

PREVENTIVE MEASURES IN ENVIRONMENTAL PROTECTION

In German law the environment of a protected historic monument is only vaguely designated. The Schleswig-Holstein enactment of 7-7-1958 says, for example, under Clause 9, Section 1 c "a change in the environment of a listed (permanently protected) cultural monument, if it is liable to prejudice substantially the impression created by the monument, requires the approval of the lower protective authority".

Similarly, the new law for Baden-Württemberg of 25-5-1971, in Clause 15, Section 3, pronounces that "architectural schemes within the environment of a listed cultural monument, to the extent that they are of appreciable significance to its visual image, may only be erected, amended or set aside with approval".

These formal expressions neither explain how far the concept of "the environment" should extend — are its limits a metre, a hundred metres or a thousand? — nor do they define what is to be understood by "prejudice". Under imprecise conditions of this sort it was possible in 1929/30 for a 14-storey block in Berlin to be placed immediately next to the so-called Königskolonnade (Gontard 1777-80), and for the architect to claim that the contrast implied no "prejudice", but — on the contrary — an enhancement of the effect of the colonnades. If at the time it could be accepted that he acted (and proceeded to build) from conviction, no such impeccable motive can be conjectured in the familiar skyscraper development around Trinity Church, New York.

According to the French law of 31-12-1913, environment-protection is fixed at 500 m, if the environment is overlooked from the protected object or the protected object is visible at the same time as the environment. Although this law is now 60 years old, it offers points of departure for a fairly exact definition of the environment essential to an object and to be protected with it. It creates a zone of visual interest, in which the development of the relevant protected area is subject to special restrictions. The enforcement of restrictions is another question, which can only be answered by politicians and lawyers, and not by those professionally involved in preservation.

Unhappily the reaction of the town-planning authorities to the needs of historic monuments is unsatisfactory. Very recently in Paris a multi-storey block has been built which, when seen from a certain position in

relation to the cathedral of Notre-Dame, gives the impression that the latter has 3 towers instead of 2. It is thus indispensable to adjust environmental protection to local circumstances and to define more exactly the kind of protection. In the field of protection the problem should not be one of fitting monuments into an environment in process of renewal. Rather the task means that new buildings must conform in all architectural and urbanistic aspects to the dominant interests of the monuments and to enhancing — where possible — their effect. That certainly presupposes planning work which must be performed by the historical monuments commissions.

The syllabus of the faculty of historical monuments at the Technical University of Berlin has included practical exercise in defining the scope of environmental protection as it affects three Berlin examples :

1. a church in the middle of an old town;
 2. a baroque "Schloss" with avenue and park;
 3. a baroque edifice with the character of a palace.
- In carrying out the programme the following procedural steps were taken :

- a) analysis of the object's historic development;
- b) analysis of the environment's historic development;
- c) analysis of trends in the environment in relation to existing building development;
- d) analysis of trends in relation to traffic situation;
- e) analysis of trends in relation to economic development;
- f) evaluation of opportunities for design improvements;
- g) résumé of b to f;
- h) defining aspects of urbanism necessary in the object's interest, and determining a protected area of the environment, while fixing, in the process, the permissible height of development in the neighbourhood.

From this it emerged that the visual associations in front of the object, originally necessary to the planning conception, should as far as possible be retained or restored. But, so that behind the object no building occur detrimental to its elevations and perspective effect, an additional area was defined, which is determined by extending the direction of vision in a straight line from the furthest point of interest in front of the object above its upper limits (e.g. spire) to a height of 100 m or even 150 m. The resulting distance from the object is in every case so great that even buildings of more

