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#### THE TERM OF SOCIAL COSTS AND THEIR IMPLICATIONS IN THE FIELD OF INTEGRATED CONSERVATION

# (Shortened\_version)

by

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and

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#### Foreword

Adequate definition, measurement, and comparison of costs and benefits of the historical parts of our built environment is seen more and more as a key problem for the formulation and putting-through of policies and measures of conservation and restoration of old towns, ensembles of buildings, or single monuments. The discussion of issues related to this subject is to become a focus of the forthcoming conference of the Council of Europe to be held in Bologna, Italy.

The following report was written on behalf of the Council of Europe as a background paper which should contribute to the preparatory work for this international meeting of experts. It is the first introductory part of a study which, for the present, will consist of two parts. The second part will be elaborated and presented after the Bologna Conference, taking into consideration the aspects, arguments, and experiences which will be brought up here.

The present paper essentially breaks in upon three questions the deepening and further detailing of which will be subject of the second part of the study:

- 1. What is the basic idea and the pretension of the concept of social costs, and which are its principal terms and main analytical categories with relevance to its application in the field of conservation of the urban heritage?
- 2. Which are the methodological approaches to systematic identification, compilation, and classification of cost and benefit components of conservation and restoration versus new buildings?
- 3. What recommendations can be derived with regard to the application of the instrumentarium of cost-benefit analysis for an evaluation of the expected output of the European pilot projects, and which actions should be taken for the necessary refinement and improvement of the analytical tools?

While the first question should be, apart from certain supplements, considered as sufficiently answered, the second and in particular the third question have to be continued and further elaborated in Part 2 of this study.

Part 1 which is presented herewith, was written mainly by Fritz Lienemann in collaboration with and under the responsibility of Dr. Gerhard J Stöber. The proposed considerations are based on preliminary studies of SYSTEMPLAN eV Institute for Environmental

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Research and Development Planning, Heidelberg, aiming at a more comprehensive research project on the theme "The new role of conservation within the framework of integrated urban development planning - instruments and ways of implementation".

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#### I. A "revolutionary" change in conservation?

The efforts of the Council of Europe with the European Programme of Pilot Projects justify to say that a new position was marked for the conservation within the framework of urban policies.

Up to now, conservation was mainly <u>based on cultural historical</u> <u>principles</u>. Even here, a general change in the tendency could be observed: away from the conservation of single objects towards a conservation of ensembles (streets, urban areas). But even the criteria of choice for these ensembles were based on the artistic importance and the cultural significance.

The change in the tendency is based on an abandonment or better on an enlargement of these absolute cultural historical requirements.

The <u>evolution of the concept of conservation</u> finds its expression mainly in three directions:

- 1. An enlargement of the criteria of choice for the objects to be conserved: an extension of the artistic principles to those reflecting the societal development. (SOCIAL-HISTORICAL SIGNIFICANCE).
- 2. An enlargement of the criteria with regard to its relation to the improvement of the quality of urban life. This relation is expressed by two items:
  - a. the historical substance of a city represents one sector with regard to social indicators measuring the quality and attractivity of a city;
  - b. to meet the modern aspirations of life, a mere conservation of façades will not be sufficient if it is not combined with the renovation and modernisation of the interior of the buildings.

Having this in mind, conservation becomes an <u>integrative</u> part of urban social policy and of general societal policy. (SOCIAL SIGNIFICANCE).

3. Social significance means at the same time social responsibility.

Conservation has to be integrated into the planning and development of a city - what is, up to now, rather a demand than an actual change.

In order to guarantee the indispensable role of conservation in city planning, advantages and disadvantages, costs and benefits of the preservation of historical substance have to be defined. (SIGNIFICANCE FOR CITY PLANNING). This paper is supposed to submit some guidelines and criteria for preserving the necessary role of conservation in city planning and urban development.

#### II. Conservation and new constructions: a paradox?

Up to the present we can scarcely find a systematic comparison of costs and benefits of new constructions and the corresponding conservation of old buildings in a sufficiently comprehensive and all-embracing manner. The predominance of evaluations based on micro-economic, individualistic criteria like rentability, profitability in terms of rates of return of capital, etc, shows that private economic calculations of profits and losses are of common use. The rentability of private proprietors is the only indicator for measuring the "benefit", without mentioning societal components.

A most important contribution in order to make effective the new consciousness of conservation and to integrate it into city planning could be the systematic comparison of social costs and social benefits, being both based on external effects of conservation, on the one hand, and new constructions, on the other.

