



A contribution to the Monument Preservation Plan

THE FORTIFICATIONS OF MAGDEBURG

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based on

Monument Preservation Plan: The Fortifications of Magdeburg,
compiled by Katja Tripler with the kind assistance of Dr. Bernhard Mai

Photographs by Jill Luise Muessig and Hans-Wulf Kunze



View behind the crenellated wall in front of the *Lukasklause*, the canon is a replica of an original from 1669 in the *Deutsches Historisches Museum* in Berlin



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Members of the Renovation Association for Ravelin II re-enacting the poses of an old photograph

PREFACE

Dr. Lutz Trümper
Mayor of Magdeburg (state capital)

Dear citizens of Magdeburg
Dear readers

The city of Magdeburg was protected by mighty fortifications from the Early Middle Ages to the time around 1900. At first, the city's inhabitants had sought refuge behind ditches and wooden palisades, but these were replaced by walls and towers of stone during the Middle Ages. Like all self-reliant urban settlements of the era, Magdeburg considered the right and ability to defend itself a vital element of its autonomous status. With the coming of the Early Modern era, Magdeburg would assume an even more important role in the defence of a wider territory. Designated a major Prussian fortress in the 17th century, the city was surrounded by an extensive system of ramparts and moats which augmented the existing medieval fortifications.

Although the city maintained its defences against potential attackers for over a thousand years – a substantial stretch of time indeed – the surviving fortifications date predominantly to the last phase of construction: the Prussian fortress of the last third of the 19th century. Even these late buildings and structures are now around 150 years old, but their operational life only lasted a mere 10 to 40 years, and they have not been used for their original purpose for more than a hundred years now. Today, each of these structures poses unique challenges to urban development, monument preservation, and alternative uses.

For our modern metropolis and its requirements, which include healthy living conditions and public spaces with opportunities for recreational activities, the parks and greens which have taken the place of the former fortress works are of particular importance. In Magdeburg, these parks look back on a long-established tradition which began at the

beginning of the 18th century with the conversion of the Fürstenwall section of the fortifications into a promenade for the city's burghers. The Klosterberggarten and the Glacis parks provide further examples of the gradual appropriation of military terrain by the people of Magdeburg during the fortress era. In many cases, the fortifications and the open spaces between them were turned into parks of great artistic merit. Today, these greens are protected as parks under monument preservation law.

As the state capital, Magdeburg decided to commission an ambitious monument preservation plan which discusses, evaluates, and presents a number of recommendations for future action. This plan takes into account the entire inventory of surviving monuments from the history of the fortress era and the manifold aspects of their development from their initial construction to this day. It is intended to provide all parties concerned with a tool for their management of the former fortress works, to provide a basis for an improved understanding, and to help in reaching important decisions.

The booklet before you provides a summary of the content of this plan, the "Denkmalpflegeplan Magdeburger Festungsanlagen". It presents our current state of knowledge and lists the responsibilities of modern monument preservation.

I am confident that the study of this booklet will provide the citizens of Magdeburg and all those interested in the history of the fortress and its architectural monuments with a wealth of fascinating new insights and a source of great enjoyment!



An overgrown path runs along the ramparts of *Fort XII* in the *Rotehornpark*

PREFACE

Dr. Ulrike Wendland

State Conservator and Deputy Director Department for Historic Buildings and Works of Art State Office for Heritage Management and Archaeology in Saxony-Anhalt

Fortress works of the 19th and 20th centuries constitute a comparatively young group of monuments, not only for their origins in the not-so-distant past, but also because their full significance has only been acknowledged by heritage preservation authorities in more recent years. As with all monuments, sites of this category must undergo a two-step process of assessment according to pre-determined criteria which will decide whether they are of particular importance for the public (both present and future).

The criteria for a classification of fortifications as a monument include an evident special significance in fields like history, culture, art, science, economy, technology, and urban planning. In addition, they must possess sufficient authenticity, integrity and rarity, provide exemplary testimony, or display a particular quality in their architecture and design.

In 1997, Norbert Huse published a well-received essay on "Awkward Architectural Monuments". It discussed the management of a specific class of monuments which are large but not attractive, expensive to preserve, difficult to re-use, and which find it hard to be accepted by the general public as an integral part of their cultural heritage. While Huse was willing to acknowledge existing efforts to preserve and re-use such monuments, he demanded further improvements: He suggested a better integration of the planning and construction phases where awkward sites are concerned, more patience in the search for suitable new uses of such monuments, and a heightened respect for the preservation of surviving substance along with an increased acceptance for compromise where changes are involved.

Nearly a quarter of a century has passed since Huse published his urgent appeal. Numerous sites belonging to various sectors (military, industrial, power generation, river traffic, railway, postal and telephone services) have since lost their original function and been demolished, left unoccupied, or been fully abandoned. Today, conversions of such sites are more likely to succeed in dense urban areas. Here, awkward monuments can form nuclei for new urban planning, and at the same time remain a focus for the collective memory by embodying past technological developments and local social history. Conversion projects such as these will only succeed,

however, where they integrate communal politics, urban planning, the promotion of trade and industry, heritage preservation, and civic commitment.

The history of the demolition, decay, and conversion of the fortress works of Magdeburg covers more than a hundred and twenty years now. The fortress status was lifted in 1900, and substantial parts of the works were subsequently demolished. The remaining portions were converted to practical uses: A forest school was established in Fort VI, and other works were occupied by health care or civil defence institutions, workshops, or car parks.

The preservation of the surviving relics of the former fortress for future generations has been – and remains – a drawn-out and arduous task. Some notable progress has been achieved in their recognition by public memory, in ongoing maintenance, and in the planning processes for future renovation measures. A crucial factor in this development was the civic commitment of various groups, the fortress advisory committee, the scientific section on fortress works of the *Kultur- und Heimatverein Magdeburg e.V.*, the renovation association for *Ravelin 2*, and other citizens. At the same time, there has been some avoidable loss of monument substance, usually caused by construction projects whose re-use of a site ignored its specific characteristics as a monument.

In order to raise awareness for the monument status of the surviving fortress works, the urban planning authority of the capital city commissioned a monument preservation plan which was compiled by Katja Trippler. In its full version, it has become a vital tool for everyday planning processes. The version presented here by Sabine Ullrich is intended to acquaint a broader public with this fascinating subject. The initiative taken by Magdeburg, the state capital, and the promotion of this effort by the ministry for cultural affairs of the state of Saxony-Anhalt are a decidedly positive signal.

There is now reason to hope that the preservation of the huge and varied monument complex of Magdeburg Fortress will henceforth benefit from planning decisions which conform to the tenets of heritage preservation, and ultimately from better preservation conditions.



The crenellated wall at the foot of the *Lukasklause* on the banks of the Elbe



1. INTRODUCTION

Magdeburg: the quintessential fortress city

For more than a hundred years now, the fortress status of Magdeburg has been a thing of the past. It is difficult to imagine today how thoroughly the lives of the city's inhabitants were governed by the cramped conditions behind the ramparts and by the military's strict building regulations and security measures well into the 19th century. As the requisite space for a modern infrastructure and broad thoroughfares was simply not available, traffic and transport were constricted. As a consequence, the growth of the city and its commerce stagnated. The enormous dimensions of the fortress as compared to the modern layout of the city are equally difficult to grasp, as the fortifications were demolished quite thoroughly in the 19th and beginning 20th century, and the terrain levelled for the layout of new city quarters. Nevertheless, there are numerous aspects of the city's layout, structure, and development which can only be explained and understood on the basis of this former status as a fortress. For a long time, Magdeburg was perceived as the quintessential Prussian fortress city! This fact influenced all construction activities, military or civilian. The major traffic axes, the height of the buildings in the city centre, the age, extent, and position of the different city quarters, their relation to the centre of the city, the early industrialization of the suburbs, the routing of the railway lines, the development of urban infrastructure and the municipal parks were all dictated to a significant degree by the former fortress works and the military's ownership of the terrain. Many of these aspects are difficult to discern without a closer look. Only a handful of experts know that the cornice elevation of the residential buildings of the city centre's *Hegelstraße* was restricted to 20 metres, as residential buildings were not supposed to be visible above the ramparts when looking from the glacis in order to protect them from direct artillery fire. Hardly anyone remembers that these buildings also had roofs with a very flat slope, which allowed them to be covered with earth or wet textiles as a protection against fire, or that the runoff from these roofs had to drain into the courtyards. The steeper roofs which now rise above the cornices were only added later, when the maximum height of buildings was increased by the municipal construction ordinances to 32 m. It is also generally forgotten that the *Breiter Weg* did not run in a straight line, but had a distinct kink which would prevent a potential attacker from firing down its length. During his time as *Oberbürgermeister* (mayor), Gustav Hasselbach (1809 - 1882) tried in vain to obtain permission for a horse-drawn tramway along the *Breiter Weg*, as the main street of his own city was the property of the military authorities, not the municipality. It was only acquired (and transformed) by the city in 1913. Even the tombstones on the *Nordfriedhof* cemetery, which lay adjacent to the fortress works, were not allowed to stand upright, but had to be placed flat on the ground, as potential attackers could have used them as cover. Some of these epitaphs have been preserved in the *Nordpark*.

The few examples above give an impression of the ramifications which the military regulations had for the everyday lives of the civilian population.

2. THE MONUMENT PRESERVATION PLAN

Analysis – Information – Action

What are the goals of monument preservation?

What is a monument preservation plan?

What is the difference between a monument preservation plan, a monument register, and a monuments topography map?

What is the target audience of a monument preservation plan?

What can a monument preservation plan deliver – and what not?

People who have never been involved in the planning processes concerning a historical city quarter or the renovation of real estate protected under monument preservation regulations will probably ask themselves some or all of these questions.

Monument preservation regulates the legal aspects of dealing with cultural monuments on a foundation of relevant social and cultural factors. It is the stated goal of monument preservation to raise awareness for the historical facets of our architectural environment and make it more accessible. Each specific location or area will display structural features shaped uniquely by social, architectural, and historical peculiarities. This structure will evolve over a prolonged period of time, often centuries. The recognition of this deeper level of our familiar environment is bound to increase our dedication to preserve and maintain it.

“The municipalities will compile and update monument preservation plans for presentation to the monument preservation authorities. These monument preservation plans shall incorporate the general remit of monument preservation and the goals and requirements of monument protection.” *Denkmalschutzgesetz des Landes Sachsen-Anhalt*, §8 Abs. 2

A monument preservation plan is considered a useful tool for documenting and characterising the historical evolution of architectural environments more precisely. It lists, describes, analyses, categorises, and evaluates all historical settlement structures, protected monuments, and sites within a given spatial or topical context, and documents instances where they may be compromised. All results are documented and collected in writing, as photographs, and in maps. By placing individual

monuments in an overarching context of history and settlement patterns, the priority or urgency of their protection, maintenance, use, and development can be determined – an approach which would not be possible otherwise. A monument preservation plan is therefore complementary to the monument inventory (in which all objects are recorded and evaluated on an individual basis), and the monuments topography map (which records the location of sites on a map of the city).

The monument preservation plan is ultimately intended to provide a model and design concepts for future action. These tools should provide orientation for the urban planning and development of all areas in question. The plan will therefore need to balance the purposes and goals of monument preservation with those of urban development. Current and pressing aspects such as climate change, environmental protection, flood prevention, and demographical development will and must therefore be taken under consideration by the monument preservation plan. By providing accessible and comprehensive information, it will serve as a combined reference manual and inventory which will enable its users to avoid poor decisions and allow citizens, officials (including the monument preservation authorities), archaeological institutions, politics, investors, and planners to better assess and consider monuments and protected sites when they carry out construction in a city. By clearly defining those areas which need to be protected in precise maps, the remaining urban terrain will also benefit, as all future planning and construction within it will now be able to proceed with a greater degree of freedom and certainty. The monument preservation plan is a platform for information and planning which is constantly updated to accommodate our growing and evolving state of knowledge. This implies that it will always be a dynamic and informal tool whose use cannot absolve citizens, investors, or authorities from following the prescribed standard procedures. On the other hand, a monument preservation plan must not interfere in individual property rights or dictate conditions for architectural designs. The plan will always remain a tool of self-obligation which should help those involved to reach the right initial decisions in planning processes.



