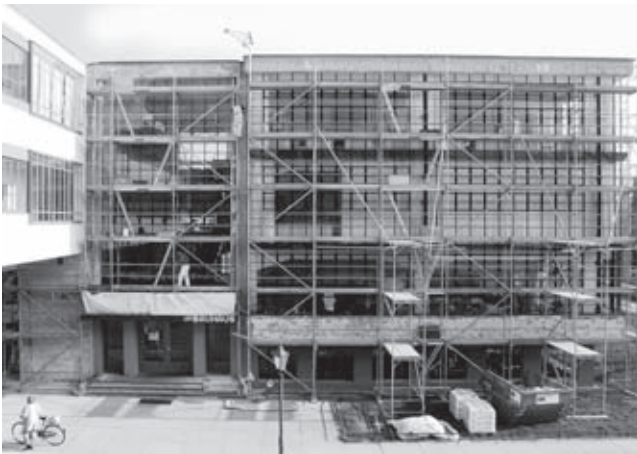


Monika Markgraf

## Conservation and Preservation of the Bauhaus Building in Dessau



*Bauhaus Building, Aerial overview, 1997*



*Conversion of the Bauhaus, 2003*



*Bauhaus Building construction site, workshop wing, 2005*

The buildings of Classical Modernism have attracted particular attention in the field of monument conservation. Their art historical significance is beyond question, while this architecture is shining in a still modern charisma today. It has become an integral part of daily life for the general public and is associated with contemporary values. The buildings therefore frequently go unrecognised

as historic and artistic testimonials that must be investigated and protected.

The quite short space of time since their construction contributes to the fact that the importance of specific buildings remains unacknowledged. Modifications and additions to construction, shape and surface also mean that the original quality of the buildings is covered and obscured. This is a special danger for this architecture, which stands for social, spatial, aesthetic and technical innovation at the beginning of the 20th century.

These buildings are impressive because of their transparency and fragility, their shape and surfaces, but also because of their particular problems with regard to building materials, which is a consequence of the partly experimental use of building materials and methods of construction. So they call for extreme mindfulness in the examination of the actual condition, a very detailed planning and the sensitive realisation of constructional measures.

With the inclusion of Modernist buildings into World Heritage list, their importance has steadily grown in the public consciousness.

The Bauhaus Building in Dessau, planned by Walter Gropius as a “manifesto of the Bauhaus ideas”, was opened in 1926. The 80-year history of the Bauhaus Building in Dessau is a history of changes, since the Bauhaus Dessau was closed in 1932 at the instigation of the National Socialist party and was used for a number of purposes in the following years. Parts of the building were destroyed in 1945 and reconstructed in 1976. Today the Bauhaus Building is owned and used by the Bauhaus Dessau Foundation, which is a public institution, and each year there are numerous visitors from all over the world. The Bauhaus Building and the Masters’ Houses in Dessau as well as the buildings in Weimar were listed as UNESCO World Heritage sites in 1996.

70 years after the construction of the Bauhaus Building and more than 20 years after the last extensive renovation, which was carried out in 1976, basic measures became necessary once again. Repair and maintenance had been carried out over the years, but these were realised out of context and without an overall concept. In the year of the Bauhaus’s inclusion on the World Heritage list, it was decided to execute a “general renovation”, and some public funds were secured to finance a part of this scheme. The extensive work on the building ranged from the regeneration of the supporting structure and the shell of the building to the reconstruction of the original layout of rooms, the functional improvement of technical installations and work on the surfaces in the Bauhaus Building. Following the completion of work on the building this year, the

overall project will be concluded with the configuration of the outdoor facilities.

The beginning of the project was dedicated to investigation, survey and analysis in order to gather data on the historical and present conditions of the building. In addition to technical tests, the research of the construction history was important in order to understand the historical and artistic relevance of the building. Since only very little original documentation exists, most of the detailed knowledge of the Bauhaus building could only be won through the investigation of the object itself and through archive research.

The results of these analyses and research were evaluated by a team of architects and illustrated in a brief and clear summary. This overall concept was in line with monument protection and all the responsible parties had to agree: the experts, public authorities and the owner. This was the basis for all further activities. It was developed by a project team of two architects: a regional office from the Dessau area with precise knowledge of the Dessau buildings, and a Swiss office with international competence in the approach to buildings from the period of Modernism. This collaboration between local and international experts has proved to be extremely effective.

