm-Foerster-Sternwarte, the idea arose to build not only a large teaching building at the foot of the hill, but also a planetarium. The Kleinplanetarium in the Archenhold-Sternwarte was not accessible to all visitors due to the division of the city. With funding from the Berlin Lottery, the Planetarium am Insulaner was created, and opened to the public in 1965.

After several extensions and renovations of the building, which has been a listed building since 1991, the Planetarium am Insulaner celebrated its 50th birthday in 2015, and has been belonged to the newly established Stiftung Planetarium Berlin since 2016.

By the summer of 2023, almost 6,000,000 visitors had gazed at the stars in the Planetarium am Insulaner. Since 9 July 2023, the Planetarium am Insulaner has been closed for extensive renovation and modernisation work and will be converted into a future-oriented education centre over the next few years.

### The Zeiss-Großplanetarium

The Zeiss-Großplanetarium is Europe's most modern science theatre. With an outter diameter of 30 metres, its dome dominates the Berlin cityscape. A large planetarium hall with 307 seats and a cinema hall with 160 seats offer space for exciting forays into the world of astronomy, art and culture. Scientifically demanding topics are presented in an impressive and at the same time entertaining way, while the content brings together science theatre and new immersive forms of presentation.

The foundation stone for the Zeiss-Großplanetarium was laid in 1985. When the technology was installed, the heart of the building was the first computer-controlled planetarium projector from VEB Carl Zeiss Jena. The Zeiss-Großplanetarium in Prenzlauer Berg was opened on 9 October, 1987 marking the occasion of Berlin's 750th anniversary. The planetarium formed a joint institution with the Archenhold-Sternwarte.

The planetarium was very well received by visitors and many Berlin school classes took advantage of the educational offers of the Zeiss-Groβplanetarium. This changed with the fall of the Berlin Wall, however, and a difficult transformation process began for the planetarium and the Archenhold-Sternwarte. With great efforts, the existence of both institutions was secured, and over time, the technical equipment was continuously supplemented and the range of programmes expanded. On 1 July, 2002, the Zeiss-Großplanetarium and the Archenhold-Sternwarte became part of the Stiftung Deutsches Technikmuseum Berlin, and thus became locations of the Museum of Technology.

The planetarium was closed from April 2014 to August 2016 for extensive renovation and modernisation work. Shortly before the reopening, the Zeiss-Großplanetarium, together with the Archenhold-Sternwarte, the Planetarium am Insulaner and the Wilhelm-Foerster-Sternwarte, was transferred to the newly established Stiftung Planetarium Berlin. Berlin's four astronomical institutions are now united under the umbrella of the foundation. Tim Florian Horn is the president of the foundation.

Thanks to the comprehensive modernisation, visitors can now enjoy new digital media technology as well as a new direction in terms of content. Instead of showing only astronomical programmes, the Zeiss-Großplanetarium has been transformed from a star theatre to a science theatre. The new fulldome technology, in particular, allows scientifically demanding topics to be conveyed in an impressive and entertaining manner. Music and culture are also still on the programme.