

Conservation in action

The reconstruction of the State Opera House in Dresden

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FIG. 1. The Haupt Treppenhaus or Upper Entrance Hall after the reconstruction (1979).

The second Dresden Opera House (*Fig. 2*), built by Gottfried Semper in 1871–78 to replace his first which was destroyed by fire in 1869,¹ occupies a central place today in two spheres of interest—art history and the conservation of monuments. Like other buildings dating from the nineteenth-century period of historicism, there has been a reassessment of its value and importance; but the few designed by Semper have long been recognized as outstandingly imaginative examples representative of the time in which they were built. Thus, the Dresden Opera House and its interior were considered comparable by art critics of the 1870s with others of the same date—with Charles Garnier's Paris Opéra, the Vienna Opernhaus by Eduard van der Null and August Siccard von Siccardenburg, and the Vienna Burgtheater also designed by Semper, but in collaboration with Baron Hasenauer. An admirer of the building, the Dresden architectural historian Richard Steche, eloquently described the beauty of its internal design and ended with the words 'The coloured decoration of the Dresden House is a masterpiece of the first order, an incomparable triumph of art. May it be well cared for!'² (*Figs 3, 4*).

However, there have been times when Semper's artistic skill in integrating functional spaces, grouping building masses and applying a surface layer of decoration and colour has not been fully recognized. The renovations of about 1912, which resulted in some drastic constructional changes and the overpainting of the original decoration with a sort of Neoclassical Art Nouveau, illustrate how misunderstood this historic building was at that time. Another example of this lack of appreciation, this time in the 1920s and 30s, can be found in art historical writings of fifty years ago. Although Hermann Beenken praised the 'creative

architectural idea of romanticism' in the façade facing the square,³ the interior was criticized by Wolfmann Herrmann. The latter drew attention especially to the staircase vestibules which he thought 'interlocked' and stylistically timid;⁴ but the lack of understanding of Semper's intentions is apparent most clearly in a plan made by Wilhelm Kreis which proposed a large backstage extension which, in its external appearance, would have mirrored the façade to the square.⁵

The severe damage caused by the air raids on 13 and 14 February 1945 endangered the whole building and its future existence. After the first emergency measures had been taken to make the damaged structure safe, the rear wall of the stage collapsed in 1948. The Dresden citizens reacted spontaneously against the threatened demolition of the remaining part, maybe less on account of the architectural quality of the building itself than because it was a symbol of the great events that had taken place within. It was believed that if the Opera House were pulled down Dresden's reputation as an artistic centre would not be sustained. The recovery of the Dresden Opera during a time of great housing shortage and considerable material difficulties represents one of the great achievements in the sphere of architectural conservation in the German Democratic Republic. The former National Office for Monument Preservation rendered invaluable assistance in 1953–55 in ensuring the structural soundness of the building, restoring the exterior and roofing over the shell. During the next twenty years the main task was to decide how to meet the technical and functional requirements of our time while retaining the building's historical character. Throughout the whole planning process, which cannot be described in detail here, there was a recognition of the great responsibility placed on those who had to take the decisions. Their task was to respect the existing external architectural quality and to minimize the effect of the necessary extension at the rear of the building. Internally, the partly preserved staircase vestibules and foyers retained some of their stucco and painted decorations; these could be restored, but the four-tiered auditorium had to be rebuilt (*Figs 5, 6*). In the course of the work, there were several innovations which have led to improvements generally in methods of conservation.

Experience has demonstrated that the complete character of an historic interior may be deduced by intensive research. As a result, the hitherto discredited idea that the authentic forms and colours which reproduce the original internal effect may be restored, is now recognized as a practical possibility. In 1968, when our research on the Opera House began, such an idea (although widely accepted today) was very unusual. However, a sample taken from the foyer in the upper circle for investigation was encouraging. As a result, the whole architectural scheme of white *stucco*, the *scagliola* columns and the *stucco lustro* wall surfaces has been restored; and at the same time the colour and decoration have been related to their High Renaissance and Antique sources. The project architect and the



FIG. 3. The Haupt Treppe, facing the Zwinger (Photograph by Römmler and Jonas c. 1880).