View through an aperture into the casemate of the magazine building in Fort IIa, a structure which was used to store ammunition and powder after the end of the fortress era

3. A SHORT THESAURUS

What are defensible barracks? What is a caponnier?

BASTION – a part of a fortification projecting outward from the main rampart

DEFENDABLE BARRACKS – a building which serves as both an accommodation for soldiers and a fortification

DETACHED WORK – an independent work positioned outside of the main rampart, e.g. a fort

ENCEINTE – the main rampart of a fortress, consisting of an unbroken line of fortifications

FACE – the side of a fortification which faces the attackers

FORTIFICATION MANNER, FORTIFICATION SYSTEM – the specific basic structure of a modern-era fortress, determined by its layout, the shape of the ramparts, and its armament

FORTIFICATION MANNER, NEW PRUSSIAN – a polygonal ground plan featuring an unbroken line of ramparts, with sections of the ramparts built as casemates for gun emplacements (cavaliers), and an independent defence of moats through caponniers protected by projecting ravelins

FORTIFICATION MANNER, OLD PRUSSIAN – generally marked by a high conformity to the terrain and casemates built into the fortress works, in Magdeburg by a combination of protruding bastions and tenailles in a system of double ramparts, all providing a defence in depth, with detached individual works

FORT – an independent fortification detached from the main body of a fortress

COVERED WAY – a path hidden from enemy view and fire

GLACIS – a flat artificial slope in front of a rampart providing a free field of fire towards the enemy

CAPONNIER – a structure built into the moat of a fortress which allows this area to be defended by enfilading fire; in Magdeburg, these structures are sometimes two-tiered

CASEMATE – a bomb-proof room or structure built into the otherwise solid ramparts

CASEMATES, LINKED – a series of casemates whose rooms are connected by passages



Fort IIa is presently occupied by the *Arbeiter-Samariter-Bund*, a welfare institution

CAVALIER – a fortification raised above neighbouring works to serve as an observation post or gun emplacement

COUNTERSCARP – the reverse side of a rampart or fortress work

CORE FORTRESS – the central structure or body of a fortress

CORE RAMPART, MAIN RAMPART – the rampart directly surrounding a city, the main system of ramparts and moats around a fortress

CRENELLATED WALL – a free-standing wall topped by a battlement of merlons and embrasures and/or pierced by loopholes

CUNETTE – a drainage ditch in the moat of a fortress

CURTAIN WALL – the section of a rampart between two bastions or angles of fortress works

POSTERN – a subterranean tunnel for the hidden passage of persons, arms, and ammunition

RAVELIN – a triangular or pentagonal fortress work, a detached bastion or advanced work in front of the main rampart

RAYON – the zone surrounding a fortress in which restrictions on construction, vegetation, and alterations of the terrain were enforced; Magdeburg had three concentric zones around the core fortress (with an additional so-called *Jagdrayon* regulating hunting), while the forts and advanced works had two *Rayons* each

RAYON LAW – regulations concerning the restrictions on construction around fortresses

TENAILED BASTION – a fortress work with jutting and receding angles in its facing wall

TRAVERSE – a wall running at a right angle to the main rampart

ROUND BASTION – a large round structure or squat artillery tower projecting from the main wall of a city or castle

RAMPART – a fortification made from deposited, shaped, and packed earth, generally featuring a moat to its front and incorporating massive structures such as gates, casemates et al.

INTERMEDIATE WORK – a fortified post placed between two forts to augment the outer defensive lines



The twin caponniers defending the western face (*Westfront*) of the fortress were built in 1871/73





The medieval tower named "*Kiek in de Köken*" was built around 1430 and remodelled by the National Socialists in the 1930s

4. A BRIEF HISTORY OF THE CITY'S FORTIFICATIONS

Life behind ramparts, moats, and walls

The history of Magdeburg is closely interwoven with the development of its fortifications and the alternating periods of war and peace which brought both prosperity and destruction to the city.

MEDIEVAL FORTIFICATIONS

The origins of the fortifications are probably as old as Magdeburg itself. Archaeological finds have shown that the city existed as a small settlement long before it was first recorded in written documents in 805 AD, and that its inhabitants had begun to protect their homes with V-shaped ditches and palisades as early as the Carolingian period.

The first masonry wall was built around the *Domburg* area by Archbishop Gero at the beginning of the 11th century. Some 150 years later, another archbishop, Wichmann von Seeburg, enclosed the city with a wall and five gates. In contrast to the pre-medieval fortifications, which had primarily served to deter enemy horsemen, attackers were now faced with a massive wall in addition to a rampart and ditch. At the beginning of the 13th century, Archbishop Albrecht II expanded the fortifications on the north side of the city and strengthened them with rectangular towers at 100 metre intervals. This increased the enclosed area of the city from 60 to 110 hectares. Around 1466, it was once more expanded to now cover c. 120 hectares. The *Altstadt* or city centre was to retain this size until the 1870s.

Today, visible remains of the medieval fortifications are to be found almost exclusively on the banks of the Elbe river. However, archaeological excavations in the *Altstadt* quarter frequently uncover additional remains of medieval foundations. Originally, Magdeburg also had two fortified suburbs, the *Sudenburg* to the south and the *Neustadt* to the north. These settlements lay just outside the medieval walls, but they were relocated in the 19th century.

THE EARLY MODERN ERA AND THE DESTRUCTION OF MAGDEBURG

With over 20 000 inhabitants, Magdeburg was one of the most populous cities of Central Europe at the close of the Middle Ages. But due to advances in arms technology in the middle of the 15th century – cannon balls were now no longer made from stone, but cast from iron – the city's fortifications no longer offered adequate protection. A second wall in the early modern manner was built in front of the existing medieval one, creating a ward in between. This arrangement greatly improved the defensive value of the fortification. The side facing the Elbe was strengthened massively, and a wide dry moat, new city gates, artillery towers, and round corner towers

were added to the medieval fortifications. A self-contained redoubt, the so called *Turmschanze*, was raised on the far side of the Elbe. This complex programme of modification went on for some 100 years, and it enabled the city to face modern siegecraft and its use of massed artillery. The massive bulk and lower silhouette of the new rounded towers made them harder to hit and demolish by artillery fire.

A crucial date in the history of the city was the 13-month siege of 1550/51 conducted by Moritz of Saxony in the wake of the Schmalkaldic War. Magdeburg had become a stronghold of Protestantism and openly defied the Catholic emperor, who imposed the imperial ban in return. The siege was ultimately ended by an accord, as the city could not be taken and subdued.

The following expansion of the defensive works saw the first use of wedge-shaped bastions which projected from the main ramparts. These features provided a better control of the terrain in front of the walls. Starting with the end of the 17th century, the bastions would be expanded into a complex interlocking system of angles and salients according to the so-called *Altpreußische Manier* (Old Prussian Manner). But before this work could be completed, Magdeburg was hit by a terrible calamity: in 1631, the city was nearly annihilated. Prior to the Thirty Years War, Magdeburg and its citizens were wealthy, influential and widely renowned. The city was firmly established as an important member of the Hanseatic League and a hotbed of Protestantism. In 1631, relying on relief by the Swedish king, Gustavus Adolphus (and an exaggerated optimism fuelled by the successful defence of 1551), the burghers of Magdeburg made a fateful decision: although the siege by Catholic and Imperial troops had already lasted for some time, they refused the usual offer to surrender. The enemy commander, Count Tilly, then ordered a general assault on May 10th, 1631. The imperial soldiers gained control of the city within two hours, and then sacked it with shocking brutality. A fire broke out, which turned into a flaming inferno. Of some 1 900 houses, only 139 remained intact, and of the former 35 000 inhabitants and refugees, some 20 000 are thought to have perished. It would take a hundred years until the last of the ruins finally disappeared.

Immediately after this tragedy, Otto von Guericke, a fortress architect by trade (and an inventor and sometime mayor), compiled a map of the city, the first to be drawn to scale. He used this map to plot the layout for the city's new fortifications.



View of the courtyard of the excavated *Bastion Cleve* – originally built as the *Rondell Gebhardt* in the 16th century, this fortification was modified and strengthened to form the *Rondell Cleve* from 1709 on, and extended by the addition of the advanced detached *Bastion Cleve* from 1713 to 1725

THE BRANDENBURG GARRISON AND THE PRUSSIAN MILITARY

When the Thirty Years War finally ended with the Peace of Westphalia, the secularised archdiocese of Magdeburg became a duchy, which was awarded to the electorate of Brandenburg, which would later evolve into the Prussian kingdom. For Magdeburg, this ushered in a new and formative era. The city lost its autonomy, and had to find room and sustenance for a garrison of 1 000 Brandenburg soldiers and their families. From now on, the mayor and city council would have to defer to the requirements of the military in all their decisions. At the same time, the new sovereign, Elector Friedrich Wilhelm von Brandenburg, ordered the expansion of the fortifications. In order to relieve the cramped housing conditions, the magistrate and wealthy citizens built some modest quarters for the soldiers (so-called barracks) in the empty spaces between the fortress works. Complaints by both the citizens and the military about the inadequate housing situation in the crowded fortress would be a regular feature well into the 19th century. The steady increase in inhabitants and the poor sanitary conditions would lead to an intolerable situation by the second half of the 19th century. This was only one aspect of the fortress status, however. At the same time, the soldiers became a fixture which provided the urban populace with a steady source of income through rents over the next 250 years. Like craftsmen, workers, or civil servants, they became a part of everyday street life. With its huge demand for building materials, equipment, and victuals, the Prussian

military was also an economic factor of extraordinary importance to Magdeburg and the entire region. The new regime was determined to turn Magdeburg into the preeminent fortress of Brandenburg/Prussia, and it certainly succeeded in this endeavour. The expansion of the fortifications between 1680 and 1745 turned Magdeburg into one of the most modern fortresses in Europe.

The broad Elbe river was considered sufficient protection for the city's eastern flank during the Middle Ages, so the fortifications on this side had always been relatively weak. By the end of the 17th century, however, it was recognized as a weak spot in the defences. In order to better protect the crossing of the Elbe at this point, the military authorities began construction of a large pentagonal outwork on a large island (*Elbinsel*) in the river, which was finished by 1702: the *Zitadelle* (citadel). The course of the river was regulated at the same time, and locks installed which lay under the protection of the citadel. In 1732, the existing redoubt (*Turmschanze*) on the right bank of the Elbe became the nucleus of the new *Friedrichstadt* quarter, which was surrounded by its own system of fortifications. It was the largest new foundation of an urban settlement in the duchy of Magdeburg in the 18th century.



The lower and upper firing positions of the two-tiered bastion and barbican of *Rondell Gebhardt*, built around 1550

In Prince Leopold I von Anhalt-Dessau, Magdeburg received a governor in the first half of the 18th century who was determined to promote both the reconstruction of the many ruinous parts of the city and the modernisation of the fortress works. In order to stabilise the *Elbfront* (Elbe face), he added the *Fürstenwall* to the ward, including the friendly touch of a public promenade on top. He also ordered the *Domplatz* (cathedral square) to be paved so that it could be used for drilling soldiers. A number of architects participated in the expansion of the baroque city and fortress: Hans Martin von Bosse, a fortress architect (bastions and *Turmschanze* redoubt in *Brückfeld*), Heinrich Schmutzen, a captain of engineers (citadel, baroque refurbishment of the church of the German Reformed congregation, city hall), Gerhard Cornelius von Walrave, fortress architect (*Fort Stern* and buildings *Domplatz* No. 4 and 9), Preußner, another captain of engineers (packing yard and *Zeughaus* arsenal on the *Domplatz*).

