Michael Knoche, Hilde Barz-Malfatti † and Karl-Heinz Schmitz 16 Integrating New Functions into the Historic Herzogin Anna Amalia Bibliothek in Weimar, Germany

Abstract: Despite a fire in the library, the Herzogin Anna Amalia Bibliothek in Weimar opened its extension in February 2005 on schedule. The new Study Centre covers an area five times larger than the corresponding rooms in the old library and offers readers 120,000 volumes on open access. The new underground stacks constructed at the same time offer good preservation storage conditions for up to one million volumes. It is a great advantage that an underground connection integrated the new build with the old and eliminated any potential division of the library. The new Book Cube with its clear geometry is the centre of the diversely proportioned group of buildings and a modern counterpart to the Roccoc hall of the original green palace. The four internal walls of the Cube are designed as multi-storey bookshelves with galleries above and below ground. A sequence of underground rooms connects the Cube to the historic library building. It has been possible to create an integrated entity combining the new and the old, not by imitation, but by treating the whole ensemble.

Keywords: Academic libraries – Germany; Research libraries – Germany; Library buildings – Design and construction; Castles – Remodelling for other use

The Context

The Herzogin Anna Amalia Bibliothek/Duchess Anna Amalia Library (HAAB) is one of the most famous libraries in Germany. It was founded in 1691 and transferred to its present domicile, the Grünes Schloss/Green Palace, by the Duchess Anna Amalia in 1766. Nowadays, it is a publicly accessible research library of European literary and cultural history with a particular focus on the era between 1750 and 1850. In keeping with the tradition of a ducal library, its holdings contain collections dating back to the 10th century which are continuously expanded, catalogued and made accessible with current research literature. The library with its famous Rococo Hall is part of the Classical Weimar UNESCO World Heritage site and is associated with many famous German cultural figures including Johann Wolfgang von Goethe. On the evening of 2 September 2004, a devastating fire occurred at a time when an extension building, providing a new Study Centre



Fig. 1: Herzogin Anna Amalia Bibliothek Book Cube: The four interior walls are designed as multi-storey bookshelves with galleries. © Klassik Stiftung Weimar. Ulrich Schwarz.

Facts and Figures

Name: Herzogin Anna Amalia Bibliothek Address: Platz der Demokratie 1, 99423 Weimar, Germany Website: https://www.klassik-stiftung.de/herzogin-anna-amalia-bibliothek/ Opening: February 2005 Builder: Klassik Stiftung Weimar Architects: Hilde Barz-Malfatti and Karl-Heinz Schmitz http://www.schmitz-architekt.de/ pro_haab_sa.html Gross floor area: 14,000 m² Main floor space: 7,130 m² Collection size: 800,000 Staff: 85 Workstations: 130 Building costs: €21,100,000

with underground storage, was under construction and nearing completion. A few months later, the books would have been safely stored and avoided fire

damage. At the time of the incident, the historic building with the Rococo hall still contained about one-fifth of the book stock of one million volumes. Four-fifths were stored in temporary storage facilities and had to be brought to the reading area for use. Fortunately, the distribution of the collections ensured that the fire did not completely rob the library of its riches.

The planned extension, which librarians had wanted one hundred years earlier, provided the opportunity to develop further the concept of a research library that had been a goal for many years. The new building complex was opened on 4 February 2005.

The new Study Centre extension reused the adjacent historic building complex called the Red and Yellow Palace, which is significant for the history of Weimar (Figure 2). As early as 1630, the Red Palace was the home of the book collection of Duke Wilhelm IV of Sachsen Weimar and was partly incorporated into the later ducal library. The palace complex is an assemblage of different buildings from different eras ranging from early Renaissance through, Baroque to post-war remodelling. It was last used as a municipal office. The construction challenge was to renovate the historic buildings according to appropriate conservation principles along with the careful addition of new building components.



Fig. 2: The library extension in the Red and Yellow Palace building complex. © Hilde Barz-Malfatti and Karl-Heinz Schmitz.