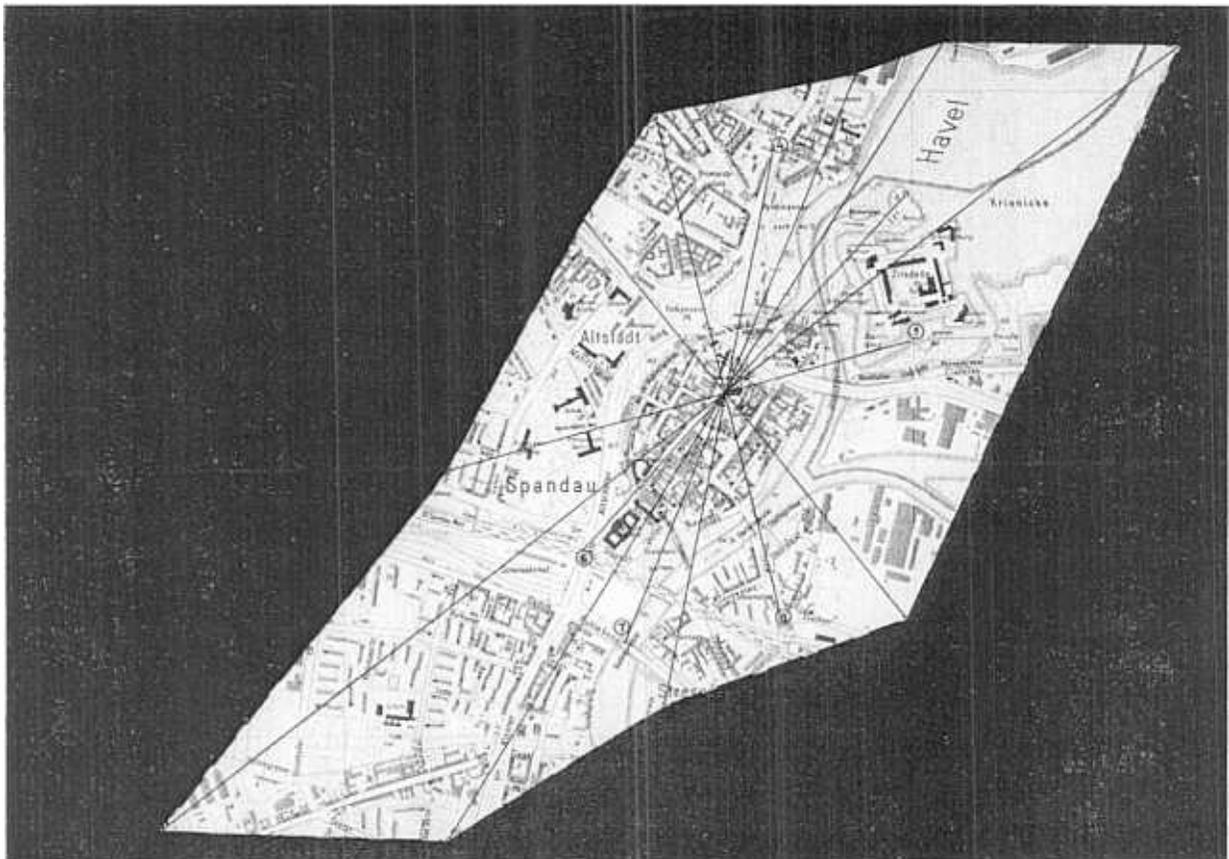
than 100 m in height, which could arise outside the protected area thus demarcated, cause no direct injury. On the question of townscape something more will be said at the end.

EXAMPLE 1: (Helmut Behrens in charge of project)
The St Nicholas Church in the old district of Berlin-Spandau. According to the Berlin Building Regulations of 29-7-1966, twelve architectural monuments in this area placed under protection; among them the church tower is much the most conspicuous object, dominating the local townscape with its height of 65 m. There are as yet no modern high-rise buildings of more than 5 storeys in old Spandau. A protected environment, with a fixed radius of, say, 2 km, is pointless, because it would extend into an area in which, for topographical reasons, building development would have no effect on the view of the church tower. A protected zone was therefore worked out, its limits determined by their visual relationship to the church steeple. In all directions view points furthest from the latter were selected in the surroundings of the old town, and the relevant lines between the point of view and the spire lengthened to a height of 150 m. The height of 150 m was chosen in order to keep building heights possible in the future to an equitable level and to obviate the need to establish

a new zone in the event of higher buildings on the periphery. Where this height of 150 m is reached, "vertical" points result on the plan which can be plotted and mark the frontiers of the protected area. The result of plotting the view points (numbered 1-8) and of their "vertical" points shows an irregular protected zone, corresponding precisely to the topographical situation and in its outline possessing the same unmistakable individuality as the old town itself. The protected area established in the way described, about 3.6 km long and about 1.3 km wide, is appreciably larger than that currently fixed by the Building Regulations, which covers only about 1/5 of the ground-plan of the old town.