A system of ramparts studded with a total of eleven bastions was laid out according to the *Altpreußische Festungsmanier* (Old Prussian Manner). It enclosed the *Altstadt* completely and became a model for further Prussian fortress construction. On the southern face, *Fort Berge* (also called *Fort Stern* because of its pentagonal ground plan) was added, and later a second, exterior line of ramparts, which also had eleven bastions. The fortress works now had a depth of 300

to 600 metres, and supported one another in a sophisticated system of military engineering which provided multi-layered lines of defence. Potential enemies were pushed further and further away from the actual city, and it became impossible for enemy artillery to hit Magdeburg with any accuracy unless it was positioned right at the foot of the ramparts. The (still intact) medieval city walls were incorporated into this system as an innermost line of defence. They provided an infantry defence and an additional obstacle.

Unfortunately, these extensive fortifications forced civilians to take long, narrow and curving detours through gates, across bridges and moats, whenever they wished to enter or leave their city. In 1798, a total of c. 30 600 people lived in Magdeburg and the adjoining suburbs. The military added another 6 800 soldiers to this number.

Little remains of this 18th century fortress. Portions of the *Fürstenwall* and the *Bastion Braunschweig*, the trees on the *Domplatz*, the *Palais Walrave* (*Domplatz* No. 9), the *Palais Domplatz* No. 5 (which served as the garrison headquarters for a while) as well as the royal palace *Domplatz* No. 2 are reminders of this era. However, the trees now standing on the *Domplatz* were actually planted as replacements for the original set, and the appearance of the *Fürstenwall* has changed since the 20th century.



The former *Königin-Luise-Garten* – today's *Geschwister-Scholl-Park* – the terrain surrounding *Bastion Braunschweig* on the northern side of the fortress (*Nordfront*), was first planned as a garden show and then transformed into a public park surrounded by mansions, a project designed by the director of municipal gardens, Johann Gottlieb Schoch, to commemorate the 50th jubilee of the Magdeburg Gardening Society in 1895

NAPOLEON: CAPITULATING WITHOUT A FIGHT

When Napoleon invaded Prussia in 1806, the military forces in Magdeburg capitulated without a fight, possibly paralyzed by the lingering trauma of the city's fall during the Thirty Years War. Magdeburg now became an important strongpoint for the French, who continued construction on the fortress works from 1806 to 1814. The removal of all buildings directly in front of the ramparts or the medieval city walls, and the relocation of the suburbs of *Sudenburg* and *Neustadt* were the most drastic alterations of the cityscape to that date. Napoleon ordered both of these settlements to be rebuilt at some distance from the fortress. This comparatively short phase in the history of Magdeburg would nevertheless become crucial for the future structure and development of the city. The Prussian defeat turned out to be a window of opportunity for the urban community: The newly cleared open terrain in front of the fortifications became available (after the French had finally left) for the layout of a large park, the *Klosterberggarten*. It would soon become a favourite destination for the excursions and recreational activities of the civilian populace. The first municipal cemetery outside the fortress was established in the present-day *Nordpark*, improving hygienic conditions in the *Altstadt* and reducing the likelihood of epidemics.

INDUSTRIALISATION AND THE END OF THE FORTRESS

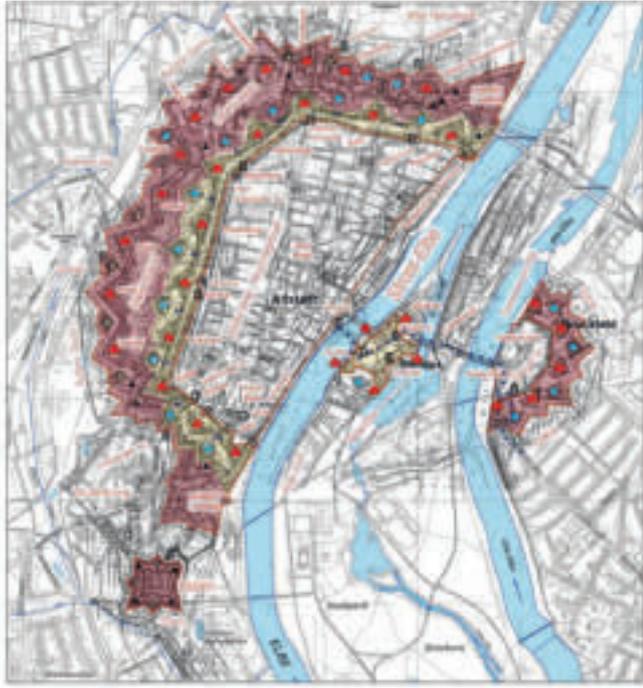
After the *Befreiungskriege* (Wars of Liberation), Prussian defence policy changed. In order to secure the kingdom's borders, the authorities now planned to invest heavily in the fortification of additional fortresses (e.g. Posen and Cologne). This helped to make the position of Magdeburg less exposed than it had been before.

The population of the city began to grow with the industrial development. Between 1815 and 1866, the number of inhabitants in Magdeburg doubled, and conditions within the severely restricted space of the city became extremely crowded. Around the middle of the 19th century, Magdeburg was considered to be second only to Berlin – the capital of Prussia – in population density. The "*Knattergebirge*" district, which huddled on the banks of the Elbe below the church of Saint John, was infamous as one of the most densely populated residential areas in 19th century Europe. The fortress status, which had been an economic advantage in the 18th century, now stymied further development. The suburbs, on the other hand, began to thrive and grow.

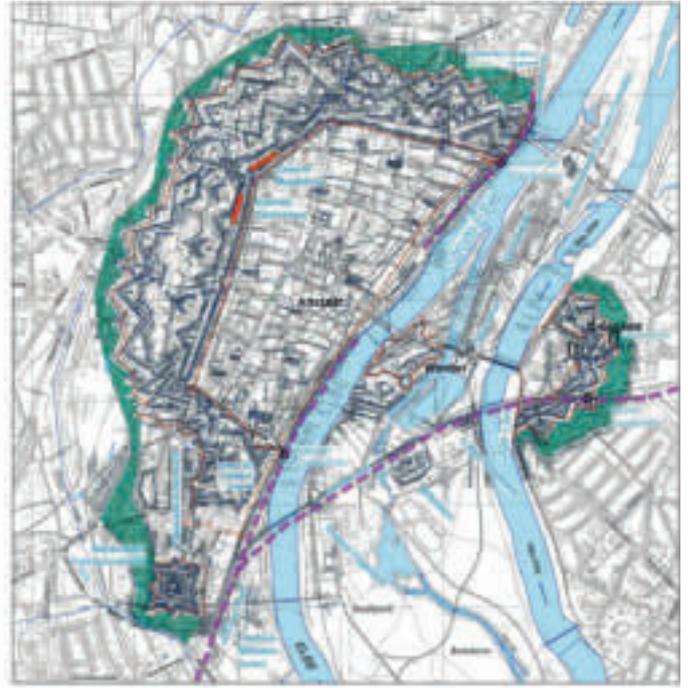
The city on the Elbe also became a starting point for the nascent Prussian railway system, and by 1850 it was the foremost railway hub of the kingdom. It would soon lose this status again, though, as the fortress blocked any expansion of the tracks and necessary railway infrastructure. The solution eventually adopted in Magdeburg, where the railway ran along the banks of the Elbe to enter the fortress via an artificial embankment, had been a major technological and logistic challenge.

The final phase of construction on the fortifications began in the middle of the 1860s, with the southward and westward expansion of the city. Huge amounts of soil had to be moved for this endeavour. This is also the reason why the majority of surviving traces and monuments of the fortification date no earlier than this phase. It was also the first time that the centre of the city was expanded beyond its medieval limits. Prior to this bout of construction and in expectation of this opportunity, successive mayors had striven for decades to acquire lots belonging to the fortress from the military administration. Only when private railway companies began to buy up terrain along the western face of the fortress (to build what is now the main railway station of Magdeburg) did the city councillors finally agree to pay the sums demanded for an area south of the cathedral. They would not regret their decision, as the auctioning of the lots (which had been levelled, parcelled off, and provided with access to the necessary utilities) more than repaid their investment. Only now were the intact medieval fortifications demolished, along with a large portion of the outdated rampart system of the 18th century. Where Magdeburg had for centuries ended (to its south) with the southern side of the cathedral's cloister, it now extended all the way to the present-day *Geißlerstraße*. Around 1874, the new lines of fortifications along the southern and western faces of the fortress had been completed. The available residential area within the ramparts had been doubled, but with up to 670 inhabitants per hectare, Magdeburg still remained one of the most densely populated German fortress cities.

During this final upgrade, the fortress was strengthened with an outer perimeter of 12 forts (some two kilometres from the core fortress) in 1866. In 1872, one more fort was added, and another was replaced in 1890. The line of forts was again reinforced by the construction of intermediate works 1890/91. This outer ring of defences was basically an answer to the invention of new rifled canon, which possessed a far greater range than older guns. As in all previous phases of construction, the main goal was to prevent enemy artillery from firing directly at the city centre. The layout of these outlying military structures also influenced the future construction of roads in the area. Even today, the layout of the new glacis and the positions of the forts or intermediate works can still be discerned in the outlines of later parks on the map of the city.



The evolution of the fortress: Magdeburg around 1750



Magdeburg in 1850 (prior to the expansion of the city)



Magdeburg in 1880 (during the expansion of the city), and in 1892 (showing the surrounding chain of forts and the limits of the *Rayon* zone)

NEW HOUSES AND NEW STREETS IN AN EXPANDING CITY

In 1886, Magdeburg was demoted by order of the royal cabinet to the status of a fortress of secondary rank. A new generation of high explosive artillery rounds of hitherto unconceivable effectiveness now replaced the older black powder projectiles.

This meant that the newly built fortress works were suddenly outdated from a strategic and military point of view. This included all aspects of traditional fortress architecture, as only reinforced concrete and cast iron were able to withstand the destructive power of the new offensive weapons. In the second phase of urban expansion after 1888, the military authorities cancelled all construction work on its formerly ambitious conversion scheme. Almost overnight, huge investments had become worthless.

In 1891, *Rayons* Nos. I and II were abolished, while *Rayon* No. III continued to be maintained for some time. On January 23rd, 1900, a royal cabinet order finally abolished Magdeburg's fortress status and permitted the sale of fortress terrain. The fortress would continue to exist as a legal entity right up to 1912/13, however. In 1903/04, the Stern fort was demolished. Once again, a new city quarter sprang up within only a few years to occupy the former military terrain. The citadel on the island in the Elbe was torn down in 1926/27.

As the military did no longer need to squeeze into the narrow confines of the old city centre, new barracks were built on the outskirts of the urban area. Magdeburg remained a garrison city, however, even after World War I. The local industry experienced a huge boom as a result of wartime production during the two world wars, but the armament factories were also responsible (at least in part) for the terrible destruction suffered by the city during the aerial bombardments of World War II, when it became a prime target. As the new barracks had largely survived the war unscathed, they were taken over by the Soviet army upon its occupation of East Germany. Some of the buildings were demolished after the political changes of 1989; others have since been taken over by ministries, the university, the tax office, the police, and the federal army, or converted for housing and cultural purposes.

When permission to demolish the fortress works was given at the beginning of the 20th century, people generally welcomed this opportunity. Nevertheless, there were some attempts to preserve portions of the fortification, e.g. the citadel, but these ultimately fell through. Those structures which have survived to this day were either public property or acquired by railway companies and private buyers who saw no need to demolish them. During both world wars, the remaining casemates were converted into emergency quarters.



Objects found in the twin caponniers and *Ravelin II* in the *Maybachstraße*, mostly from a time when the fortress had already lost its military function (the fortifications were converted to emergency housing and commercial uses from 1919 on)



5. THE ESSENTIAL STRUCTURES OF THE FORTRESS OF MAGDEBURG

The core fortress, the *Stern* fort, the citadel, the detached forts, and the *Rayon* houses...

Magdeburg was an official Prussian fortress from 1680 to 1912. Apart from the ongoing modernisation and maintenance of existing fortress works, three essential phases of construction can be discerned during this time:

c. 1680 – 1712:

Construction of a simple rampart with bastions around today's *Altstadt* area and the citadel on an island in the Elbe river.

c. 1713 – 1740::

Construction of a second bastion-studded line of ramparts and the detached *Fort Stern* starts, the *Turmschanze* redoubt on the right bank of the Elbe is expanded to become the *Friedrichstadt* city quarter.

