

CONTRIBUTION ON THE EIFFEL TOWER

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When the Eiffel Tower was built, it was claimed that it was the result of a purely mathematical theory. That was, of course, never really the case, because mathematics would require the most direct link between two points to be a straight line. That may be mathematically correct, but it cannot be realised in that way in construction work, and is thus wrong. In fact, of course, the Eiffel Tower also has a whole series of elements which are not of a mathematical kind, but of a stylistic one. In connection with the exhibition in 1937, the gallery, which was just shown, was extended in neo-functional straightness, that being because there was a conscious effort to create a link to the new architecture of the Palais Chaillot of 1937. Of course, the changes of 1937 were not so far-reaching that the Eiffel Tower was then stripped of its decorative and quasi non-mathematical elements. If one examines the great arch linking the feet of the tower, then it will be found to have no constructive importance. It is a purely decorative, Neo-Romanesque arch. The arch is actually intended to prevent the impression that the feet of the tower are splaying out sideways and thus threatening to collapse in the observer's view. The construction itself is another question altogether. This divergence can be very clearly seen in the case of the Eiffel Tower. Nowadays, the Eiffel Tower is maintained and cared for, at least in part, by the Société Gustave Eiffel. Gustave Eiffel's heirs play a decisive role in this society, which they also founded. I should now like to explain a very special problem which has cropped up over the past few months.

It is very often the case that what was added to a monument at a later date decays more rapidly than what was originally there. This is also true in the case of the gallery of 1937. It is now in a very bad state and must now practically be restored or renovated. As the Eiffel Tower is a cultural monument of special importance, and thus registered in the official classification list, no modification may, of course, be made to it without the approval of the curator of monuments. Thus three architects have been entrusted by the High Commission for the Preservation of Monuments with producing proposals for the restoration of this part of the Eiffel Tower. These proposals, which have just been received, were discussed in the Commission des Monuments Historiques. Under this new project it is proposed that this gallery from 1937 should first be removed and then three arcades added on each side. That is one project. The other one only envisages three arcades on the side facing the Palais Chaillot, with the rest to be left straight. That was, naturally, a compromise solution or a Solomonian Judgement which avoided taking up a one-sided position, but on the other hand made careful use of the means for the preservation of monuments. Actually, the department for the preservation of monuments should restore this gallery to its original state. The Moorish kiosk is a different question, because it is perhaps no longer possible for it to be restored, but the gallery should be returned to Eiffel's original state again, which did, after all, survive until 1937. We did, of course, consider restoring the 1937 state, which is for its part also historical, and if the Charter of Venice were to be taken seriously, then that is how it should be done. The Société Gustave Eiffel is, it is true, not poor, but it does, of course, have enormous tasks to cope with. Thus, for instance, the lifts must be repaired and there are tremen-

dous maintenance burdens to be borne for the tower. The society has thus declared to the department for the preservation of monuments that a restoration to Eiffel's original state would be too expensive for it under its circumstances, and that it would thus like to realise the interim solution: three arches facing the Palais Chaillot, and the rest straight.

This problem was discussed during the general meeting of ICOMOS in Rome. The general opinion was that the Charter of Venice too must be capable of interpretation. Consider the Chintu temples in Japan which have to have their material completely renovated practically every thirty years to retain and preserve the original form. That is a genuine problem. What is to be done with the many additions to monuments. Furthermore, the problem with iron is of a special kind. Iron is not stone. Iron is also not wood; as in the case of the Asiatic temples, iron has, perhaps, a certain analogy to Gothic construction. It is semi-permanent.

The Eiffel Tower is, in fact, a very good example for demonstrating that monuments have a life of their own, with their own development and their own personality. Before this, it must, of course be admitted that in 1937 also, together with the Palais Chaillot and the exhibition site, this modification is typical for an epoch which has a life of its own. If the department of preservation of monuments has more or less accepted that this interim solution should be carried out, thus with three arches facing the Palais Chaillot and the rest of the gallery straight, then this is out of respect to this epoch from the history of the monument.

A monument, such as the Eiffel Tower, has a considerable reciprocal effect. The monument radiates out into its surroundings, but the surroundings also accept it and reflect its ideas. Thus, in the case of the Eiffel Tower, the town planning aspect is of considerable importance.