The plan for a protected environment obtained in the new way is concerned only with the church as the most prominent building of the old town. Other noteworthy buildings, e.g. the Citadel, for which a special protective zone must be separately marked out, are not included. In an old city with a number of prominent buildings (church-spires, town-hall towers, etc.), it is in any case essential to make special arrangements for each such feature and to take the outer protective boundaries so calculated as the basis for the whole classification system.

Fig Environmental protection : St Nicholas Church



EXAMPLE 2: (Gerhard Kempkes/Hermann-J. Merl in charge of project)

The Schloss (of) Charlottenburg lies about 8 km from Berlin (centre). Begun in 1665, the main building — after many changes of plan — was completed in 1713. The wings date from 1740-46 and 1788-90. In town-planning terms its situation is characterized by an avenue driven at right angles to the corps de logis and an old highway running diagonally to the Schloss (palace). The domed tower of the Schloss forms the focal point of both road-axes. The garden behind and adjoining the Schloss is bordered on two sides by the Spree, which used to serve for both water-supply and for transport to Berlin. The axes associated with the Schloss have been retained, but fringe building development has changed considerably. Originally this was restricted to two storeys and subordinated to the Schloss.

Since about 1870 (but particularly since 1945) there have been infiltrations of five-to-six-storey constructions, and extensive multi-storey development (Neufertstrasse/ Nehringstrasse) is not unlikely. To indicate the protected zone required, the same procedure was followed as in Example 1, except that the height limit for development is fixed at 100 m. This stipulation is purely arbitrary, and in the interests of carrying out another model case-study. As the metropolitan development on the fringe of the Schloss restricts the field of vision variously, an irregularly patterned zone of protection results once again, with a maximum length of 4.6 km. The consequences of the two long road-axes and the large area of the park are reflected in the bigger protected zones lying behind the Schloss. Thanks to the length of the axes related to the Schloss, the Otto-Suhr-Allee and the Schlossstrasse are both the

Fig. 2. Environmental protection: Schloss Charlottenburg.

