

An Economic Analysis of the Museum

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IN RECENT YEARS economics has expanded rapidly into new areas, such as the arts, and a collection of papers on *The Economics of the Arts* is already available (Blaug 1976). The main focus of current cultural economics has been on the performing arts, in particular, theaters and orchestras. The pioneering work in this area was done by Baumol and Bowen (1966), Moore (1968), and Poggi (1968); and the questions asked and conclusions drawn by Baumol and Bowen have recently been reconsidered by Netzer (1978). The economic approach has also been applied to such fascinating areas as classical and Renaissance theater (Baumol 1971; Oates and Baumol 1972), and the performing arts (Austen-Smith 1978a and b and Wahl-Zieger 1978, among others).

Museum research has traditionally been dominated by sociologists, who have mostly conducted large-scale field research on visitor behavior; comparatively little work has been done so far on the economics of the museum. One exception to this is Peacock and Godfrey's (1974) work dealing primarily with the financial situation of the museum, the museum being considered as a firm with a complex objective function and offering an unusual type of product. Earlier, more specialized contributions by Peacock (1969) on the rationale of public support are done in the context of an exchange of views with Robbins (1963, 1971). The discussion between Peacock and Robbins also has dealt with optimal pricing. Contributions by some other authors can be found in *Museum News*, for example, Lee (1972), Montias (1973), O'Hare and Feld (1975), and Bridges (1976); and an article by Gassler and Grace (1980, forthcoming) discusses the museum as a nonprofit insti-

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tution. Some of the relevant articles on the economics of the museum are in Blaug's collection (1976) mentioned above.

The present contribution is explicitly based on the economic model of human behavior, applied to both demanders and suppliers (see, for example, Becker 1976; McKenzie and Tullock 1975; and Alchian and Allen 1977), and is intended to complement both the traditional sociological and economic approaches to the study of museums. We have limited ourselves to art museums, but most of the analysis and conclusions apply to other types of museums as well. The paper focuses in particular on the semipublic type of museum most common on the European continent, with the Kunsthhaus in Zurich used as an example. The paper deals mainly with the supply aspects of the museum, that is, with the behavior of the museum directorate. The demand for museum services is only considered to the extent that it constitutes an element in the set of restrictions imposed on the directorate's behavior. The concluding section suggests some possibilities for influencing the supply of museum services.

While the museum is an institution in which several actors—the directorate, professional staff (curators and others), guards, craftspeople, and so forth—join together to supply services, the key role of the directorate is our focus.

UTILITY OF AND CONSTRAINTS ON THE MUSEUM DIRECTORATE

The top echelons of the museum derive utility from what has been termed "performance excellence," that is, meeting the high standards established by the profession of museum directors. Such performance excellence in the case of museums is very similar to that motivating hospital doctors (see Lee 1971; Newhouse 1970). Utility is also derived from the prestige and status gained vis-à-vis the reference group, which consists of art lovers (members of the museum club, donors, and trustees); art historians; the international museum community; and, in particular, the directors of other museums. The third element in the museum directorate's utility function consists of agreeable working conditions, income, and job security (the latter is important because of the employment problems associated with this type of education and specialization).

Budget Constraints

Monetary constraints set the limit on expenditures. The main current income sources are public subsidies; private support by the museum membership on a continuous basis; extraordinary subsidies received from specific individuals; income from commercial activities, such as sales of publications, pictures, and posters, and cafeteria or restaurant business; and entrance fees. The main capital income sources (income on the purchase account) are public grants to buy works of art; private donations in money (and in kind if they can then be sold and money realized from them); and income from the sale of objects out of the museum's stock. The most striking feature of the income sources for the Kunsthhaus in Zurich from 1973 to 1977 is the unimportance of entrance fees, which provide only

about 10 percent of total income. Income on current accounts amounts to about 90 percent of total income; in other words, the capital (or "purchase") account is relatively unimportant.

The most important income source for the Kunsthau is government support, which provides 70 percent of the museum's total income; private financial support is relatively unimportant, providing only about 3 percent of total income. This high share of public support seems to be typical for most museums on the European continent. The situation is reversed in the United States: the Museum of Modern Art (MoMA) receives only slightly more than 10 percent of its current and capital income from government sources, but it receives 30 percent through private support. One major reason for this difference in income sources is the tax system, which in Europe offers comparatively little incentive for private giving to the arts, whereas in the United States tax deductions and exemptions offer a strong incentive. With regard to other sources, the Kunsthau receives only 4 percent of its income from membership dues (the share is again much higher in the U.S.: 10 percent, for example, in the case of MoMA), and only 10 percent from commercial activities (compared to 30 percent for MoMA).