1865 – 1875:

A chain of forts is established, and the ramparts of the core fortress constructed in the so-called New Prussian Manner of fortress architecture. This phase is also accompanied by an expansion of the city.

Noteworthy events include the construction work carried out under Otto von Guericke between 1629 and 1631, and the Napoleonic occupation, which lasted until 1814. Magdeburg was a military base of supreme strategic importance, and during the second phase of construction, which lasted from 1713 to 1740, it was one of the most modern fortresses in Europe. Even before the German Empire was founded in 1871, Prussia bestowed upon Magdeburg the official status of a first class fortress, comparable to Cologne, Königsberg, Koblenz or Posen.

Prior to the city expansion of 1870, the fortifications surrounding Magdeburg had reached an extent which covered about twice the area of the *Altstadt*. The works formed a wide belt with projecting and receding angles, which consisted of ramparts and moats on the north, west and the south sides of the city. The citadel on the northern half of the Elbe island and the fortress works surrounding the *Friedrichstadt* on the far bank of the river protected the eastern side (or *Elbseite*).



Fort VII in the Zielitzer Strasse, built in 1866/73, was converted into a sports facility in the 1920s – the outline of the detached work can be made out behind the grounds of the oldest sports club in Magdeburg, the TuS 1860 Magdeburg-Neustadt e.V.,

The southern approaches were guarded by *Fort Stern*, a self-contained work which had originally been an advanced detached fort, but was eventually integrated into the main defensive line of the expanding core fortress and finally converted into a cavalier in the last phase of construction. The citadel on the Elbe island was another self-contained redoubt, a fortress within the fortress. A few remains of ramparts and a brick-faced barracks building from the end of the 19th century are all that survives. Even fewer traces remain of *Fort Stern*. If they had survived intact, both structures would undoubtedly be considered major tourist attractions today (comparable e.g. to the *Petersberg* in Erfurt). Some fragments of the entrance portal of *Fort Stern* were reassembled to form an arch which now adorns the north-east corner of the *Domplatz*. The fortress works east of the Elbe river in the *Friedrichstadt* have also disappeared except for a few remains. Like the citadel and *Fort Stern*, they can only be experienced through their archaeological and topographical traces.

When the core fortress was restructured between 1869 and 1875 to accommodate the expansion of the city, the depth of the fortifications on the southern and western sides was significantly reduced. In essence, they now consisted of a main rampart with cavaliers, a dry moat, and a number of advanced redoubts (ravelins). The restructuring of the northern face (*Nordfront*), which was never completed, was to include a series of 13 cavaliers. These were to be

distributed along the entire face of the core fortress. Only eight of these works were actually built, of which four are preserved: *Kavaliere I, IV, V* and *VI*, plus parts of *Kavaliere VII*. The terrain between these cavaliers was protected by ramparts (curtain walls) which featured parallel walls with loopholes (crenellated walls). A surprising length of this defensive system is preserved on the western face (*Westfront*), but it lies hidden between the *Magdeburger Ring* and the *Maybachstraße*.

The outside face of the cavaliers was further protected by a moat. In addition, a ravelin sporting a semicircle of casemate rooms on its reverse side (a so-called counterscarp casemate) was erected in front of *Kavaliere V*. Two integrated, double-tiered structures with a rounded front (so-called twin caponnières) served as an immediate defence of the moat. The so-called glacis ran parallel to the curtain walls and the moat. It was basically a gently sloping green which was intended to provide a clear field of fire from the ramparts. At the close of the Napoleonic era, however, this terrain was planted with greenery. The plants were not only meant to screen the works from enemy spies, the network of their roots was also intended to prevent attackers from digging in close to the ramparts. This green was enthusiastically adopted by Magdeburg's citizens as a venue for strolls and recreational activities. Today, the former glacis is an essential part of the "green belt", a series of parks surrounding the *Altstadt*.



A sports park now occupies Fort VII

Due to the modern development of Magdeburg, the encircling belt of forts is extremely hard to make out in the present-day layout of the city. The forts were small permanent outposts which lay in front of the main rampart. Eight of these works have disappeared completely; three are still recognizable as former military structures: *Fort IIa*, *Fort VI* and *Fort XII*. Three of the original six intermediate works (which covered the gaps between the forts) are preserved and protected under monument preservation law. Work No. Ia is largely preserved in its original state. While the positions of the other detached works and their glacis are still discernible in the outlines of parks on the map of the city, the actual structures have either disappeared or been heavily altered by a variety of later uses.

The layout and appearance of a fortress city were determined not only by the lines of defence with their fortifications and adjacent open areas. Numerous architectural monuments are related to the broad field of military, fortress, and garrison matters, but their function or appearance would be influenced by the fortress status in a more indirect way. The tenements in the Hegelstraße mentioned above provide a good example, as do the many infrastructural utilities which were essential for the functioning of the military and civilian communities: fodder for the military mounts needed to be procured and stored, bread needed to be baked for the soldiers sustenance, officers expected to be provided with accommodation befitting their station, and the

rank and file had to be housed in adequate quarters. The so-called *Rayon* houses also belong to this group of structures which were indirectly influenced by the requirements of fortification. *Rayon* is a term taken from French fortress architecture which translates as “radius”. The terrain surrounding the fortress was divided into three of these concentric zones, which were subject to specific regulations with regard to construction. The area immediately adjacent to the fortifications was to be kept clear of all obstacles to provide a free field of fire. The construction of half-timbered buildings with an infill of bricks was permitted in the second *Rayon*, albeit with restrictions concerning height and the size of basements. When the fortress was put in a state of alarm, these buildings would have had to be demolished (without recompense), and the rubble would have had to be used to fill in the cellars. This was necessary so as to deny the enemy any cover close to the fortifications. As a consequence, the ceilings of the basements were not allowed to be built as masonry vaults. In addition, the timbers of the framework were to be joined in such a way that they could be dismantled and removed in a hurry when necessary. Luckily for the house owners, this emergency never occurred while the fortress was in operation.



The area of *Fort II* is an island of green in the *Reform* city quarter





The Möllenvogteigarten park lies at the foot of the *Fürstenwall*



6. A LIST OF MONUMENTS FROM THE FORTRESS ERA

Visible remains of the fortifications

Some 100 individual structures with a direct connection to the medieval fortifications and Prussian fortress works of Magdeburg are preserved today. They form the constituent elements of 48 official monuments and are listed in the monument register of the state capital.

Greens and parks were established on terrain belonging to the fortress as early as the 19th century and well into the 1920s. Some of these gardens display designs of great artistic aspiration, and are therefore designated as garden monuments. This status is considered to take precedence over their classification as fortress works. Of the 48 monuments, 37 are fortress structures, and 11 are garden monuments. Some parts of these sites have also evolved into biotopes. Some structures can also be categorised as monuments of railway history.

The monument preservation plan sorts the surviving monuments of the fortress era into seven categories based on their location. An eighth category has also been compiled, encompassing the culverts and passages from the entire city and each of the faces of the fortress, with attribution based on the common function of such features. In each of the above cases, the selected category determines the number under which individual monuments are recorded in the monument preservation plan.



The city gate of the *Möllenvogtei* was built in the Gothic style in 1493

MONUMENT CADASTRE¹

THE NORTHERN FACE (*NORDFRONT*) (FN)

- 1. FN-01-01 *Geschwister-Scholl-Park***, a park originally established on the site the former *Bastion Braunschweig* as the *Königin-Luise-Garten* in 1895; constituent elements: FN-01-02 remodelled moats, casemates, and ramparts, FN-01-03 monument to Queen Luise (a modern replica erected in 2009)
- 2. FN-02-01 interior fortifications of the *Nordfront***, with remains of the medieval city walls (built around 1210), strengthened by a second wall with towers and gates erected in the 17th century
- 3. FN-03-01 “*Kulturfestung Mark*”**, the former defensible barracks *Kaserne Mark*, built in 1863/64, with a westward-looking postern and other additions (entrances, stairways, and ancillary buildings) from 1920, a third of the building was destroyed in World War II; constituent elements: FN-03-02 monument area encompassing the courtyard, moats, ramparts, postern, and the buried remains of the former east wing of the barracks building
- 4. FN-04-01 former ravelin garden**, remains of the surrounding ramparts
- 5. FN-05-01 *Hohefortewallpark***, a park built on the remains of the former *Tenaille Mark*; constituent elements: FN-05-02 former gate post of the *Hoheforte Tor* gate (from the facing the city), repositioned to serve as a monument in the *Hohefortewallpark*
- 6. FN-06-01 park at the foot of the *Lukasklause***, a promenade on the north-western bank of the Elbe with remains of the fortifications of the former *Rondell Preußen*; constituent elements: FN-06-02 *Rondell Preußen* in front of the *Welscher Turm* (former redoubt “*Neues Werk*”, built in 1536), FN-06-03 remains of the interior portal of the *Wittenberger Eisenbahntor* railway gate with casemate and block house, FN-06-04 *Stele der Völkerfreundschaft* (monument erected in 1974), FN-06-05 cannon (copy of an original cast in 1669), FN-06-06 crenellated wall, part of the fortifications facing the Elbe river at the foot of the *Lukasklause*
- 7. FN-07-01 *Lukasklause***, now Guericke Centre, a medieval tower called “*Welscher Turm*” is documented here as early as 1279, construction of the *Bastion Preußen* (now called “*Turm Preußen*”) in 1680, modified and extended in 1902/03 as a club house for an artists’ association (*Künstlerverband St. Lukas*)
- 8. FN-08-01 interior fortifications of the *Nordfront***, near the former *Hohefortetor* gate, remains of the medieval city walls (built around 1210) and the second ring of walls, towers, and gates built in the 17th century
- 9. FN-09-01 *Tränsberg Medical Centre***, near the *Hohefortetor* gate, former officers’ mess and service building, erected at the same time as the defensible barracks of *Kaserne Mark*
- 10. FN-10-01 interior city fortifications**, near the former *Schrottdorfer Tor* gate, remains of the medieval city walls (built around 1210) and the second ring of walls, towers, and gates built in the 17th century
- 11. FN-11-01 *Freianlage „Bastion Halberstadt”***, a park with recreational grounds built on the remains of the former *Bastion Halberstadt*; constituent elements: FN-11-02 remains of the fortifications of the bastion’s left face, including a casemate (powder magazine) and remnants of the ramparts

THE SOUTHERN FACE (*SÜDFRONT*) (FS)

- 12. FS-01-01 *Kavalier I* or *Kavalier Scharnhorst*** part of the southern face (*Südfront*) of the new enceinte fortifications; constituent elements: FS-01-02 linked casemates, FS-01-03 gorge caponnières, FS-01-04 reserve water works, FS-01-05 scarp wall, FS-01-06 moat
- 13. FS-02-01 retaining wall**, between the former perimeter road on the *Schleinufer* embankment and the interior face of the ramparts
- 14. FS-03-01 *Klosterberggarten***, a park established on a portion of the former glacis of *Fort Stern* and the *Napoleonschanze* redoubt, near the site of a former convent (*Kloster Berge*, not preserved); constituent elements: FS-03-02 *Napoleonschanze* redoubt (the outlines of the earth ramparts can be traced in the grounds)
- 15. FS-04-01 *Steubenpark***, a park occupying a portion of the former glacis of *Fort Stern*
- 16. FS-05-01 postern of *Kavalier III***, a northward-looking postern of *Kavalier III*, part of the new enceinte fortifications which strengthened the southern face (*Südfront*) of the fortress

WESTERN FACE (*WESTFRONT*) (FW)

