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MUSEUMS: AN INVESTMENT FOR DEVELOPMENT



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MUSEUMS: AN INVESTMENT FOR DEVELOPMENT

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INTRODUCTION

This study was planned to analyze the level of funding and the the typology of museum projects financed through or with the assistance of international or multinational organizations and agencies. Thirty-five of these were approached; thirteen replied; only one stated having supported museum development: the International Development Association (IDA, an institution of the World Bank, Washington) which is partially funding the renovation of the Egyptian Museum in Cairo, in the context of the Tourism Development Project in Egypt.

The fact that the support to museums has not been an element considered in the programs of the most important international or regional financing agencies was confirmed by the replies received from most of these leading organizations.

Some of them, as the Organization of Economic Cooperation and Development (OECD), plainly stated that since their establishment they have never financed museum projects. Others were more detailed in their replies and, although they had not yet envisaged direct financing of museums, they provided data on the support to activities related to the preparation and presentation of the cultural heritage. Such is the case, among others, of the Council of Europe, which has promoted the organization of important art exhibitions on European themes and the Banco Centroamericano de Integración Económica, which has made loans to the governments of Guatemala and Honduras for the maintenance of the Maya Sites of Tikal and Copán, in view of their use as tourist attractions. The investment in cultural heritage as a tourist facility seems, on the other hand, to have been more frequently considered by funding agencies. The Caribbean Development Bank, for instance, informed the authors of this study that it had subsidized the restoration of the Copper and Lumber Store at English Harbor in Antigua (Barbados) for its use

as "hotel rooms".

In oil producing countries, the support given to museums by funding agencies such as the Arab Fund for Economic and Social Development or the Islamic Development Bank, has been nil. However, the Arab League Educational, Cultural and Scientific Organization (ALECSO) provided information on its support to archaeologists and archaeological research centers in Mauritania, Tunisia, North and South Yemen, Irak and Algeria. The OPEC Fund, in its turn, stated that :

"The Fund's project lending program, largely devoted to the energy sector, does not include projects which, even in the broadest sense of the word, could be termed 'cultural'. The Fund's training and education projects financed primarily through grants and local counterpart funds tend to be rather more technical than cultural in focus and do not, therefore, include a museum component.

"The above remarks should not be construed, however, as a lack of awareness on the part of the Fund of the often implicit cultural impact of development projects on the societies concerned. Indeed, the Cultural factor is an important element in the consideration of the Fund's project loans."

The above, open-minded statement is most welcome since we believe that museums, beyond their cultural value, can play an active role in development, are non-formal education institutions, have a potential as propagators of appropriate technologies, and are useful in helping the population to understand the complexities of the development processes.

However, in the mind of some decision-makers, both at the political and high management levels, museums are and will continue to be considered for some time as static cultural institutions, bearing no relationship to the dynamic social processes. Consequently, it is not a surprise that, when invited to provide information on the financing of museum projects, some of the international funding agencies provided dry replies, such as the following :

"The short answer is that the [European Investment] Bank has not financed any such projects...

"Under the terms of its Statutes the EIB may only finance investment projects that contribute 'to an increase in economic productivity in general'."

Indeed, museums contribute less to economic productivity - if such productivity is considered in a short-sighted perspective - than, say a hydroelectric plant, an irrigation project or the implantation of a factory, although an argument can still be made that a museum does directly create job opportunities and makes a financial contribution to the community it serves.

The definition of development, however, is being reviewed. Too many failures in implementing and optimizing development projects exclusively conceived in economic terms have definitively confirmed the opinion that integrated development can only be achieved through the full acceptance of and participation in a given project of the community in which it takes place. Development has a socio-cultural dimension. Development is not - as technocrats still tend to believe - a mere statistical account of the gross national product or the "development projects" undertaken; development is made for people, by the people. And as museums can help people consider, in an historical context, the various development alternatives opened to them, museums will indeed play a decisive role in the choice of new patterns of development and their realization.

This study will examine the role that museums can play in the socio-economic development of a nation, and, to the extent of the available data, the situation of the museum world in the developing countries. It will also analyze how these institutions can be realistically financed in those countries where funds are scarce. Finally, it will present some basic guidelines for the evaluation of museum projects and conclude with some recommendations for museum policies at the national and international level.

MUSEUMS AND DEVELOPMENT

Museums: An Historical Overview

Museums are generally viewed as "repositories" of collections of cultural objects and of natural specimens. They are considered as a facility that responds primarily to the need to conserve material evidence of man and his environment. The undisputed value of museums as instruments for the preservation of the patrimony of a community has to be considered in the context of the historical process that gave birth to this institution.

The museum first appeared as a result of ideas of the Enlightenment and the French Encyclopedie, reflecting the popular desire to place at the disposal of all men the patrimony that had previously belonged to a minority. As the aristocracy started to lose its ruling class prerogatives, a movement towards cultural democracy began and the first public collections - the British Museum and the Louvre - were opened. Social change had brought with it the concepts that culture should be accessible to all, and that the natural and cultural patrimonies belong to the entire community.

During the nineteenth century, the nationalization of collections continued in Europe, and innumerable public museums - local, provincial, and state - appeared. They were housed in buildings of monumental architecture that reflected a sense of reverence for the past. Museums of the last century also devoted considerable attention to the cult of science and the development of scientific research, both viewed by society at that time as a shortcut to prosperity and the control of the environment.

The established museum pattern remained virtually unaltered during the first half of the twentieth century - a period that saw the proliferation of institutions that considered themselves custodians of cultural quality.

In the last decades, society, both in developed and in developing countries, has undergone considerable changes. As a result of the "oil crisis", industrial countries have become aware of their vulnerability when faced with a shortage of raw materials and energy resources. The idea of progress with respect to concepts such as net growth, income per capita, purchasing power and quality of life is being re-evaluated everywhere; the results of this crisis, economic recession, unemployment and inflation, have already been felt by the average citizen. Meanwhile, the developing countries, or at least their decision-making classes, are themselves aware of their technological dependence on a declining industrial world. The seemingly insurmountable difficulties they face to find alternatives for development foster understandable feelings of frustration among these nations. As a result, all over the globe, traditional values are being questioned and new needs are becoming evident. How has the museum responded to the society's new needs, both in developed and developing countries? How are these needs and new values reflected in the museum? The real influence that these institutions exert or may exert on the development and evolution of the societies in which they function hinges on these two questions.

The new social needs have compelled the museum to emphasize its role as educator and catalyzer of community relationships. Museums have extended and diversified their activities, making room for a wide range of experiments, to an extent that it can be said that today, apart from their cultural vocation, their only common denominator is that they are

all permanent institutions open to the public. The definition of museum¹ adopted by ICOM's 11th General Assembly (Copenhagen, 1974) clearly reflects the conceptual evolution of these institutions. This evolution has led to a common classification that includes traditional museums as well as neighborhood museums and other institutions in developing countries aimed at strengthening the identity of new nations and their social, cultural and economic development.

Museums: Their Future Role in Development

The transformation of the museum concept that started in the decade of the 1970's will continue, based on the needs of the new cultural, social and economic frameworks of each society, including those of the developing nations in Asia, Africa, and Latin America. The institution will not only reflect the changes that are taking place in their environment, but will also become instruments of social change.

For the developing countries at least, development implies a change of the social, cultural and economic structures. As Sid Ahmed Baghli already expressed in 1969:

"the criteria of this development are recognized particularly in an increase of gross and per capita income, and advanced degrees of industrialization, a rich nutrition (quality of food available and number of calories per inhabitant), satisfactory rates of school enrollment and of literacy, progress in the field of hygiene and health, a trend of society characterized by a transformation of intellectual structures and improved standards of living.

¹ "A museum is a non-profitmaking, permanent institution in the service of society and of its development, and open to the public, which acquires, conserves, researches, communicates, and exhibits, for purposes of study, education and enjoyment, material evidence of man and his environment." (ICOM Statutes, Article 3, 1974)

"Museums have a part to play in all these fields, even if only by using the abundant means which they have available to provide pertinent documentation and create favorable conditions for development." ¹

The Conference of the International Association for Development (IDA), held at New Delhi in 1969, devoted lengthy discussions to the social and cultural changes indispensable for development. To the theories advanced by certain Western experts, the participants from the Third World responded by rejecting any changes on the existing social and cultural structures which were based exclusively on plans or decisions made outside their societies. They emphasized that the necessary changes shall be decided upon and brought about by the communities themselves at a time selected by them. A museum expert present at that conference concluded that the right of self-determination was in agreement...

"with the expression of the economist Roland Colin: 'Development can only be concretely defined for a people by that people itself and in the language of its own culture.' It is this language which museums transcribe in terms of objects... As an instrument of development, a museum - whatever its form and whether it be scientific, artistic or historic - speaks its own language. It speaks theoretically to the entire community, but in actual fact, to a more limited but, numerically, still a very large public. It is therefore entitled to be classified as a medium of mass communication. It must be recognized as such:

- by the authorities on which it depends,
- by its own professional officials, and
- by the qualified representatives of the public.

"As such, it has its place in development policy at three successive levels:

- museum policy,
- communications policy, and
- development policy."²

¹ BAGHLI, Sid Ahmed, ICOM News/Nouvelles de l'ICOM, Paris, Vol. 22, No. 2, June 1969.

² VARINE, Hughes de, ICOM News/Nouvelles de l'ICOM, Paris, Vol. 22, No. 4, December, 1969.

Some museums have already started to put into practice these theoretical principles. For instance, the neighborhood museums in the United States started, already in the early 1970's, very active programs of various kinds on behalf of the communities and minority groups that they were serving. John Kinard, Director of the Anacostia Neighborhood Museum, described in vivid terms the ideas behind such actions:

"[Museums] must change from passive collectors and narrowly specialized scholars to active participants in meeting today's challenges. They must employ not only new methods but also be a new intermediary that will be unafraid to face the complex problems raised by racism, material affluence, poverty, poor housing, unemployment, drugs, deteriorating cities, urban planning, education - all aspects of human existence - and to find the answers. Exhibits should be designed to present these controversial problems side by side with their counterparts in history, correlating current issues with historical facts. Our museums should be the leaders in the forefront of change rather than following the dictates of past generations.

"Museum authorities may feel it is unreasonable to expect them to do this kind of thing, asserting that these issues are not their concern or responsibility. [That] to do so would be to cease being a museum. I do not think this is a unanimous opinion."¹

Both in developed and developing countries, the museum has in fact become an effective instrument to present the process of development and to make their consequences understandable to the population, thus helping the integration of change into society.

Museums help to balance - an essential factor for integrated development - on the one hand, the need for improving the life of communities and individuals by means of change, by the introduction of improved technologies and the evolution of the economic structures and, on the other hand, the very real need for a given society to keep

¹ KINARD, John. "Intermediaries between the museum and the community." (in: The museum in the service of man today and tomorrow. The papers from the 9th General Conference of ICOM, Paris, ICOM, 1972. p. 153.

its own identity based on cultural roots, traditional knowledge, inherited social patterns, ancestral techniques, etc. The new role of museums has been very clearly defined as follows:

"Considering the crises existing today and foreseeable in the future concerning the economic, social and ecological situation in the world, it would be irresponsible for museums grouping ethnology, natural sciences and material culture to restrict themselves to the display of exhibits that are 'beautiful' and 'interesting', well classified according to their respective disciplines, and provided with more or less complete written information. Multidisciplinary museums should be involved in every possible way in demonstrating natural and cultural developments and interrelationships, through a combination of exhibitions in order to enable a large part of the population to recognize its problems and to think and act with responsibility."¹

Museums of this kind - concludes Ganslmayr - should assist in the educational process that involves :

- 1) The ability to recognize problems
- 2) shaping critical judgement concerning development and its tendencies, and
- 3) transferring a feeling of responsibility to each individual towards the development of relationships between men and nature, and among mankind."

Museum development should go beyond

"...the traditional and restricted definition of a museum, and will become a cultural and information centre within the framework of possible development processes concerning the overall development program of one region.

"Thus the field of education will attain much greater prominence, through adaptation to school curricula and by supplying a support to school programs on the one hand, and on the other an essential role is to be played in informal education, particularly in adult training."¹

The museum is also an invaluable repository of traditional technologies, appropriate to the local conditions and needs. Ethnographic museums, in particular, have an enormous potential as

¹ GANSLMAYR, Herbert. Key-note address, presented at the Colloquium "Le rôle des musées dans les régions sahéliennes", Gao (Mali) 1981. (Unpublished paper)

propagators of such technologies, which are often the best suited among other potential solutions for the particular habitat, and adapted to a particular form of society, with its own standards of value.

By presenting appropriate technologies in a dynamic form, museums will not be advocating a renunciation to modern technical development, nor cutting off the developing countries from technological progress ; but rather they will contribute to the cause of integrated development. The advantage that the utilization of appropriate technologies can contribute to development have been indicated in a large number of research projects and financial investments which have been made in this field in recent years by industrialized Western nations. In the developing countries, museums can foster the understanding of the processes of production and utilization by presenting appropriate and new technologies side by side, thus reducing the shock of introducing new techniques and contributing to harmonized development.

Museums have a decisive influence on the ultimate development of methods and technology in the fields of agriculture, fishing, animal husbandry as well as on the use of household implements, as can be seen in the museums of Tanzania, where these considerations form part of the museums' objectives.

Finally, one must not forget another important facet of the role of museums : training the population in the field of ecology. In this, museums have played a noticeable role in Europe as well as in North America, and have helped develop a collective consciousness and new political movements. Ecological problems perhaps have not yet received the same degree of attention in

developing countries, due to the more pressing needs of industrialization. It would, nevertheless, be a grave mistake to ignore this problem during the development process. In the future, these countries will have to cope with ecological conservation and will become aware that some of their traditional practices were more atune with the harmony of the environment. Museums which have assumed the task of actively contributing to the processes of development in one region or country must take these ecological problems fully into consideration.¹

The museum is also assuming full responsibility as a medium of communication, reflecting in particular the identity of a nation or community and the needs and aspirations of a given society or group. In all cases, the museum places such issues against an historical and environmental background, providing the necessary perspective to understand change and allowing each human group to assume its homogeneity or plurality, to recognize its own role in the development of culture, in building of a nation, and its partnership with other human groups in the framework of state, region, town, or village. These valuable contributions that museums can make highlight not only the reasons to continue their support, but also justify substantial increased investments in these institutions.