It was a great benefit for the Herzogin Anna Amalia Bibliothek that a division of the library was avoided by including the neighbouring building. The one library concept was physically realised, as the various buildings are connected underground (Figure 3). In the short term, it would have been more cost-effective to construct a new building on a greenfield site in addition to the historic building rather than to integrate new functions into an existing building group under strict monument protection regulations. In the long run, however, the cost of operating a library across two sites would have been considerable and the opportunity of providing an attractive facility for readers, researchers and the citizens of Weimar would have been lost. Nonetheless, there were influential advocates of the greenfield solution.





Apart from the issue of location, the financing of the project was the biggest problem to be solved. On 26 November 1997, the Board of Trustees of the Klassik Stiftung Weimar/Classical Foundation Weimar gave a generally positive decision on the proposed library extension in the Red and Yellow Palace building complex. The Federal Government of Germany and the state of Thuringia government were prepared to invest seven or eight million DM annually from 2000 onwards, but the property still belonged to the city of Weimar. Only after lengthy negotiations, which threatened to fail several times, could the purchase contract, including the option for an underground storage facility below the Platz der Demokratie, be signed on 22 September 1999. Some time before, the *Frankfurter Allgemeine Zeitung* newspaper, under the banner "The cradle of German classicism becomes

the grave for 900,000 books – if you don't help", had pushed for private support for the library refurbishment.

The Competition and Winning Design

In autumn 1999, a few weeks after Goethe's 250th birthday, a Europe-wide architectural competition was launched. 280 applications were submitted for examination by an independent jury, chaired by Karljosef Schattner. On 28 April 2000, the jury unanimously awarded the first prize to the architects Hilde Barz-Malfatti and Karl-Heinz Schmitz in Weimar, who were joined by the experienced office of Rittmannsperger from Erfurt.



Fig. 4: The new entrance building set a new accent in the castle complex. © Klassik Stiftung Weimar. Ulrich Schwarz.

The winning design was characterised by the sensitive handling of the historic building fabric and a high degree of functionality. With a new entrance building, it provided a new focal point in the castle complex and carefully created a wide variety of visual relationships (Figure 4).

The Book Cube (Figure 1) with its transparent roof inserted into the former inner courtyard represents the core of the new complex. Its clear geometry gives the ensemble of differently proportioned structures a centre and forms a modern counterpart to the Rococo hall of the historic library building. The four interior walls are designed as multi-storey bookshelves with galleries above and below ground.



Fig. 5: Former entrance building, which was replaced by the new building (Figure 4). © Klassik Stiftung Weimar. Claus Bach.

The Librarian's Perspective

For the Herzogin Anna Amalia Bibliothek librarians, it was crucial that the service concept formulated for the library was translated effectively into any new building. The librarians envisaged a reader walking through the building in the following sequence: after entering the library courtyard through one of the three portals, followed by the main entrance in the new gatehouse, the first point of contact would be a service counter for information, registration and borrowing. The approach was implemented. Also located on the ground floor are the media library with a workstation for the visually handicapped, the photo archive with images on the cultural history of Weimar, a lecture hall with 48 seats, a reading café run by the Studentenwerk/Student Affairs and an open area in the Cube that can be equipped with 100 chairs for events. Reference works and bibliographies, card catalogues and computers with access to electronic resources are available. The ground floor of the Study Centre is designed as an information area with straightforward entry and accessibility to all parts of the building (Figure 6).

The two upper floors form the main reading zones and can be entered only with a library card. They contain more recent academic literature with a focus on literary and cultural history and the content is freely accessible by browsing the subject areas. The reader can access about 120,000 systematically arranged books and journals. Previously less than one-tenth of the collection was directly accessible. The range of electronic services is constantly being expanded in parallel with the print collections.



Fig. 6: All parts of the building are accessible from the ground floor. © Klassik Stiftung Weimar. Ulrich Schwarz.

There are workplaces between the shelves, especially near the windows, for readers who want to work with only research literature and not with the historic book collections with 800 current periodicals displayed on the first floor. Previously, less than one tenth of the periodicals was directly accessible.