Space Constraints

Most museums are short of exhibition space, often desperately so. This restriction thus seems to be of great importance for the behavior of the museum directorate, and it is accordingly very often mentioned in reports (see, for example, Montias [1973] referring to the MoMA, or Clottu [1975] for Swiss museums). It seems that extending a museum is often practically impossible or only possible at high cost.

Restrictions Imposed by the Museum Community

The museum community is mainly composed of the members of the museum club. In the case of MoMA, for example, there were 38,000 members in 1977-78, which means that one out of every three visits was made by a formal member of the museum family (as of November 1978). Formal members are thus significant not only numerically, they also have a particularly high rate of visitation. These art lovers derive utility from being attached to the museum and visiting it to satisfy their intrinsic interest and from close contact with the museum directorate. They have an interest in keeping the membership exclusive. They are thus less interested in popular exhibitions that may attract large crowds than in the more esoteric and exclusive exhibits.

Another restriction on the directorate's behavior is imposed by the *trustees and donors*. Trustees seem to have considerable influence on museum policy, especially in the case of the privately and commercially run U.S. museums. The donors' influence arises out of the conditions that they may—and often do—attach to their gifts, particularly with respect to the way in which they are to be exhibited, as this can greatly restrict the directorate's freedom to arrange the exhibits as it would like. The utility gained by the donors is that of having their gifts (or works of art purchased with their donations) displayed in the museum with the appropriate credits.

Art historians are another group having a major influence on the directorate's behavior. The utility of this group consists of the professional career and income possibilities that they derive from the museum. These people are not interested in the popularity of exhibits, but rather in their "historic value," which may lead to demands that are very different from those of general visitors. They are interested in specialized exhibitions and specialized stocks because they conduct in-depth research in narrow areas.

Restrictions imposed by *politicians* are, in contrast, quite weak. Politicians mainly derive utility from the museum's existence due to the international prestige connected with it or with particular exhibitions. The politicians' behavior is itself constrained by their need to be reelected. They thus have to espouse a cultural and museum policy that will be viewed favorably by their constituency. They must also consider the desires of the local business community, which may be interested in a certain museum policy because they derive indirect income from the museum's existence. One relevant constraint seems to be to avoid serious scandals with respect to the exhibitions or the museum's administration. Another constraint faced by politicians is budgetary since they have to compare the outlays made for museums with expenditures for other public purposes.

Politicians have little incentive to intervene directly in the business of the museum because of the high information cost this necessitates and the low benefits to be derived from doing so. They do, however, want to make sure that scandals do not occur, and therefore they prefer a conservative museum policy.

The last type of constraint is imposed by legal and administrative restrictions. Most European museums have a special legal status as institutions beneficial to the community, even when they are private, and they are therefore subject to the general principles of the public sector, especially with respect to conditions of employment. Moreover, they are often public institutions (for instance, in Germany about 50 percent are public), which means that employment is narrowly defined according to a bureaucratic rationale, which often conflicts with the desires of the museum directorate.

The museum directorate may also have to take into account a large number of specific regulations. In the United Kingdom, for instance, for a time the museums were not allowed to use money gained from entrance fees to purchase art objects. The directorate is often free to set different prices for different groups of visitors, visiting hours, and so forth, but it is usually not allowed to offer free entrance throughout (though for a while in the United Kingdom museums were not allowed to charge fees). Most European museum directors are in principle free to use the receipts from entrance fees as they wish. They may fear, however, that an increase in entrance income will decrease the support received from public sources, which will in turn force them to resort to tactics that will continue to pull in a larger number of visitors—something they may not wish to do. The situation is different in the United States, where there seems to be a tendency to take income from visitors as an indication of successful operation in the "museum business," which leads to an increased supply of public funds.

No important constraints are imposed by the *general public*, which usually has neither the opportunities nor the incentives to influence museum policy. The

information costs are high and the expected benefits low due to the essentially public good nature of such activity.

Having discussed the main elements in the directorate's utility function and the constraints it faces, we can now formulate hypotheses about the directorate's behavior.

THE BEHAVIOR OF THE MUSEUM DIRECTORATE

How the museum directorate achieves the goals it sets depends largely on institutional conditions, especially on the nature of the funding. The directorate behaves differently in a private, commercially oriented museum mainly supported by private donors than it does in a semipublic museum that depends essentially on the support provided by the public purse. The latter type of museum prevails on the European continent and will be discussed here.