The concept for the renovation of the Bauhaus Building respects the significance of the building as a cultural monument, that is as a work of art and a historical document. Historical materiality and construction as well as design aspects were to be taken into account. Solutions had to be found for technical and legal aspects of the construction and a central issue was, of course, the active, current use of the building. This requires rooms for research and teaching equipped to a modern technical standard, but also space for storage, archive materials and the presentation of art. The building is, furthermore, visited by an average of 200 guests per day. While we are very happy with this significant interest, we also have to deal with the strain this puts on the building.

Only by developing an all-embracing overall concept it was possible to observe and evaluate the different concerns in context and to ensure that the renovation process would lead to reconstructing a reliable version of the building. In this way, it was possible to plan appropriate stages of construction according to the available financial resources.

The intention of the renovation of the Bauhaus was not the entire reconstruction of the building to its original condition of 1926. On the one hand, the fundamental structures of the building are preserved or reconstructed where they were missing. That includes, for instance, laying open and exhibiting the construction, the organisation of rooms or the colour and the design of surfaces. These fundamental structures are of central importance in the understanding of the Bauhaus Building as a *Gesamtkunstwerk*.

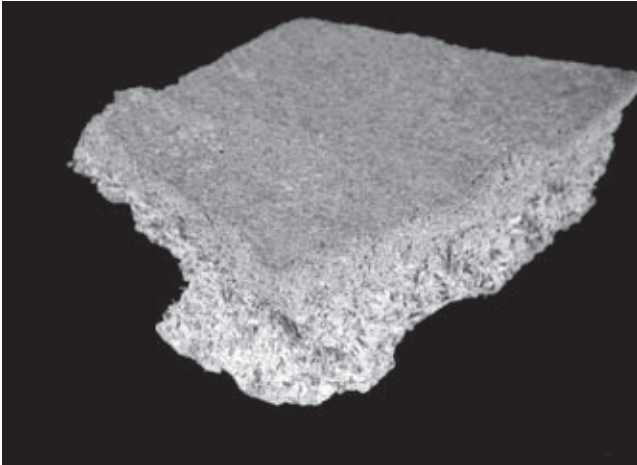
On the other hand, the 80-year history of the building has been respected and not eliminated. This history may include traces of the building's use as well as changes that



*Bauhaus Building, southwest view 1945, 1958, 1963*



*Alteration of an original steel window: greenhouse, restoration of the window, window after re-installation*



*Magnesite flooring*

were made over the years, if these do not diminish the artistic significance of the building. As such, the monument may also be seen as a testimonial of history.

Both these aspects are defined and stipulated in Article 3 of the Venice Charter: “The intention in conserving and restoring monuments is to safeguard them no less as works of art than as historical evidence.” The Venice Charter was passed in 1964 by the International Congress of Architects and Technicians of Historic Monuments and Sites. Today it provides the only valid basis on an international level for the approach to historical structures.

I would like to present two aspects as examples of the process of the renovation of the Bauhaus Building: the consideration of priorities during renovation and the extraordinary emphasis put on the conservation of the original material.

The precise knowledge of the Bauhaus Building makes it possible to assign different priorities to the various parts of the building. In the illustration these areas are marked in red, green and brown. In the areas marked in red, the focus of activities is on restoration and reconstruction. Here, the original substance of 1926 is not only carefully preserved and improved, but also reconstructed in order to conserve and disclose the particular qualities of the building. In the areas marked in green, the focus is on preservation and repair. These parts are mainly characterised by the basic renovation of 1976 during which, following a series of destructive events, the original appearance was for the most part restored, although sometimes not true to detail. In the building, there are also areas where the focus is on maintenance and revised forms. These are marked in brown.

Most importantly: in all areas the utmost respect for the original substance is essential. Therefore even in the brown areas the historical material is carefully conserved. Recent additions should be recognisable as such, but should not dominate the overall impression. So they are realised only at second glance.

The main interest in the renovation process is given to the areas that have a high proportion of original building substance, which is restored and conserved. Through the early identification of the parts of the building that require the most detailed work, it was possible to make use of the funds in a specific manner. Interventions in the original material substance of the building are only permitted where absolutely necessary, since every intervention leads to further losses of substance.

After the curtain wall of the workshop wing was destroyed in World War II, it was reconstructed during the renovation in 1976, but in aluminium instead of steel. In 1976, many historical steel windows were replaced by simpler versions of the originals. At first glance they seemed to be the same, but a second glance showed another construction principle, an altered function and a slightly different appearance. All the windows recreated in 1976 are in good technical condition and were subject to maintenance during the renovation. A few windows were damaged and reconstructed according to the original window model. There are also original windows from 1926 in the building, for instance in the Festive Area. These are carefully restored and preserved in situ.