Fig. 7: The reading room with a view towards the historic library building. © Ulrich Schwarz.

The heart of the new premises is the reading room with 32 seats, where the historic book holdings can be studied (Figure 7). No other books are shelved here. The books are either handed out at the reading room counter or brought in by readers from the open access area. Due to its height and location above the entrance hall, the reading room is situated at a key point in the building complex with a view towards the historic library building. At the front of the reading room there is a huge photograph of the Rococo hall by Candida Höfer. In an area facing the park on the Ilm river, there are six work studios or carrels available for long-term library stays.

Readers entering the library's basement via the main staircase or the elevator will find on the lowest level of the Book Cube a fiction collection which can be borrowed. It contains individual copies of fiction that the library has acquired and the publishing production of the Suhrkamp group, which was donated to the library after the fire by the publisher Ulla Berkéwicz in memory of Siegfried Unseld. The establishment of a fiction collection might be considered unusual in a research library. The aim is to encourage reading beyond academic work. Scholarly editions of poets and writers are classified with the relevant subject area.

In the basement below the southern courtyard of the castle complex and the street is the reading area, which is lit by windows onto the park on the river Ilm. Older journal volumes are shelved in the basement.

For conservation reasons, the library's historic collections are stored in the underground stacks up to nine metres below ground. The capacity of the compact shelving system is one million volumes. A book conveyor system transports books from the underground store to readers in the Study Centre within 60 minutes.

The library user can choose between different study areas:

- The reading room on the first floor with excellent working conditions for studying the historic book collections
- Carrels
- Reading places near the windows in the open access area of the Yellow Palace
- Work and research stations in the photo archive on the ground floor of the Yellow Palace
- Comfortable armchairs in the Cube
- Reading places near the fiction collection in the basement of the Book Cube, or
- Seating in the underground area adjacent to the park.

The historic library building can be reached via the basement reading area. The library's usable area including its 130 reading places is five times larger than the area available previously.

A conference room with 22 chairs is available for meetings and small events on the second floor of the new entrance building (Figure 4). Some staff rooms are in the Yellow Palace, but most are in the Red Palace, an area little affected by structural changes due to its value as a designated historic monument.

The Architectural Perspective

The new Study Centre of the Herzogin Anna Amalia Bibliothek took five years of planning and construction until its completion. A major challenge was to integrate the extensive extension, in a restrained manner, into the Weimar palace district, which is protected as a world cultural heritage site. To this end, several existing buildings grouped around two courtyards were converted to accommodate library space and, where additional space was needed, subterranean structures were added to house open and closed stacks.

An amalgamation of buildings from five centuries reflects the history of the site and it was one of the architects' primary intentions to retain and strengthen the existing historic setting. Only one building dating back to the early 19th century was removed (Figure 5) to make way for a new entrance building (Figure 4). In conjunction with the prestigious original library building, the refurbished neighbouring complex reinforced a special identity and created a strong presence in the centre of Weimar. Concealed under the Platz der Demokratie are open stack areas and a two-storey storage area, which can hold one million books. The underground spaces connect the original library building with the Study Centre. The subterranean structure appears partially as a built edge of the park.

One of the courtyards of the old complex was converted into an atrium with 16 glazed skylights; with its clear geometry it now forms the core of the new facility giving the existing heterogeneous structure a calm and stable centre. With its contrast between the rough exterior constructed of exposed concrete and the fine wooden shell interior with surrounding book galleries, the atrium is reminiscent of the Rococo hall of the Herzogin Anna Amalia Bibliothek. The central space can be used for lectures, readings and other events. Surrounding the atrium on various levels are carrels, bookstacks open to the public and reading spaces. As already mentioned, the visitor has access to an information centre on the ground floor level. On the upper floor of the new building is a high reading room (Figure 7) with 32 reading places and visual reference to the main building.