The Museum's Role in Non-formal Education

The unique service that museums provide for society and its development is achieved through the exercise of their three main functions of:

- collecting cultural objects and natural specimens
- preserving such collections, and
- exhibiting them to the public for the sake of information, education and enjoyment.

¹These issues were discussed in detail during the conference on the "Role of Museums in Environmental Education", organized by the Museums Association of India, Baroda, 26-29 December 1981.

Museums are the only institutions in a society devoted to the conservation of movable cultural and natural heritages and to their presentation to a broad public. Through the use of the language of real objects, the tangible and the authentic, they exert their influence on the illiterate and literate visitor alike. Through its collections, a museum presents, above all, the past, in everything that concerns natural history, art, archeology, ethnology, or anthropology; it clarifies the values of previous societies, or further yet, focuses attention on natural treasures endangered by modern progress. It accords these values importance in the continuity of culture, and marks them for the public as "heritage". Whether these values are moral, religious, aesthetic, historical or biological, interested visitors and research workers alike are reminded of forgotten ideas and offered new elements for an enhanced life. A window opens on the world, from the infinitely small one of the electron microscope to the infinitely large one of the astronomical telescope, from that of a neighboring people or that of the inhabitants of the most faraway countries.

Through the values that it embodies and expresses in visual terms, a museum conveys a view of the three-dimensional world to its visitors, allowing them to exercise their critical spirit over their own heritage and that of other people, shaping their taste and arousing their curiosity. The museum can stimulate artistic ability and intellectual purpose, awakening the creative spirit latent in each of us.¹ A guarantor of the continuity of culture, the museum thus plays a part in the permanent creation of new cultural habits.

¹ As examples of spectacular success in this respect may be cited the American Museum of Natural History, New York, the Birla Industrial and Technological Museum, Calcutta, and Kunstmuseum, Düsseldorf, the School Museum, Mexico City, the Singapore Science Center, and the Atelier des Enfants, Centre Georges Pompidou, Paris.

Naturally, a museum's principal activity is the use of its unique "language" that is the presentation and display of real objects belonging to its collections or occasionally lent to it for temporary exhibition. The ultimate aim of presentation is to provoke and facilitate direct contact between the individual and the object, whether the individual be a child member of a school group or adult alone, whether the object be a work of art, a specimen belonging to natural science, or a working model in a gallery of technology.

Museums are, in fact, an institution for non-formal education. The recognition that education is a life-long process explains today's widespread interest in non-formal education. In a broad sense...

"education embraces more than the conventional 'academic' skills and subject matter. It includes the formation of attitudes and values and the assimilation of relevant knowledge for the individual. The learning that takes place varies with its depth and complexity. If the learning is relevant it can enhance human capabilities and the behaviour of both individuals and societies.

"By informal education we mean the life long process whereby an individual acquires knowledge, values, skills, attitudes, etc. from daily experience. This process is relatively unorganised and unsystematic. Yet it accounts for a very high proportion of the knowledge and experience we gain in a life-time.

"By formal education we refer to the structured and chronologically graded educational system which runs from the primary school through to the university. This also includes a variety of programmes for technical and professional training.

"By non-formal education we mean any organised educational activity outside the established formal system. Formal and non-formal education systems are alike in many respects in that they try to augment and improve on the informal learning process. They tend to promote certain valued types of learning. They differ mainly in the institutional arrangements, procedures and the type of subject matter."¹

¹ BHATHAL, R.S. and IN, T.N. "Non-formal education in Singapore", (Singapore Science Centre), Singapore, 1980, page 3.

Non-formal education in museums is based on learning from exhibitions of original objects which have an authenticity of their own, allowing the viewer to be confronted with a three-dimensional reality and a personal experience which has immediate impact and cannot be easily forgotten. Classroom education is supplemented by the concrete reality of the museums.

The museum has dramatically increased its educational activities in most countries during the last decade. But, as part of a group of educational and cultural institutions of a community, its efforts should also be coordinated with all other educational structures within the framework of a given national policy. In many central museums and in certain regional ones, teaching chairs at university level have been endowed, principally in art history, anthropology, natural sciences, and museology. In an increasing number of countries, schoolteaching is closely linked to museums : in Mexico, a visit to the museums of Mexico City is required annually for all secondary school pupils in classes of history, archaeology, and natural science; in Great Britain and in New Zealand, future teachers and headmasters of primary schools receive a special introduction to museum teaching.

The expansion of educational programs and the growth of the social role of the museum in the second half of the twentieth century have been such that it has appeared necessary to extend museums outside their walls. From this belief have developed, since the 1950's, loan services to schools, travelling educational exhibitions, and mobile museums.

Museums and Tourism

After the first, happy years of tourist trade, the notions concerning the use of cultural heritages merely as a tourism attraction started to be re-evaluated. In the meantime, many irreversible -

irresponsible - decisions had been taken at the national and international levels, that implied the sacrifice of archaeological and historical sites and museums to the sole purpose of tourist consumption.

Although the significance of the cultural heritage, both movable and immovable, for the understanding of the present realities of the foreign nation visited by a tourist is not being questioned, the feeling that such heritage - including museums - should not be misused by subordinating it to economic development has clearly emerged in most countries.

In the developing world, African nations have started to be aware both of the attraction represented by their natural and cultural heritages and of the need to reach a balance between the greedy and economically rewarding demand from the tourist trade and the superior national interest to preserve the country's heritage for future generations. A sound policy principle in this respect was formulated at the "Cycle d'études sur le tourisme international et la protection du patrimoine physique et culturel", held in N'Gaoundere, Cameroon in 1976:

"Among the various motivations which bring tourists to Africa, the cultural factor is becoming more and more important. The foreign tourist does not come only to hunt, to take back the mounted head of his trophy, or to collect souvenirs. He does not come only to admire the Savannah and the forests; he is also attracted by the wealth of African crafts and traditional arts.

"It is not enough to work towards useful transformation of our archaeological and natural sites, we must also strive for their preservation and conservation. Preventive measures should be established to guarantee their survival in time and in space. Campaigns should be undertaken to inform the population living near the natural and historical sites of their importance. And since we are talking about protection, the best means is still the establishment of museums, where the products of our culture will be sheltered from pillage and the covetous visitor."¹

¹ Agence de Coopération Culturelle et Technique, Rapport des Travaux, Paris, 1977, pages 8 and 11.

It would be unrealistic and unwise to attempt to exclude tourists from cultural attractions such as museums, monuments and sites. First of all, because that would imply narrowing the social role of the museums and that of the cultural and natural heritage in general. Secondly, because tourism is indeed a valid source of increased support for museums and cultural institutions.

To achieve a symbiotic relationship between the need to properly preserve and use the cultural and natural heritages and the right of people to know through tourism other countries, societies and cultures than their own, requires the recognition of the diverse - and somewhat conflictive - interests involved. As Councillor F. A. J. Emery Wallis, Chairman of the Southern Tourist Board of Great Britain foresees:

"Museums in particular and tourism as a whole must not be treated in isolation but as integral parts in planning for recreation - in its widest sense - in an economic setting. A clearer perspective will enable us not only to use our existing resources better to benefit the communities and interests we serve, but also to articulate the case for obtaining other scarce resources to strengthen and consolidate our museums which serve the nation so well."¹

¹EMERY-WALLIS, F.A.J. "The value of museums to the economy", in Museums Journal, vol. 73, number 3, page 116, (London) 1979

FUNDING OF MUSEUMS

Status and Types of Museums

While the governing bodies of museums vary throughout the different cultures, they may be classified into two major groups: public or private museums. Of those governed by the public sector, state museums generally come under the supervision of the ministry of national education or the ministry of culture, more rarely under the "technical ministries" (e.g., museums of communication under the ministry of communications, army museums under the defense ministry, etc.) or under the ministry of tourism. If they are provincial, they come under district or municipal administration. The great majority of museums of Europe and of the developed countries of Asia, Africa and the Americas belong to the public sector. Their personnel have the status of civil servants, and their management is ultimately controlled by the national administration. The collections are considered part of the national patrimony and are generally inalienable. In certain very centralized countries, such as France, even the municipal museums are placed under the technical control of a central administration that selects the scientific personnel and proposes nominations to the municipal administration. On the other hand, private museums are totally or partly independent of the central administration. They are generally under the authority of a board of trustees or a council that is renewed by co-optation. The director, chosen by the council or the

board, is responsible to it for the management of the institution and selects the senior members of the staff with its approval. This is the usual situation in the United States, where only the dependent museums of the Smithsonian Institution and the National Park Service have national statutes. The same is true of Canada, in such cities as Montreal and Toronto. In other countries, only a few isolated private museums come under national regulation, and it is the same with company museums. The relative merits of public and private status will be explored in detail in the next section of this paper.

The typology of museums responds to areas of knowledge first defined by the French Encyclopedie and the scholars of the early 19th century. In most countries, museums are still named according to the nature of their principal collections: museums of fine arts, applied arts, archaeology, history, ethnography, natural science, science and technology, etc. Meanwhile, the evolution of museums since World War II has made the barriers between the disciplines and types of collections disappear progressively. It seems more justifiable now to divide museums into three categories, artistic or aesthetic, historical and scientific according to their approach to their collections and better reflecting their objectives.

Public and Private Funds

The means used to finance museums vary according to the status granted to these institutions in each society. In general terms, these resources originate either in the public or the private sector. Public funds, whether allocations or subsidies, constitute the main element of the budgets of public museums regulated by statutes and often play an important role in the support of private museums as well. These funds, which can originate from national, regional or local governments, can be considered as fairly reliable and steady sources of support. They are, nevertheless, closely tied to economic and political issues which can result in a higher, but usually lower, priority being accorded to museums in terms of budgetary considerations.

The contribution of the private sector to the support of museums has traditionally taken the form of gifts and legacies from individuals. In many instances, they have been the only means available to museums to pursue a policy of expansion, acquisition and development. Unfortunately, these sources are generally highly variable, being subject to economic circumstances and preferences of individual donors, and are often accompanied by conditions which might conflict with the museum's freedom of action. In all societies where private contributions play a major role in museums support, whether they be from individuals, foundations or corporations, there exists a strong fiscal incentive, usually in the form of tax credits, for these donations.

A characteristic common to both public and private funds is that, from the point of view of the museum administrator, their allocation is beyond his control. At the same time, it is evident that if museums are

to develop and expand, their administrators must be able to engage in long-range planning, which implies a degree of certainty on continuous levels of support.

Endowment Income and Earned Income

There exists a third source of funds over which the museum can exercise control, and these are the revenues it generates. Not yet an important source of funds, it is receiving increased attention. The income derived from endowment funds, which apply only in the case of private or at least largely autonomous institutions (notably in the United States) is sometimes an important item of a museum's revenues, but they seldom suffice to cover operational expenses and only in exceptional circumstances allow the increase and development of activities and acquisitions.

A museum's receipts of a commercial nature are not yet of considerable importance except in the case of large institutions, and then only when they are statutorily permitted to retain their earnings for their own use, which is not the case with many national museums.

The fact that museums are non-profit making institutions does not preclude that through their operation and activities they should generate income, both directly for the museum itself or the administrative body from which it depends, and indirectly benefitting the community where the museum is established.

The income earned by museums originates from a variety of sources including admission fees, revenues from museum shops and publications, concessions or services (restaurants, parking), copyright fees and royalties, and in some cases, revenues from special activities, such as guided tours, movies, and special exhibitions.

There is a tendency to believe that admission fees constitute an important source of income for museums. They are in many cases negligible for a number of reasons: for one thing, in many countries, the sum of admission charges reverts to the public treasury, for another, museums always attempt to make admission charges as low as possible to keep their collections accessible to all and always admit certain classes of visitors free of charge. In some countries, state museums abolished these fees after having established that their receipts hardly covered the salaries of staff employed to sell tickets and control them. They have turned rather to admission fees for temporary exhibitions, which because of their popularity and higher admission charges, can offset some of the exhibition expenses and sometimes contribute to the operating costs of the institution.

In some exceptional cases however, the museum's own sources of income may prove sufficient to cover not only the regular operation and maintenance costs of the institution, but also to finance its development.

A recent study conducted by ICOM¹ in view of the renovation of the Egyptian Museum in Cairo, provides interesting data concerning the possibilities of a substantial financing of the project from this institution's own resources (entrance fees, revenues from concessions and travelling exhibitions). The total estimated cost of the museum renovation - including new construction, upgrading of the present building, new displays, conservation, staff training, re-staffing, etc. - is of 23,400,000 Egyptian Pounds (approximately U.S.\$ 33,000,000). The World Bank has made a loan to the Egyptian government which will cover approximately 24% of the total costs, leaving the rest to be financed from other sources. The Museum had in 1980 an income from entrance fees and concessions of

¹ ICOM, Development Proposals for the Renovation and Reorganisation of the Egyptian Museum Report, Paris, March 1981. And ICOM, Project for the Renovation of the Egyptian Museum, Interim Report - Phase II, Paris, July 1981.

£E 650,000 and of £E 900,000 in 1981. Given the tourist forecast in Egypt for the next ten years, and on the basis of an increase of foreign visitors entrance fees in line with inflation in the country, the estimated revenues for the museum will escalate from £E 1,625,000 in 1982, to £E 4,275,000 in 1991. As operating costs will also increase in consequence to the renovation, the expected operating surplus will range from £E 825,000 in 1982 to £E 2,775,000 in 1991. In conclusion, through the use of the museum revenues, the project can be amortized in only eleven years. It should be noted that to achieve this the government Egypt will need to take the decision of giving autonomy to the museum. Furthermore, the financial forecasts for the Egyptian Museum also indicate that the annual rate of return on the investment after the renovation will not be less than 11.4%.

Because of the increasing financial difficulties that large museums are facing at present all over the world, a review of their funding policies is taking place and their potential as self-financing institutions has started to be explored in various directions. As part of this move, some European countries are giving newly created museums legal status that are more flexible than the previous "state institution" framework. This is the case of the Etablissements publics in France, such as the Centre Georges Pompidou and the Musée du 19ème Siècle, both in Paris, which enjoy managerial autonomy and are freer to exploit their own financial potential. Other interesting examples can be mentioned in Switzerland: the Swiss Transport Museum, Lucerne (totally self-supporting) Musée de l'Horlogerie, la Chaux-des-Fonds (private institution with corporate support) and the International Red Cross Museum in Geneva (under project, to be funded through grants and private contributions).