#### III. Social costs and social benefits

Based on the economic concept of welfare economics, one tried to find a generally accepted basis of the usefulness and overall benefits of an investment financed by public sources. The intention is not to consider only direct costs and to calculate only with monetary expenses, but to take rather into account all categories of required sources and expected effects, influenced by or influencing all groups concerned by the investment project, and to take additionally into consideration the secondary and longterm effects, too, which may occur in the long run and may affect future generations.

Social costs are all the effects of an investment or a project which contribute to the attainment of a societal goal system. Thi includes not only monetary items. As opposed to the rentability accounts of the private economist, social costs are embracing all categories of the goal system of a society affected by the project. On the other hand, the monetary costs of the private rentability account are now substituted by the <u>concept of opportunity costs</u>. They express the social value foregone when the resources in question are moved away from alternative economic activities into the specific project.(4) On the other hand, social benefits are reflecting all (positive) contributions to the attainment of the societal goal system, regardless of their financial profitability and independent of the groups of the population benefitting by the project in question.

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<u>Cost-benefit analysis</u> is based on these principles of external effects of an investment. By means of a systematic comparison of all potential negative effects (costs) with all potential positive effects (benefits) - in terms of the societal goal system - one tries to evaluate the general, so to say <u>social</u> <u>advantage of one project compared to another</u>. The analysis is especially applicable to the evaluation of alternative projects designated to serve the same objective.

#### The principle working steps and terms of cost-benefit analysis:

The main working steps of cost-benefit analysis are based on the four logical complexes of systems analysis: goals, alternatives for goal attainment, evaluation of alternatives, means.

The typical situation of cost-benefit analysis can be described as one in which two (or more) alternative ways of attaining a certain goal have to be assessed.

- 1. The first working step therefore is to determine the goal in a way as concrete as possible. It can be discussed whether the formulation of goals is an original part of cost-benefit analysis. Anyhow, the goals to be attained have to be express expressed explicity and - as far as possible - in operationalised terms.
- 2. The alternatives have to be determined. It is obvious that an analytical investigation of social costs and social benefits of projects and their systematic comparison necessitates a selection of potential alternatives on the same level of concreteness and within the same scope.
- 3. All <u>advantages</u> of one project (alternative 1) conceivable for a fixed period of time have to be identified and evaluated. The advantages can consist of the direct output of the project, the social benefits (eg for other sectors, the environment) and the degree of goal attainment (eg improvement of the quality of urban life). The goal system serves as reference basis for the evaluation of what an advantage is or is not.
- 4. All disadvantages of one project (alternative 1) conceivable for a fixed period of time have to be identified and evaluated. The disadvantages can consist of the direct input, the costs (opportunity costs) including the secondary effects on other sectors. Again, the goal system has to serve as reference basis for the evaluation of what is disadvantageous or not.
- 5. The identification and evaluation of advantages and disadvantages presupposes the <u>fixation of a period of time</u> for which the effects shall be analysed and measured.

- 6. In the same manner, the <u>advantages</u> and <u>disadvantages of</u> <u>alternative 2</u> have to be identified and evaluated. It is important that the same criteria, the same period of time, and the same degree of specification of the potential effects are used.
- 7. The aim of the cost-benefit analysis is to come to <u>systematic</u> <u>comparison</u> of all potential advantages and disadvantages of all concerned alternatives with regard to the attainment of a certain goal (or goal system). In order to reach this goal, the identified effects have to be made comparable. Therefore, cost-benefit analysis stresses the need for measuring the effects quantitatively and - as far as possible with the same scale of measurement.
- 8. The advantages and disadvantages may occur at differing moments of time and may be perceived by different generations (which then may have differing value systems). The future advantages and disadvantages have to be compared with the actual expenses and returns of a project. Therefore, all evaluated costs and benefits have to be <u>discounted to one</u> <u>point of time</u>. At first, this point of time has to be identified (today, a certain point of time in the future). Then, the rate of discount has to be determined.
- 9. Due to the variety of factors to be considered, to the subjective elements in evaluating the effects and to the uncertainty in using longer periods of time, the whole analysis creates several crucial points of uncertainty and risks. Modern techniques of decision theory can be used in order to include certain <u>factors of uncertainty</u> and to add <u>elements of sensitivity</u> analysis.
- 10. The final working step represents the systematic comparison of the alternatives themselves. The aim is to find out the very alternative which will promise the best attainment of the social goal function. That alternative will be of the <u>biggest social net benefit</u> of all alternatives taken into consideration.