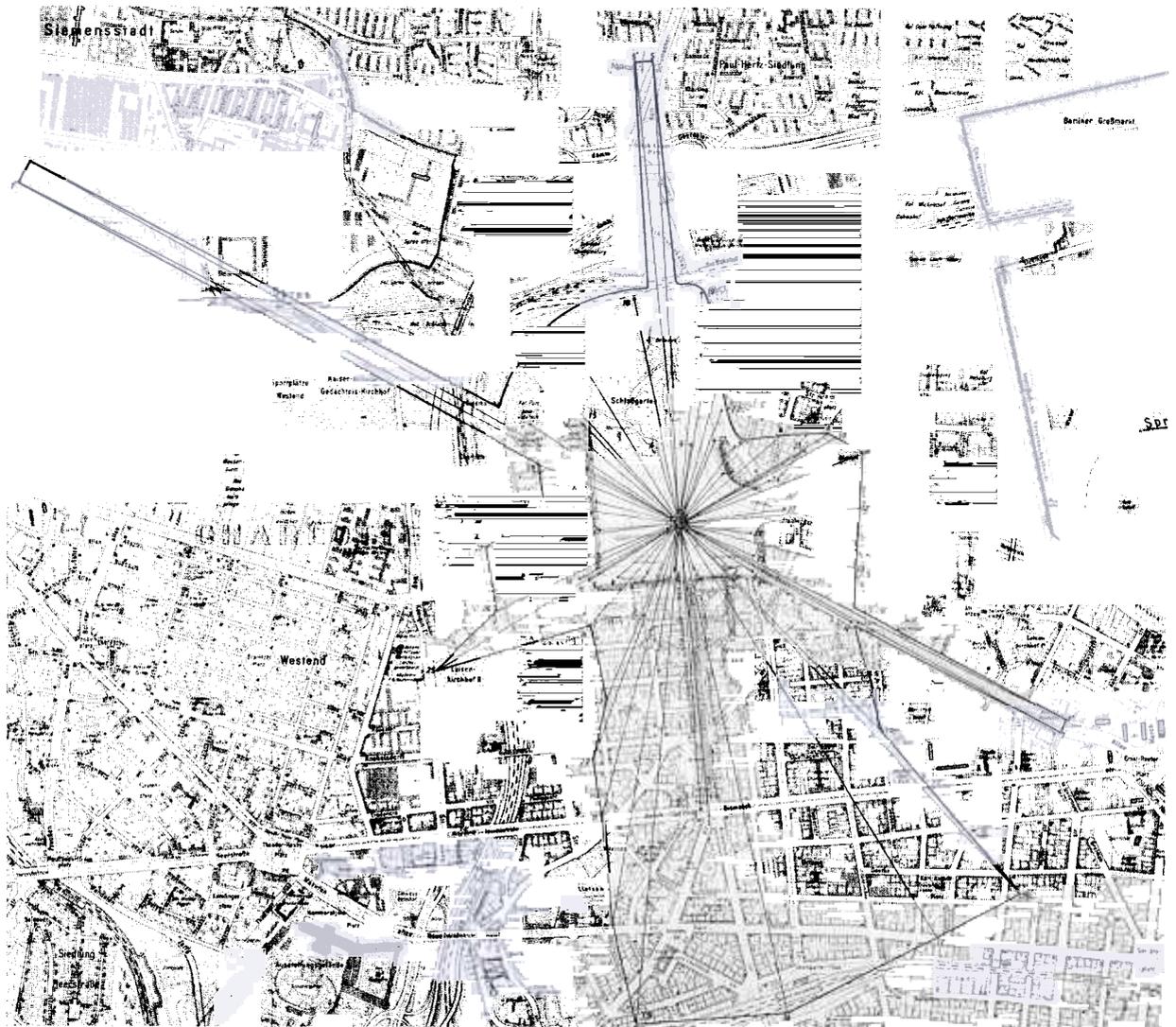
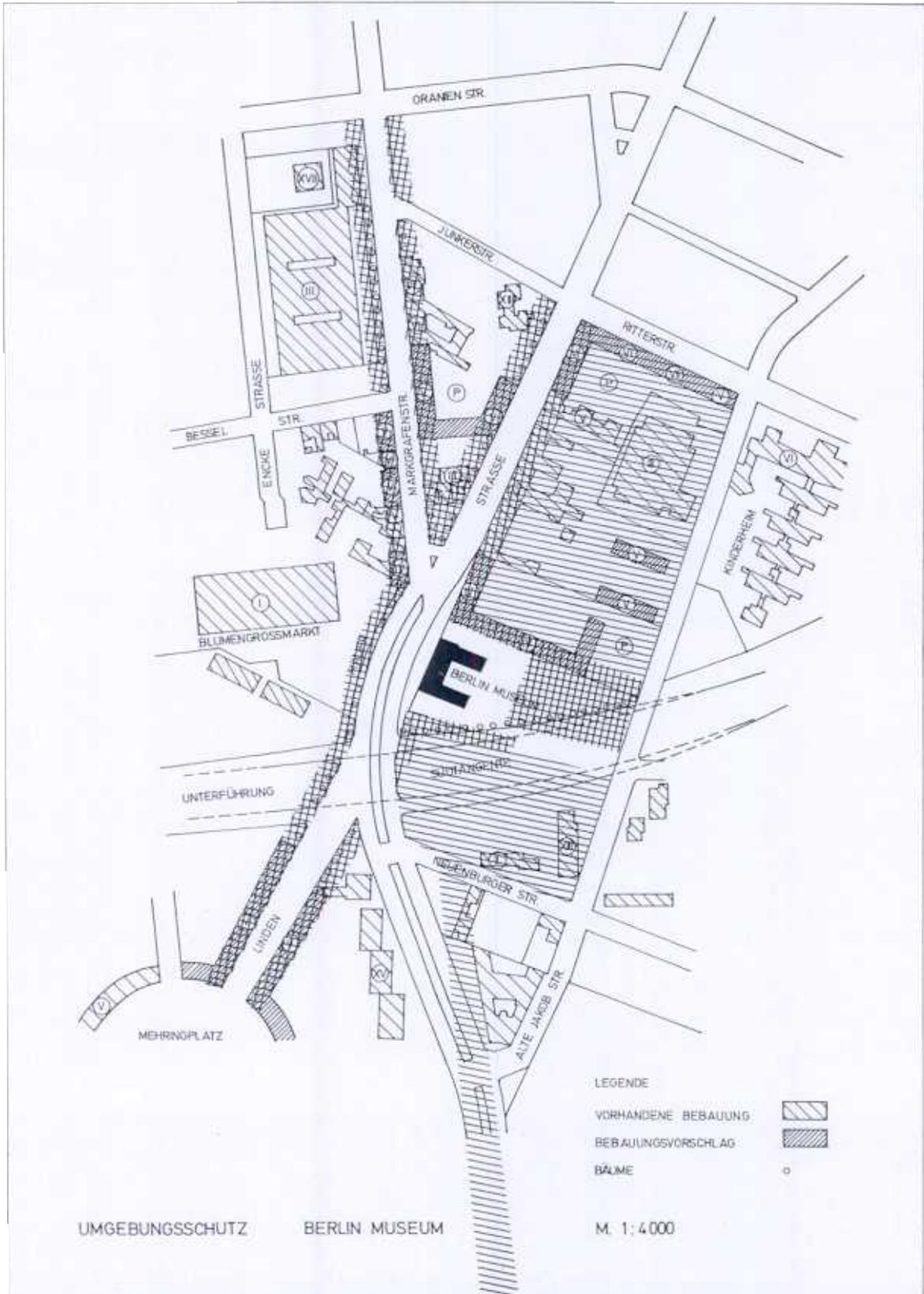