Museums as Catalyzers of Community Income

Museums can indeed be the catalyst of an important income for the community, as it is expressed in the already mentioned study on the Egyptian Museum. This kind of indirect income is seldom taken into consideration. Tourist surveys indicate, for instance, that the existence of the Louvre Museum in Paris is one of the reasons for visiting the city, but, in concrete financial terms, how many billions of francs has the Louvre generated for Paris and for France by promoting travel, hotel accommodations, meals, etc.? The same question would apply to all cities with internationally famous museums, both in developed and developing countries.

The Metropolitan Museum of Art has, on several occasions, conducted studies aimed at evaluating the income for the City of New York catalyzed by the Museum by means of its existence and by its special activities, such as temporary exhibitions. The results of the 1976 study (known as the Yankelovich Survey) were described as follows:

"Conducted during two weeks in June and July, 1975, the study ... went beyond the earlier survey to shed light on the size and nature of the Museum's out-of-town audience and its impact on generating additional tourist dollars for hotels and restaurants, retail stores and other recreational and transit facilities.

"According to the study, half of the visitors surveyed come from outside the City and while in New York take full advantage of the range of goods and services offered here. The majority of tourist visitors to the Museum are adults between the ages of 16 and 39, college graduates with family incomes of \$ 20,000 or more who are in New York purely for pleasure. Projections based on average attendance figures during the two weeks in which the interviewing took place establish that each week 42,500 out-of-town visitors to the Metropolitan spent a total of \$ 2,125,000 per week on restaurants, hotels and transportation in the city and another \$ 1,615,000 on purchases. The Metropolitan, serving as a magnet to our City for visitors from all over the world, thus brings conservatively \$ 175 million into New York annually.

"The survey also understood the Museum's role in attracting out-of-towners to the City, establishing that plans to visit the Metropolitan play an important role in the decisions to come here in the first place. Of those

surveyed, 82% said they planned their trips to the Museum in advance of their arrival in the City. Two out of three said the visit to the Metropolitan was an important reason for making the trip and three out of four said they regarded it as a highlight of their visit to New York."¹

The financial results of major exhibitions have also been evaluated by the Metropolitan Museum of Art. The most successful, in terms of the income generated for the City of New York, was the Tutankhamun exhibition held in 1976 (gross revenues estimated at over U.S. \$ 100,000,000). Throughout its long trip (1976-1981) in the U.S.A. and Europe, this exhibition produced, on the other hand, U.S.\$ 16,000,000 for the Egyptian government from royalties on the publications, reproductions, postcards, and exhibition souvenir sales. This brilliant financial result, however, has to be put against the background of the deterioration caused by the intensive travel in the masterpieces that constituted this collection and the consequent reduction in their "life expectancy".

¹ 106th Report of the Trustees of the Metropolitan Museum of Art, New York, 1976, p. 8.

PATTERNS OF MUSEUM FUNDING

The modern concept of museums originated among those nations which today fall in the category of industrialized countries, and logically it is in these that over 66% of the world's 26,700 museums are found today. The experience of these museums over time provide many examples of the differences which exist in funding patterns for this type of institution and their evolution. While the funds required for financing museum operations are typically derived from a combination of public and private support, wide differences exist in the proportions assigned to each sector among most industrialized countries.

To illustrate these varying patterns of funding, one can analyze the cases of France and the United States, two countries at opposite ends of the spectrum. In the case of France, museums have been traditionally an affair of the State, whereas in the United States the private sector has been from the beginning the major contributor to their support. Evidently, in each of these countries there are cases of specific museums which will constitute exceptions to the national funding pattern. For example, one can find in Paris several privately financed museums, while in the United States, a large percentage of the budget of the Smithsonian Institution is directly appropriated by the federal legislature. These exceptions might be taken as indication of the re-evaluation which is taking place in the industrialized countries of the wisdom of relying on the traditional museum funding approaches.

The increasing costs of operation, acquisition of collections, and mounting of exhibitions have motivated museum professionals to search for new sources of funds. Their task has been

facilitated by the growing exchange of information and techniques that familiarizes them with similar experiences in other countries.

Museums in the United States

In contrast with most European countries, the United States did not have important collections readily available to form the core of its first museums. The origins of the earliest American museums can be found in the collections gathered in the 19th century by teaching institutions, both in art schools and in scientific disciplines, or in the philanthropy of a few wealthy patrons. The didactic character of their precursors is still reflected today in the strong emphasis on educational programs of American museums.

Today, the United States is the country in the world with the largest number of museums: 5,500 or 21% of the world total. Traditionally, these museums have been supported with private funds. Since the late 1960's, however, there has been a trend in that country to involve the government in the financing of cultural institutions, and by 1972, the ratio of private to public funds had fallen to 2:1 for the largest museums (those with budgets of over \$ 1 million), and to 1.2:1 for museums with budgets under \$50,000.¹

a. Sources of public support

The largest government agencies contributing to the support of American museums are the two National Endowments for the Arts and the Humanities, and the Institute of Museum Services. The first two agencies operate independently of any other government department. Their annual

¹The absence of a centralized coordinating agency for museums in the U.S. precludes the possibility of obtaining annual data for these institutions. There exists, however, a survey conducted in 1974, Museums: U.S.A., NEA, Washington D.C., which provides sufficient though dated information. This paper utilizes this data as a starting point; the analysis and conclusions are solely the authors'.

budgets, appropriated by Congress, are disbursed in the form of grants, awarded for specific projects, which require that the receiving institution raise an equivalent amount from other sources. In addition, they operate a Challenge Grant program designed to help launch major fund raising campaigns, improve the institution's financial base and its administrative structure; these special grants require that every dollar granted by the Endowments be matched with \$3 raised elsewhere.

There are two other government agencies that provide direct aid to museums: the Institute of Museum Services and the National Science Foundation. The former awards general operating support grants to museums and the latter, whose aim is to further scientific progress in the United States, provides substantial support to science museums in the areas of public programming, scientific research and collection management.

The following table summarizes the major source of public support to museums in the United States:

Table 1
Public Funding for Museums - U.S.
Fiscal Year 1981
 (in millions of US\$)

| | <u>Museum Program</u> | <u>Challenge Grants</u> | <u>% of Agency's Budget Allocated to Museums</u> | <u>Total Budget of Agency</u> |
|---------------------------|-----------------------|-------------------------|--|-------------------------------|
| Nat. Endowment Arts | \$14.0 | \$ 13.5 | 17.4% | \$ 158.5 |
| Nat. Endowment Humanities | 8.5 | 24.0 | 21.5 | 151.3 |
| Inst. Museum Services | 12.9 | - | 100 | 12.9 |
| Nat. Science Foundation | <u>4.5</u> | <u>-</u> | 0.4 | 1083.0 |
| | \$39.9 | \$ 37.5 | | |

TOTAL \$ 77.4 million allocated to museums

Source: AAM Aviso, 4/81.

This system of public aid can be said to be based on the assumption of the existence of private funds, since the funds granted by the National Endowments require a fund raising effort on the part of the museum in the private sector. This pattern is facilitated by the fact that private contributions are encouraged through fiscal incentives in the form of partial deductions of charitable donations from taxable income. Thus, it could be argued that besides making direct contributions, the government provides additional indirect support to American museums through these fiscal allowances that would otherwise be collected as taxes. The rationale offered for these official incentives has always been that this system creates a more democratic distribution of the available funds, since each institution will receive according to its appeal to the public, precluding a national cultural policy which will only fund determined institutions.

Aside from the federal funds provided by the agencies mentioned above, American museums receive support from other public agencies in both the states and the municipalities. The exact amount of these funds, being dispersed in a large and vast country, is difficult to determine. The 1974 survey of American museums provided the following information in regard to the organisation of these institutions classifying them according to whether their governing bodies were established as 'private not-for-profit organisations', were agencies of the 'Federal', 'State' or 'Municipal' governments, or were associated with and 'educational institution'.

Table 2
U.S. Museums Classified by their Governing Body
and Type of Museum

| Type of Museum | Private non-Profit | 1972 Government | | | Total | Educ. Inst. | Total |
|-----------------------|-----------------------|--------------------|-------|-----------|-------|----------------|-------|
| | | Federal | State | Municipal | | | |
| Art | 69% | 1% | 3% | 6% | 10% | 21% | 100% |
| History | 54 | 11 | 20 | 13 | 44 | 2 | 100 |
| Science | 45 | 5 | 5 | 29 | 39 | 16 | 100 |
| All types combined | 56% | 6% | 12% | 16% | 34% | 10% | 100% |

Source: Museums USA

The choice of governing body and, therefore, the principal means of support available to a museum seems to be related to the collections it owns. Art museums, more than any other kind, tend to operate as private non-profit institutions, governed by a Board of Trustees, ultimately responsible for the organisation, or as university art galleries. Their private status might be interpreted as resulting from their initial creation from the donation of important art collections of individuals. History museums appear to be governed by public authorities, a pattern that can be accounted by the fact that many of the institutions included in this category are historical houses associated with national or local developments and have special interest to the community in which they are located. Science museums and science centers, due perhaps to the educational role they are perceived to play, are strongly supported by municipal governments and educational institutions, such as universities.

b. Private sources of funds

The choice of governing body does not limit the source of the funds which support a museum: a private non-profit organisation can receive a large part of its support from government sources, and by

the same token, a publicly governed museum is free to solicit and accept private contributions. In practice, however, there seems to be a direct relationship between the income sources of museums and their type of governing authority, as Table 3 indicates:

Table 3

Sources of Income of U.S. Museums by
Governing Authority - FY 1971-1972
(as percentage of total support)

| <u>Source of</u> <u>Income</u> | <u>Private</u> <u>Nonprofit</u> | <u>Government</u> | | | <u>Educational</u> <u>Institution</u> | <u>Total</u> <u>Sources</u> |
|---|------------------------------------|-------------------|--------------|------------------|--|--------------------------------|
| | | <u>Federal</u> | <u>State</u> | <u>Municipal</u> | | |
| <u>Private Funds:</u> | | | | | | |
| Private support | 26% | 3% | 8% | 5% | 58% | 22% |
| Operating revenues* | 37 | 5 | 22 | 21 | 9 | 29 |
| Non-operating revenues** | <u>18</u> | <u>3</u> | <u>1</u> | <u>1</u> | <u>15</u> | <u>13</u> |
| | 81% | 11% | 31% | 27% | 82% | 64% |
| <u>Public Funds:</u> | | | | | | |
| Federal | 3% | 86% | 3% | 1% | 7% | 12% |
| State | 4 | - | 58 | - | 8 | 7 |
| Municipal | <u>12</u> | <u>3</u> | <u>8</u> | <u>72</u> | <u>3</u> | <u>17</u> |
| | 19% | 89% | 69% | 73% | 18% | 36% |
| <u>Total</u> | 100% | 100% | 100% | 100% | 100% | 100% |
| <hr/> | | | | | | |
| Total Income (\$ million) | \$333.4 | \$54.8 | \$37.8 | \$59.6 | \$27.7 | \$513.3 |
| Percentage of total number of museums | 64.9% | 10.7% | 7.4% | 11.6% | 5.4% | 100% |

* Earned income

** Mostly endowment income

Source: Museums USA

The income classification used in Table 3 indicates that the total income of the museums in the sample can be divided as 64% originating in the private sector and 36% from public funds. However, an important amount of the private funds is obtained from operating revenues (\$ 149.4 million), this being income earned from entrance fees, museum shops, royalties, the operation of facilities such as restaurants, parking, etc. Although technically these funds are non-governmental they should be considered distinct from private contributions. If these earnings are excluded, the total private contributions drop to \$ 177.2 million. Comparing this lower amount to the \$ 186.7 million originating from the public sector results in a ratio of .9 : 1 of private to public funds. Yet in those museums organised as private non-profit organisations, the private funds (excluding earned income) surpass public contributions at a rate of 2.3 : 1, highlighting their overwhelming reliance on private sector support.

The increasing levels of earned income of museums in recent years (fully 29% of total income in 1971-1972) can be interpreted as an attempt by American museums to become less dependent on donations, which require considerable effort to obtain and can be viewed as difficult to predict and control. This emphasis on income producing activities has not been developed without serious controversy among museum professionals, some of whom do not see the role of the museum as encompassing commerce.

In spite of all the attention they have received, the overall contribution made by corporations amounted only to 6% of the private income category in 1971-1972. Donations by individuals have traditionally been, and continue to be, the largest source of private funds, accounting for 45% of the total income from this sector, with

foundations as the second most important contributors, 21% of total private income. These three groups, individuals, corporations and foundations, are encouraged in their donations by the tax incentives mentioned earlier. The remaining funds of the private income category are made up of allocations by colleges and universities (12%), special fund raising events organized by the museums (11%), and other miscellaneous sources, such as United Fund contributions (5%).

c. Operating results

The total operating expenditures of the museums in the study amounted to \$ 478.9 million for Fiscal Year 1971-1972. A comparison of this amount with the total income for the same museums indicates a surplus of funds of approximately \$ 34 million. As could be expected, the balance of expenditures and income was not uniformly distributed among the institutions in the sample. In fact, 55% of the museums finished the fiscal year with a combined unexpended income of \$ 49.7 million (almost 10% of the total income of all museums), while 24% were either able or required by law to operate with a balanced budget. The remaining 21% closed their books with combined deficits of \$ 15.3 million. These differences in the financial positions of American museums is characteristic of a funding system that does not have a central administrative agency which allocates the available funds according to need and/or the priorities of the national museum community. Instead, each institution is responsible for obtaining and budgeting its operating funds, according to its own needs, resources and capabilities.

The operating expenditures of all U. S. museums in the sample were divided into two general categories: 59% was allocated to

personnel costs, including salaries, benefits and contributions, and the remaining 41% was accounted by all other expenditures. A finer classification of expenditures was deemed impossible due to the differences in accounting systems among the museums.