The principles of social cost-benefit analysis, of which we stressed the requirement of comprehending all effects, quantitative and qualitative factors, for several groups of concerned persons and for longer periods of time, these principles seem to provide an excellent method to fulfil the requirements previously set up to consider far more factors of the conservation of monuments than those used by cultural historians, and to look out for far more effects of constructing new areas than those of financial profits and losses.

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#### IV. Classification of components of costs and benefits

The components of social costs and social benefits can mainly be seen on three different levels:

1. The directions of stratification and determination of social costs and social benefits

Here we can distinguish the following levels of potential effects to be considered in an analysis based on quantitative as well as on qualitative elements:



This diagram gives an impression of the manifold aspects and the various interdependencies which have to be observed in any evaluation process concerning a system of higher complexity. By extending the goals of conservation to the societal levels and by stating the improvement of quality of life as highest goal, we are reaching a level of very high complexity. But the enlargement of the facets of aspects to be taken into account may at the same time facilitate the assessment of advantages and disadvantages of conservation and renewal by making explicit the different levels of concern, the different pressure and interest groups, the conflicting positions of values and norms.

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# 2. The distinction of different levels of efficacy of social costs respectively social benefits

Here we consider the different levels on which the effects can be realised. We can develop the following scheme (11):

- 1. The originator of social costs resp. the destinator of social benefits (business firms, private housholds, public authorities);
- 2. The "payer" of social costs and the "beneficiaries" of social benefits (which very often are not identical with the originators resp. the destinators);
- 3. The causing factors of social costs resp. social benefits (eg determination by the quantity or the quality of the output or input, psychological behaviour, etc).
- 3. The differing categories of social costs and social benefits

Finally we can distinguish the different categories of the societal context in which the effects can be realised. Without being complete one can determine the following categories:

- 1. Economic effects
- 2. Socio-structural and demographic effects
- 3. Geographical and conceptual effects
- 4. Socio-psychological and socio-psychiatric effects
- 5. Social political and cultural political effects
- 6. Infrastructural effects
- 7. Ecological effects
- 8. Technical effects
- 9. Administrative effects

10. Artistic, aesthetic and designing effects.

The next chapter (v) will give a more precise description of these categories with special regard to the alternatives of conservation/renewal, on the one hand, and construction of new buildings, on the other.

The diagram on the following pages gives a summary of the first chapters of this paper concerning the working steps of a cost-benefit analysis, the elements and the different dimensions of looking at the stratifications of advantages and disadvantages of certain alternatives.

The chance of the application of cost benefit analytical methods for the purposes of conservation can be seen in <u>its</u> <u>capacity to make transparent the complexity</u>, the interdependency, and the relativity of all statements concerning the "positive" and "negative" effects used in conventional project evaluations based on terms of rentability, profitability, etc.

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# V. The scope of categories of social costs respectively social benefits

The assessment of positive and negative aspects is totally dependent on the goals and objectives and also on the alternatives chosen for realising the goals.

It is therefore not possible to enlist in this chapter all thinkable effects of conservation. A concrete evaluation of what has to be interpreted as positive or negative effect can only be executed on the basis of an actual and concrete problem situation.

#### 1. Economic effects (1)

It goes without saying that, on the first hand, the <u>direct</u> <u>pecuniary</u>, <u>economic costs</u> and <u>benefits</u> are to be identified in the way in which they are realised in the profit and loss accounts of the private enterprises and in the cost-efficiency analyses.

#### Decrease in yield

In case of renewal or of measures concerning care and preservation of monuments we have to start from the fact that the presentday buildings determined to be renewed also had a <u>utilisation value</u> which will be potentially affected by those measures. In case of old buildings one can, eg start from the assumption that relatively high yields will be realised (sometimes buildings are concerned which are already totally depreciated, whereas after the renewal or in case of a corresponding new construction that utilisation yield will be smaller (building and operating costs). That <u>decrease</u> <u>in yield</u> caused by renewal are to be integrated as costs into the analysis.

(1) Among the economic effects only those are essentially to be quoted in this context which are originally to be attributed to economic factors while taking into account micro- as well as macro-economic factors.

As the aim of the traditional cost-benefit analysis consists in measuring pecuniarily all possible effects, even those effects being of economic character in case of transformation into measured quantities will be cited in the following fields (eg advantages in the field of building technique concerning new buildings: their identification is pursued in a different category; their results are stated in the saving of expenses).

# Decrease in income

During the time of renewal works the building will not be directly utilisable so that a <u>decrease in income</u> of the proprietor is to be stated (costs).