- 17. FW-01-01 *Glacisanlagen***, a large park bordered by several major streets (*Carl-Miller-Straße*, *Sachsenring*, *Adelheidring* and *Editharing* sections of the ring road), portions of the glacis also lie on both sides of the *Carl-Miller-Straße* (*Ravelin I* and the surrounding glacis); constituent parts: FW-01-02 glacis section between *Herbert-Stauch-Straße* and the railway line to *Helmstedt* (position of curtain walls III – IV), FW-01-03 glacis section between the railway line to *Helmstedt* and the *Maybachstraße* (site of *Kavalier IV*), FW-01-04 glacis section *Maybachstraße* (south of the twin caponnières in the area of curtain walls IV – V), FW-01-05 glacis section of the twin caponnières and *Ravelin II* next to the *Sachsenring* and *Adelheidring* (terrain of *Ravelin II* and its glacis), FW-01-06 glacis section *Maybachstraße* north of the twin caponnières between *Adelheidring* and *Damaschkeplatz* (position of curtain walls V – VI), FW-01-07 glacis section *Editharing* (terrain of *Ravelin III* and its glacis), FW-01-08 remains of the southern salient caponnières of *Ravelin III*
- 18. FW-02-01 western face (*Westfront*) of the fortress, promenade along the cunette**, main rampart section of the new *Westfront* enceinte between cavaliers III and VI, between *Herbert-Stauch-Straße* and the railway line to *Helmstedt* (section of curtain walls III – IV); constituent parts: FW-02-02 remains of the northern gate casemate near the new *Sudenburger Tor* gate (section of curtain walls III – IV), FW-02-03 block house (section of curtain walls III – IV), FW-02-04 counterscarp wall (section of curtain walls III – IV), FW-02-05 remains of the scarp wall north of *Herbert-Stauch-Straße* (section of curtain walls III – IV), FW-02-06 main rampart of the new *Westfront* enceinte between cavaliers III – VI, a portion of the *Maybachstraße* (the former perimeter road) between cavaliers IV – VI, FW-02-07 main rampart of the new *Westfront* enceinte between cavaliers III – VI, section with *Kavalier IV* next to the *Maybachstraße* and wartime powder magazine No. 14, FW-02-08 main rampart of the new *Westfront* enceinte between cavaliers III – VI, section with *Kavalier V* next to the *Maybachstraße* and

¹ According to Katja Trippler, 2016.



The *Fürstenwall* section of the city wall facing the Elbe river displays masonry from several different periods, and the mix of building materials creates the impression of a varied texture or calligraphic pattern

wartime powder magazine No. 15, FW-02-09 main rampart of the new *Westfront* enceinte between cavaliers III – VI, berm section between *Kavalier V* and the twin caponiers, FW-02-10 main rampart of the new *Westfront* enceinte between cavaliers III – VI, section with *Kavalier VI* next to the *Maybachstraße* and wartime powder magazines No. 19 and 20, FW-02-11 cunette ditch between *Herbert-Stauch-Straße* and *Damaschkeplatz*, FW-02-12 scarp wall (south of *Maybachstraße*, next to *Kavalier IV*), FW-02-13 scarp wall south of *Ravelin II*, next to the *Maybachstraße*, section of curtain walls IV – V), FW-02-14 counterscarp wall (south of *Ravelin II*, section of curtain walls IV – V), FW-02-15 main rampart of the new *Westfront* enceinte between cavaliers III – VI, twin caponiers with postern next to *Kavalier V*, FW-02-16 main rampart of the new *Westfront* enceinte between cavaliers III – VI, remains of the ramparts of *Ravelin II* with reverse casemates, flanking gates, and gate casemates, FW-02-17 counterscarp wall (north of *Ravelin II*, section of curtain walls V – VI), FW-02-18 scarp wall (north of *Ravelin II*, section of curtain walls V – VI)

19. **FW-03-01 north wing of *Kavalier VII* with casemates and remains of ramparts**, main rampart section of the new *Westfront* enceinte north of *Damaschkeplatz* square

THE ELBE FACE (*ELBFRONT*) AND OLDER SOUTHERN FACE (*SÜDFRONT*) (FE)

20. **FE-01-01 medieval city walls**, a stretch of fortifications on the banks of the Elbe river (*Elbfront*) between the church of Saint John and the *Fischerufer* embankment
21. **FE-02-01 *Remtergang* and *Möllenvogtei* sections**, medieval fortifications with towers, a gate, and walls on the banks of the Elbe river (*Elbfront*) between the cathedral and the ramparts of the *Fürstenwall*; constituent elements: FE-02-02 medieval tower (*Tatarenturm*), FE-02-03 medieval tower behind the

Möllenvogtei gate, FE-02-04 medieval gate leading to the *Möllenvogtei* gardens

22. **FE-03-01 *Fürstenwall***, a promenade section built on a former medieval ward, with a surviving tower and postern; constituent elements: FE-03-02 medieval tower (*Kiek in de Köken*), FE-03-03 stretch of medieval city wall (*Kiek in de Köken* section), FE-03-04 *Fürstenwall* section (walls of the former ward), FE-03-05 postern
23. **FE-04-01 *Park am Fürstenwall***, a park adjacent to the *Fürstenwall* street and the former *Bastion Cleve* (the medieval *Bastion Gebhard*)
24. **FE-05-01 southern face of the medieval city walls (*Südfrent*)**, portions of the medieval fortifications of *Bastion Gebhard* (or *Cleve*) including a tower and courtyards; constituent elements: FE-05-02 medieval tower (*Cleve*)

CITADEL ON THE ELBE ISLAND (FZ)

25. **FZ-01-01 former citadel**, remnants of the walls of the former *Bastion Kronprinz*
26. **FZ-02-01 former locks**, remains of the walls of the canal which ran close to the citadel; constituent elements: FZ-02-02 eastern embankment south of the former entrance to the locks, FZ-02-03 lateral walls of the entrance to the old locks
27. **FZ-03-01 *Stadtpark* – *Rothehornpark***, a park with remnants of former military fortifications (including *Fort XII*); constituent elements: FZ-03-02 remains of the former central redoubt, flanking work, and ammunition magazine, traceable in the ground contours and greenery, buildings of the former ammunition magazine, FZ-03-03 *Stadtparkstraße*, a tree-lined lane (the former perimeter road connecting the forts) along the locks canal between the citadel and the central redoubt, FZ-03-04 *Heinrich-Heine-Weg* (the former perimeter road connecting the forts)



The baroque entrance gate of *Fort Stern*, whose original position was south of today's *Hegelstraße*, was reconstructed on the north-east corner of the cathedral square of Magdeburg, the *Domplatz*, next to the baroque building of the *Landtag* (the state legislation)

FRIEDRICHSTADT, EASTERN FACE (ELBFRONT) (FF)

28. **FF-01-01 ramparts of the former *Friedrichstadt* quarter on the banks of the Elbe**

BELT OF FORTS (FA)

29. **FA-01-01 *Zwischenwerk Ia***, a detached intermediate work added to the belt of forts in 1890, the entire area of the monument (including casemates) is preserved and classed as a garden monument
30. **FA-02-01 *Fort II***, a detached work added to the belt of forts in 1866/67, remains of ramparts, a sally port, and a postern
31. **FA-03-01 *Fort IIa***, a detached work added to the belt of forts in 1870, a section of the area (including casemates) is preserved, but the north-eastern portion was destroyed by the construction of an access ramp for the *Magdeburger Ring* road
32. **FA-04-01 *Zwischenwerk IVa***, a detached work (including casemates) added to the belt of forts in 1890; constituent elements: FA-04-02 entire site
33. **FA-05-01 *Fort V***, a detached work added to the belt of forts in 1866/67, with remains of the ramparts
34. **FA-06-01 *Fort VI***, a detached work added to the belt of forts in 1866/67, (almost completely preserved casemates, powder magazines, moats, and ramparts)
35. **FA-07-01 *Zwischenwerk VIa***, a detached intermediate work (including later extensions and casemates) added to the belt of forts in 1890; constituent elements: FA-07-02 entire site
36. **FA-08-01 *Fort VII***, detached work (including a central traverse building) added to the belt of forts in 1866/67; constituent elements: FA-08-02 northern portion of the fort with moat, rampart, and casemates
37. **FA-09-01 *Fort XI***, detached work added to the belt of forts in 1866/67, north-eastern portion of the fort with remnants of ramparts and casemates
38. **FA-10-01 *Fort XII***, detached work added to the belt of forts in 1866/67; constituent elements: FZ-03 *Rotehornpark*

ENTRANCES AND GATES (FD)

39. **FD-01-01 exterior of the *Wittenberger Tor* railway gate**, remains of the lateral walls of the gateway
40. **FD-02-01 *Anna-Ebert-Brücke***, a bridge with remains of the fortification wall on the southern embankment; constituent elements: FD-02-02 remains of the fortification walls north of the bridge
41. **FD-03-01 *Sternator***, elements of the former baroque gate of *Fort Stern*, reconstructed as an arch in a corner of the *Domplatz*
42. **FD-04-01 *Altes Sudenburger Tor***, the uncovered remains of the lateral walls of the former gateway
43. **FD-05-01 *Altes Leipziger Tor***, remains of the crenellated wall of the flanking battery which guarded the railway gate; constituent elements: FD-05-02 remains of the flanking battery casemate
44. **FD-06-01 lift bridge leading to the *Rothehornpark***, crenellated wall on the western abutment of the railway lift bridge
45. **FD-07-01 *Buckauer Eisenbahntore***, eastern flanking wall and stairway of the railway gate, curtain wall section I / II, former *Bahnhof Unterwelt* railway station (*Elbbahnhof* station); constituent elements: FD-07-02 western lateral wall
46. **FD-08-01 *Leipziger Eisenbahntor***, western lateral wall with casemates of the railway gate near former *Kavalier III*
47. **FD-09-01 *Helmstedter Eisenbahntor***, remains of the gate casemate of the railway gate, curtain wall section III - IV, connecting casemate facing the main moat; constituent elements: FD-09-02 remains of the scarp wall (north of the railway gate), FD-09-03 remains of the scarp wall (south of the railway gate)
48. **FD-10-01 *Herrenkrug-Eisenbahnbrücke***, western Bridge fixing head



A replica of the monument commemorating the popular Prussian queen, Luise (originally erected in 1901 at the edge of the *Königin-Luise-Garten*) was placed in the same location of the renamed *Geschwister-Scholl-Park* in 2009

7. THE EFFECTS ON THE DEVELOPMENT OF THE CITY

Traces of the fortress in the layout of the city

For over 200 years, the everyday life of each and every one of Magdeburg's inhabitants was determined by the city's role as a major fortress. The most obvious sign of this status was the fortifications which encircled the old town (or *Altstadt* quarter) and extended outwards from the early modern ramparts. The city was effectively prevented from expanding beyond these limits right until the end of the 19th century. Normal urban development became practically impossible after the available free spaces in the *Altstadt* had been used up, and the resulting constricted and unhygienic housing situation would have appeared intolerable to a modern observer. A rapidly expanding industry was also claiming an unprecedented amount of space for facilities and the housing of its workforce. In addition, an assertive class of burghers was eyeing other cities of comparable size with envy and lobbying for cultural institutions such as theatres or a city hall. Schools were also in desperate need of more buildings to accommodate an ever growing number of children. Physical exercises were becoming more popular at this time, but could only find provisional facilities crammed into basements or the spaces between the inner and exterior ramparts. And these were just a few of the many problems facing the city during this era.

Those activities which found no room in the city centre would naturally move to the suburbs and the third *Rayon* zone of the fortress. This somewhat haphazard, largely uncontrolled, and fast-paced expansion saw new buildings and standardized street fronts spring up next to the old settlement core of *Buckau* and along the existing network of countryside lanes – but the resulting infrastructure now lay at an impractical distance from the city centre.

Quite obviously, this was no way to carry out a planned and organized urban expansion. Thus, when advances in weapons technology and the accelerating growth of urban populations made it clear that the concept of fortress cities was rapidly becoming outdated, demands for the lifting of the military's restrictions grew louder.

When the main rampart around the *Altstadt* quarter was finally demolished, the real estate situation changed drastically, and it became possible to connect the centre of the city to the outlying settlement areas. This allowed the municipality to exercise some degree of control over the newest spate of expansion. Due to the tremendous backlog of urgently required residential buildings and municipal infrastructure, much of the resulting construction was undertaken in record time according to standardised designs which minimized costs. The facades of preserved tenements from this phase show great uniformity in their structure, height, proportions, and even the size of windows and doors.