Even original windows dating from 1926 and believed lost were discovered and put back in the building. These had been removed in 1976 and used as a greenhouse. After the greenhouse was dismantled, the windows used in it were documented in drawings and photographs, carefully restored and finally reinstalled in the building. The Bauhaus Building therefore features original windows from 1926, windows from 1976 and reconstructed windows from 2000 next to one another. The windows are all painted in the same colour as the original windows, thereby safeguarding the overall appearance of the structure. This plan and its implementation were not only pragmatic in consideration of the financial resources at hand. The preservation of windows dating from previous restorations also respects the history of the building, and the modifications made in 80 years of Bauhaus history remain apparent.

The colour design for the Bauhaus Building was developed in the wall-painting department under the guidance of Hinnerk Scheper. Scheper had studied at the Bauhaus in Weimar and later taught at the Bauhaus in Dessau. From 1929 to 1933, he worked in Moscow, where, among other things, he developed the colour concept for the Narkomfin House. In the course of the renovation the plastered surfaces of walls and ceilings of the Bauhaus Building are mostly covered with a very thin layer of plaster. Its materiality and structure is very close to the original lime plaster. In doing so, faults in the plaster become smoother and the surface corresponds with the historical figure. This layer is inexpensive and beneath it the original remains of plaster and paint are secured and protected. Colour conforming to the historical example is applied to the surface of this lime wash. Only in selected areas the historic layers of paint are laid open and restored.

The Festive Area is seen as a key example of the design of surfaces at the Bauhaus according to Scheper's ideas. Here, the colouration underlines the organisation of the architecture into supporting and filling areas, thereby highlighting their architectonic tension. The surfaces are broken down into fine, matt and shiny finishes. The effect of the colours is increased by the use of different materials: smooth, polished, grainy and rough plaster surfaces, matt and gloss paint, glass, metal etc.

In all parts of the Bauhaus Building, the preservation of the original building material has extremely high priority. Above and beyond its architectonic and aesthetic significance, the material is proof of the building technology and construction that must be preserved and protected. Missing information on the specific characteristics of the original building materials as on structural and climatic building values unfortunately lead to the loss of original building substance and thereby to the loss of the characteristic surface effect. So the building may lose its value as a monument. The exact knowledge of building material – its composition, its aging properties, its physical and static coactions with other building materials – is most important for concepts for the future preservation of old buildings.

At the Bauhaus Dessau Foundation, work therefore began with the registration and documentation of building parts, construction elements, and materials. The issue is not only one of researching, to the widest possible extent, the building's original condition, but of encompassing the changes that have taken place in the building. Work has begun on the assembly of a construction research archive, where materials and building parts, data and documents on the Bauhaus buildings and the buildings of Modernism are to be stored.

The analysis of material also leads to a deeper understanding of the building. So recent research carried out by the Bauhaus Dessau Foundation has shown that a plastic floor covering was used in the Bauhaus Building and in the Masters' Houses instead of linoleum. This material called Triolin was developed in the 1920s in the search for a low-price substitute for linseed oil. The use of this early form of plastic in the Bauhaus buildings illustrates the eagerness of the Bauhaus to try out new materials and it is part of an all-embracing colour concept.

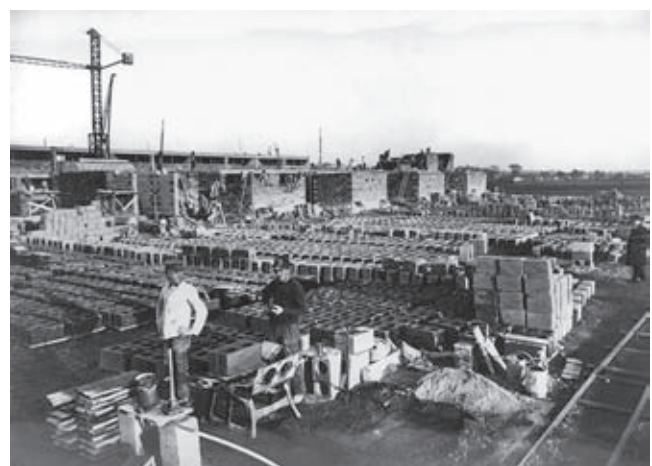
The construction research archive provides the foundation for further research as well as for the approach to tangible building problems. The intention – in addition to providing insight into the renovation of the buildings of Classical Modernism – is to develop a foundation for the classification and evaluation of these historical buildings of 20<sup>th</sup>-century architecture.