# Increase in value

One can object to those statements that, by renewal, the value of the land or the building will increase. This <u>increase in value</u> is to be viewed as increase in productivity and to be correspondingly included in the benefit.

#### External effects resulting from a shifting of demand

If renewal is combined with a settlement of the inhabitants of the renewal area, the <u>demand in adjacent areas</u> will increase (see also socio-psychological effects/neighbour relationship) which means again a benefit for the proprietors.

### Planning advantages

The realisation of an increase in land value within a renewal area can be looked upon as a <u>planning advantage</u>, for in most cases the increase of value is often already realised at the moment the intention of renewal becomes known.

#### Increase in tax revenue

But this absorption is to be looked upon as a social benefit because thereby the tax revenue is increased. That leads to an improvement of the financial situation of the city which is again the condition of the viability of the city in the whole (benefit).

#### Costs of making accessible a new land

In case of new constructions in a new area one has to calculate ( in any case on <u>costs of making accessible a new area</u> and the costs of the technical facilities and the traffic connections (costs).

#### Care and preservation costs

In case of buildings being of historical value one must take into account that the <u>care</u> will usually cause high costs (colour painting).

# More intensive area utilisation

A specific advantage of a new construction can be reached by the realisation of a more intensive utilisation of the <u>building areas</u>, eg by the construction of high-rises. (This is dependent on regulations concerning area utilisation.) By the more intensive utilisation the land value is increased and is to be viewed as benefit.

# Change in utilisation of land

A similar effect can also be produced by a <u>change in the</u> utilisation of an area by utilising eg a residential area as an industrial area or by mixing both functions.

# Transport costs

A comprehensive and far reaching complex are those effects caused by and indispensable <u>resettlement of the inhabitants</u> due to the maintenance of buildings or by the renewal of areas. Here we can distinguish direct and indirect costs of resettlement. Among the direct resettlement costs we count first of all the <u>transport costs</u> of the resettlement and perhaps substitute costs for new furnishings (costs).

# Lost utilisation

Besides the direct costs of demolition, the lost utility from the prior utilisation of the building is to estimate (costs).

# Subventions

Even in case of a progressing average increase in income the increases in income always exceeded the increases in rent. (14) A certain social function of old building areas (and slums) can be deduced from the fact that strata of the population with low incomes are relatively less willing to pay higher rents for a better residential comfort. (In 1970, only 6% of the population were willing to do so) (15).

# Substituting dwellings

Among the direct resettlement costs one can count also those which have to be found as <u>substituting dwellings</u> and/or renewed old buildings for the population to be resettled (costs).

# Repatriation costs

At last the <u>repatriation costs</u> are to be taken into consideration regardless of whether the same or other population groups are repatriated into the renewed areas.

#### Demolition costs

The same costs also occur if in the place of maintaining old buildings substance a demolition accompanied by a corresponding new building is pursued. But in this case, the demolition costs are to be estimated in addition to those costs mentioned (costs).

### Additional demand/losses in income

But by resettlement measures a further complex of indirect effects is induced especially due to the <u>shifts in demand</u>. In this complex typical examples of national social costs respectively social benefits can be mentioned. For the <u>commercial</u> <u>enterprises</u> in the resettlement area there are <u>additional</u> <u>possibilities of income</u> (benefit) by the new settlements. But these possibilities of income are confronted with an equally high loss in possibilities of income in the renewal area (costs).

The streams of income will be shifting if in the place of maintaining old building substance new constructions are built which will attract strata with high incomes or by which other population groups will be repatriated into the renewed areas (benefit).

#### Increase of overall wages

By the fact that in case of conservation works qualified skills are applied and that those applications need more time than in case of new constructions, the <u>overall income</u> (overall wages) increases in the city.

#### New commercial enterprises

In case of new constructions (within the renewal area with strata disposing of high incomes or within totally new areas) a structural effect can also be achieved by a <u>supplementary demand</u>, namely by reaching certain threshold values from which the establishment of new commercial enterprises (as eg supermarkets) seems to be lucrative. As a consequence of the consumer sovereignty old clients would shift from settled commercial enterprises. (Cost-benefit transfer).

# Tourist demand

In another sector a supplementary demand can be induced especially by the preservation of historical building substance: by conservation of buildings the sights of the city will be improved and the city made more attractive in the eyes of visitors and tourists. This results in a growth of income in determined commercial branches, as eg hotels, restaurants, souvenir shops, traffic enterprises, museums etc (benefit).