FIG. 4. The Erfrischungssaal or Upper Foyer (Photograph by Römmler and Jonas c. 1880).

¹ For the first Opera House, see Semper, G., *Das Königliche Hoftheater zu Dresden*, Braunschweig 1849. For the second see Sachs, E.O., *Modern Opera Houses and Theatres*, London 1896, i, 19ff.

² Steche, R., 'Das neue königliche Hoftheater zu Dresden', *Wissenschaftliche Beiträge der Leipziger Zeitung* (1878), No. 18, 103.

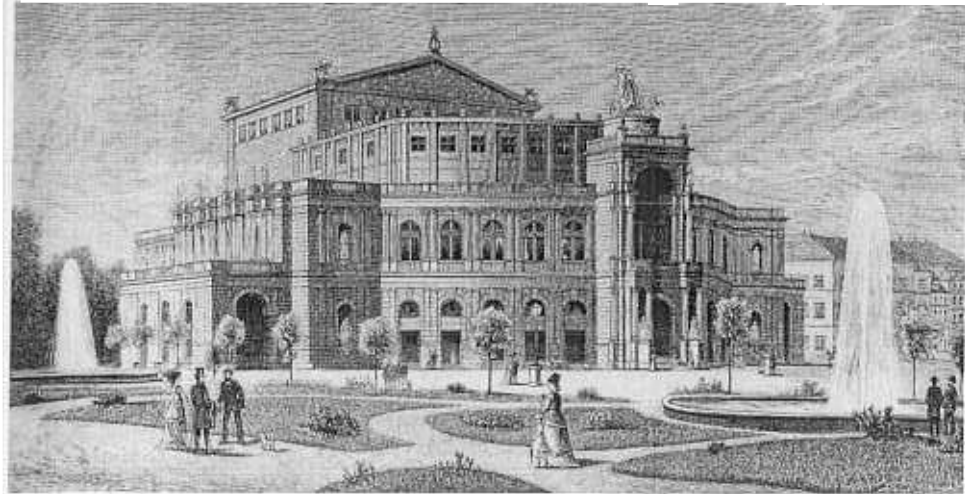


FIG. 2. The second Court Opera House (Woodcut after drawing by Johann Dürste 1878).

³ Beenken, H., *Das 19. Jahrhundert in der deutschen Kunst*, München 1944, 27f.; *Schöpferische Bauideen der deutschen Romantik*, Mainz 1952, 46.

⁴ Herrmann, W., *Deutsche Baukunst des 19. und 20. Jahrhunderts*, Basle and Stuttgart 1977, ii, 52f.

⁵ Heck, O., 'Gottfried Sempers Pläne für das alte und das neue Hoftheater zu Dresden', *Die Kunst im Deutschen Reich, Die Baukunst*, Berlin 1941, v, 65ff.



FIG. 5. A detail of the proscenium and boxes in the auditorium (c. 1900).



FIG. 6. Part of the auditorium during the reconstruction (1982).

contractor came to realize that this decoration comes to life through the surface effects of its colour design just as it does in Baroque interiors. Subsequent studies of Semper's work in Zurich and Vienna,⁶ together with a reading of the many existing letters and documents about the Dresden House by Semper⁷ and a knowledge of his theories about art, confirmed ever more clearly that the methods which had been evolved during the preparations for this work had provided the correct solution. In this case the aim has been to respect the changes in the building's history, while attempting to recreate in complete detail Semper's original design, including the colouring and the programme of pictorial decoration.

In considering the treatment of the building's exterior, the project architects found a solution that met the requirements of the Venice Charter. With the exception of the extended side wings, it has been restored according to Semper's theories, while the new parts have been designed as additions separated and distinguishable from the old. Internally, however, more compromise has been necessary to fulfil the functional requirements and enable the auditorium to be enlarged. Although the four-tiered Opera House has been restored with all its architectural details, the original segmental plan characteristic of Semper (Fig. 7) has been changed to semicircular; this has led to some problems, including the reconstruction of the ceiling.