Attainment of such goals as performance excellence, prestige, and agreeable working conditions is only possible if the directorate has sufficient discretionary leeway to act as it sees fit. One way that the directorate tries to achieve this leeway is by moving from a commercial to a noncommercial framework. A long-term development in this direction can be observed on the European continent and particularly in Germany, where the directorates are getting farther and farther away from monetary evaluations of their activities and exhibits, substituting instead other value standards (Treinen 1973).

Strategies for Obtaining Discretionary Leeway

The directorate prefers to act within a nonprofit framework as much as possible. It is then not forced to try to make a profit. A nonprofit museum has by law and in practice a full deficit guarantee, at least up to a certain amount. Public support is sought and generally received sufficient to cover the costs. Since these costs are determined by bureaucrats, the museum directorate does not have much of an incentive to save or to hold costs down. This deficit guarantee gives the directorate the freedom to pursue policies in its own interests.

In order to have more room for discretionary action, the directorate also tries to isolate the museum as far as possible from market or commercial valuations. Application of specialized noncommercial standards helps to minimize the attacks coming from outside, since it makes it very difficult for ordinary visitors or politicians to propose different policies or question what the directorate does. The competence of both of these groups with respect to museum activities is usually restricted to monetary matters, and thus it is easy to reject their attacks. This strategy amounts to a rejection of the economic view as based on concepts such as substitution, trade-offs, or opportunity costs. It means that the production function connected with the museum's services is actively hidden by the supplier and cannot easily be detected and controlled from the outside.

In line with this policy, valuations of the museum's activity and exhibits are done by "experts." These experts are usually from within the museum world

(there is usually not much exchange between museums and other institutions, such as universities, that could serve as expert reference groups but might have their own ideas about what should be done). Thus, the supplier defines its own standards of service.²

This policy of noncommercialization, whose end goal is to increase the museum directorate's discretionary power, has a considerable influence on its behavior in several respects. First, commercial activities will only be carried out by the directorates of semipublic museums on a small scale because they do not suit the nonmarket outlook that such museums cherish. We can thus expect to find few shops, restaurants, and cafeterias. In those museums where these facilities exist, directorates have little interest in making a profit from them.

In the Kunsthau in Zurich, one of the most important museums in Switzerland, there is a small cafeteria that is let to an outside contractor, and a shop for posters, prints, slides and postcards that runs a loss. This may be compared to New York's MoMA where publications and retail operations bring in an average profit of \$260,000 a year (1973/74-1977/78), and food service since 1976/77 has earned an average profit of over \$100,000 a year. (Clottu 1975, p. 207)

Second, according to a bookkeeping practice used in all museums, the objects in the museum's stock are not commercially valued and included among the assets (though their market value may be extremely high, especially in the case of art museums). One reason for this convention is of course the difficulty of estimating the market price when there is such a small number of buying and selling activities. There is thus great uncertainty about the commercial value of most exhibits. In addition, the market value of most pictures would fall drastically if they were actually put up for sale: they would lose their scarcity value as the market became more saturated.

Intervention in the museum's business can be kept at a minimum if the value of the exhibits is determined solely within the museum and by "art-historic" or "artistic" rather than commercial criteria.

Third, the decision to sell objects out of the museum's stock is subject to countervailing influences: on the one hand, selling yields income and thus eases the budget constraint; but on the other hand, the market evaluation that necessarily comes with the selling activity goes against the interests of the museum directorate. Moreover, an increase in income from this source may move private and public sources to give less.

The decision (to sell or not to sell) will depend again on the institutional setting in which the museum directorate acts. It may be hypothesized that when the budget constraint is strict, more objects will be sold. If, on the other hand, the budget constraint is minimal, little selling is expected to take place. Empirical evidence suggests that in the case of museums that have automatic budget deficit guarantees (such as most continental European museums), little or no selling takes place although it is legally allowed. In the case of the Kunsthau, no selling of art objects has been reported in the last ten years.

Fourth, the ratio of exhibits shown to stocks not shown also depends on the institutional characteristics of the museum. It may be hypothesized that in a private museum the ratio is comparatively high because the opportunity costs of stocks not shown are comparatively high. The directorate thus has an incentive to keep unexhibited stocks small. In public museums, on the other hand, the ratio of exhibits shown to stocks not shown is expected to be lower, as the museum directorate is part of an administrative system in which opportunity costs don't matter.