Tables 4 and 5 provide a percentage breakdown of the 1979 expenditures of two large American art museums. These are offered for illustrative purposes and not as typical examples. Museum A had expenditures of approximately \$ 28 million, while Museum B a larger institution, had a budget of \$ 47 million for the same year. In both cases, the museums reported the figures by program, and not by type of expenditure. There are noticeable differences in their expenditure patterns, associated mainly with their variations in programs. For instance, Museum A which received almost 40% of its funds from public allocations, did not incur any developmental or membership expenses, whereas Museum B, largely dependent on private contributions, dedicated 6% of its expenses to their encouragement. In both cases, approximately 40% of the museums's ordinary expenditures went to cover administrative costs, maintenance and security. A major item in the expenditure pattern of Museum B are the costs of sales in its large museum shop and the expenses related to auxiliary activities such as a restaurant and parking garages. These extraordinary operations, accounting for 43.7% of total expenditures, left in 1979 a profit of over \$ 1 million. In spite of this, Museum B closed the year in question with a deficit of under half a million dollars, while Museum A had a net surplus of slightly under one million.

The 1974 museum survey also found vast differences on the expenditure levels of the different types of museums. Science museums, for example, which made up 16% of the sample, had 30% of

Table 4

Museum A

Expenditures 1979

(as % of total expenditures)

Current expenses:

Programs

| | | |
|------------------------------|------------|--------|
| Art purchases | 13.8 % | |
| Curatorial | 5.5 | |
| Special exhibitions | 6.9 | |
| Editorial and photography | 1.8 | |
| Research services | 2.9 | |
| Editorial services | 3.6 | |
| Fellowships | 0.5 | |
| Music | 0.5 | |
| Publications | <u>6.9</u> | |
| Total program expenses | | 42.4 % |

Administration,
operations and security:

| | | |
|--|------------|--------|
| Operations and maintenance | 21.7 % | |
| Security | 12.7 | |
| Administration, fiscal and legal | <u>9.1</u> | |
| Total administration, operations and security | | 43.5 % |

Fixed assets expenses:

| | | |
|--|------------|--------|
| Furniture and equipment | 5.0 % | |
| Building construction and alterations | <u>9.1</u> | |
| Total fixed assets expenses | | 14.1 % |

TOTAL EXPENSES 100.0 %

Table 5

Museum B

Expenditures 1979

(as % of total expenditures)

| <u>Expenses:</u> | <u>Total</u> | <u>Excluding auxiliary activities</u> |
|--|--------------|---|
| Curatorial | | |
| Curatorial, conservation and cataloguing | 11.8 % | 21.2 % |
| Operations | 2.6 | 4.7 |
| Special exhibitions | 6.4 | 11.3 |
| Education, community programs and library | 3.7 | 6.5 |
| Financial, legal, registrar and other administrative | 4.4 | 7.9 |
| Public information, development and membership services | 3.4 | 6.1 |
| Guardianship and maintenance | | |
| Guarding | 8.1 | 14.5 |
| Maintenance | 4.7 | 8.2 |
| Operating services | 3.5 | 6.2 |
| Art purchases | 7.7 | 13.4 |
| Expenses before auxiliary activities | 56.3 % | 100.0 % |
| Costs of sales and expenses of auxiliary activities | 43.7 | |
| TOTAL EXPENSES | 100.0 % | |

all the reported expenditures, art museums, 19% of the sample, had another 30% of the total expenditures, while history museums, making up 37% of the sample could claim only 13% of the total expenditures. Evidently, the type of museum does not immediately determines the size of its budget, but there are certain patterns that can be observed in the following table:

Table 6

U. S. Museums:
Museum Type by Budget Size

| <u>Annual Budget</u> | <u>Art</u> | <u>History</u> | <u>Science</u> | <u>Art/History</u> | <u>Other Combined^x</u> |
|--------------------------|------------|----------------|----------------|--------------------|-----------------------------------|
| Under \$ 50,000 | 33 % | 62 % | 18 % | 55 % | 43 % |
| \$50,000- 99,999 | 22 | 17 | 20 | 15 | 20 |
| \$ 100,000- 249,999 | 18 | 13 | 26 | 17 | 17 |
| \$ 250,000- 499,999 | 11 | 6 | 16 | 6 | 13 |
| \$ 500,000- 999,999 | 8 | 1 | 10 | 5 | 2 |
| \$ 1,000,000 and over | 8 | 1 | 10 | 2 | 5 |
| | 100 % | 100 % | 100 % | 100 % | 100 % |

^xMuseums with combined subjects other than Art/History; such as history/science, art/ science, etc.

Source: Museums USA

Extraordinary expenditures, although included in Tables 4 and 5 for the sake of illustration, are usually reported outside of the

operating budgets. The 1972 museum survey found that they consisted of approximately 70 % for capital expenditures, such as construction, and 30% for purchase of works for the collections. The total amount of these expenditures by the museums participating in the survey amounted to over \$ 37.7 million in 1972. Science and art museums accounted for the largest percentage of expenditures of this type, each responsible for 33% of the total: However, their respective patterns were very different: art museums allocated 64% of their extraordinary expenditures to purchases of works of art, while science museums employed 90% of these funds for acquisitions of land, buildings, and major equipment.

d. Analysis of the U. S. system of funding

Although at the beginning of this section the funding pattern for museums in the United States was taken to exemplify the dependence on the private sector, it is evident that the contribution of the public sector to the support of museums cannot be considered negligible. Nevertheless, as mentioned above, most of the funds provided by the U. S. government are conditional on further contributions from the private sector, a system that is almost unique to that country.

The level of support obtained by American museums is probably the most convincing argument for this system of funding and demonstrates a commitment on the part of the public to keep these institutions operating. Another clear advantage is that American museums are not totally dependent on any one given source of funds for their survival, they can appeal to government, both federal and local, to private individuals, to foundations and corporations, and thus obtain a higher level of total contributions than would be forthcoming from any one of these groups. At the same time, American museums enjoy a large

degree of autonomy with regards to their activities and acquisitions; they are known for the introduction of innovative management techniques, educational programs, and temporary exhibitions designed to win the museum's public. However, this needed emphasis on attracting the public and its support, considered an advantage by some, is felt by others to distract the institutions from more serious activities of research and scholarship, considered by these critics as being the fundamental role of the museum.

Whatever the advantages, however, they have a price attached to them. In most cases, the survival of the museum depends on its ability to attract the necessary donations, and there is no central agency which will assure the survival of a worthy institution. Museum B, for example, employed 6% of its budget, over \$ 1.5 million, in fund raising activities. The efforts put forth by each museum to insure the support that is required can be considered to be an inefficient employment of resources. There are many cases where several museums in a community are vying for the same dollars to be obtained from the same sources.

The new Republican administration of the United States has stated from its inception that it intends to cut back on the public patronage of cultural institutions, including museums. This has not been a policy that has singled out this type of organisations, but it is part of a general policy to reduce federal spending. The administration's rationale with regards to culture has been to attempt to restore the financing of these organisations to the traditional private philanthropy, encouraging it through a "healthy and expanding economy".¹ Unfortunately, the immediate financial future of American

¹U. S. Office of Management and Budget, in AAM, Aviso, 4/81.

museums does not appear to be as healthy as the government would predict it to be. Three major and decisive factors will directly affect the future of these institutions: the rising costs of operations caused by inflation, the foreseeable reduction in government support, and the changes in those same fiscal regulations which have always been an incentive to charitable donations, such as income tax rates, taxes on inheritance, and corporate and personal taxation rates.

The Financing of Museums in France

France, with approximately 1250 museums, has a ratio of 27,000 inhabitants to museum, similar to that of the United States.

Traditionally, the museums in France have been financed by the public sector. The first of these originated immediately after the French Revolution as a result of the nationalisation of the collections of the Crown and the first provincial museums were created shortly after by a decree of the 14 Fructidor of the Year VIII which allocated to 15 communities outside of Paris a part of the objects confiscated by the State.

It is difficult to estimate the exact number of museums which exist in France today. The name "museum" is not protected by law and is sometimes used by organisations whose objectives do not meet the criteria held by French national museum officials. The figure 1250 given above refers mainly to those institutions which meet the definition put forth by a 1945 ruling¹ which created the national museum organisation: a permanent collection, open to the public and presenting objects of artistic, historical or archeological interest. Outside this group there exist a number of museum-like organisations, some commercial, some not, whose main common characteristic is that their collections are not considered inalienable.

Table 7 provides a breakdown of these 1250 museums according to their governing body. The largest number of museums are under the administration or supervision of the Ministry of Culture, which also, as can be expected, provides the largest percentage of the total amount of funds allocated to museums (see Table 8).

Among the notable exceptions outside the Ministry of Culture's

¹ Ordonnance no. 45-1546 du 13 juillet 1945 (Education nationale, Intérieur, Finances) Journal Officiel du 14/7/1945

Table 7

Distribution of French Museums
According to Governing Body

| <u>Ministry of Culture</u> | <u>No. of</u> <u>Museums</u> | <u>% of</u> <u>Total</u> |
|---------------------------------------|---------------------------------|-----------------------------|
| <u>Musées de France</u> | | |
| National museums | 34 | |
| Museums <u>classés</u> | 31 | |
| Museums <u>controlés</u> ¹ | 834 | |
| | <u>868</u> | |
| Monuments Historiques ² | 19 | |
| Other | <u>21</u> | |
| Total Ministry of Culture | 908 | 73% |
| <u>Ministry of Education</u> | | |
| Natural history museums | 55 | |
| Museums of the <u>Institut</u> | 9 | |
| Other | <u>11</u> | |
| Total Ministry of Education | 75 | 6 |
| <u>Other ministries</u> | 65 | 5 |
| <u>City of Paris</u> | 10 | 1 |
| Other governing bodies ³ | 192 | 15 |
| TOTAL | <u>1250</u> | <u>100%</u> |

¹ Included in this classification are municipal museums. No definite census of them exists, and this number varies between 700 and 1000 according to different estimates.

² Does not include the treasures of churches, exhibited often in museum-like environments.

³ This figure is only an estimate to complete the 1250 museums; it would vary according to the number included in musées controlés, and it includes association museums.

Source: Based on estimates
of the Ministry of Culture
and ICOM

authority are the natural history and science museums under the direction of the Ministry of National Education. With the construction of the new science and technology museum of La Villette, a project on a similar scale to that of the Centre Pompidou, the percentages of expenditures of the different ministries can be expected to change, augmenting the proportion of the contribution of the Ministry of Education.

Table 8

Public Support of French Museums
1975
(in percentages)

| | <u>State funds</u> | <u>All funds</u> |
|--|--------------------|------------------|
| Ministry of Culture | 78.0 % | 69.7 % |
| Ministry of Defense | 1.5 | 1.2 |
| Ministry of Post and Telecommunications | 8.0 | 7.2 |
| Coins and Medals | 2.0 | 1.9 |
| Ministry of Universities ¹ | 10.0 | 9.2 |
| Other ministries | 0.5 | 0.3 |
| Total State funds | 100.0 % | 89.5 % |
| Departments | | 10.0 |
| Regions | | 0.5 |
| Total funds | | 100.0 % |

¹ Now Ministry of National Education

Source: Ministry of
Culture

The majority of French museums, 73%, come under the jurisdiction of the Ministry of Culture. Within this office, one particular Direction, the Musées de France, controls or supervises most of these institutions. Estimates on the number of museums forming part of the Musées de France vary between 895 and 1255. For the purposes of this study, the figures presented in Table 7 will be used. They are based on various estimates made by the Ministry of Culture and ICOM. However, it must

be emphasized that the actual number of museums in France (including those belonging to private organisations whose statutes do not forbid the eventuality of deaccession of some of the works in their collections), would be superior, by several hundreds, to the figure given above.

a. The national museums¹

The most important category of museums under the Direction des Musées de France (DMF) is made up of the 34 national museums, 65% of which are located in Paris or in the Paris region, and which include the Louvre, Versailles, Fontainebleau, and the new 19th century museum at the Orsay Station, Paris. The national museums are directly administered by the DMF, and because of their size and importance, absorb over 3/4 of the available funds of this agency (see Table 9), although in fact, they constitute only 4% of the museums it supervises.

Table 9

Ministry of Culture
Support to National and Provincial Museums
1980-1982

(in millions of francs)

| | 1980 | | 1981 | | 1982 | |
|---|--------|-------|--------|-------|--------|---------|
| | francs | % | francs | % | francs | % |
| National museums | 275.5 | 88 | 343.5 | 89 | 531.6 | 80.5 |
| Museums <u>classés</u> <u>et contrôlés</u> | 33.0 | 11 | 39.9 | 10 | 121.6 | 18.5 |
| Scientific aid | 3.8 | 1 | 4.2 | 1 | 8.3 | 1.0 |
| Total | 312.3 | 100 % | 387.6 | 100 % | 934.5 | 100.0 % |

Source: Projet de Loi des Finances 1982

¹ The figures used in the analysis of the museums under the supervision of the Ministry of Culture were derived from information in J. Freches, Les Musées de France (Notes et études documentaires, La Documentation Française, Paris: 1979); and, Projet de Loi des Finances pour 1982-Ministère de la Culture (Paris: Imprimerie nationale, 1981). Throughout the study, actual allocations have been used and not budgetary authorisations; for this reason some figures will differ from those presented in the works cited above.

With the five-year plan started by the French government in 1978, museums were accorded a priority place in funding allocations, with special attention given to capital investments designed to finance long needed maintenance and renovations.