#### Scarcity of jobs

An omitted renewal can lead to the opposite effect. There will not only be any income from tourism, but it will be very difficult and in any case more expensive to provide for personnel in institutions such as hospitals and schools near dilapidated areas (slums). The <u>scarcity of jobs</u> due to an unfavourable environment is not only to avoid by special compensating payments (eg a "London" extra-pay as a renumeration for disagreeable environmental conditions) (16). (Costs in case of omitted renewal or benefit - lost costs - in case of renewal executed.)

#### 2. Socio-structural and demographical effects

# Destruction of social structure

A migration of the population from regions with old buildings caused by "more attractive" new buildings and/or a resettlement out of areas of renewal may render effective the following changes: by these changes, a "naturally grown" social structure will be destructed (with further social psychological effects, see there) (costs). • • •

# Decomposition of urban functions

A decomposition of the functions of a city may come into effect as a result of the renewal of an area. The areas with old buildings quite often represent a well-balanced mixture of land uses with dwellings, shops, handicrafts, etc. From the point of view of social structure, a decomposition of this mixture has to be valued negatively (costs).

# Shift of social structure

est in the second 1. . The renewal of areas and buildings with outstanding historical substance may cause a shift of the social structure (supposed that no additional subventions to rents are paid by public authorities) insofar as a privileged high income group may settle in this area (artists, journalists).

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# Creation of new slum areas

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Additionally to this effect on overprivileged groups, another spill-over has to be taken into account: the renewal of areas with old buildings, combined with a resettlement of the original population, would probably create new slum areas in other regions of the city. .. .<u>.</u>

# 3. Effects on the conceptions of city planning and on geography

These effects are closely related to the previous sociostructural and demographic effects:

Urban development processes show that industrial firms (due to their needs for additional land use) and bigger firms of the tertiary sector (eg supermarkets) prefer the outer zones of city. This trend is supported by an overproportional concentration and growth of the population at the outskirts and suburbs of a city (centrifugal trends of urban development).

# Carrying out of a conception of renewal

The renewal of the historical substance of a city cannot contribute to a return of these trends, but it can facilitate a controlled <u>channalisation of these processes</u>. That presupposes a certain <u>conception of the renewal</u>, which should be based on a corresponding general conception of city development aiming at a <u>new scaling of the qualities of location in favour of the city's</u> <u>centre</u>. Due to the fact that the areas which are subject to renewal are very often to be found in the centres of a city, the chance should be seized to use these areas for carrying out a logical conception of city development in a more stringent and comprehensive way (social benefits).

#### Expropriation

In carrying through a comprehensive conception of city development, we have to be aware of the fact that in most cases more expropriations are necessary in order to enable the change in utilisation of land use (costs).

The "open" space of areas of new construction may favourise these for the purposes of an integrated planning; but the obvious deficiencies of those new suburbs (and even of new towns) may give a hint to the fact that many important factors of urbanisation were not taken into account - factors which probably are easier to find in city quarters with a historical substance of buildings. Therefore, a new dimension of evaluating city development concepts has to be found, for which this paper is intended to render an appropriate contribution.

# 4. <u>Socio-psychological and socio-psychiatric effects</u>

# Diminution of criminality

The degree of criminality, especially of youth criminality, is in regions with old buildings, slums and blights higher than in other regions. The renewal of those areas could represent a contribution to the diminution of criminality (social benefits).

# Diminution of psycho-social diseases

A certain part of inhabitants of slum areas suffer from psychosocial diseases caused by factors like isolation, discrimination and weakness of personality. These diseases are more concentrated on areas of bad housing conditions and of overproportional density (17). A renewal of these areas could also render a contribution to diminish the appearance of these diseases (social benefits).

#### Destruction of socialisation

In "naturally grown" city areas as which we can characterise many areas with old buildings, a higher interpersonal communication can be observed; here, the development of a special sentiment for the neighbourhood and a feeling of being sheltered can be noticed. These relations of socialisations would be destructed by renewal efforts combined with a resettlement of the original population without later repatriation. The abandoned neighbourhood relations and the difficulties in adapting to a new environment have to be counted among social costs.

#### Social pathology

We can observe that in areas with high density new constructions, social pathological symptoms are to be discovered more often than in areas with historical substance. Loneliness within masses and the outer shape of buildings and their grouping, connected with a disregard of elements of design, contribute to the frequency of anxiety, nightmares, neurosises, and to an increase of the rate of suicides (social costs).

But in quoting all these symptoms it is of outmost importance to point out, that a <u>causal connection</u> between housing environment and social pyschological behaviour is <u>not proved up to now</u>. It has still to be investigated whether the origins are to be found in the quality of the building substance or rather in the structure of the inhabitants (income, age, professions, work).