This proposition cannot be tested directly because there are no statistics available on the market value of stocks, or even on the numbers of exhibits relative to stocks not shown (for indirect evidence, however, see Treinen 1973, p. 348).

Finally, the museum directorate tries to avoid disclosing the prices paid for new objects, so as to ward off discussions about possible alternative uses for the money spent. Also, the conditions attached to donations as a rule are not publicly disclosed in order to avoid controversy.

Another reason for avoiding price disclosure is the asymmetry between buying and selling with respect to the risk involved. When buying an art object the directorate faces little or no risk, because the value of the picture bought is evaluated according to artistic or historic criteria, and thus can always be adjusted to the price paid. Selling is more risky, because the work sold may be sold later on the market at a higher price, suggesting that the museum has charged too little.

Use of Discretionary Leeway

Leeway for discretionary behavior can be used in a variety of ways by the museum directorate. The following examples are drawn from the behavior of semi-public museums.

The museum directorate shows great interest in putting together special exhibits whose success will be directly attributed to the directorate and its staff. Such exhibits gain recognition in the museum world, bringing prestige to the directorate and potential career advancement to the curators. However, the directorate has little interest in passing these exhibits on for several reasons: (1) people must come to the museum that created the exhibit if they want to see it at all; (2) traveling exhibits are usually not accepted for display by first-class museums; and (3) such exhibits may increase the reputation of other museums without a sufficient compensatory increase in the reputation of the creating museum. Moreover, the museum directorate has only a limited interest in hosting traveling exhibits. Even if successful, they may not contribute to the museum's own performance excellence but only please the visitors (whose preferences count for relatively little).

The museum directorate tries to achieve performance excellence through both specialization and—to a somewhat lesser degree—through the completeness of its exhibits.

Specialization means having all the artistically and/or historically important pieces of a particular artist's production in the museum's collection, even if some of the pieces are of low quality. In this they are supported by the interest in specialization of art and other historians. Such achievement in specialization is as a

rule noted only by insiders; however, the overall utility level may be higher if there are several specialized museums in the same city or region, because the visitors can then combine the works of art of painters according to their own taste.

Completeness of exhibits is another way of achieving performance excellence—but one much less likely to be rewarded in the museum world. By having all historic styles represented in the museum, it attains stature when compared to other museums that are too small and unimportant to be able to follow suit.

The museum directorate will also be interested in producing catalogs that have an art-historic value of their own. This gives something of the same prestige as writing a book does for a university-based researcher. These catalogs will be published even if they run a high deficit. Here again, however, the museum directorate's behavior is influenced by the type of institution. Publicly supported continental European museums may run high deficits on publications (including posters). In the Kunsthau, for example, the average annual deficit on publications was SFr. 54,900 from 1973 to 1977, or more than 20 percent of the turnover from publishing activities. In privately supported museums that are subject to a stricter budget constraint, the directorate cannot afford to run such high deficits and has to make an effort to produce more readable and more popular catalogs.

Discretionary leeway allows the museum directorate to show only limited interest in a large stream of visitors and in the population's preferences in general, because its focus is on the museum world. A high rate of visitation yields only comparatively small rewards for the directorate and its staff. Thus, lacking an incentive, the directorate (particularly the directorate of the semipublic museum) will not search too actively for really popular exhibitions that will have a high visitation rate. High rates of visitation seem to be more the result of chance than intention.

Also, museum exhibits are in general didactically rather poorly presented. Background information sheets are often written in a language that is incomprehensible to those who are not already familiar with the subject. No clear guidance to the collections is offered, and the directorate and staff make no effort to relate the exhibits to what is already known to the average visitor.

Finally, the directorate has no incentive to try to make the museum visit physically pleasant for the average visitor. The entrance is often unattractive and bewildering. Few amenities are offered the museum visitor (comfortable chairs, smokers' corners, cafeterias, and so forth). If any amenities are offered, they are not at a professional level and are in no way comparable to the standards of the exhibits themselves (see Clottu 1975, p. 207).

CONCLUDING REMARKS

The above analysis has been deliberately positive, avoiding normative statements. The next step could be to inquire how museum policy can be influenced on the basis of our knowledge about the behavior of the various actors. The economist can act as an advisor, discussing the possibilities for influencing museum policy.

Museum policy (as well as general economic and social policy) can be influenced on the constitutional level and as it evolves out of the social process on a day-to-day basis (see Frey 1973). The constitutional level is the framework within which museum activities are determined. Here the "rules of the game" (see Buchanan 1977) are set, which the participants have to take (for the time being) as given, and to which they try to adjust optimally in order to maximize their own utility.