New schools, for example, were built according to standardised official designs. These details help to define the cityscape to this day, as Magdeburg never experienced such a comprehensive building boom again.

The basic structure of Magdeburg's network of streets is another legacy of the fortress era. For a long time, all traffic between the city centre and the outlying parts of the city was funnelled through five (at times six) city gates. These, in turn, determined the axes of the country lanes which were laid out in 1795 and the perimeter roads connecting the forts of the outer belt of fortifications which were built in 1870. When the fortress gates were finally demolished, the municipality lost no time in widening and straightening these choke points.

The process of expansion also saw the opening of the present main railway station in 1873/74. Its building and the tracks and sidings extending from it were to become another defining feature of the cityscape, as they effectively severed the western parts of the city from the centre. The construction of Magdeburg's system of ring roads in the 1970s would further aggravate this situation. Today, the former *Westfront* and *Maybachstraße* areas are surrounded by the ring road on one side and the railway tracks on the other, and thus permanently cut off from both the city centre and the suburbs of the *Stadtfeld* quarter.

In many cases, the open spaces of the former fortifications were converted into parks, which remain a dominant feature in the layout of the city to this day. They provide islands of green in the urban scenery, and have a positive effect on the climate in the city. The *Klosterberggarten*, *Geschwister-Scholl-Park*, *Hohefortepark*, and *Nordpark* exemplify the successful conversion of fortress terrain through ambitious garden design. The use of the *glacis* spaces for civilian recreation shows civic engagement at its best – many of these grounds had already been opened for public use long before the end of the fortress era.

After World War I, radical rethinking led to adjustments of both military regulations on construction and the fundamental aims of urban planning. Emphasis was now placed on the improvement of housing conditions, the expansion of green areas, and better ventilation. In this context, the municipality also undertook a reappraisal of those greens which had been established earlier in conformity to the layout of the fortifications. As it turns out, the fact that Magdeburg holds a place as one of the greenest cities in current German ranking systems is probably owed to its former status as a fortress.



The interior courtyard of the defensible barracks of *Kaserne Mark* (built in 1863/64), framed by the former soldier's accommodations, is a bustling place nowadays. The structure is a rare example of its type, and the youngest and sole preserved example of originally three in the fortress of Magdeburg.



8. MAGDEBURG – PRUSSIA’S STRONGEST FORTRESS

Fact or mere local enthusiasm?

We all love superlatives! And they are certainly a popular feature in sightseeing and tourism marketing. Consider this proud claim: Magdeburg, Prussia’s strongest fortress! Ever since scholars and enthusiasts began to focus on the history of the fortress and the preservation of the architectural testimonies of the era, both public opinion and tourism have embraced the claim that Magdeburg was once the foremost fortification on Prussian soil. But is this claim really valid? A glance at the tourist websites of other major fortress cities in Germany (or former German territory) reveals the use of similar hyperbole. However, some actual peculiarities and unique features can indeed be discerned in Magdeburg:

ITEM 1.

Magdeburg remained a fortified city – without interruption – from the Early Middle Ages right up until 1900. Its status as a fortress did not lapse at any point prior to 1900, not even temporarily after its devastation during the Thirty Years War or under Napoleonic occupation! Throughout their entire existence, the works were never demolished completely, and the city never had to be fortified anew from nothing (unlike the fortresses of Minden or Breslau, for example). When the southern and western faces (*Südfront*, *Westfront*) were pushed outward due to the expansion of the city, Magdeburg may have temporarily presented a weakened flank during the Franco-Prussian war of 1870/71, but it was still adequately protected by the outer belt of forts.



Fort XIII in the Rotehornpark, a completely preserved hexagonal fort combining features of the construction phases of 1866 and 1893, was transformed into a park at the beginning of the 20th century

ITEM 2.

A fortress is basically defined as a location protected by massive fortifications. In order to understand the process by which the medieval city of Magdeburg gradually evolved into such a place, and ultimately into the foremost bulwark of Prussia, the image of an onion can serve as a simple analogy. It can be applied to a) the different phases of construction of the fortress as a whole, and b) to the preserved body of monuments of the fortress and buildings within the city whose construction was influenced the fortress – and by extension even to c) the typology of the individual monuments.

The fortifications surrounding the *Altstadt* quarter of Magdeburg were constantly being expanded. Older structures (such as the medieval city walls and towers) were maintained and remodelled with later additions, and the zone of fortifications gradually extended to cover the surrounding countryside. The Prussian military took care to adapt the shape and structure of the fortifications to the constant improvements in the destructive capacity and range of offensive weapons, with each advance in siegecraft leading to a further round of modifications on the fortifications.

The core of the fortress was formed by the medieval city centre or *Altstadt*, whose civilian buildings and infrastructure had already been built in conformity with the fortress status. But the influence of the fortress extended beyond the actual fortifications and far into the adjoining countryside: it was surrounded by an inner zone which provided an unobstructed field of fire, followed by a zone of restricted construction (regulated by the so-called *Rayongesetze*), where only timber-framed buildings of reduced height were allowed, and then a third zone consisting of a belt of forts and intermediate redoubts.

All in all, the fortified area which extended from the city centre to the forts (and included the glacis terrain surrounding the individual works) covered some 60 km², a size which definitely justifies the claim that Magdeburg was the foremost fortress of the Prussian kingdom.

ITEM 3.

Most of the surviving monuments of Magdeburg's fortress era – the most conspicuous among them – were built in the second half of the 19th century. This selection allows us to understand how the construction of fortifications evolved with astonishing speed over a very brief span of time. In the defensible barracks of *Kaserne Mark*, for example, the ceilings were still built with wooden beams in 1863/64, while the barracks of *Kavalier I* (1870/73) and *Kavalier VI* (1871/74) were roofed with massive vaults to minimize the hazard of uncontrolled fires. The cavaliers were an integral part of the fortifications, much like the barracks of *Kaserne Mark*. They were embedded in the earth ramparts, however, with no visible loopholes or embrasures on the outer face. This distinguished them from the barracks of *Kaserne Mark*. **Monuments such as these are particularly suited to illustrate the development of fortress architecture during this late phase.**

ITEM 4.

The dual defence of Magdeburg provided by the core fortress and the bulwark of *Fort Stern* followed the strategic principles set up by Walrave (which he had also applied in the fortresses of *Stettin* and *Neiße*): an enemy who had taken the *Altstadt* quarter would still be faced with the resistance of *Fort Stern*, or vice versa, making the subduing of the fortress a much more difficult task. The fundamental designs employed in the fortress architecture of Magdeburg could also serve as models



The remains of *Fort II* in the *Kirschweg* part of the *Reform* city quarter, built in 1866/73 and demolished from 1900 on, were transformed into a park in which the open air theatre of the *Versuchsschule Buckau* (experimental school) from the 1920s can still be seen

for the construction of other fortresses. This was certainly the case with the bastioned ramparts which Walrave built according to the so-called Old Prussian Manner. **The expansion work carried out between 1680 and 1745 did indeed turn Magdeburg into one of the most modern European fortresses of the time.**

ITEM 5.

The uninterrupted belt of forts which lay in front of the core fortress of Magdeburg was begun in 1866 and built in record time. This expansion was a reaction to the advent of rifled cannon, whose increased range and accuracy enabled them reach the entire area of the fortress city and hit every house, barracks, or structure. The belt of forts was established to prevent this by pushing potential attackers as far away from the city as possible. The construction of these outer bulwarks inaugurated the era of the so-called *Gürtelfestungen* (or *Großfestungen*), a system of fortification which was effective, however, for only a short while.

ITEM 6.

Prussian military doctrine of the 18th and early 19th century intended the kingdom to be governed from the stronghold of Magdeburg in case of war. Consequently, Prussian kings would make a point of regularly visiting the fortress on the Elbe to attend military events and reviews, larger exercises, or even minor events such as the dedication of a new barracks building. As it turned out, the royal family did indeed find refuge here during the Seven Years War (1756 – 1763). The treasury was also evacuated to Magdeburg, a sign of the confidence placed in the impregnability of the fortress. Thus, Magdeburg provided a safe haven for the Prussian government, royal court, and finances. **The view that Magdeburg would be a safer place than Berlin (the capital)**

in the eventuality of war leaves no doubt that the fortress was considered to possess an extraordinary combination of power and defensibility.

ITEM 7.

There are several parks in Magdeburg whose establishment was either closely connected to former fortifications or to circumstances which are particularly noteworthy.

A) The *Fürstenwall* (1722) is one the earliest public promenades in Germany (along with those in Bremen and Leipzig).

B) The *Klosterberggarten* in Magdeburg, designed by Peter Joseph Lenné in 1825, was the first dedicated public park in Germany. It occupied a stretch of fortress terrain (the *glacis* of *Fort Stern*), and was initially used for both military and civilian purposes. Prior to this, larger parks would only have been established by private initiative, never at the behest of municipalities.

C) As a military feature, the *Glacis* was part of the strategic concept of preventing or hindering enemy attempts to approach, besiege, or storm the fortress. But from an early date, civic authorities had sought agreements with the military which would allow these killing grounds to be used by the population for their peacetime promenading.

ITEM 8.

The so-called *Rayon* laws were in effect throughout Prussia (and later the Prussian-dominated German Empire). The fortress of Koblenz, for instance, was subject to the same regulations as Magdeburg, with timber-framed houses being allowed in the 2nd *Rayon*, and – only by special permission – in the 1st *Rayon*. Today, however, only seven monuments of this type survive in Koblenz. **With more than 30 preserved examples of *Rayon* houses, Magdeburg definitely stands out among German fortress cities.**



The lush vegetation of the *Rotehornpark* has obscured the outlines of the rampart and ditch which once surrounded *Fort XII*





Massive pillars support the masonry vaults on the ground floor casemate of the barracks of *Kavalier Scharnhorst*



Prominent prisoners of the fortress

In addition to the dual strategic role of defending the territory of Prussia and protecting the population of Magdeburg, the fortress also served another purpose: the internment of several thousand prisoners. The citadel was particularly infamous as a jail. *Fort Stern* and *Kavalier I* (*Kavalier Scharnhorst*) were also used to detain inmates. While the fortress saw its quota of ordinary culprits (who were employed to dig trenches and quarry stone for the fortifications), it also received some political prisoners, plus persons of quality who had been found guilty of participating in duels. Their lot was definitely better, as they were placed under so-called honourable imprisonment (with no obligation to work) and enjoyed a number of amenities. In 2010, a team of experts appointed by the city council of Magdeburg compiled a list of former inmates and prisoners of war who had stayed at the fortress. This included a number of noteworthy personalities of international significance who possess some potential for tourism and marketing activities. A few examples are given below:

Gerhard Cornelius von Walrave (1692 – 1773)

A Prussian major general and renowned fortress architect who was active in Magdeburg, Stettin and Wesel; his private mansion (*Domplatz No. 9*) still exists; from 1748 until his demise, he was held prisoner (without trial) for the misappropriation of funds, ironically in *Fort Stern*, which he had built himself.

Franz Dominikus Graf von Almesloe (1704 – 1760)

This auxiliary bishop of Breslau was imprisoned in Magdeburg for treason from 1756 to 1759.

Friedrich Freiherr von der Trenck (1727 – 1794)

A Prussian officer and adventurer who was incarcerated in the citadel without trial in 1754, he tried to escape by digging a tunnel, but was caught and consequently placed in irons in *Fort Stern*, where he languished in a casemate in the moat. It remains unresolved whether the reason was an affair with Princess Amalie of Prussia, sister to Frederick the Great – or espionage. Trenck was finally released in 1763.

Dietrich Wilhelm Landfermann (1800 – 1882)

A pedagogue and democrat who was sentenced to 13 years of fortress imprisonment in 1825 for subversive activities. He was incarcerated in the citadel for six years and pardoned in 1829.