An evaluation of social costs and social benefits of conservation has to take into consideration, that these means are always to be seen as one part of a total complex of social policy.

#### 5. Social and cultural effects

#### Diminution of physical diseases

Beyond the concentration of socio-psychal diseases in slum areas, we can also observe an accumulation of physical diseases An improvement of the hygenic conditions as a result of renewal would therefore diminish the dangers of infection (diminution of the mortality of babies, influenza, tuberculosis, venereal diseases) (social benefits). But again, we have to distinguish between causes to be found in housing and living and environment and those to be found in the social structure of the inhabitants.

# Improvement of the social situation and socialisation

The installation of public services, as kindergartens, infant schools, youth centres, sport fields, etc render a contribution to the social situation and prevent trends in direction of isolation and discrimination by facilitating socialisation.

#### Urbanity

As far as conservation is particularly applied to objects of artistic value, the integration of old buildings and quarters into new ones can create a special climate of urbanity.

#### New functions for old buildings erected for representative purposes

As already mentioned in the previous chapter, historic buildings provide a good basis for the installation of public services, like university institutes, libraries, museums, etc, by which an integration process may also be stimulated with concern to the combination of cultural functions with the social ones. Beyond that, one can economise direct costs of construction for new buildings (provided that the costs of changing the old buildings are lower than the construction costs).

### 6. Infrastructural effects

# Improvement of the infrastructure

In the same way as the renewal of city areas can be used to carry out comprehensive concepts of city development, it can also be applied to improve the infrastructural equipment of an area.

# Increased value of utilisation

Infrastructure investment can be viewed as external benefits if they are increasing the value of utilisation of land, as it is normally the case with respect to equipments of transport, water supply, sewage regulations, etc (social benefit).

### Structure of transport

In particular transportation investments cause the main environmental deficiencies, in particular in high density areas with small streets, (see ecological effects). It is therefore of highest importance to evaluate rather the first-hand advantages of transportation investment with reference to the numerous and irreversible negative effects in other sectors than that of transportation itself.

#### 7. Ecological effects

#### Better residential ecology

First, the renewal can show definite positive ecological effects. If in case of renewal a better <u>solar radiation and view</u> are achieved, these effects represent evident social benefits which can be compared to the (direct) renewal costs.

#### Air pollution

The air pollution by private heating installations is a special problem. In the course of renewal the air pollution can be extremely diminished by adequate installations.

# Macro-ecological effects.

Far-reaching potential effects of a new construction is to take into consideration: green areas and open areas could perhaps be destructed; furthermore, the effects on the ground water level and the <u>city climate</u> is to be observed in case of bigger new construction ensembles.

### Prejudice by tourism

The positive (economic) effects of tourism are consequently to be opposed to the negative (ecological) effects, such as, eg, air pollution (by individual traffic), noise damage (by traffic and tourists), negative influence on socialisation (by constant "alienation" by tourists (Rothenburg, Venice); (social costs).

#### 8. Technical effects with special regard to construction techniques

# Costs of construction: special materials

The construction costs as they are calculated in private economic accounting can be used in the same manner for the purposes of cost-benefit analysis. But beyond that we have to consider some peculiarities in comparing conservation with new construction of buildings. In conservation, and especially in artistic renovation, we have to take into consideration an <u>increase in construction</u> <u>costs</u> due to the necessity to use <u>specific materials</u> which fit to the historical substance and the old material (costs).

#### Special skills

In the same way we have to regard that specific skills of artisans are necessary. Those skills familiar with old construction techniques and old materials have become more and more scarce (costs). This scarcity of specific material and skills is one of the main obstacles the pilot projects of the European Programme had to overcome.

# Special working techniques

Beyond that it has to be stated that we cannot always use the newest and most rational working techniques known in the construction industry. Due to a lack of standardisation of the objects of work (old buildings), very often a kind of work "made to measure" is necessary.

#### Special management

We have also to notice that new techniques of construction cannot be used in a flexible way due to the local administrative as well as artistic constraints. The observation of contemporary security regulations very often encounter the requirements of an artistic-based conservation with the effect that the only alternative is seen in the protection of the facade behind which the principle of "destruction and new construction" is carried out.

# Special security equipments

Additional costs of conservation may arise by the necessity for special security equipments of the buildings to be renovated as well as adjacent buildings (costs).