The expenditure patterns of the first two years presented in Table 10 can be considered as the norm for any museum or museum system in which no important new project is undertaken. Operational costs, in these cases, tend to absorb a large percentage of the budget, with personnel expenses accounting for the majority of this item. Personnel costs have in the last few years represented an increasingly larger percentage of museums' operational budgets due to higher wages forced by inflation and security requirements. In 1978, the percentage spent on capital improvements started to increase in relation to operational expenses. From 1979, the drastic shift in the percentage distribution

Table 10

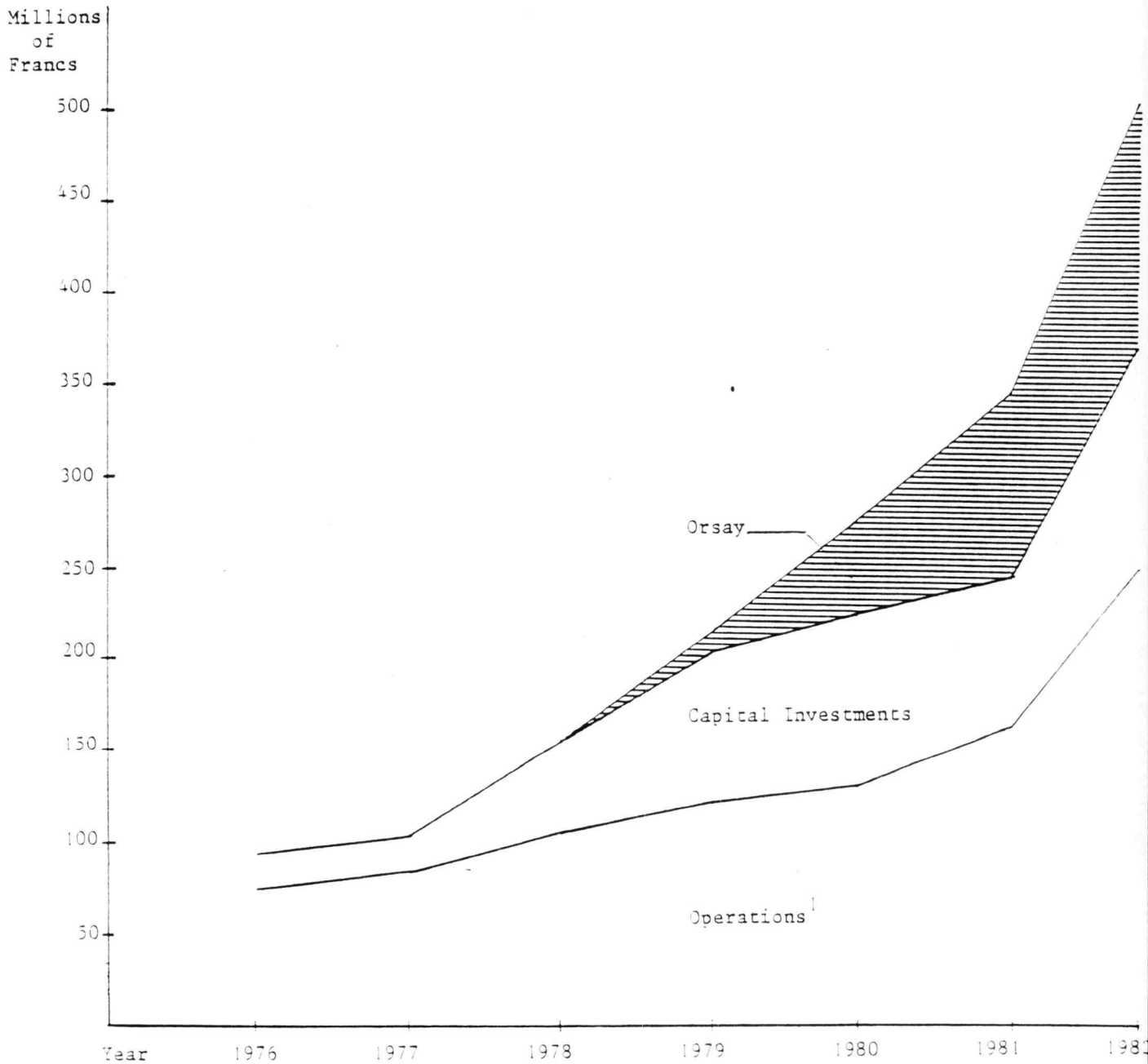
Budgetary Distribution of State Support
to National Museums - 1976-1982

(as % of total national museums' budgets)

| | <u>1976</u> | <u>1977</u> | <u>1978</u> | <u>1979</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <u>Operational</u> | | | | | | | |
| <u>Personnel</u> | 61% | 63% | 50% | 43% | 37% | 35% | 32% |
| Operations | 15 | 16 | 12 | 9 | 8 | 7 | 9 |
| Subsidies | 15 | 5 | 4 | 5 | 5 | 5 | 8 |
| | <u>81%</u> | <u>84%</u> | <u>66%</u> | <u>57%</u> | <u>50%</u> | <u>47%</u> | <u>49%</u> |
| <u>Capital</u> | | | | | | | |
| <u>Investments</u> | | | | | | | |
| Investments | 19% | 16% | 34% | 36% | 30% | 24% | 24% |
| Subsidies | 0 | 0 | 0 | 7 | 20 | 29 | 27 |
| | <u>19%</u> | <u>16%</u> | <u>34%</u> | <u>42%</u> | <u>50%</u> | <u>53%</u> | <u>51%</u> |
| Total budget | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Source: Projet de Loi des Finances
and Freches, Musées de France

Figure 1
BUDGET EVOLUTION - FRENCH NATIONAL MUSEUMS



Source: Projet de Loi des Finances 1982
J. Freches, Les Musées de France

¹Starting in 1979 part of the operations budget includes administrative costs for the Musée d'Orsay. They are not, however, readily identifiable in budgetary reports. The Orsay budget, therefore, is in reality larger than indicated in the graph.

between operations and capital investments marked the beginning of the renovation and adaptation of the Quai d'Orsay as the new 19th century museum in Paris.¹ Over the last three years, total expenditures are almost equally divided between operations and capital investments, a pattern that can only be considered normal when large important projects requiring large capital outlays are in effect. A budget distribution of 80-90% for operational costs and 20-10% for capital improvements and/or maintenance of facilities would be normal for other periods.

In current franc terms, the budget of the national museums would seem to have been receiving a higher priority within the Ministry of Culture in recent years, particularly in 1982 when it increased 55% over the 1981 amount. Figure 1 plots the rapid growth in allocations to national museums from 1976 to 1982. When discounted for inflation the increase is still significant - nearly 20% per year in real terms. This increase in support must be seen in the context of French cultural policy during this period. From 1974 to 1982, total allocations to the DMF jumped from 7% to 11% of the total Ministry of Culture's budget. While the national museums take the lion's share of this effort, part of the increase has been absorbed by the Musée d'Orsay and the new funds being made available to provincial museums, both of which will be discussed below.

The impact of a project of such magnitude as the Musée d'Orsay in

¹The reason the funds allocated to this project are shown as subsidies and not within the line items of personnel, operations or capital investment is that, at least for the time of its renovation and installation, this museum has been constituted as a separate public corporation, and any funds allocated to it must be in the form of an official subsidy.

the claim for resources from any agency such as the DMF is not difficult to appreciate. This new project has absorbed an increasing percentage of the funds available for capital investments, a proportion which has grown from 27% in 1979 to 64% in 1982. When the 1978 museum plan was drawn up by the Ministry and the DMF, the need in which the national museums found themselves in terms of long overdue maintenance and physical renovation was clearly indicated. The urgency of this matter notwithstanding, the additional funds made available for construction are quickly being absorbed by Orsay and similar projects such as the new Picasso Museum and the installation of the Ecole du Louvre in the Palais de Tokyo. These three projects account for 77% of the capital investment funds made available in 1982. In addition to this, the Louvre and Versailles are allocated 7% and 8% respectively of the capital budget (down from 31% and 16% of total capital expenditures in 1979). These allocational priorities leave only 8% of the capital expenditure budget to be shared among the remaining 30 national museums. Since only 14 of these have any capital expenditures scheduled to take place during 1982, sixteen national museums will receive little or no capital investment funds during this period.

This situation illustrates one of the major problems found in a national system where museums depend exclusively from one official source of funding: national priorities determine the distribution of funds, and individual organisations have no alternative sources of support to which to appeal. This, of course, is only a problem if the actual level of funding is not sufficient to cover all needs. Unfortunately, this is generally the case in what concerns museums, and not the exception.

An additional source of special funds for the national museums derives from the Reunion des Musées Nationaux (RMN). This public agency was created in 1895 to channel to the museums existing at the time some of the proceeds obtained from the sale of royal properties, funds which would have otherwise gone to a general purpose fund administered and distributed by the State. Currently its major source of income is the fees charged by museums and special exhibitions.

At the present time, the three principal tasks of the RMN are to purchase works of art for the national museums, to organise temporary exhibitions, and to foment outreach programs in these institutions. To carry out these duties it counts with a budget provided mainly by admission charges to national museums, sales in the museum shops and a small government subsidy. These funds can be considered as the

Table 11

Réunion des Musées Nationaux
Revenues and Expenses, 1980
(as percentages of totals)

Revenues

| | |
|---|-------|
| Admission fees - museums | 46 % |
| Admission fees - special exhibitions | 15 |
| Guided tours | 6 |
| Other revenues | 13 |
| Subsidies - State | 8 |
| Subsidies - other | 12 |
| Total revenues | 100 % |

Expenditures

| | |
|-----------------------------|-------|
| Acquisition of art works | 42 % |
| Organisation of exhibitions | 24 |
| Organisation of tours | 10 |
| Operations | 24 |
| Total expenditures | 100 % |

only earned income of the national museums in France. The total contribution of the RMF to the NM amounted to F69 million in 1980, a sum that augmented their budgetary allocations from the DMF by 25%.

b. The provincial museums

Provincial and local museums in this category constitute approximately 99% of the museums supervised by the DMF. Whereas the national museums receive practically 75% of their funds from this parent agency (the other 25% being the RMF contribution discussed above), the support provided by the DMF to the musées classés and contrôlés (MCC) represents approximately 40% of their budgets. The sums provided by the DMF to these institutions have increased drastically in 1982 to support the new policy of the Minister of Culture to encourage cultural activities outside the Paris region. This year's contribution to provincial museums represents 18.5% of the DMF's budget, a sharp increase from the 11% and 10% of 1980 and 1981 respectively. This increased allocation should propel State's contribution to the provincial museums to F 121 million in 1982, an expected increase of 205% from the previous year. This assumes that local funds will continue to provide about 60% of the museums' budgets, resulting, therefore, in considerable more funds being available to them during 1982.

At the present time there are no available statistics regarding the manner in which the DMF funds are allocated among the 850-odd provincial museums. Some of the figures provided by the Ministry of Culture indicate that in 1981, 120 MCCs received subsidies for renovation and new installations; this would represent an aid to 14% of the total number of museums in this category.

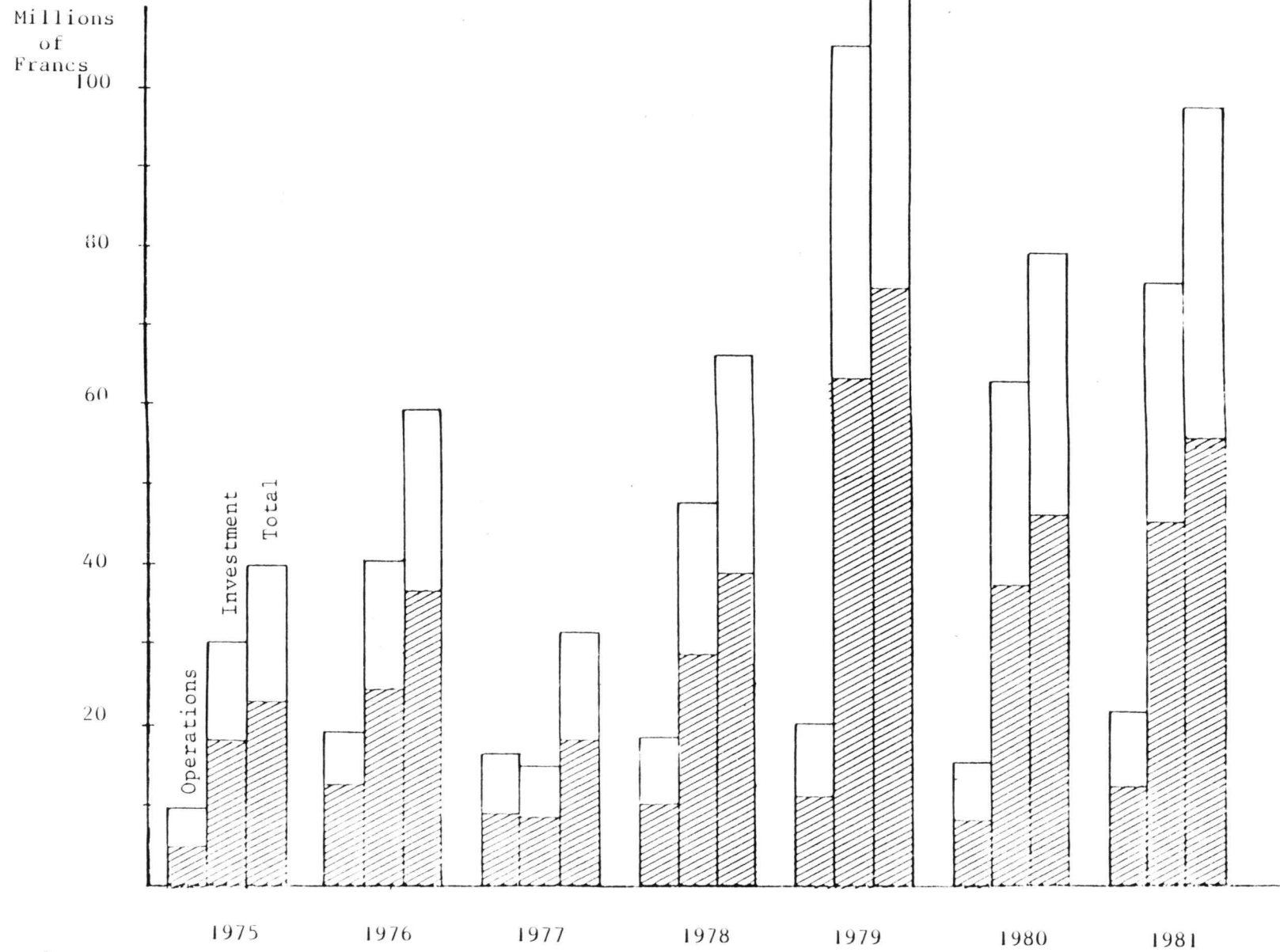
Table 12

Composition of the Budget
of French Provincial Museums 1975-1981
(estimates given in millions of francs)