*Hollow cinder block*



*Triolin plastic floor finish*



*Construction site in Dessau-Törten, settlement*

Michael Siebenbrodt

## Das Haus am Horn in Weimar – Bauhausstätte und Weltkulturerbe: Bau, Nutzung und Denkmalpflege



*Drei Prototypen der Architektur (von oben nach unten)  
Goethes Gartenhaus: das „deutsche“ Haus, anonyme  
Architektur des 17. Jh.; Römisches Haus: Klassizistische  
Architektur 1792/96, Johann August Arens Haus  
Am Horn von Süden: Modell der Avantgarde*

Das Haus Am Horn wurde als Muster- und Ausstellungshaus anlässlich der großen Bauhaus-Ausstellung nach dem Entwurf des jüngsten Bauhaus-Meisters Georg Muche mit Unterstützung des Baubüros Gropius in nur dreimonatiger Bauzeit im Frühsommer 1923 errichtet. In die-

sem einzigen realisierten Bauhaus-Gebäude in Weimar wurden zahlreiche funktionelle, material-technische, technologische und ökologische Innovationen praktisch verwirklicht und mit einem Team von Mitgliedern aller Bauhauswerkstätten umgesetzt.

In der Hochzeit der Inflation trat der Berliner Bauunternehmer Adolf Sommerfeld als Geldgeber in Erscheinung, für den Gropius mit dem Bauhaus gerade eine Holzvilla fertig gestellt hatte. Die Weimarer Gewerkschaften setzten beim Haus Am Horn einen großen Bauarbeiterstreik aus, damit dieses wichtige Gebäude zum geplanten Ausstellungstermin fertig gestellt werden konnte. Ein Jahr zuvor hatte Gropius im Auftrag des Weimarer Gewerkschaftskartells mit einer Reihe von Bauhaus-Studenten das Märzgefallenen-Denkmal in Weimar zu Ehren der Opfer des Kapp-Putsches von 1920 übergeben.

Das Versuchshaus Am Horn konstituiert ein räumliches und ideengeschichtliches Dreieck von Haus-Prototypen im Weimarer Park an der Ilm. Den Archetypus eines deutschen Hauses stellt das schindelgedeckte Gartenhaus aus dem 17. Jahrhundert dar, das der Großherzog seinem Freund Johann Wolfgang Goethe geschenkt hatte. Von den Nazis mit ihrem kulturpolitischen Protagonisten Schulze-Naumburg wurde dieses Haus mit steilem Dach als typisch deutsche Bauform der „kulturbolschewistischen Wüstenarchitektur“ der Moderne entgegengesetzt. Dagegen stellt das Römische Haus von Johann August Arens aus dem Jahr 1792 am gegenüberliegenden Ufer der Ilm die Moderne des ausgehenden 18. Jahrhunderts vor, das klassizistische Ideal einer aufgeklärten Gesellschaft. Wenn sich der Großherzog in diesem seinem Lieblingshaus aufhielt, signalisierte er Goethe abends seinen Gesprächsbedarf durch Lichtzeichen mit einer Kerze – moderne Kommunikation zur Goethezeit. Oberhalb des Gartenhauses vollendete das Haus Am Horn den Dreiklang wichtiger Statements zur Architektur und signalisierte die Moderne einer zunehmend globalisierten Industriegesellschaft im kreativen Dialog mit der Geschichte.

Bereits im Frühjahr 1920 hatte Gropius als Leiter des Staatlichen Bauhauses in Weimar den Wettbewerb zu einer Bauhaus-Siedlung unter architekturinteressierten Studierenden ausgelobt. Walter Determann beteiligte sich mit einem Siedlungsprojekt freistehender Holzhäuser in einem Wäldchen am Stadtrand von Weimar. Er konzipierte Kommunehäuser für acht Studierende mit Schlaf-, Arbeits- und Küchen-Gemeinschaftsraum – gemeinsames Leben und Arbeiten in kleinen Studentengruppen. Diese bescheidenen Blockhäuser entsprachen nicht Gropius' Vorstellungen von der Architektur der Zukunft. Mit einem Hinweis auf die städtebaulichen Konzeptionen der fran-