In March 1976 the Ministerial Council of the GDR agreed to the reconstruction according to the methods briefly described. This responsibility, which was given to the Dresden branch of the Institut für Denkmalpflege, posed some difficulties, especially as there was only a relatively short time before the planned opening in 1984. A department, which is now a part of the state-owned conservation workshops, undertook the specialist design of such historical details as plaster profiles and decoration. Under the supervision of the Institute, the restorers made further investigation of the original colours, collaborating with the laboratory of the Dresden Academy of Fine Arts which undertook the colour-chemical examinations.

Hundreds of details of the enriched decoration were removed and stored as evidence to be used in future stereo-microscopical examination. Whenever remnants of the original painting were found, their outlines were drawn and traced so that the basic elements for further sketches and cartoons could be assembled. Most of the surviving paintings in the ante-rooms were found to suffer from flaking, and the paint layers had to be fixed. In several cases the pictures had to be removed and transferred to new backings (Figs 8, 9, 10). Special attention was paid to the restoration of *scagliola* and *stucco lustro*; old recipes had to be tried, and the traditional craft practices no longer existing in Dresden had to be restudied. Restoration of terrazzo floors, tapestries and cut-glass chandeliers—all these had to be initiated. It was always difficult to find suitable specialists;

⁶ Important points for the reconstruction of the ceiling in the Haupt Treppenhaus were given by that in the hall of the Eidgenössische Technische Hochschule in Zurich, which was built by Semper in 1858-65. The Erfrischungssaal in the Dresden building resembles that in the Kunsthistorisches Museum in Vienna (1869-76).

⁷ These letters of Semper's are in the archives of the Institute for History and Theory of Architecture, Eidgenössische Technische Hochschule, Zurich.

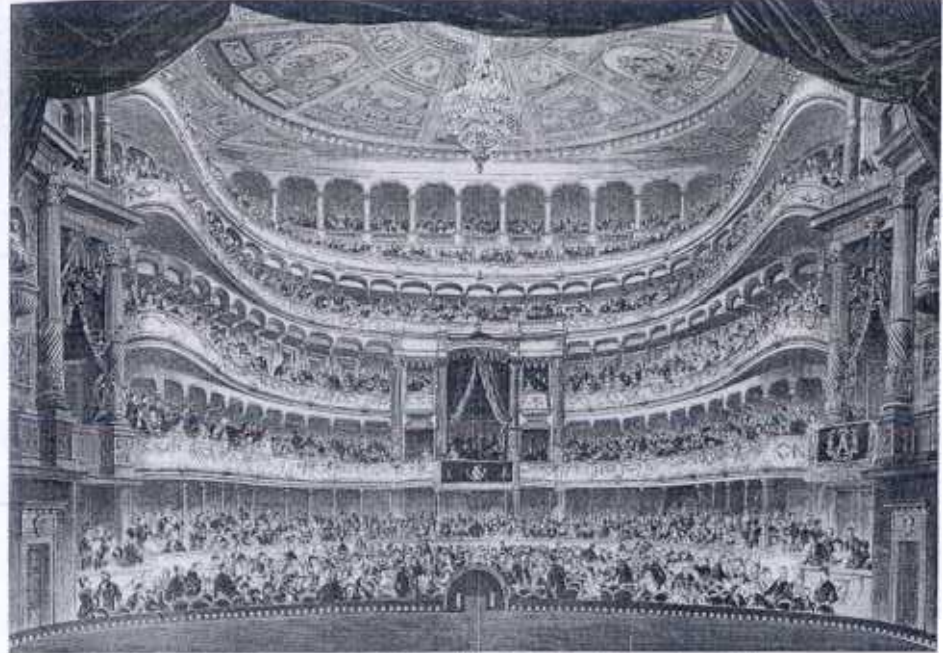
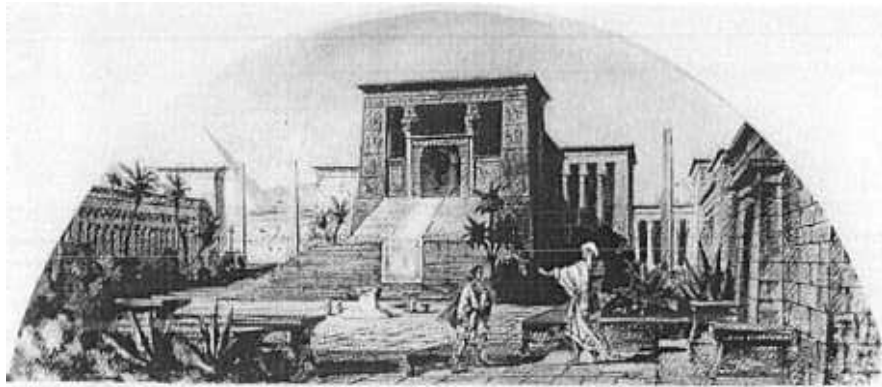
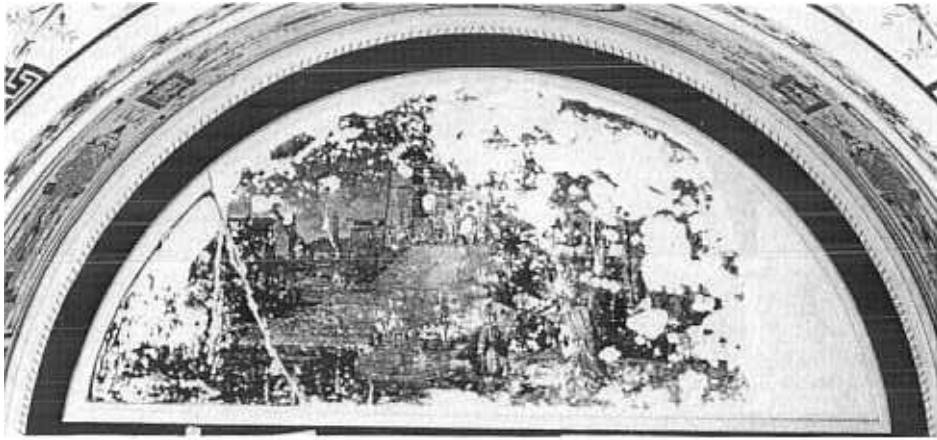