| | <u>1975</u> | <u>1976</u> | <u>1977</u> | <u>1978</u> | <u>1979</u> | <u>1980</u> | <u>1981</u> |
|-------------------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|
| I. Operations | | | | | | | |
| Central government | 4.703 | 6.343 | 7.211 | 8.023 | 8.510 | 8.009 | 9.052 |
| Local and regional government | <u>4.909</u> | <u>12.585</u> | <u>9.265</u> | <u>10.321</u> | <u>11.573</u> | <u>8.546</u> | <u>12.334</u> |
| Total | <u>9.612</u> | <u>18.928</u> | <u>16.476</u> | <u>18.344</u> | <u>20.088</u> | <u>16.555</u> | <u>21.886</u> |
| II. Investments | | | | | | | |
| Central government | 12.000 | 16.000 | 6.000 | 19.000 | 42.000 | 25.000 | 30.200 |
| Local and regional government | <u>18.000</u> | <u>24.000</u> | <u>9.000</u> | <u>28.500</u> | <u>63.000</u> | <u>37.500</u> | <u>45.300</u> |
| Total | <u>30.000</u> | <u>40.000</u> | <u>15.000</u> | <u>47.500</u> | <u>105.000</u> | <u>62.500</u> | <u>75.500</u> |
| III. Total | | | | | | | |
| Central government | 16.703 | 22.343 | 13.211 | 27.023 | 50.510 | 33.009 | 39.252 |
| Local and regional government | <u>22.909</u> | <u>36.585</u> | <u>18.265</u> | <u>38.821</u> | <u>74.578</u> | <u>46.046</u> | <u>58.134</u> |
| Total | <u>39.612</u> | <u>58.928</u> | <u>31.476</u> | <u>65.844</u> | <u>125.088</u> | <u>79.055</u> | <u>97.386</u> |
| <u>In Percentages</u> | | | | | | | |
| I. Operations | | | | | | | |
| Central government | 49.9 | 33.5 | 43.8 | 43.7 | 42.4 | 48.4 | 41.4 |
| Local and regional government | <u>51.1</u> | <u>66.5</u> | <u>56.2</u> | <u>56.3</u> | <u>57.6</u> | <u>51.6</u> | <u>58.6</u> |
| Total | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> |
| II. Investments | | | | | | | |
| Central government | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| Local and regional government | <u>60.0</u> | <u>60.0</u> | <u>60.0</u> | <u>60.0</u> | <u>60.0</u> | <u>60.0</u> | <u>60.0</u> |
| Total | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> |
| III. Total | | | | | | | |
| Central government | 42.2 | 37.9 | 42.0 | 41.0 | 40.4 | 41.3 | 40.3 |
| Local and regional government | <u>57.8</u> | <u>62.1</u> | <u>58.0</u> | <u>59.0</u> | <u>59.6</u> | <u>58.2</u> | <u>59.7</u> |
| Total | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> | <u>100.0</u> |

Sources: Estimates made from Projet de Loi des Finances 1982 and Frèches, Les Musées de France.

FIGURE 2
 BUDGET COMPOSITION OF FRENCH PROVINCIAL MUSEUMS
 1975 - 1981



Central government
 local and regional governments

Source: Table 12

The government's allocation to these museums are designated either for operational costs or for capital investments. By law, the participation of the State in capital investment projects cannot surpass 40% of the total costs. Even though Figure 2 maintains this 60-40 relationship for these type of expenditures, in actual cases the State has assumed a larger proportion of the costs. The figures presented in Table 12 should be considered as estimates since it is difficult to determine actual figures for the contributions. These figures are based on data provided by the Ministry of Culture; in some cases, the figures reported refer to program authorizations while in other sources actual allocations are provided. This study has used the actual allocation figures for the government's participation, and the local contributions have been obtained by applying the percentage distribution of funds provided by the Ministry of Culture for each year in question.

The 1982 budget allocated to the MCCs is intended to implement the extension to the provinces of the renovation program started in the national museums in 1978. The sums earmarked for capital investment for this year represent a 70% increase from those in 1981, and 132% when compared to those of 1980.

In addition to this first renovation objective, the 1982 allocations will finance the creation of new museums in provincial cities. Among these are two which have originated from donations of two important private collections to local communities, Troyes and Villeneuve d'Ascq.

At the local level, the principal sources of funds for MCCs are the municipal and regional governments, with smaller contributions from city administrations. Regional government expenditures in

cultural projects of which museums are only one category, vary considerably, from 11% of the budget in the Nord-Pas-de-Calais region to 0.36% in the Ile-de-France. Since the total budgets of these regional administrations are also quite variable, the 0.36% of the Ile-de-France signifies in actual terms F5.9 million, and the 11% of Nord-Pas-de-Calais is equivalent to F9.8 million, this last being the highest budget for cultural projects in absolute terms.

The percentage of the cultural budget of all regions devoted to museums is reported to have increased from 2% in 1974 to 5.5% in 1977.¹ As the cultural budgets of the regional governments increased dramatically during this period, funds available to local museums jumped over 20 times from F168,000 to F3,600,000. In addition, the 1982 budget of the DMF includes a special subsidy to regional agencies of F35.5 million for the acquisition of works of art, part of the current effort to launch new regional and departmental initiatives in all fields of cultural development.

The contribution of departmental administrations to the support of museums is considerably more important than that of regional agencies. For example, in 1974 and 1975 departmental expenditures in support of local museums amounted to F12.5 million and F17.0 million, respectively. The average expenditure of the French departments on cultural projects is about 1% of their total budgets, of which two thirds are employed for operational costs and one third for capital investments.

As with regions, the allocation of cultural and museum funding

¹ Figures and percentages for the contributions of regions and departments are from Des chiffres pour la culture, Ministry of Culture (La Documentation Française, Paris: 1979)

varies between the different departments: in 1975, 75% of all museum expenditures were incurred by 11 departments, while one department accounted for a full third of all expenditures. Nevertheless, certain generalizations can be made about departmental funding patterns. Departments with higher population density consecrate a larger percentage of their budgets to cultural activities. Rural departments spend more on cultural projects on a per capita basis than urban ones. One possible explanation that has been offered is that these departments have long neglected their expenditures in this area and are just now in the process of catching up.

It is difficult to generalize as to the place that museums occupy in the cultural priorities of departmental administrations. The figures available for 1974 and 1975 seem to indicate that of the total cultural expenditures by all departments, 6.4% and 5.6% went to museums in each of those years. In franc terms, total departmental expenditures have increased, and if local sources are to continue providing 60% of the funds dedicated to capital improvements in provincial museums, their contributions should rise proportionally to those of the central government.

c. Analysis of the French system of funding

There has always existed a feeling among the French provinces that Paris has been favored at their expense. In the case of museum expenditures by the central government this certainly seems to be the case. Because of the concentration and the importance of the museums in the Paris region, 86% of the capital investment of national museums are made there. It can be argued that these large museums (65% of all national museums are in the Paris area) demand

(1) Des Chiffres pour la culture, Ministère de la Culture, Paris, 1979.

a level of support in keeping with their importance. However, in the last decade, three very large museum projects have been started in Paris, the Centre Pompidou, the Musée d'Orsay and the Parc de la Villette, which have required considerable investment, investments that could have been made in any of the major cities of France. The 1982 budget of the national museums allocates 64% of capital investment to Orsay, and less than 2% to national museums outside the Paris region.

Relative Merits of Public and Private Funding

The experience over time of museums in the industrialized countries provides the basis for an analysis of the characteristics of each of these two types of funds and the national museums development pattern they produce.

Today it is rare that the museum system of a country be totally supported from private funds. However, in those countries where museums are free to seek and obtain contributions from the private sector, they enjoy a higher degree of autonomy with regards to their utilization than their publicly financed counterparts. Often this budgetary freedom translates in practice into experimental programs, both in education and exhibitions designed to attract and serve the public that directly supports them. In addition, private funding seems to lead to a more efficient utilization of the available funds often sought through the application of managerial techniques adapted from the business world. On the other hand, the task of raising private funds, which originate from a large number of individual sources, is both expensive and time consuming for an institution; the investment of resources required to insure the level of support needed can be viewed as an inefficient method in which very often, several museums are vying for the same monies to be obtained from the same sources.

A more rational system of museum funding is provided by centralized public financing. In these cases, the available funds are allocated according to a set of national priorities and policies. The central administration of resources facilitates the implementation of projects, including very ambitious ones, by permitting the allocation of available funds to achieve specific objectives.

However, it is also characteristic of the centralized funded and planned museum systems that the larger or more prestigious museums, usually located in the capital city, absorb a disproportionate amount of the available funds. In contrast to the private funding system, those museums that do not occupy a priority position in the budgetary allocations are without recourse to alternative sources of financing. It can also be expected that the total funding level of museums will be higher in those societies where the support originates from a variety of sources, both public and private, than when they depend on a ministerial allocation within a national budget. On the other hand, the governmental support of a national museum system provides the member institutions with the assurance that at least a certain level of funding will be provided to cover operational expenses.

It can be argued that a national agency controlling the funding of museums provides for a more efficient utilization of the available funds. Program duplication can be avoided, at least in theory, a more rational organisation can be developed for the museum community. For example, in the case of France there are several national museums in the Paris region, each covering a specific and clearly defined period of art and civilization. This same rational organisation could be construed as a disadvantage if one considers the possibility of having several smaller museums throughout the country, each covering a longer period of time and making the museum experience available to a larger portion of the population.

At the present time, and until more experience has been gathered in the income producing activities of museums, these institutions will continue to depend on contributions, allocations, and subsidies for their subsistence. The most adequate system of funding appears to be one that would benefit from the coordinated planning of a national museum agency, combined with the support of the private sector - individuals, foundations, corporations, as well as international agencies - which would increase and complement allocated public funds.

THE DEVELOPING COUNTRIES

The African Situation

The African continent, with 53 countries and a population of 461 million, 10.6% of the inhabitants of the world, today has 583 museums, or 2.2% of the world's total. If South Africa is excluded, the number would drop to 390 museums, or 1.8% of the existing total. These figures give the African continent a ratio of inhabitants per museums which is almost five times the world's average.

Table 13

Index of Inhabitants to Museums^x
(world's average = 1)

| | |
|----------------------------------|------|
| Asia | 5.47 |
| Africa | 4.39 |
| Central America and Caribbean | 2.05 |
| South America | 1.15 |
| Europe | 0.32 |
| North America | 0.29 |
| Oceania and the Pacific | 0.12 |

^xThe index is obtained by dividing the ratio of inhabitants per museum for a specific continent or geographical area by the ratio for the entire world.

The analysis of the museum situation in Africa presented below is based on data compiled by ICOM-OMMSA and available in the Directory of African Museums¹ and does not include South Africa. This directory reports, in various degrees of completeness, information on 311 museums in 46 countries. This sample is thus equivalent to 80% of the museums in 94% of those African countries in which museums exist, and can be

¹UNESCO, Directory of African Museums 1981 (ICOM-OMMSA, Paris: 1981)

considered representative of the continent. It can be assumed that those museums answering the ICOM-OMMSA request for information would tend to be those which are either larger (and with more resources) and/or better organized. Table 14 presents a summary of the numbers and percentages of responding museums by country.

Although the median number of museums in African countries is 8, the actual distribution covers a wide range. At the upper end of the scale can be found countries like Egypt with 53 museums, and Tunisia and Nigeria with 26 each; and there are four countries not included in the Directory, that do not report the existence of any museums : Cape Verde, Comoros, Djibouti and Gambia.

The same wide variations can be observed in the ratio of inhabitants to museums (see Appendix A - Africa). This average is of 1.3 million inhabitants per museum for the whole continent, with a standard deviation of 1.26 million. The tail of the distribution, that is, those countries which exhibited a population to museum ratio above 2.6 million, consisted of the following countries:

| | | | | |
|--------------|-----|-------------|-----|--------|
| Ivory Coast | 2.7 | inhabitants | per | museum |
| Nigeria | 3.2 | " | " | " |
| Sierra Leone | 3.4 | " | " | " |
| Somalia | 3.8 | " | " | " |
| Niger | 5.2 | " | " | " |
| Upper Volta | 5.6 | " | " | " |

But even those countries with the lowest ratios are all above the world average of 162,000 inhabitants per museum, those closest to it being:

| | | | | |
|----------|---------|-------------|-----|--------|
| Namibia | 166,000 | inhabitants | per | museum |
| Botswana | 200,000 | " | " | " |
| Tunisia | 214,000 | " | " | " |

Table 14
African Museums-Classification by
governing body
(1981)

| | Total no. of museums | Number in sample | % of total in country | governing body | | | | | Private | Not available |
|-----------------|-------------------------|---------------------|--------------------------|----------------|------------|------------|---------------------------------------|--------------------------------|------------|---------------|
| | | | | National | Provincial | Municipal | Gvt. other than national museum | Educ. inst./ Research inst. | | |
| Algeria | 33 | 28 | 85 | 15 | - | 12 | 1 | - | - | - |
| Angola | 9 | 8 | 89 | 2 | 2 | - | 1 | - | 1 | 2 |
| Benin | 5 | 4 | 80 | 4 | - | - | - | - | - | - |
| Botswana | 4 | 3 | 75 | 1 | 1 | - | - | - | - | 1 |
| Burundi | 2 | 2 | 100 | 2 | - | - | - | - | - | - |
| Cameroon | 12 | 10 | 83 | 1 | 4 | 1 | 1 | 1 | 2 | - |
| Cent. Afr. Rep. | 5 | 2 | 40 | 1 | - | - | - | - | - | 1 |
| Chad | 2 | 2 | 100 | 2 | - | - | - | - | - | - |
| R. Congo | 4 | 3 | 75 | 2 | - | - | - | 1 | - | - |
| Egypt | 53 | 44 | 83 | 19 | - | - | 3 | 4 | 1 | 17 |
| Ethiopia | 13 | 9 | 69 | 6 | - | - | 1 | 2 | - | - |
| Gabon | 1 | 1 | 100 | 1 | - | - | - | - | - | - |
| Ghana | 16 | 13 | 81 | 4 | - | - | 3 | 6 | - | - |
| Guinea | 8 | 6 | 75 | 5 | 1 | - | - | - | - | - |
| Guinea Bissau | 1 | 1 | 100 | - | - | - | - | 1 | - | - |
| Ivory Coast | 3 | 3 | 100 | 3 | - | - | - | - | - | - |
| Kenya | 12 | 10 | 83 | 8 | - | - | 1 | - | 1 | - |
| Lesotho | 2 | 1 | 50 | - | - | - | - | - | 1 | - |
| Liberia | 6 | 6 | 100 | 2 | - | - | - | 1 | 3 | - |
| Lybia | 12 | 4 | 33 | 4 | - | - | - | - | - | - |
| Madagascar | 6 | 4 | 67 | 3 | - | - | - | 1 | - | - |
| Malawi | 3 | 3 | 100 | 3 | - | - | - | - | - | - |
| Mali | 3 | 1 | 33 | 1 | - | - | - | - | - | - |
| Morocco | 16 | 12 | 75 | 9 | 1 | - | 1 | - | - | 1 |
| Maurice | 3 | 3 | 100 | 3 | - | - | - | - | - | - |
| Mauritania | 1 | 1 | 100 | - | - | - | - | - | - | 1 |
| Mozambique | 9 | 9 | 100 | 2 | - | 2 | 2 | 2 | - | 1 |
| Namibia | 6 | 4 | 66 | 2 | - | 1 | - | - | 1 | - |
| Niger | 1 | 1 | 100 | 1 | - | - | - | - | - | - |
| Nigeria | 26 | 22 | 85 | 16 | - | - | 2 | 4 | - | - |
| Rwanda | 3 | 3 | 100 | 2 | - | - | - | - | 1 | - |
| Senegal | 5 | 4 | 80 | 2 | - | - | - | - | 1 | 1 |
| Seychelles | 1 | 1 | 100 | 1 | - | - | - | - | - | - |
| Sierra Leone | 1 | 1 | 100 | 1 | - | - | - | - | - | - |
| Somalia | 1 | 1 | 100 | 1 | - | - | - | - | - | - |
| Sudan | 11 | 10 | 91 | 6 | - | - | 1 | 3 | - | - |
| Swaziland | 1 | 1 | 100 | 1 | - | - | - | - | - | - |
| Tanzania | 15 | 7 | 47 | 4 | - | - | - | - | 2 | 1 |
| Togo | 2 | 2 | 100 | 2 | - | - | - | - | - | - |
| Tunisia | 29 | 27 | 93 | 5 | 2 | 1 | 3 | - | - | 16 |
| Uganda | 11 | 8 | 73 | 1 | 1 | 1 | 1 | 3 | 1 | - |
| Upper Volta | 1 | 1 | 100 | 1 | - | - | - | - | - | - |
| Zaire | 12 | 12 | 100 | 4 | 3 | - | - | 1 | 4 | - |
| Zambia | 6 | 5 | 83 | 4 | - | - | 1 | - | - | - |
| Zimbabwe | 14 | 8 | 57 | 7 | - | - | - | - | - | 1 |
| | 390 | 311 (100%) | | 164 (52%) | 15 (5%) | 18 (6%) | 22 (7%) | 30 (10%) | 19 (6%) | 43 (14%) |