Fig. 3. — Environmental protection : Berlin Museum.



cause of a longer protected sector behind the Schloss-tower (dome). The importance of this protective zone behind is proved by the chimney-stack of the Bürgerhaus-Hospital, which for decades has towered up in the line of vision of the Otto-Suhr-Allee behind the dome of the Schloss and, when it is smoking, creates the impression that the Schloss is on fire.

It may well seem superfluous to subject the areas lying south of the Schloss as a whole to controls, and not to confine ourselves exclusively to the fringe developments of the two main axes. But it is conceivable that the view of the Schloss from the peripheral zones of the park is not less significant than are the visual relationships on the city side. In the recreational setting of the garden the effect of the view of the Schloss would be largely lost by a skyscraper silhouette behind.

EXAMPLE 3: (Wolf Karl Reidner/Richard Jofer in charge of project)

The former Collegienhaus (appeal court) of 1735 was erected as part of an urban expansion scheme (Friedrichstadt). Amid the simple two-storey housing it provided a town-planning feature, and from the Gendarmenmarkt a focal point. Severely damaged with its surroundings in the war, it was rehabilitated (1967-9) for the Berlin Museum, but without the planning of the environment being harmonized with it. Subsequent building development has been in general without method and unworthy of the Berlin Museum. The south tangent of the urban motorway will pass close to the historic building in the form of an elevated road, the "carriageway" itself being at approximately the level of the museum's roof. Since this and other plans have little regard for the Berlin Museum, the relevant area is very seriously impaired in terms of urbanism. This uncoordinated development was consequently studied to discover whether effective environmental control for the present Berlin Museum is still meaningful and feasible.

In view of the circumstances of historic development in the district, and of present planning tendencies in this section of Berlin, the following conclusions were reached after intensive study of the site:

1. An environment of the 18th century type, a linear uniformly integrated architecture, subordinated in its height to the Collegienhaus, can no longer be reproduced.

There are several reasons for this:

a) Development of this kind, close to the city centre, would be an uneconomic use of land.

b) Existing buildings already infringe the concept described under 1.

c) The planned course of the south tangent creates an entirely new situation in the road pattern.

2. Nevertheless it should be possible to harmonize the cross-hatched areas in the form and height of their buildings with the Berlin Museum. In the simple hatched zones only the height of building development (not more than 6 storeys) should be limited. This

applies especially to the extension of the Markgrafenstrasse, in the axis of which the Berlin Museum still forms the focal point. Similarly, the view from the Mehringplatz ought not to be curtailed by buildings of excessive height, drawing attention to themselves by their quantity and obstructing the full effect of the qualitative feature — the Berlin Museum.