FIG. 7. The auditorium in Semper's original design (Woodcut by Gottlob Theuerkauff 1878).

but the close cooperation the Dresden Institute had maintained for decades with free-lance conservators familiar with traditional methods offered some guarantee of success in this programme that is unique in the GDR in its scope and complexity. The relatively favourable situation regarding the conservation of paintings became apparent only when difficulties arose in reconstructing sculpture, as this is a sphere in which a comparably experienced team of specialist conservators is not available.

In practice, the work is supervised by three people responsible for the upholding of standards stipulated in the contract in connection with arts and crafts and the fine arts. These are, firstly, a representative of the state-owned conservation workshops who works in the special projects drawing-office; secondly, the author who represents the Institute, and thirdly the chief architect. Two conservators are in charge of the work on paintings, and one is responsible for the sculptures. The construction manager supervises the work and checks it in accordance with the contract.

However, the above account is only a brief review of the framework within which the practical conservation of monuments is achieved. The real core of the work lies in the joint sphere of art history and



conservation; and here what matters is a knowledge of styles and an understanding of construction and design. The preliminary work soon moved to the archives in Dresden, Zurich and Munich where the necessary historical sources of information could be found in the form of documents, photographs, plans and sketches. Among them, the correspondence between the elderly Gottfried Semper, who lived in Vienna and Zurich, and his son Manfred, who was in charge of the construction in Dresden, is of special importance.⁸ These letters throw light on the architect's specific intentions about architectural details, colours and pictorial programmes. They provide documentary proof that the elder Semper not only kept a close watch on the construction of the building and the methods used, but was equally involved in the *oberflächen-illusion* (surface illusion). The *instrumentierung* (instrumentation) of the colouring that created the character of the different rooms and suites of rooms is confirmed in contemporary documentation that had to be analysed in this respect. Fortunately, at the right time during their investigations, the Institute obtained by chance colour sketches left by the painter Wilhelm Andreas Schaberschul, who had executed the decoration under Semper's guidance (Figs 11, 12). However, in order fully to understand Semper's intentions it was necessary to study his contemporary work in Vienna and Zurich.