There are at least five major areas at the constitutional level in which the problems can be attacked. The economist in his or her capacity as museum advisor can, on the basis of a positive analysis of the museum such as that presented here, suggest the advantages and disadvantages of arrangements dealing with the following problems (for reasons of space only sketched here):

1. The kind of formal participation possibilities available to the overall population. The analysis in this paper has shown that the population has relatively little influence on museum policy, especially under the institutional conditions typical in Europe. The economic advisor thus may suggest alternative arrangements to increase the population's participation and influence. One such possibility is a carefully handled voucher system (see Peacock 1969, Blaug 1977, and the attempts in New York discussed by Bridges 1977).
2. The amount of direct participation by voters via the political process. An institutional arrangement such as referenda on particularly expensive acquisitions of the museum and even on the general budget allows the electorate to make its wishes felt concerning the type of museum and exhibitions they prefer. "In Switzerland, for instance, a popular referendum may be (and has been) held on whether to buy works of art. In 1967 in Basel the voters had to decide whether to buy two additional Picasso paintings amounting to over a million Swiss francs. The outcome was affirmative" (Frey and Kohn 1970).
3. Advice by experts. Established external art experts, such as those in the arts councils at the federal level in the United States and in the United Kingdom, can continue to make it difficult for actual and potential visitors and for the directorate to change museum policy. The institutional establishment of free entry and competition could bring about a more flexible policy. This could be achieved, for example, by introducing a rule limiting the length of period during which an expert can serve (see Peacock 1978).
4. Conditions of donations. As noted above, donors have considerable influence on museum policy through their power to prescribe the way in which the donated art exhibits may be shown. It can be argued that under present institutional conditions donors have too much influence, that they can impose their will on the museum to a disproportionate extent, because the greater part of costs incurred in connection with donations (up to 80 percent) is in fact indirectly paid by the taxpayer (tax deductions, maintenance, new building space necessitated, and so forth). Few museums, how-

ever, can presently afford to reject donations (of sufficient quality) because of the strings attached, in view of the intensive competition among museums for donations. In this situation the museum advisor may suggest new rules of the game that would reduce the donors' ability to influence museum policy.

5. Private or public institution. The analysis has shown that the property rights structure has a considerable impact on the museum. The choice of legal form is closely connected with the structure of the financing and the importance of donations. It also influences the directorate's behavior concerning the ratio between exhibits shown and stocks kept in the basement. The economist would point out the relative advantages and disadvantages connected with private and public museums and the merits of combining the two forms of property rights.¹

It should be noted that in all these areas (as well as in others) the advisor can only inform the actors about the implications of the various institutional arrangements at the constitutional level.

If the economic advisor wants to influence museum policy as it evolves on a day-to-day basis, the most important task is to mobilize the population and visitors. He or she can, for instance, inform them of the opportunities they have to make their preferences known by "voice" (protest) or as voters through the democratic political process. The advisor can also help the museum directorate reach its own goals, for example, by suggesting how the directorate should act in order to gain the most prestige within the museum community. The suggestions made by the economic advisor with the view of influencing museum policy in a given direction will only have a chance to succeed if the actual behavioral basis of museum policy, concerning both demand and supply, is taken into account. This paper tries to take some preliminary steps in providing such a basis.

Notes

1. See, for example, Zetterberg (1962, pp. 137-138), Graña (1971, pp. 95-111), Thurn (1973, pp. 39-43), Eisenbeis (1972), Treinen (1973), Dumazedier and Ripert (1966), and Bourdieu (1969), who gives a long list of further works. The book edited by Bott (1970) contains contributions concerning museum work from other scientific disciplines, such as law, archeology, and zoology. A survey of relevant studies in German-speaking countries is given in Klein (1978); for French-speaking countries, see Bourdieu and Darbel (1966) and Énard (1969). A comparative study of visitors' behavior in selected European museums is given by Bourdieu (1969).
2. The directorate is supported in this policy of noncommercial valuation standards by art historians, for whose research art museums and their services are of considerable importance. They are especially in need of efficient cataloguing services.
3. In evaluating a museum's overall policy, care should be taken not to restrict one's attention to questions of cost effectiveness. One should not lose the overall perspective, in particular that there may be many other--and much larger--sections of the economy where it would be more sensible to discuss efficiency gains (for example, in defense or space policy).

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