

On building – The permanent exhibition of the DAM

Introduction

Eleven dioramas from the museum's collection offer insights into the history of architecture and settlement from its beginnings to the opening of the German Architecture Museum (DAM) in 1984. Dioramas are models featuring people, buildings, and landscapes—vivid scenes in miniature. This "Brief History of the Built Environment" makes no claim to completeness. Nor can it cover examples from around the world or span all periods without omission. However, the dioramas can vividly illustrate the complex interplay between architecture, society, and the environment.

The display cases were commissioned by Heinrich Klotz, the founding director of the DAM, and were painstakingly crafted one by one between 1982 and 1989. Most were created in the model-making studio of Ivor and Sigrid Swain. After extensive research, the couple shaped the landscapes by hand and cut out and painted the building components—at that time, this was still purely analog model-making without the aid of computers. Despite the precision of these predominantly historical reconstructions, the displays are deliberately narrative in nature and offer opportunities for numerous discoveries.

Hillside houses at Çatal Höyük (Turkey), circa 6,200 B.C.

The Neolithic settlement of Çatal Höyük was located in the once-fertile alluvial plains of the Anatolian Plateau. The diorama depicts the settlement around 6,200 B.C., during the transition from a nomadic to a sedentary way of life involving animal husbandry and grain cultivation. The houses stand close together, merging into a dense complex. People accessed their dwellings via the rooftops. There were neither palaces nor temples; thus, no social distinctions are evident from the layout of the settlement.

The walls of the houses were constructed from air-dried mud bricks and a wooden support structure. They were likely replastered regularly. Benches and lower platforms were used for sleeping. Human remains were found beneath them.

Proximity to the deceased was of great importance, as was hunting, as shown by the burial scene in the house model on the left.

Terrace Temple in Khafajah (Ḫafāġī / known as Tutub in ancient times) (Iraq), circa 2,700 B.C.

In the fertile alluvial plains between the Euphrates and Tigris rivers, the first urban civilization—Sumer—emerged during the Bronze Age. The diorama depicts Khafajah in present-day Iraq around 2,700 B.C. A monumental terraced temple rises above the dense urban landscape. This temple served as the city's religious, political, and economic center. The construction of such large buildings and the draining of the surrounding marshes were only possible through the cooperation of many people. The priesthood organized this community within a temple economy.

The temple is designed so that the transition from the secular to the spiritual is architecturally marked: with ring walls, a courtyard, and an elevated terrace with the sanctuary at the very top. The buildings were constructed from sun-dried mud bricks. Fired bricks were used only for the foundations. Although archaeological excavations have made it possible to reconstruct the floor plans, it is difficult to make precise statements regarding the height and design of the structures.

The castle hill at Mycenae (Greece), around 1300 BCE.

The legendary city of Mycenae was a multifaceted settlement around 1300 BCE: heavily fortified, with a palace, a burial complex, a sanctuary, workshops, and residential buildings. During the Late Bronze Age, Mycenae was one of the most important cities in Greece; it gave its name to the Mycenaean culture that preceded the Classical period. Even at the main entrance—the famous Lion Gate—it was clear that warrior princes ruled here. The castle hill was protected from enemy attacks by a monumental wall built of roughly hewn natural stone blocks. In the burial enclosure near the gate, valuable grave goods—including items made of gold—were found. Once at the summit, the ruler's palace stood as the social center: at the very top was the megaron, a throne hall, surrounded by living quarters, administrative offices, and storage rooms. Unlike in Khafajah, power was divided between priests and warrior princes—that is, there were two centers of power—a pattern that would shape the architecture of cities in the millennia to come.

Forum of Pompeii (Italy), 79 AD

The diorama depicts the city center of Pompeii in the year of the devastating volcanic eruption, 79 AD. Seventeen years earlier, an earthquake had caused severe damage. The fact that the city was founded by the Oscans, a people influenced by Greek culture, is evident from the temple designs, the forum with its surrounding colonnade, and the streets. The streets have not yet been adapted to the Roman ideal of a uniform, geometric street layout.

Religious and market buildings, as well as private townhouses (*domus*), are arranged around the 142-meter-long and 38-meter-wide forum. It was the most important square in the city of 12,000 inhabitants: a religious and political center, the seat of government, and a commercial hub.

With the conquest, the city was Romanized: the old main sanctuary was redesigned after the model of the Temple of Jupiter in Rome. The basilica in the southwest, in the foreground on the left, was built as a gathering place for trade and the administration of justice, and presumably also served as a stock exchange and auction house. The basilica, with a raised central nave and two side aisles, later became the basic layout for Christian churches. According to current research, some of the buildings here likely looked different as well.

Group of farmsteads near Warendorf (Germany), c. 800

A group of farmsteads near Warendorf exemplifies the multitude of early medieval village communities outside the cities. Around the year 800, residential houses and outbuildings—such as barns, stables, and smithies—formed the settlement on a south-facing slope overlooking the Ems River. Almost all of the buildings are oriented east-west, presumably to minimize exposure to the westerly wind.

As a “pure ground site,” the settlement was excavated in the 1950s not far from Münster. This means that the probable appearance of the site was reconstructed based on post holes found in the soil and a few wooden remains. Traces of farm animals as well as grain remains suggest that the inhabitants practiced agriculture and livestock farming.

East of the Rhine, wood was the common building material. Stone was used extremely rarely and only for significant buildings. The construction site in the front right provides insight into the type of longhouses, which featured a single living hall measuring over 100 square meters with the hearth located in the east. Vertical posts, often supported by diagonal timbers, bore the roof structure and the clay cladding of the exterior walls.