Following these investigations, the first task was to reconstruct the intellectual content of Semper's pictorial programme, which represents the humanistic theme of a desire for education; as a believer in the virtues of bourgeois democracy, Semper would have found himself in considerable sympathy with this theme. But what could be done about the paintings themselves, of which something like 75% had been lost? Relatively few existed in old photographs, and attempts to produce versions by reference to other works roughly corresponding to what had been done in Dresden were not entirely successful. Studying the paintings by those masters who came mainly from the school of Ludwig Richter, or those by pupils of Rietschel, Haehnel and Schillings, did not necessarily ensure results that were either stylistically or thematically satisfactory. But these apparently insurmountable difficulties were suddenly resolved when, after a long, fruitless search the author discovered in the cellars of the Dresden Academy of Fine Arts replicas of nearly all the works of art which had been thought lost since the end of World War II. These had been made because the artists responsible for the paintings in the Opera House had been obliged to submit replicas to Saxony. This fortunate discovery enabled the original decoration to be reproduced as faithfully as possible, but it should be noted that even when there is such strong supporting documentary evidence the painters and sculptors who make the copies need to practise considerable self-effacement and develop an empathy with the original artist's style (Figs 1, 13). In achieving this, the critical function of the art historian can be of great

Fig. 8. (facing page, top) The damaged lunette *Zauberflöte* by Ludwig Theodor Choulant in the Haupt Treppenhaus after having been taken off the wall and fixed to a new backing.

Fig. 9. (centre) The lunette *Zauberflöte* in Ludwig Theodor Choulant's original design (From *Album des sächsischen Kunstfonds*).

Fig. 10. (bottom) The lunette *Zauberflöte* during retouching.

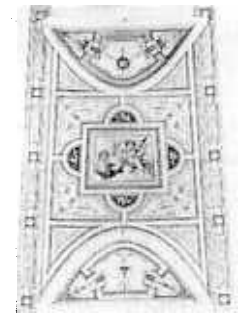


Fig. 11. W. A. Schaberschul: water colour design for part of the vault in the Vorhalle or Lower Foyer.



Fig. 12. Part of the vault in the Vorhalle after reconstruction (1982).

⁸ *Loc. cit.*

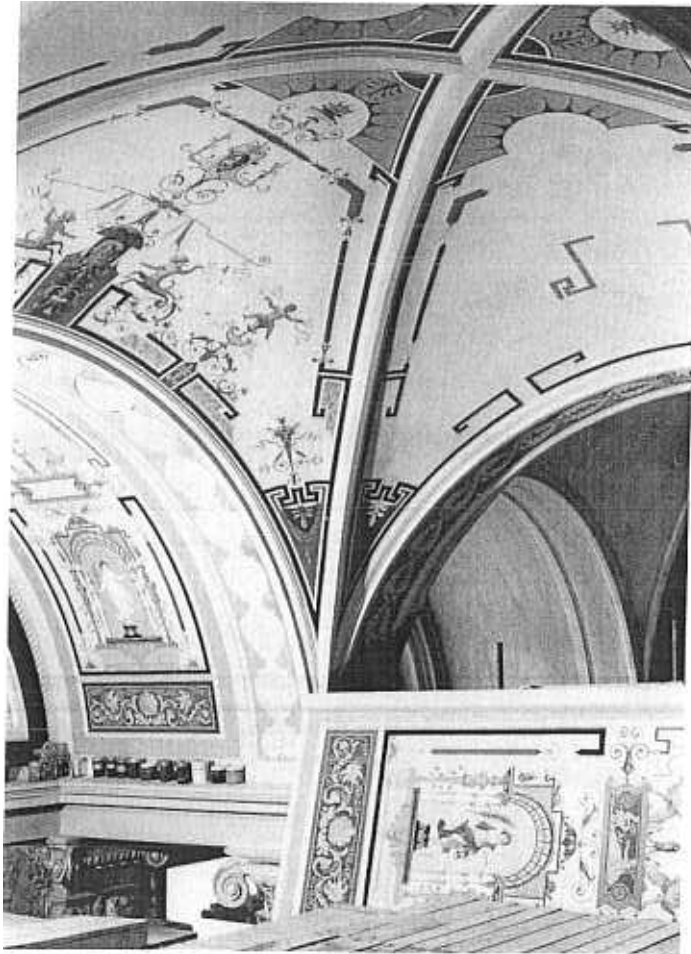


FIG. 13. Part of the vault in the Haupt Treppenhaus during the reconstruction of the decorative painting by Wilhelm Andreas Schaberschul. To the right is the first sketch, to the left the painting on the wall.

importance; his responsibility can extend beyond the provision of the results of research or of stylistic advice to encouraging the development of a psychologically appropriate situation in which such empathy may be engendered.