Fritz Reuter (1810 – 1874)

This poet and author (famous for his works written in the Low German dialect) was sentenced to death in 1836 for participating in the treasonous activities of student associations (*Burschenschaften*) in Jena, and for the crime of lese majesty. The sentence was commuted to 30 years of fortress imprisonment, and eventually to four years, of which he served one in Magdeburg.

Werner von Siemens (1816 – 1892)

Convicted of involvement in a duel, the renowned inventor and industrial magnate was imprisoned in the citadel in 1840. Here, Siemens developed a method of galvanic gold and silver plating while he was serving his time. When he was pardoned to be released prematurely, he asked to be allowed to serve out his full sentence so that he could continue his experiments – a request which was denied.

Józef Piłsudski (1867 – 1935)

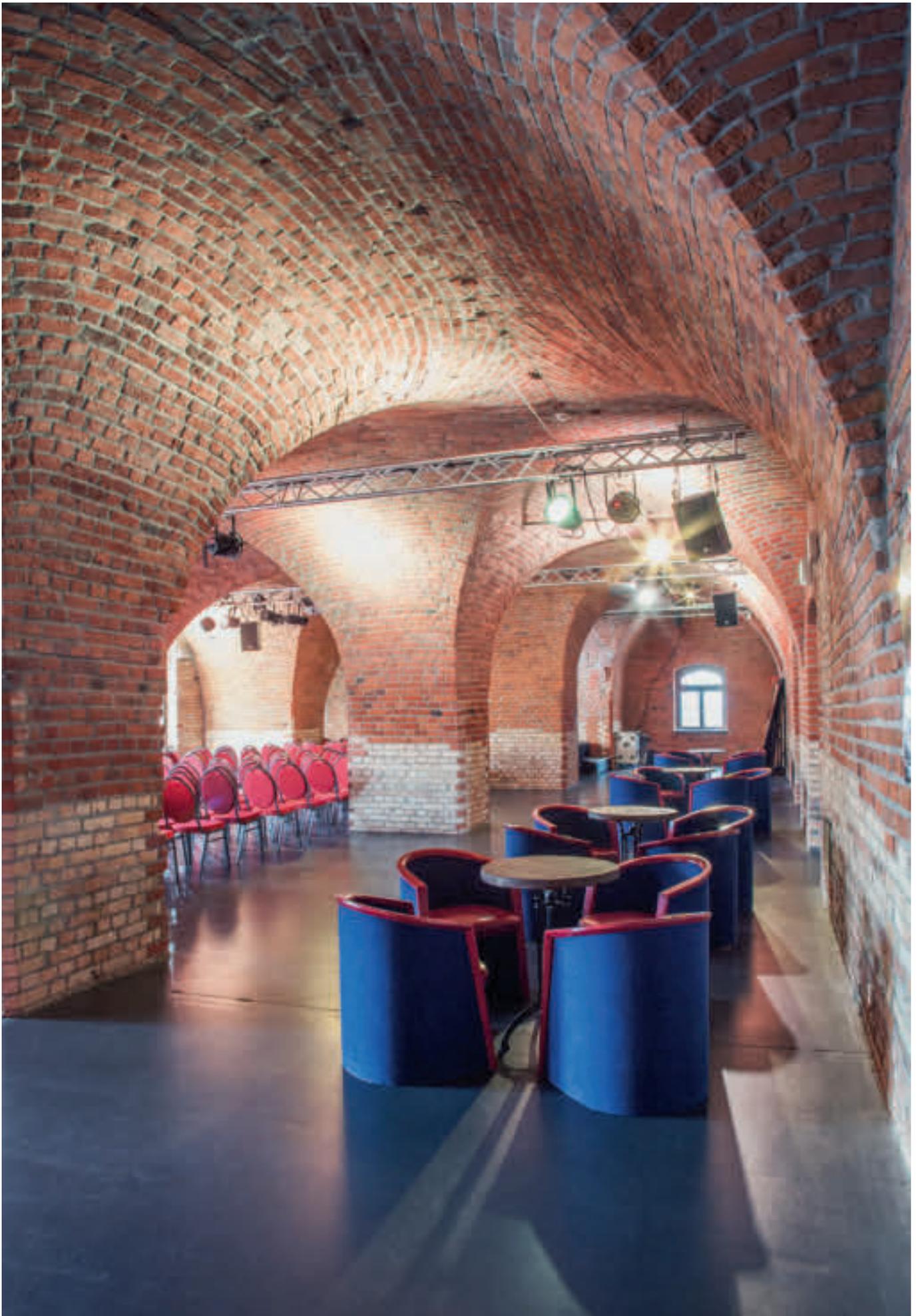
The famous Polish field marshal, president from 1919 until 1923 and celebrated in Poland as a national hero, was a prisoner of war in Magdeburg in 1917/18.

Roland Garros (1888 – 1918)

This French aviation pioneer and fighter pilot was the first to cross the Mediterranean in an airplane in 1913; during World War I, he developed a method which allowed machine guns to fire through a rotating propeller; he was prisoner of war in Magdeburg (presumably) in 1917/18.

Charles de Gaulle (1890 – 1970)

The French general and president was imprisoned in *Kavalier Scharnhorst* for a few weeks in September 1918.



The upper vault of the *Kaserne Mark* barracks is now used as a location for various events

10. EXEMPLARY CASES

Architectural remnants of the fortress era and their present use

The opportunities and problems with which the remaining monuments of the fortress era present Magdeburg vary greatly according to their location, state of preservation, or original and subsequent uses and construction phases. They include historic landmarks and touristic highlights such as the *Lukasklause* and *Bastion Cleve*, but also obscure features known only to experts or niche tourists (e.g. Lost Places photographers or geocachers).

KASERNE MARK

The 19th century saw the military search for new solutions to provide adequate accommodation for the soldiers serving in the fortress. Their social status had improved significantly, not least through reforms of the Prussian army. Apart from barracks, private quarters, or casemates which lay within the fortifications, the military also rented and swapped lots, and designed a new type of defensible barracks which were embedded in the earthworks of the fortress. Three of these barracks were eventually built. Only the last of these, the *Kaserne Mark* (1863/64), is preserved to a significant degree. It replaced a redoubt which had previously occupied the location – the *Tenaille Mark* – and therefore needed to adopt its defensive role. Towards the end of the garrison era, the barracks were converted to a variety of uses as a residential building, labour exchange, public health department, workshops for small enterprises and craftsmen, and even as a brush factory and a branch office of the *Staatsarchiv Magdeburg* (state archives). As there are only few surviving examples of defensible barracks in Germany today, its status as a monument is essential for the scientific study of fortress and barracks architecture.

Kaserne Mark has played a vital part in establishing the fortress era as an accepted part of the city's history – and in the collective consciousness of its people! It has also received widespread recognition as an excellent example of the revived use of monuments of the Prussian era. Begun as a student initiative in 2001, the project was developed with great patience, step by step; and today the structure is established as an essential element of urban cultural life and a veritable landmark of the city. Every Magdeburg citizen knows the "*Kulturfestung Mark*" as a popular venue for a wide array of events, and every new arrival to the city will be encouraged to visit it. Incidentally, the constant public acknowledgment which *Kaserne Mark* enjoys has also led to an increased appreciation of the other protected monuments of the fortress.

CAVALIERS, TWIN CAPONNIERS, GORGE CASEMATE

The surviving cavaliers are over 125 years old. Although they were converted to different uses at various times, they remain largely unchanged. This also holds true for the gorge casemate in *Ravelin II* and the twin caponnières, all owned by the municipality. This situation means that the buildings do not require any reconstruction work at present. The earth

rampart of *Kavalier I* is currently being removed in order to allow the structure to be used for housing purposes. Other spaces in the cavaliers are either unoccupied or rented and used as workshops, garages, or storerooms. *Ravelin II* of *Kavalier V* has been leased to an association since the beginning of 2015. This group aims to restore the structure and convert it into a venue for experiencing history at first hand. Their substantial civic commitment has seen the restoration work advance at a fast pace, and events are already taking place here on a regular basis.

The municipal administration has made some attempts in the past to repurpose the surviving structures of the ramparts and the main moat of the *Westfront* as a promenade. Unfortunately, this area had to be closed off permanently when it turned out that the moat is liable to flooding within minutes during heavy rain falls. This hazard will be removed, however, by the current construction of a tunnel at the main railway station and an improved drainage system.

Given suitable marketing efforts, the imposing fortress works of the *Westfront* have the potential to become a major tourist attraction catering to the adventurous and curious alike. In addition, the cunette ditches and glacis terrain will provide a venue for local recreation and leisure activities for the inhabitants of the surrounding city quarters. The concealed location and the substantial historical authenticity of these sites are unique features. The traffic noise of the *Magdeburger Ring* and the proximity to the railway tracks remain problematic aspects, however.

FORT VI, FORT VII, FORT XII

Other former fortress areas could also contribute significantly to an improved urban climate, local recreation, and organized leisure activities if they are repurposed as public greens. *Fort VII*, for example, has been used as a training venue for more than 90 years by a sports club, the *TuS 1860 Magdeburg-Neustadt*. Almost obscured by the club's facilities, the structural remains of the fortifications have remained unheeded and untouched for a long time. *Fort XII* was transformed through garden design and integrated into a park. In this new role, it has become a characteristic part of the park's landscape which never fails to make a strong impression on visitors. In addition, *Fort XII* offers continuous gastronomic service throughout the summer months. Due to its somewhat secluded location, the full charm of the venue is often overlooked, however. *Fort VI* has served as a *Waldschule* (forest school) since 1920, and as a civilian shelter until 1945, but has now lain unused for many years.



In front of the *Kaserne Mark* barracks in the *Hohepforte Wall* park, a pillar of the former *Hohepforte* gate (which stood to the east of the barracks until demolished in 1888) now serves as a rudimentary monument to the fortress era, though nearly obscured by the surrounding modern infrastructure

11. A CONCEPT FOR FUTURE MEASURES, PLANING, AND ACTION

What are we to do with the monuments?

Monument preservation is not aimed at the reconstruction or re-enactment of bygone times and cultures. Its brief is to preserve and present surviving testimonies of the past. The surviving fragments of the fortress are allowed to remain in the state they are found in. Reconstruction work is only ever considered – and then only to a restricted extent – when remains need to be secured, e.g. for structural reasons. It is not considered desirable to make the monuments a backdrop for activities of military enthusiasts, in whatever guise. For this reason, it is important to emphasise the study and presentation of all historical phases in the use of the structures and terrain of the fortress, be it as parks or as emergency and wartime housing.

CHALLENGES

Along with their military purpose, the fortress works have lost their original function. For decades, they have lain unused or been converted to serve other purposes. This has often necessitated alterations of the historical structure to permit a long-term functional operation, and resulted in a drastically changed appearance.

An example of this approach is the waiving of the reconstruction of the layer of earth which originally covered

the roof of *Kaserne Mark*. In part, this was done to accommodate the necessary utilities for the cultural facility which now occupies the structure. The two-metre layer of earth had originally served more than one purpose, protecting the building from artillery and reducing the risk of fires, but it was also meant to conceal the embedded structures from enemy observation. An additional two-metre parapet of earth on the side facing the enemy served to protect soldiers placed on the roof. The earth cover of the roof was thus up to four metres thick in places.

Those open areas which have already existed for a long time (possibly going back to the fortress era itself) will generally pose fewer problems where their preservation is concerned. However, the preservation of a park in conformity with the requirements of monument preservation can be as difficult as it generally is in the case of architectural structures. While a former ammunition magazine in a fortress building can be preserved as some kind storage facility (unless its location prevents this), a barracks building will seldom be used as a military accommodation in our days, and a crenellated wall or ammunition lift will certainly have lost its original function and be reduced to a mere tourist attraction. Unlike these purely military features, a residential building or a theatre which is placed under protection can generally be used in its original function (if so desired).



The moat of the western face of the fortress (*Westfront*), with the twin caponiers of *Kavalier V* in the background

FOCAL POINTS

Of the original total area of c. 400 hectares which the structures of the fortress occupied around 1870, only a rough 20 percent (of widely varying quality) survive today. Two thirds of this area (58.4 hectares) are protected as garden monuments, and one third (32.6 hectares) as architectural monuments. The individual quality, state of preservation, and size of the monuments will usually determine whether such vestiges can be given a new lease of life.