#### 9. Administrative effects

#### Costs of planning

The direct costs of planning and of preparing the projects are as far as their categories are concerned - the same, whereas they may differ with regard to their volume: costs of the direction of planning, notary's costs, broker's costs, expropriation costs, personnel cost of the administration and of the responsables of the renewal.

#### Expert costs

The argument that, from this point of view, the costs of planning and preparing the renewal measures are supposed to be higher due to the fact that more and more difficult <u>expertises</u> on the building substance to be conserved, on the artistic value, on the quality are to be prepared and that in most cases building plans of the old buildings are missing, is irrelevant at the moment one proceeds strictly according to the cost-benefit analytical principles. For new constructions one would have to provide comprehensive expertises on social, socio-structural, ecological, indirect (external) economic and socio-psychological effects of a new construction area.

#### Public relations

This principle presupposes corresponding <u>public relations</u> of the administration in order to demonstrate also the social benefit effects of the conservation with respect to the private cost accounting of those persons being involved.

#### Competitions, financial incentives

For this reason the indispensable supplementary costs for the public relations (such as booklets, information brochures, reports, information meetings for citizens), for the preparation of conservation measures (eg <u>idea competitions</u>) and for the initiation of private conservation measures (<u>financial incentives</u> by credits, interest concessions, depreciation concessions, etc) are first of all to be counted among the direct costs. But to these costs are to be opposed all social benefit effects.

#### 10. Aesthetical, artistic, design effects

It may be astonishing that in an investigation of the societal effects of the conservation of the historical substance of buildings these effects are quoted as last category.

Their importance is not called in question here. However, we point out that their <u>exclusive quotation</u> does not meet the intentions of modern, societal-oriented conservation policy.

We can drop here an enumeration of the positive effects which can be derived from the aesthetical impression and the designing quality.

#### Socio-psychological effects

The negative effects of one-sided, unbalanced, too massive planned buildings neglecting the design components were already mentioned in the chapter on socio-psychological and sociopsychiatric effects.

#### Semiotics

A further approach to grasp these intangible effects can be seen in semiotic investigations of the cultural variability of the impressions of buildings on men, as for example undertaken by Umberto Eco (22). He is searching for the effects which can be derived from the lack of customary impressions of the environment, as it can be detected in the behaviour of foreign workers in their "host country" (eg the entrance hall of railway stations which has to replace to the mediterraneans the piazza or plaza in countries north of the Alpes).

# The cultural level as a component of the quality of life

A further approach in direction of an evaluation of these intangible effects may be seen in the assessment of the contribution of the cultural facilities of a city (entertainments, musical and theatre performances, museums, but also sights and historical substance!) to the components of the quality of life, these components are transformed into factors of the attractivity of a city which can be evaluated by means of surveys (23).

# The "perverse effect" of income distribution

Unfortunately, all these investigations are suffering from an important constraint - which has furthermore to be transformed into a positive direction as a challenge to conservators; the constraint is that all these investigations are carried out by scientists. The interviewed persons are also in most cases recruited from an unrepresentative part of the population composed of an educationally out-standing élite. That means that all results of these surveys are one-sided (and we think <u>one-sided in favour of the cultural level</u>) and therefore <u>adulterated</u>. If one looks at the effects of this chapter from the point of view of income distribution, one has, indeed, to state a certain "perverse effect": "aesthetic considerations are more apt to be recognised and demanded than public goods by those whose leisure and education enable them to appreciate such considerations" (24).

#### Strata-specific distinction

As long as we are missing an investigation of the artistic and cultural effects of the historical substance of buildings based on a <u>strata-specific distinction</u> (as, eg, intended by the semiotic surveys of Eco), we have to make dubious the overstressed orientation of justifying the conservation of monuments and sites on these cultural and artistic factors. All the more do we seem to be forced to take into account the other effects of conservation described in the foregoing!

# VI. <u>Social costs and social benefits - a useful tool for</u> conservation?

The main criticism concerning cost-benefit analysis is derived from its quantitative necessities.

Having in mind the change of the role of conservation, as it was also expressed in the beginning and as it is supported by the Council of Europe, we can - paradoxically - turn this criticism into a proargument for using cost-benefit analytical principles: we do so in using one of the own techniques of cost-benefit analysis, namely the "with-and-without" principle.

In order to comprehend the advantages of the analysis, we should look at the situation we would find if social costs and social benefits were not comprehensively and stringently taken into account - a situation, which is not too far from reality!

The reduction of factors and effects to be considered to those which are quantifiable means an irresponsible adulteration of reality. The quantification of variables feigns an exactness which is, in fact, not true. Planners may fight for figures and argue that these fightings show their eagerness to embrace reality as far as possible - but they very often forget that very large domaines of effects are totally excluded due to their intangible character.