Acknowledgement

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Résumé

Le deuxième opéra de Dresde, construit par Gottfried Semper en 1871–78 pour remplacer le bâtiment qui fut détruit par un incendie en 1869, occupe une place de premier plan dans deux domaines: celui de l'histoire de l'art et celui de la conservation. Comme pour d'autres bâtiments de la période historiciste du XIX^e siècle, sa valeur et son importance ont été réévaluées et l'on se rend compte maintenant comme il avait été mal compris des architectes qui, en 1912, imposèrent à sa construction et à sa décoration des changements radicaux, ainsi que par les historiens d'art des années trente. Les graves dommages dus aux bombardements du 13 et du 14 février 1945 le mirent sérieusement en danger mais les habitants de Dresde rejetèrent tout projet de démolition; car ils pensaient que si l'opéra disparaissait, la réputation de Dresde comme centre artistique s'effondrerait. Aussi, de 1953 à 55, l'ancien Bureau National de Conservation des Monuments assura-t-il la solidité structurale du bâtiment, restaura l'extérieur et refit la toiture. Mais vingt années de discussions suivirent pour décider comment concilier les exigences techniques et fonctionnelles des temps modernes avec le caractère historique du monument.

L'expérience a prouvé que l'aspect d'un intérieur historique peut être déduit de recherches extensives. Tout le plan architectural fut retrouvé grâce aux recherches faites sur des fragments qui avaient survécu; quant aux tons et aux motifs décoratifs, ils furent reconstitués d'après leur modèles de la Renaissance et de l'Antiquité.

Des études ultérieures d'autres ouvrages de Semper et des recherches d'archives ont confirmé la justesse de la solution qui avait été adoptée avec l'objectif d'une part de respecter les modifications apportées au bâtiment au cours de son histoire et, d'autre part, de s'efforcer de retrouver les couleurs et les motifs décoratifs de Semper.

A l'exception de l'extension des ailes, le théâtre a été restauré selon les théories de Semper tandis que les parties nouvelles ont été refaites séparément et forment des additions volontairement visibles. A l'intérieur, une certaine souplesse a été nécessaire afin de répondre aux besoins fonctionnels et de permettre l'agrandissement de l'auditorium.

La branche de Dresde de l'Institut für Denkmalpflege (de la Sauvegarde des Monuments) fut chargé de l'opération et les restaurateurs travaillèrent en collaboration avec le laboratoire de l'Académie des Beaux Arts de Dresde. Des centaines de détails décoratifs furent sauvés et conservés comme modèles à utiliser plus tard. Tous les vestiges des peintures originales furent répertoriés puis les peintures furent transposées

sur de nouveaux supports. Les carrelages, les tapisseries et les lustres de cristal durent également être restaurés. Pour tous ces travaux des spécialistes furent trouvés, sans trop de difficultés d'ailleurs, sauf pour les restaurateurs de sculptures.

L'intérêt principal de cette restauration réside dans la collaboration interdisciplinaire qui exista en particulier entre les historiens d'art et les conservateurs car ce qui est important ici c'est la connaissance des styles et la compréhension du plan et du mode de construction du bâtiment à restaurer. Après les premières recherches dans les quelques archives qui avaient survécu, il fallut reconstituer les peintures qui représentent le thème humaniste des bienfaits de l'éducation. Or environ les trois quarts des peintures avaient disparu et il n'y avait que quelques photographies; mais l'auteur eut la chance de découvrir dans les caves de l'Académie des Beaux Arts des copies de presque toutes les oeuvres d'art qui avaient été perdues ce qui permit de faire de nouvelles copies aussi fidèles que possible; mais, même avec une documentation aussi précise, les peintres et sculpteurs qui exécutèrent les copies durent s'effacer afin de développer une sorte d'empathie avec le style des artistes qui avaient créé les originaux.