The Town and Castle of Büdingen (Germany), c. 1350 (1378)

The layout of Büdingen, about 35 kilometers northeast of Frankfurt, is typical of European towns since the Middle Ages—shown here as it appeared around 1350: a castle, half-timbered houses, and a parish church. A stone town hall, a market square, and the church as depicted (from the year 1378) were added only later. The nobility built their castles of stone, the clergy built the churches, and the town community built its city walls.

When building houses, readily available materials such as wood, clay, and wattle and daub were predominant. As a result, fire was a constant threat in the densely built-up towns of the late Middle Ages. The townhouses usually faced the street with their gable ends.

The inhabitants were subject to the lords of Büdingen, who resided in the castle. They were required to pay taxes to them and perform unpaid labor—so-called *corvée* labor. By around 1350, the townspeople had already been exempted from this

obligation by the lord of the castle. From then on, however, they were responsible for their own protection and thus for the fortifications.

The Ideal City of Pienza (Italy), 1464

Silvio Enea Piccolomini (1405–1464), who was elected Pope Pius II in 1458, decided a year later to have his birthplace, Corsignano in Tuscany, transformed into a humanist ideal city. He renamed it Pienza, after his own name. In accordance with his vision of architecture and secular order, a thriving community was to be established here.

In just five years, by 1464, a new city center was built under the direction of architect Bernardo Rossellino (1407/10–1464), including the central piazza, with the Cathedral of Santa Maria Assunta behind it, the Bishop's Palace to its left, and the papal family palace to its right—a four-winged complex on a square floor plan. Some buildings, such as the Church of San Francesco and the monastery to its right, already existed. The houses across the square are only hinted at in the floor plan, thus opening up the view of the square's distinctive design. Between the buildings, the view into the distance is framed—a new quality in Renaissance urban planning. The new cathedral and the papal palace, for example, face south toward the landscape featuring Monte Amiata.

Residence Palace and Neustadt, Arolsen (Germany), c. 1760

Under European absolutism, the world revolved around the ruler, and urban planning centered on his residence. When Count Friedrich Anton Ulrich von Waldeck (1676–1728) was elevated to the rank of prince in 1712, he commissioned his architect, Julius Ludwig Rothweil (1676–1750), to design a residence befitting his status. This led to the development of Arolsen in Hesse, including its castle—which, around 1760, had a population of well under 800—for the princely family, the nobility, officials, and servants at court.

He took the French palace of Versailles as his model. His palace is laid out so that everything builds toward the center: from a bridge spanning two courtyards with single-story buildings, then two-story side wings, all the way to the main wing with three stories along the central axis.

The town layout was to mirror this axis to the east. To attract residents, the prince offered a fifteen-year tax exemption and freedom of religion. As a result, there were several churches of various denominations and a synagogue. However, a lack of funds and manpower prevented further expansion. Instead, a new center emerged around the market square.

Frankfurt am Main, Bruchfeldstraße Housing Estate (Germany), 1927

The Bruchfeldstraße Housing Estate was one of the first projects of “New Frankfurt”—the urban development program led by architect and newly appointed City Planning Director Ernst May (1886–1970).

It is also known as “Zick-Zack-Hausen” because of its buildings arranged in a sawtooth pattern. In the 1920s, during a time of severe housing shortages, the construction program aimed to create affordable housing for broad segments of the population. Similar to the Bauhaus buildings in Dessau, aesthetic, social, and practical aspects were to be given equal consideration.

The interior spaces were optimally tailored to their function. This made it possible to reduce apartment sizes—and thus construction and rental costs. Nevertheless, the standard was high and the furnishings modern. The building layout allowed plenty of natural light into the apartments and provided space for vegetable gardens around the communal courtyard, which featured clotheslines and play areas. Like the rooftop terraces, the courtyard was intended to offer space for household chores, recreation, and neighborly interaction. In addition to a bathroom and a “Frankfurt kitchen”—the first built-in kitchen—each apartment had radios, and there was a central kindergarten with a nursery.

New York, view of Manhattan / Grand Central Terminal (USA), circa 1980

Midtown East in Manhattan is home to some of the most famous skyscrapers in the city around 1980: the Chrysler Building on the right, built in 1930, with its stepped tower, and the octagonal Pan Am Building in the center—which served as the headquarters of Pan American World Airways, the largest international airline at the time, starting in 1963.

Moreover, starting in 1903, an architectural marvel—an early megahub—was built here: Grand Central Terminal in the center left, with the clock in the gable. With 44 platforms and 67 underground tracks, it was the largest train station in the world. Since the 1970s, this has been the best-connected transportation hub in the metropolis of over a million people, featuring a viaduct as well as stops for subways, buses, and taxis.

One of Manhattan's most important modes of transportation, however, is invisible: the elevator. The Pan Am Building alone has 65 elevators.

It was this innovation, combined with the steel-frame construction developed in the 1880s, that made building at dizzying heights possible. This allowed for the maximum utilization of small plots of land. Since then, high-rise construction has boomed in cities with high land prices, such as New York and, earlier, Chicago.

Transition to the second part of the exhibition (“Long Wall”)

Since its opening in 1984, the DAM has been an active participant in the discussion about the built environment in Frankfurt and far beyond through its exhibitions and events. Along the long wall, we present a selection of the more than 450 exhibitions held over the past decades. The objects on display—models, drawings, prints, films, and photographs—not only provide an overview of the museum's exhibition history but also illustrate the diverse ways architecture can be represented. They also highlight the themes that have been addressed within the architectural community and by the general public.

In the coming years, too, we will continue to grapple with ideas and concepts related to building and living together. This includes the question of where we will live and interact in the future. What building materials are available, and how sustainable are they? What does the future of mobility look like? How must our cities be transformed in the face of climate change? Questions about the built environment affect our daily lives.