a. Museums by governing body

With the information provided in the Directory, the museums were classified according to their governing body or status. Over one half (52%) of the museums in the sample are national museums. The term "national" has been interpreted as an "official" museum of the country, in some way administered or supervised by an agency of the central government. Provincial and municipal museums account only for 11% of the total, indicating that the role of the local governments in the administration of museums is not all that significant. Seven percent of the museums reporting their governing body indicate that they are under the direction of a government agency other than a national museum organization; typical among the museums in this group are postal and police museums, museums dedicated to relics and souvenirs of liberation wars, and coin museums under the authority of the country's Central Bank. Only 6% of the reported museums identify themselves as private, among them 3 in Liberia and 4 in Zaire.

The 14% of the museums which do not report a governing body are located mainly in Egypt (17 museums) and in Tunisia (16); it can be assumed that those located in Tunisia, even though it is not stated in the Directory, would be under governmental control, whether national or local, given the strong influence of French organizational patterns in that country; most of these museums are either archaeological sites in which museums have been created to preserve and exhibit local findings, or museums whose collections consist of popular and traditional arts.

The information provided by the Directory is not sufficient to carry out a detailed analysis of the organization of the museum agency of each country. A more detailed study would be necessary to draw any generalizations or specific statistics in this respect. However, 24 countries, representing 55% of the sample, report an official national agency in charge of antiquities, monuments and/or sites; in a few cases a national agency for museums was named

as the overseeing body.

The data furnished indicates that in those countries where museums are under the authority of a ministry, 13 are in a ministry related to culture, not necessarily culture exclusively, although this was the case in 4 countries. In the remaining 11, the ministry in charge of culture also included youth, sports, or information. In 13 other countries, the museums were supervised by the following ministeries :

| | |
|-----------------------------|-------------|
| Education | 5 countries |
| Youth and Sports | 3 countries |
| Natural Resources | 1 country |
| Commerce | 1 country |
| Interior | 1 country |
| Information and Tourism | 1 country |
| Education, Youth and Sports | 1 country |

Eleven countries do not state a ministerial affiliation for museums but indicate direct supervision by an agency in charge of antiquities, monuments and sites, without specifying under which national administration this agency is found.

b. Data of foundation of the museums

Among the information requested by the Directory was the history of each museum. The data on the date of foundation of the museums is rather weak since it is only available for 30% of the sample. The distribution of the 95 responding museums is as follows :

| | <u>Date of Foundation</u> | | | | | <u>After 1970</u> |
|----------------------------|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | <u>Before 1900</u> | <u>1901- 1930</u> | <u>1931- 1950</u> | <u>1951- 1960</u> | <u>1961- 1970</u> | |
| Number of Museums | 4 | 17 | 13 | 25 | 18 | 18 |
| % of museums responding | 4 | 17 | 14 | 26 | 19 | 19 |

Of the 95 museums for which the date of foundation is available, 38% were created after 1961, which if extrapolated to the larger sample

in the Directory would indicate that 118 of museums had been created in Africa in the last twenty years. However, the reliability of these data is questionable since it would seem that there was a tendency to report the dates of more recently created museums. The example of Tunisia illustrates this point; out of a total of 29 museums, there were dates of foundation for only five: one each in 1964, 1965 and 1970, and two in 1968.

c. Accessibility of museums

Without an analysis of the population patterns of each African country, it is difficult to determine the accessibility that the inhabitants have to the existing museums. Some indication can be obtained by studying the geographical distribution of the museums in the countries. The Directory reports 311 museums located in 213 communities, of which 52 were capital cities (see Table 15). These cities accounted for 35% of the total number of museums. Statistically at least, capitals do not seem to have a too disproportionate percentage of the existing museums. However, if these cities are excluded, there are only 161 communities in the whole African continent having at least one museum.

In addition, it must be considered that there are no available data which provide any indication of the quality aspect of these museums. Even total levels of museum funding within each country, which could be considered an indicator of museum size and importance, are absent.

d. The collections

Table 16 presents a summary of the types of collections reported by African museums. In most cases, institutions reported having more than one class of objects unless the museum was specialized in one particular area, such as the Postal Museum in Egypt.

Table 15

African Museums - Geographical Distribution
(1981)

| | Total no. of museums | Number in sample | Number of cities with museums | Number of museums in capital city | Number of museums outside capital |
|-----------------|-------------------------|---------------------|-------------------------------------|---|---|
| Algeria | 33 | 28 | 22 | 7 | 21 |
| Angola | 9 | 8 | 5 | 4 | 4 |
| Benin | 5 | 4 | 4 | 1 | 3 |
| Botswana | 4 | 3 | 3 | 1 | 2 |
| Burundi | 2 | 2 | 2 | 1 | 1 |
| Cameroon | 12 | 10 | 7 | 3 | 7 |
| Cent. Afr. Rep. | 5 | 2 | 2 | 1 | 1 |
| Chad | 2 | 2 | 2 | 1 | 1 |
| R. Congo | 4 | 3 | 1 | 3 | 0 |
| Egypt | 53 | 44 | 13 | 21 | 23 |
| Ethiopia | 13 | 9 | 6 | 4 | 5 |
| Gabon | 1 | 1 | 1 | 1 | 0 |
| Ghana | 16 | 13 | 6 | 4 | 9 |
| Guinea | 8 | 6 | 6 | 1 | 5 |
| Guinea Bissau | 1 | 1 | 1 | 1 | 0 |
| Ivory Coast | 3 | 3 | 3 | 1 | 2 |
| Kenya | 12 | 10 | 9 | 2 | 8 |
| Lesotho | 2 | 1 | 1 | 0 | 1 |
| Liberia | 6 | 6 | 5 | 2 | 4 |
| Lybia | 12 | 4 | 3 | 2 | 2 |
| Madagascar | 6 | 4 | 1 | 4 | 0 |
| Malawi | 3 | 3 | 3 | 1 | 2 |
| Mali | 3 | 1 | 1 | 1 | 0 |
| Morocco | 16 | 12 | 6 | 2 | 10 |
| Maurice | 3 | 3 | 3 | 1 | 2 |
| Mauritania | 1 | 1 | 1 | 1 | 0 |
| Mozambique | 9 | 9 | 7 | 2 | 7 |
| Namibia | 6 | 4 | 4 | 1 | 3 |
| Niger | 1 | 1 | 1 | 0 | 1 |
| Nigeria | 26 | 22 | 17 | 2 | 20 |
| Rwanda | 3 | 3 | 3 | 1 | 2 |
| Senegal | 5 | 4 | 3 | 1 | 3 |
| Seychelles | 1 | 1 | 1 | 1 | 0 |
| Sierra Leone | 1 | 1 | 1 | 1 | 0 |
| Somalia | 1 | 1 | 1 | 1 | 0 |
| Sudan | 11 | 10 | 6 | 5 | 5 |
| Swaziland | 1 | 1 | 1 | 1 | 0 |
| Tanzania | 15 | 7 | 6 | 2 | 5 |
| Togo | 2 | 2 | 1 | 2 | 0 |
| Tunisia | 29 | 27 | 20 | 7 | 20 |
| Uganda | 11 | 8 | 4 | 5 | 3 |
| Upper Volta | 1 | 1 | 1 | 1 | 0 |
| Zaire | 12 | 12 | 11 | 2 | 10 |
| Zambia | 6 | 5 | 4 | 2 | 3 |
| Zimbabwe | 14 | 8 | 5 | 2 | 6 |
| | 390 | 311 | 214 | 110 | 201 |

(100%)

Table 16

Type of Collection Reported by African Museums

| <u>Type of Collection</u> | <u>Number of Museums</u> | <u>% of Sample</u> |
|----------------------------------|--------------------------|--------------------|
| Ethnographical | 134 | 43 % |
| Archaeological | 99 | 32 |
| Natural History | 71 | 23 |
| History | 45 | 14 |
| Popular and Traditional Arts | 41 | 13 |
| Islamic Art | 11 | 4 |
| Fine Arts (African and European) | 11 | 4 |
| Military | 9 | 3 |
| Contemporary African Art | 7 | 2 |
| "Liberation" | 6 | 2 |

Ethnological collections are the type most often reported by museums, followed by archaeological ones. It is likely that the existence of these types of objects in museums might be due to the collecting interests of former European residents of those countries. One of the problems facing the older African museums today is that many of these ethnographical and ethnological collections are presented following norms established by European museums. Often significant ethnological or historical objects are exhibited as "art" as would be a painting in Europe or North America, precluding, from the point of view of the African visitor to the museum, any understanding of its significance in a cultural context or without contributing to the understanding of a civilization's traditions. This is a problem that has received some attention in the more progressive African museums.

Notable in their absence from the African continent are science collections and technical museums. Only 2 museums reported collections dealing with science, although many mentioned geology and mineralogy, and 4 reported exhibition of hygiene and/or medicine. However, the important role that this type of museum could play in developing countries has been a subject of considerable discussion. Their contribution to the formation of scientific attitudes and their complementary function to more formal scientific education has been

recognized in several international conferences.¹

e. Summary

The low number of museums in the African continent, the high ratio of inhabitants to museums and the absence of certain types of museums, such as science and technology, all point to the fact that these countries are not yet fully benefiting from the contributions museums can make to their societies. Neither the didactic potential nor the role as conservators of the heritage of these institutions is being fulfilled. This situation, however, is not unique to Africa as the statistics for Asia and Latin America indicate.

The following section explores the problems and possibilities that can be anticipated in changing the situation, within the context of existing museums and the alternative of creating new ones. Some suggestions, which are indeed applicable to Africa, will be explored then.

Museums and Population : the Widening Gap Between Industrialized and Developing Countries

A quick comparison of some basic statistics for museums in industrialized countries and those in the low income category, highlights the inequalities of the present situation. The industrial countries, with 15.6% of the world population have 66.5% of the existing museums; the average number of museums in each country is 983; and the ratio of inhabitants to museums is 30,500, less than one fifth of the world's average. The low income countries, on the other hand, have 52.7% of the world population, 3.1% of the total number of museums, an average of 22 museums per country, and 2,271,000 inhabitants per museum.

The gap in the museum situation between these two groups of countries

¹ See, for example, the proceedings from "The International Experts Meeting on the Planning of Museums of Science and Technology in developing countries", UNESCO/ICOM, Manila, 1973, and "Workshop on the establishment of science museums in Asian countries: training and exchange", UNESCO, NCSM, ICOM ASIA, ICOM Indian National Committee, Bangalore, February 1980.

DISTRIBUTION OF COUNTRIES ACCORDING TO

THE RATIO OF INHABITANTS TO MUSEUMS

CAPITAL-SURPLUS
OIL EXPORTING
COUNTRIES



NON-MARKET
ECONOMIES



LOW INCOME
COUNTRIES



MIDDLE INCOME
COUNTRIES



INDUSTRIALIZED
COUNTRIES



0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200 3300 3400 3500 3600 3700 3800 3900 5200 5300 5400 5500 5600 14200

NUMBER OF INHABITANTS PER MUSEUM
(in thousands of inh.)

* = 1 country

The distribution of countries according to the ratio of population to museums is charted in the graphic above. Each country, represented by a star, is placed on the scale above the figure that indicates the number of inhabitants to each museum for that particular country. This figure was obtained by dividing the total population by the number of museums in the country.

The countries have been divided according to the economic classifications used by the World Bank. All industrialized countries, except for two, have a ratio of less than 100,000 inhabitants for each museum. As we move to the other classifications, it can be observed that the ratios become less favorable, with the extreme being one low income country that has over 14 million inhabitants for each of its museums.

far from closing is enlarging as time goes by. Not only do industrialized countries have more museums, by whatever ratio is employed, but the industrialized countries' museums enjoy the advantages that derive from their relatively long existence. These advantages are based on the recognition as "worthy" institutions they receive from their societies, their experience on the administration and organisation of museums, and the cumulative value of the funding they have received through the years.