The alternation of low and high rooms and of natural and artificial light creates different atmospheric moods in the various reading areas depending on the time of day and the season (Figure 8). Despite the introverted nature of the facility, eye contact with the outside world is possible from most of the reading areas.

Functions were largely distributed in alignment with the existing structure with smaller spaces used for group or individual study rooms, and activities requiring more space accommodated in parts of the building less sensitive to interventions. High ceiling loads were allocated in areas where the original building fabric was of less significance in relation to the preservation of historical



Fig. 8: The alternation of natural and artificial light creates different atmospheric moods in the various reading areas. © Klassik Stiftung Weimar. Ulrich Schwarz.

monuments, for example in the interior of the Yellow Palace, which was given a completely new supporting structure. In addition to extensive changes to floor levels, the structural interventions carried out included three new staircases and the associated reactivation of the historic entrances.

The open access and storage areas are air-conditioned for book preservation purposes. There is floor heating and cooling. Mechanical rooms and plants had to be distributed over the various sections of the building. Duct and cable routing in continuous shafts, floors and suspended ceiling areas ensure retrofittable electrical and data cabling throughout the complex. Smoke detectors in all parts of the building, differentiated smoke extraction devices, motion detectors and book security systems were installed. The underground store is equipped with a sprinkler system. A book conveyor system transports books from the book storage area to the lending counters, the reading room and the book processing area in the new building.

The extensive technical equipment is concealed and has been integrated into many fixtures and furniture. The main public area consists of different rooms and to provide a consistent and calming ambience, limited types of materials and a restricted colour palate were used. Canadian maple was used for the shelves, built-in cupboards, carrels, counters, tables, stairs and the ceiling in the cube. The floors are mainly dark apart from the atrium floor and the main stair where cherry was used. Walls and ceilings, where they are not exposed concrete, are painted white.

The original competition design retained the open courtyard, albeit in a new architectural design. Fortuitously, the librarians indicated immediately after the competition that they wanted more space for user interaction and for the collections instead of a courtyard. Responding to new requirements led to the development of the courtyard into the Book Cube within the central interior of the Study Centre. In contrast to some libraries, where the entire book stock might be held in closed access storage and the user's contact with the book occurs only after specifically requesting a copy, the books shelved openly in the Book Cube at Herzogin Anna Amalia Bibliothek are the focus, not only functionally but also symbolically.

Conclusion

A major theme in the extension to the Herzogin Anna Amalia Bibliothek project was the issue of working in the 21st century with historic buildings constructed many years ago. There has long been debate about the best approach to adapting a historic building for new use and the conflicting ideas were evidenced in submissions to the competition design in 2000. One approach is to take a conservative line and ensure that minimal intervention with any new building components largely imitates the existing structures. The second approach is more radical and takes the view that any necessary renewal should be clearly identified as such. New forms and structures inevitably compete with the old, with the results demonstrating the contrast between the new additions and the old structures.

A third approach, which was favoured in this instance, is based on the desire to achieve an integrated whole between the new and the old, not by imitation, but by treating the existing building as a growing organism. No attempt was made to change the spatial types or the overall form of the historic complex. Although the new entrance building is clearly modern and has, unlike the older buildings, a flat roof, it has become part of the existing structures by completing the sequence of the whole complex. An integral unity between the old and new buildings was achieved through avoiding an over-emphasis on form. The widely distributed labyrinthine network of old and new spaces does not, as might have been expected, pose problems of orientation for the user, as each major space has its own identity. The central Book Cube, the main reading room, the carrels overlooking the park and the collection areas adjacent to the park have distinct characteristics so that visitors have no difficulty in remembering each location within the whole complex.

The new library complex was awarded the Thuringian State Prize for Architecture in 2006. It has been much described and applauded in the literature (Grunwald, Knoche, and Seemann 2007; Kleefisch-Jobst 2005; Knoche 2006). From an architectural and library functional point of view, the new building meets all the expectations of its clients. The Study Centre, underground stacks and the renovated historic library building, which was reopened in 2007, together form an outstanding research library.

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