L'achèvement des travaux est prévu pour 1984.

Resumen

La segunda Opera de Dresde, construida por Gottfried Semper en 1871–78 para sustituir la primera, que había sido damnificada por un incendio en 1869, ocupa hoy día un lugar prominente en dos esferas de interés: la historia del arte y la conservación de monumentos. Como con otros edificios del período historicista del siglo diecinueve, ha tenido lugar una reevaluación de su valor e importancia que nos ha mostrado la falta de comprensión cuando alrededor de 1912 se llevaron a cabo drásticos cambios arquitectónicos y decorativos, o también en los años treinta por historiadores del arte.

El serio daño ocasionado por las incursiones aéreas del 13 y del 14 de febrero de 1945 pusieron en peligro a todo el edificio y a su futura existencia, pero los habitantes de Dresde reaccionaron en contra del amenazado derribo. Se creía que, de derribarse la Opera, la reputación de Dresde como centro artístico no podría mantenerse. En 1953–55, la anterior Oficina Nacional para la Conservación de Monumentos aseguró la solidez estructural del edificio, restaurando el exterior y dotándolo de tejado. Durante los veinte años siguientes, la tarea principal fue la de decidir el modo de satisfacer los requerimientos técnicos y

funcionales de nuestro tiempo, manteniendo el carácter histórico del edificio.

La experiencia ha demostrado que puede deducirse el carácter completo de un interior histórico por medio de amplia investigación. Paulatinamente se ha ido restaurando todo el esquema arquitectónico mediante la investigación de muestras, al tiempo que se relacionaba el color y la decoración con sus fuentes renacentistas y antiguas. Los estudios posteriores de otras obras de Semper y la investigación de archivos han corroborado la validez de la solución, cuyo objetivo ha sido respetar los cambios en la historia del edificio, al tiempo que se intentaba recrear la coloración de Semper y el programa de decoraciones.

Con excepción de las ampliadas alas laterales, el teatro ha sido restaurado de acuerdo con las teorías de Semper, mientras que las partes nuevas han sido diseñadas como adiciones separadas de las antiguas y diferenciadas de ellas. Interiormente, ha sido necesario un mayor grado de compromiso para aceptar los requerimientos funcionales y permitir que se ampliara el auditorium. La responsabilidad de las obras se dio a la sección en Dresde del Institut für Denkmalpflege, y los restauradores colaboraron con el laboratorio de la Academia de Bellas Artes de Dresde. Centenares de detalles de la enriquecida decoración se quitaron y se almacenaron como pruebas para ser empleadas más adelante. Se tomó nota de todos los restos de pintura original; pero, cuando había suficiente, se quitó el

materia pintado y se transfirió a nuevos respaldos. También hubo que restaurar suelos de terrazo, tapices y arañas de cristal tallado, lo cual significó que había que encontrar especialistas; pero, con la excepción de restauradores de escultura, esto no resultó difícil.

El mayor interés de esta restauración ha sido la labor unida en las esferas de la historia del arte y de la conservación, y lo que cuenta aquí es el conocimiento de los estilos y la comprensión de la construcción y del diseño. A continuación de la primera investigación de lo que había sobrevivido en los archivos, la tarea siguiente fue reconstruir el programa de pinturas, el cual representa el tema humanístico del deseo de cultura. Algo así como el 75 % de las pinturas se habían perdido y existían pocas fotografías; pero el autor descubrió en los sótanos de la Academia de Bellas Artes de Dresde réplicas de casi todas las obras de arte que se habían creído perdidas. Este afortunado suceso permitió que se reprodujera tan fielmente como fuese posible la decoración original, pero, incluso cuando existen pruebas documentales tan firmes, los pintores y escultores que hacen las copias deben poner en práctica una notable abstención de personalidad y desarrollar un sentimiento de empatía con el estilo del artista original.

La terminación de este trabajo se ha programado para 1984.