3. In this example visual relationships are admittedly directed to a single protected object, but other considerations play a part in the exercise, which are concerned with existing building and its possible or necessary development.

4. Irreparable damage will be entailed by the elevated road of the urban motorway, by which the Berlin Museum is not only visually and aesthetically impaired, but also seriously polluted by constant exhaust-fumes. We therefore propose that the autobahn should be carried through a cutting, so that visual associations may not be destroyed and fumes can be canalized and extracted.

The propositions expounded here are influenced and animated by visual criteria of urban design. No doubt this is only one side of the problem, but one for which until now few satisfactory solutions have been put forward. For this reason the methods shown, which must be applied individually to each particular case, may serve as a basis for discussion. *But it may also be important to evolve procedures for segregating protected zones from the effects of traffic, of the wholesale trades (department stores), business administration (high office blocks) and industry. Only by coordinating all protection plans is effective and lasting protection of cultural monuments and historically significant old towns feasible.*

All the foregoing considerations are based on the conviction that historic objects and groupings can retain their prestige in a modern urban setting, i.e., that the towers of churches and city halls today as yesterday form dominants, and that even nowadays the orderly structure of towns is governed by a hierarchically determined architecture unrepresentative of our time. One may well ask, however, whether this still discernible, but historically conditioned hierarchy of town-design will not tomorrow be supplanted by an entirely new order (or disorder) corresponding to the particular contemporary social attitudes. Will the traditional townscape be able to survive next to the already planned housing and office towers, next to space-frames with transportable container-homes and many other projects of the future? An answer cannot be given with any certainty. We can only note that hitherto new housing schemes have always developed as additions to what was there before. The villages and towns have remained, as the cities have grown. There are therefore grounds for hope that the historical elements of towns with their important monuments will be able to continue next to modern architectural developments. But as we do not want to — and cannot — preserve individual

monuments as sporadic reminders of some discarded urban concept, the task of historic monuments commissions must be directed towards establishing a protected zone as large as possible and precisely contrived

technically around the historic section entrusted to them. Such far-reaching protective measures may be the sole way of ensuring the future survival of buildings of cultural value.

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RESUME

Ce n'est pas seulement à Paris, dans les années 70 de notre XX^e siècle, qu'une conception moderne de l'Urbanisme se confronte avec la conception traditionnelle, mais partout dans le monde, où ces forces dynamiques, que l'on appelle les entreprises de services (administrations - institutions de crédits - grands magasins) et les centres de production doivent s'intégrer à l'existence de structures urbaines historiques.

Si nous ne voulons toutefois pas mettre en péril des valeurs culturelles qui se sont développées au cours des siècles et manifestées dans nos villes anciennes, il faut établir de strictes délimitations et créer des lignes de conduite. Cette tâche ne correspondra certainement pas à un désir de ces forces nouvelles, qui exigent des changements, mais incombe obligatoirement aux Institutions pour les Monuments historiques si elles ne veulent pas voir les objets et ensembles qui leur ont été

confiés, être emportés par un développement incontrôlé et sans frein.

Il faut non seulement protéger les ensembles et les villes anciennes dans leur intégrité, mais certains objets précieux et leur environnement propre. La question de savoir comment des villes anciennes peuvent être efficacement protégées contre une dynamique agressive de l'Urbanisme n'a pas encore été, à l'heure actuelle, clairement résolue. La législation a soumis quelques propositions mais pas encore de véritables outils de travail. L'étude présentée ici prospecte les possibilités qui permettraient une protection de l'environnement pour les trois objets choisis dans Berlin. Par leur nature même, ils démontrent qu'ils ne sont pas seulement particuliers à Berlin, mais pourraient très bien servir d'exemples, applicables en général à d'autres villes.

Fig. 1. — Protection de l'environnement : Eglise de St-Nicolas.

Fig. 2. — Protection de l'environnement : Musée de Berlin.

Fig. 3. — Protection de l'environnement : Schloss, Charlottenbourg.