Their number includes eight sites which are of sufficient importance or distinguished by striking features of their former fortified and defensive character:

- *Westfront*
- *Kavalier Scharnhorst*
- *Fort VI*
- *Fort XII*
- *Zwischenwerk Ia*
- *Kaserne Mark*
- *Lukasklause*
- **and the terrain around the cathedral**

Of these, the first five were part of the final phase of expansion which began in 1865. *Kaserne Mark* was built shortly before this phase, but has more in common with the architectural typology of the preceding period. Three sites belonging to the belt of forts – *Fort VI*, *Fort XII* and *Zwischenwerk Ia* – are particularly endangered by possible interference, and need to be monitored closely. *Kaserne Mark* and the *Lukasklause*, on the other hand, are protected in the long term by their established cultural use. The section around the cathedral is characterised by the close proximity and intermixture of different historical phases of the fortress and city. The same holds true for the area around the *Lukasklause*.

The overall structure of today's system of urban parks is based on the re-dedication of terrain occupied by the military from the 18th century until World War II. Its quality and layout were essentially determined by the activity of Magdeburg's gardens administration. Numerous monuments were planned by renowned garden designers such as Paul Niemeyer (director of the gardens administration in Magdeburg from 1863), Gottlieb Schoch (director from 1863 to 1890), or the famous garden designer Peter Joseph Lenné (who laid out the *Klosterberggarten* in 1825). This makes the parks system of Magdeburg remarkable from both a historical and an artistic perspective.



Inside Ravelin II

GOALS AND MEASURES

The monument preservation plan is intended as a contribution to ongoing efforts which seek to upgrade the monuments of Magdeburg's fortress era. To this end, it aims to increase both the touristic potential of the cityscape and its usability for the people who actually live here. Where the historic fortifications are threatened by interference or alteration, the monument preservation plan will explain and expound the various aspects of monument protection, and thereby help to prevent those measures which are liable to damage the monument's status.

This approach aims to increase overall public awareness of the significance of the surviving fortress works from the 19th century, and emphasise the unique value of particular monuments in those cases where construction is planned on a sensitive site.

1. The 19th century

From a military perspective, Magdeburg had already reached the high point of its strategic significance in the 18th century. While the position of some works goes back to this era, the outlines of the structures have changed completely since. The majority of the surviving monuments date to the second half of the 19th century. This late phase has also left the most distinct traces in the layout of the city. Consequently, the main focus for the preservation and development of protected monument areas is placed on the second half of the 19th century. This includes the belt of forts, whose original functional connection to the core of the fortress is difficult to discern in today's cityscape.

2. The 18th century

In order to raise public awareness of the presence of remnants of the fortress city in the modern cityscape, an increase in the scientific study of the nearly vanished elements of the 18th century fortifications is strongly recommended.

3. Garden monuments

An enhanced scientific investigation of the garden monuments and their connection to the former fortress works is also desirable. So far, this fundamental aspect has been widely neglected (outside of the Magdeburg region as well). The glacis terrain should receive the particular attention and care of the monument protection authorities as a vital element of the former fortress. The construction of the ring road of the *Magdeburger Ring* has already led to grave and irreversible damage to this monument. Due to their inconspicuous character, the glacis areas are in particular danger of being perceived as mere curbside greenery, or of being sacrificed for the construction of new tramway tracks.

4. The monuments list

The list of monuments belonging to the former fortress complex should definitely be augmented by the addition of those structures which have a less direct association with the subject, such as *Rayon* houses, barracks, and buildings of the military administration.

They, too, can help to increase awareness for the complex effects and consequences which the all-pervasive garrison life and omnipresent fortifications had on the development of the city in centuries past.



Former and future residents meet on the construction site of *Kavalier Scharnhorst*

12. A CURRENT CASE STUDY

Long ago, yesterday, and today – living in the cavalier

In 1872/73, the Prussian military built *Kavalier I* to strengthen the southern face of the fortress of Magdeburg and defend the adjoining gates for the railway lines. It was also known as *Kavalier Scharnhorst*, after the great reformer of the Prussian army. At the time, it was the most modern defensive work of the fortress. The two-storied casemate of the barracks building was occupied on October 1st, 1873, by a regiment of foot artillery (No. 4) which was stationed in Magdeburg. The city was to retain its fortress status for another 40 years, even though the fortifications no longer provided an adequate defence against modern weaponry. During World War I, the barracks of *Kavalier I* were used to accommodate prisoners of war. Officers and men were housed separately, and the cavalier was occupied by more than 400 Russian, French, Belgian and British officers at some points. Their prison may have been without running water, but they were allowed to manage their own affairs and employ over 100 soldiers as servants. The cavalier was again used for housing purposes after World War II – this time for civilians. Due to the wholesale destruction of the city centre and the enormous influx of refugees, all available roofed structures had to be pressed into service as emergency shelters.

Once this situation was over, the cavalier was turned over to commercial and workshop uses. The last of these occupants (the *Konsum Fotocolor Magdeburg*) left in 1990, and the building stood unoccupied for many years. During the

summer months, it would sometimes be used as a venue for theatrical productions. Ownership changed several times, each occasion raising hopes of coming investments and a preservation of the monument. Due to the prolonged commercial use, the building's construction remained largely unaltered, including the earthworks which covered the rear and roof and its superstructures – a rare stroke of luck indeed! The windows remained boarded up, however, and an acacia tree started to grow from the stone coat of arms above the main portal.

It is the end of 2016, and something new is about to happen in *Kavalier Scharnhorst*. The air is cold, the ground frozen, and hoarfrost crunches under our feet. The courtyard is filled with stacks of boards and scrap metal. We are here to meet Doris Petersen, her brother Günter Jäger, and Jill Luise Muesig, a photographer. Doris has brought a slender album with black-and-white photographs from her childhood. She was born in 1946, her brother in 1948, and they once lived in an emergency shelter whose address was *Hammersteinweg* No. 1. "When our parents separated, we moved to the *Friesenstraße* in the *Stadtfeld* quarter with our mother." This must have been in 1952, but it is hard to be precise as the children were still small at the time. Before that, the family lived in the *Kavalier Scharnhorst* barracks for some years, along with the many other people who found a refuge here. "The fortress works were a huge playground for us, along with the



Construction work in the courtyard of *Kavalier Scharnhorst*; the layer of earth covering the roof has been removed

adjoining sidings of the *Elbbahnhof* and the *Klosterberggarten* park." The tenants would use the earth-covered roof of the building to grow vegetables. Doris can still recall the currant and gooseberry bushes which grew up there. They lived as so many households in the post-war years did; surviving the winters by 'liberating' lumps of coal from the freight trains in the *Elbbahnhof*.

Oliver Öhmke is one of the new owners of the cavalier. He listens with great interest to Doris Petersen's recollections, and then takes us for a tour of the interior section where his future apartment is being built. The ceilings are vaulted, the rooms surprisingly spacious, and the masonry walls are deep and massive. We crane our necks to see the open sky through old ventilation shafts. At the back of the barracks, we observe that huge masses of earth have been moved. Excavators, front-end loaders, and trucks are busily at work here: The huge earth rampart in which the barracks had been embedded is being removed. The work exposes a high, light-coloured wall which was designed to withstand the enormous pressure of the ramparts infill, but never to serve as a visible facade. Now, the investors want to pierce it with windows and doors, and add terraces to its front.

The plan is to convert and upgrade the fortress work, which has not served in its original function for more than a hundred years, to a habitable building which fulfils all

modern requirements. Three years later, however, construction work is still going on. Quite obviously, the future inhabitants require adequate daylight and a certain standard of living. But these demands have to be balanced with the requirements of monument preservation. Public opinion is divided, as the planned alterations on the building are truly massive. While some anticipate that the renovated structure will have a vitalizing effect on the surrounding city quarter, others (especially experts studying fortress architecture) criticize the loss of a unique monument. In their opinion, the earth rampart and roof covering were an integral part of the original structure, and the denuded brick barracks would constitute an entirely new entity.

The primary condition imposed on the investor is a restoration of the original appearance of the earth rampart – at least as an optical impression – and the maintenance of a cohesive appearance in spite of the individual ownership of the sections (whose structure is more akin to a row of terraced houses). In the absence of comparable cases and lacking previous experience, this particular case can only be handled experimentally. The conversion of the cavalier is definitely a huge challenge for both the investor and for monument preservation.

13. THE PEOPLE OF MAGDEBURG AND THEIR FORTRESS

Who can I turn to? Where do I find further information?

Landeshauptstadt Magdeburg Untere Denkmalschutzbehörde

An der Steinkuhle 6
39128 Magdeburg
Responsible for: advising and mentoring owners of monuments and ruling in legal matters concerning monument preservation

Festungsbeirat der Landeshauptstadt Magdeburg Geschäftsstelle im Stadtplanungsamt: Sachgebiet-Stadtgestaltung

An der Steinkuhle 6
39128 Magdeburg
Responsible for: advising Magdeburg, the state capital, on all measures concerning the protected monuments of the fortress

Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt

Richard-Wagner-Str.9
06114 Halle
Responsible for: professional heritage protection, including the scientific monitoring of construction measures which affect protected monuments

Fachgruppe Festungsanlagen im Kultur- und Heimatverein Magdeburg e. V.

founded in 2001
Aims and responsibilities:
processing and raising awareness of the history of the fortress, collaborating and networking in all measures taken to preserve the fortress, in its restoration, and in measures taken to make it more accessible for tourists, also the running the fortress museum and modelling projects
www.festung-in-magdeburg.de

Freunde der Festung Magdeburg e.V.

founded in 2007
Aims and responsibilities of the association: to research the fortress, to document and publish the results, public relations, contacts with other fortress cities (both national and international), excursions, symposia, conferences, collaboration in committees, general advice on all matters concerning the fortress
www.magdeburger-festungsfreunde.de

Sanierungsverein Ravelin II

founded in 2014
Aims and responsibilities of the association: to preserve the monument by volunteer efforts, to restore it in accordance with the tenets of monument preservation, and to make it usable as a site for experiencing history in the long run
Vision: to establish the site as a destination for fortress enthusiasts and tourism.
www.ravelin2-magdeburg.de
More information can be found on Facebook, Twitter and Instagram

Magdeburger Festungstage

A colourful cultural event with the participation of various heritage associations and lectures on the history of the fortress
<http://www.magdeburger-festungstage.de>

Literatur

Mai, Bernhard and Mai, Christiane, Festung Magdeburg, Döbel 2006.
Wolfrom, Erich, Die Baugeschichte der Stadt und Festung Magdeburg, Magdeburg 1936, reprinted in 2001.



Zwischenwerk Via was used for social housing from the 1920s on

IMPRINT

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NOTES ON THE PHOTOGRAPHS

THE RELICS OF THE FORTRESS IN THE MODERN CITY

Cityscapes are marked by numerous faultlines. They are anything but homogenous structures. These discrepancies have been caused by the progress of history. The old and the new can stand side by side in stark contrast and yet collaborate to create individual and unique vistas, both on a small scale and in the wider urban landscape.

Two photographers have taken on the task of documenting the protected monuments of the fortress in their urban surroundings. Hans-Wulf Kunze generally focusses on those cases where the works of the fortress were obscured by subsequent transformations of the open spaces or by later re-uses. Jill Luise Muessig documents the remains of the core fortress in their current state.



The building and subterranean passage of *Zwischenwerk IVa* (built in 1890) in the *Harsdorfer Strasse*, used by Magdeburg's *Landegard e.V.* association from 1922 on (so-called "*Fort Landegard*", which included a children's home, a garden, and a home economy school), when another story was added to the casemate, transformed into a *Waldschule* (forest school) in 1925, converted into a recuperation home for women suffering from tuberculosis in 1930, and presently used by the *Öko-Zentrum und Institut Magdeburg Sachsen-Anhalt e.V.* - *ÖZIM*