From the point of view of conservation interpreted as important and equal partner in city development planning, any calculation of costs and benefits of the renewal of buildings and quarters must be wrong as long as the social categories are not included the calculation as such may be as conscientious as possible and may be "exact" up to the last place behind the decimal point.

That means: without cost-benefit principles, we may have very exact calculations, which are, unfortunately, very exactly wrong. The enlargement of the scope of aspects to categories of costbenefit analysis would cover this main deficiency of present-day city planning assessment. The advantage of this method is to be seen in the intention to identify as many potential effects on the society as possible and to make explicit as many relations, interfaces and repercussions as possible. It does not matter whether these effects and interrelations are quantifiable and measurable or not - because any effort to take them into consideration at all represents a more important improvement of city planning than the search for exact figures.

Of course, the instrument of cost-benefit analysis is, up to now, not absolutely perfect to be applied immediately for any actual alternative. But for the purposes of giving conservation its justified role in city planning, we are stressing here more the principles of thinking in terms of social costs and social benefits than giving patent receipts and instruction for calculation.

As the scope of possible aspects, enlisted in the previous chapter, may have made clear, thinking in terms of social costs and benefits is a multidisciplinary and an interdisciplinary endeavour. The conservators themselves have to leave their ivory tower and have to adapt their criteria to the requirments of city planning. This demand can be met by restructuring the educational procedures of conservators (curricula, team-work, etc).

It may be possible that the integration of conservation into the overall city planning procedure can be facilitated by applying cost-benefit considerations by conservators themselves. Thinking in these terms may help them to adapt more smoothly to the language of planners and executives.

On the other hand, the planning authorities and city development departments have also to enlarge their horizon of criteria, to which cost-benefit analytical principles provide the best commencement.

It is an important precondition of the effective application of cost-benefit analysis that information is got, transferred and processed as unrestrictedly as possible. It may yet be doubtful whether the contemporary structure of the administration is suitable for the application of this method. A main deficiency

can be seen in the hierarchical system of the administration, with a delineation of competences regardless of the interrelations of subject matters and the interdependencies of effects. But we should remember that cost-benefit analysis is seen as basis for more comprehensive information in order to enable a decision-making of social relevance. The political decisions shall not be replaced by means of this analysis. The methods and the categories outlined in this paper are not to be interpreted as directions for use but more as a basis for discussion aiming at "a continual diminuation of the field between evaluable and intangible public services in the domaine of the conservation of cities" (25).

It may be rather a good exercise for both, the conservators and the city planners, tottreat the (interim) results of the Pilot Projects of the European Programme on the lines of this paper. The experiences made by these projects are very manifold, but just in being so they are of special importance.

1. The categories of effects and repercussions to be taken into account in the field of conservation can be enlarged by means of the experiences of the pilot projects.

2. A graduation can be developed concerning the main deficiencies of present conservation and concerning the main obstacles of conservation policy.

3. A typology can be developed with regard to frequency and the (natural, political, cultural, etc) environment of the main problems of present conservation.

4. On the basis of the concrete data of the pilot projects a first evaluation can be commenced, stressing especially the interrelations of conservation and the (up to present) "common" categories of assessment in city planning.

5. Guidelines for action may be derived from a systematic synopsis of the experiences of the pilot projects showing the identity of problems faced by both, the conservators of the old and the plan planners of the new substance of cities, in order to overcome the gap between these levels.

NOTES

(the figures in brackets indicate the position in the list of literature) Council of Europe, European Programme of Pilot Projects (3) 1 Rossi Doria (20), p. 1 2 3 Rossi Doria (20), p. 7 4 Mishan (17), p. 13 Recktenwald (19), p. 26 5 6 🔬 Ludwig (11), p. 42 Latti (9), p. 17 7 8 Ludwig (11), p. 25 9 McKean (16), p. 134 10 McKean (16), p. 60 11 Stolber (23), p. 423-424 Ludwig (11), p. 78 12 Mao (14), p. 24 13 14 Eekhoff (5), p. 163 Eekhoff (5), p. 159 15 16 Peters (18), p. 27-28 17 Strotzka (25) p. 17 18 Marris (15), p.p. 183 following Eekhoff (5), p. 110 19 20 Mackensen (12), p. 42 21 Eekhoff (5), p. 163 22 Eco (4) 23 Mackensen/Eckert (13) 24 Arrow (1), p. 47 Ludwig (11), p. 190 25

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