Insufficient funding levels for museums, as for most other cultural projects, seems to be the global rule rather than the exception. The museums in the industrialized countries find their funds eroded by the high costs of operation and their commitment to public service and education tested by economic conditions. Yet, when the museums of the developing countries are contrasted with their counterparts in the industrialized world, the magnitude of the task that lies ahead becomes evident. They must construct facilities, gather collections, develop expertise, and most of all, have their role as partners in the development of the country accepted by the powers that be.

Like other development projects, museums require the commitment of the community, their governments, and of international organisations as well, to achieve their potential. The role that international organisations must play in the inception of museums in the developing countries should not be limited to financial aid, but should extend to the cooperation in the planning and organisation of museum systems at the national and regional levels. The creation of museum networks in developing countries will need to be a multilateral effort, which will include the expertise of some of the highly trained and extremely competent museum professionals that already exist in these countries, as well as international experts.

The ultimate objective of all these efforts should be to develop a professional museum world in these countries that can be integrated into the already existing one in the industrial world.

Developing Countries : A Policy Dilemma - Upgrading the Existing Museums or Creating New Ones?

In absolute terms, there exist already a certain number of museums in the developing countries. These have received a low priority as have most other cultural projects, "the forgotten dimension of development". This low level of funding of institutions that very often were not highly ambitious undertakings to begin with, have led to the deterioration and loss of invaluable collections housed in many of these museums. A consequence of the lack of support of existing institutions this problem is not exclusive to developing countries. The case of Italy illustrates the dangers involved. The artistic treasures of this country were estimated in 1973 to be worth well over US \$ 50 billion, a figure that with inflation and the rise of prices of art objects could have tripled by now. Yet, at the time, the staff of the Italian Fine Arts administration consisted of 92 art historians, 95 archaeologists, 58 technicians, and 107 architects. They were responsible for overseeing 30,000 churches, 20,000 castles, 60,000 religious buildings and 200 state museums.¹ Evidently they were aided in their task by the employees of the individual institutions, but another indicator seems to point out that even all combined were not sufficient. Between 1975 and 1976, Interpol reported 1,313 thefts of art works in Italy which led to the loss of 24,107 objects.²

¹ K. Meyer, The Plundered Past, N. York: Atheneum, 1973, p. 85.

² Interpol, 1er colloque international sur le vol d'objets d'art et biens culturels, Saint Cloud, 14-16 juin 1977. Interpol, St. Cloud, France.

In Bangladesh, the lack of funds for the care of the existing collections has been compounded by the destruction caused by recent wars and the vandalism of the museums.¹ Many of the objects taken from the museums were later sold to employees of international relief organizations; and, although there are laws that prohibit the export of cultural heritage in many countries in addition to Bangladesh, they are difficult to enforce.

One of the major advantages that existing museums offer to a country seeking to develop this sector is the presence of a collection. Even when the objects in the local museums might not be considered to be representative of the cultural richness of a society, they can be viewed as a core around which a larger collection can be gathered.

The museum creation syndrome which overtakes many communities in their search for the prestige and status that these institutions are sometimes perceived to provide, should be avoided when existing museums can be renovated and improved to fulfill their role. In all cases, the already created museums should be considered in any project involving these types of institutions.

Sometimes, however, the cultural organizations of a country are locked in such complicated administrative systems that a considerable effort is required to launch any reform. In addition, there are cases where the existing personnel, in spite of the commendable job they might have been doing in their institution, could not be considered qualified to administer a museum where higher professional standards might be required. In other cases, the costs of renovation might be higher than those for new constructions.

One of the most attractive museum projects for a government in a developing country is the creation of a national museum intended as a showcase of

¹ ICOM, Return of cultural property to their countries of origin, Bangladesh. A preliminary survey of a national situation, Paris, ICOM, 1980.

the culture of the country and its traditions. As a rule, this museum is located in the capital city, and promoted both as an attraction for tourists and a national monument for the inhabitants of the country. Without denying the value of such an institution, when a museum of this type is being considered, the rest of the population of the country, living away from the capital city and with difficult access to it, should not be ignored. Rather a project of this sort should be truly a national museum, constituting the center of a network of institutions designed to reach the whole of the population. A project of this scope can become a strong unifying agent, helping to create a national identity by tying together diverse traditions and cultures emphasizing their common elements while highlighting their diversity and their individual richness.

This national presence can be achieved through the creation of satellite museums housing duplicate collections and serviced through travelling exhibitions as well as educational programmes extending into the local schools. The role of the national museum can be extended to offer technical services to other local or regional museums, as well as the satellite ones forming part of the network. There is no need to duplicate the efforts of conservation and restoration, for example, when the facilities of these new national museums can be designed to provide these services more effectively and efficiently. It is essential, however, that these logical extensions of the national museum should form part of the project from the initial planning stages, and not be developed haphazardly as an afterthought.

The Urgency of the Problem

Up to the present time, the priorities of development have been concentrated on more tangible and seemingly more pressing problems. However, in many countries in the developing world the plight of the cultural and natural heritages has reached emergency conditions.

The recent interest of the industrialized countries in non-Western cultures has been depleting and destroying the national patrimony of many developing nations. The case of Bangladesh was mentioned before, and many others could be added to this list. Furthermore, imported technologies - in many cases unsuccessfully assimilated - have erased the traditional technical knowledge that was appropriate for a given environment. The by-products of development are creating a threat in and of themselves. Pollution, public works, changes in climatic and water conditions, the flooding of large areas for hydroelectric projects are some the immediate threats that the remains of some ancient cultures are facing at this point. It is not being advocated here that monuments be dismantled, archaeological sites emptied to bring objects into museums, and landscapes artificially transplanted into dioramas, but it must be recognized that this destruction is taking place, and museums are urgently needed to conserve these works. The exhibition of a part of the national patrimony in a museum creates an awareness on the population of the right of the people to their cultural and natural heritages, and helps prevent senseless looting based on the rationale that the objects would be better cared for elsewhere.

A nation with a rich and valuable heritage but no means to care for it can be compared to an impoverished family who must sell their heirlooms to survive. Once the country is on its way to development, this patrimony will be missed, but it will not be available nor will it be recoverable if it has left the country or has been destroyed. Knowledge and understanding of the past, the identity of the people, will be lost forever.

A new Look at Patterns of Museum Planning and Financing

It seems strange that given the desperate situation of museums in the developing countries, the aid of international organizations has not been sought on a big scale until now. It is safe to assume that neither the countries concerned nor the organizations themselves (with few notable exceptions) have ever considered the funding of cultural organizations as a possibility. This might be the time for these international bodies to take a positive step in that direction by making it known that they stand ready to consider this type of projects.

If museums are to play a role in the development of nations, be an instrument of non-formal education and a catalyst to development, there will be a need for a rational and coordinated national museum policy. As was concluded earlier in this study, a centralized public administration of these institutions allows the allocation of resources according to established priorities, a strategy that is not possible if museums are created and supported by the private sector. In view of the need of museums in the developing countries for swift and efficient action, the most effective funding system will be one that, at least at the beginning and probably for the foreseeable future, will be provided through government channels. The implications of this system are, first of all, the creation of a national museum policy, and second, the organization of an agency with both the competence and the authority to implement this policy.

The establishment of a public museum agency does not, and furthermore, should not signify that these institutions rely exclusively on government funds for their support. Evidently, most developing nations would only be able to allocate to museums an amount of funds that would not meet the levels required for the task at hand. In all cases, international and private sources should become part of the financing system. In the case of international organizations, for example, development projects should generally

include a "cultural component", in order to :

- (a) harmonize the relative priorities of socio-economic development and preservation of cultural/natural heritages;
- (b) facilitate and assure the integration of the project in the socio-cultural patterns of a given community;
- (c) examine the possibilities of making use of appropriate technologies;
- (d) establish permanent means of information and facilities for non-formal education.

The museum will be, in many cases, a most effective institution for fulfilling this role. It will be instrumental in devising and implementing a program to cover the needs listed above. This is already the case of the so-called "ecomuseums" that exist in some European countries.¹

In all cases, this cultural element will only represent a relatively insignificant part of the project in terms of the total budget, but a significant contribution in terms of its impact on the population.

In other cases, it is conceivable that an international organization or a local government could request the aid of an international contractor to help create a technical exhibition related to the technology being utilized in that particular project, such as electrification or irrigation, for example, to be presented to the public in a museum, and make it understood in function of the traditional technological and cultural roots of a given community.

The formation of a museum's collections can be a long and onerous task and should follow from the start a clearly defined and stated policy. There exist already in many developing countries important private collections; these should not be ignored nor overlooked since in many cases these collectors will welcome the opportunity of making these objects accessible to the public at large while at the same time insuring their conservation by entrusting them to a truly professional museum. The museums

¹VARINE-BOHANE, Huges de. "A 'fragmented museum': the Museum of Man and Industry, Le Creusot-Montceau les Mines". (Museum, Paris, UNESCO, v. 25, N°4, 1973, p. 242-249).

themselves can contribute to their own support, as mentioned earlier in their study, by earning part of their income through admission fees, sales, services, etc.

Developing countries, like industrialized ones, must search for new and innovative solutions to finance their museums. There is no single museum formula that can be advanced as the most appropriate for all nations. Each country must seek the one best suited to its own society, and one that balances the roles played by government, private enterprises, foundations, and individuals. However, it is certain that the increasing costs of operation and expansion will lead museums to search funding from a diversity of sources that will include all sectors of society. The creation of a wide base of support will facilitate obtaining the levels of funding required and will not leave museums totally dependent on any one source.

CONCLUSIONS AND RECOMMENDATIONS

Evaluation of the Museum Needs of a Country, in View of Channeling International Assistance.

No generalizations can be made about the present situation of museums in different countries. Some countries have well established national museums in the capital city, that require aid to extend their influence to the provinces, to the rural sectors of the country, in response to the real need to de-centralize culture and cultural institutions. Many of such museums are in dire need of conceptual modernization and physical renovation.

In some countries the means must be provided for the proper conservation of the collections already existing in their museums; others need to start gathering the museum collections or to strengthen the very incomplete ones they possess.

Many countries need brick and mortar money to construct or renovate museum facilities, and most of them need to recruit and train competent personnel.

When considering a proposed project, how can a given international organization or financing agency determine the museum needs of a country ?

The method will not be that different from the evaluation of most other development programs. It must start with an analysis of the current situation that will evaluate :

- The present needs, in terms of the preservation of the country's heritage, the affirmation of the national identity, the development of appropriate technologies, the demand for non-formal education, etc. that may be fulfilled by the museum;

- the main cultural, educational and development objectives that the museum may contribute to achieve;
- the existing institutions, collections, personnel and facilities;
- whether these can be renovated to take care of the stated needs, or
- whether the creation of new museums is deemed necessary.

Once the above points have been explored, the next steps will be to determine :

- the appropriate legal and fiscal status for the museum within the country,
- costs of the project, including
 - brick and mortar money
 - collection acquisition
 - display and exhibition
 - conservation and restoration
 - development of outreach and educational programs
- need for personnel training and technical assistance
- and, future requirement for maintenance, operations and growth.

Of the above points, probably one of the most difficult to evaluate are the present needs of a country in regards to museums. In contrast to economic needs, no quantitative measures have yet been developed for cultural requirements. There are, however, some indicators that can be used for purposes of evaluation. One of these, which has been mentioned before in this study is the ratio of inhabitants to museums. Taking the global average of 162,000 inhabitants per museum, a quick glance at the tables in Appendix B will indicate that all low income countries, and a large percentage of middle income ones, are above this level, with some cases being more extreme than others.

Another indicator would be the ratio of square kilometers per museum, but this variable should not be used without taking into consideration the population distribution of the country. For example, within

industrialized nations there are several countries that are clearly outside the normal distribution; however, those concerned are the Scandinavian countries, Australia and New Zealand, all of which have large regions that are underpopulated or uninhabited. These same considerations should be present for developing countries when evaluating this ratio of square kilometers per museum.

Another factor that could play an important role in the evaluation of the need for museums in a country is the adult literacy rate. The unique character of museums which utilized objects and images for communication can make a large contribution in this area.

The rate of development of a country, measured by the amount of international aid it is receiving could indicate the role the museum could play in terms of bridging the gap between traditional production methods and customs, and the new modern technology which is being introduced and the changes it will bring.

Last but not least, the value of the patrimony of a country should be taken into consideration when museum projects are being evaluated. The museum's role as repository and custodian of the evidences of the development of a civilization should not be ignored. There exist at this time some nations where this need for conservation is so great that they can be considered to be in a situation of emergency; as examples can be cited Turkey, Peru, and Guatemala.

The evaluation of the museum needs must be placed against the background of the returns that the investment on a given museum will generate. It will certainly not be consistent to consider such returns on a mere financial basis, but rather to evaluate the non-tangible - and in many cases extremely important - returns that a museum generates in terms of preservation of the community's heritage, its cultural impact, educational benefits, etc.

Museum Investment Policies

Museums all over the world and particularly in developing countries are in urgent need of increased financial support. International and regional funding organizations and agencies are requested, in cooperation with national sources, to provide adequate financial means for museums. The fact that museums are indeed useful tools for development calls for a review of funding policies currently held by most of these organizations.

To meet the required financial needs of museums, the following is recommended :

- (a) the adoption of legislative and fiscal measures at the national level, specially in developing countries, to ensure that a percentage of investments for development is systematically allocated to cultural projects including museums (N.B. That this already is the case in most industrialized countries)
- (b) Conversely, the adoption by international organization and agencies for development of the principle that all projects shall include a cultural component, such as museums, financed on a percentage basis by the project, to ensure both the preservation of the heritage threatened by a given project and the assimilation of change within the existing socio-cultural framework.
- (c) that museums, as non-formal educational institutions, be allocated part of the funds reserved until now for educational and communications projects, both at national and international levels.
- (d) Finally, that the funds allocated to cultural projects, and specifically to museums, be invested within the geographical and demographical areas, be it city, group or region, directly affected by the larger development project.

APPENDIX A

Demographic and Museum Data by Continent

APPENDIX B

Demographic and Museum Data

by Economic Classification

The tables presented in Appendices A and B were compiled from demographic data published by the World Bank and the National Geographic Society,¹ as well as information provided by the UNESCO-ICOM Documentation Center.

An attempt was made to find correlations between various demographic variables, such as literacy rate and income per capita, and the number of museums in each country. The results proved that the relationships between them were too weak to indicate any definable patterns. At the present time, and from the information available, the incidence of museums can be related to the degree to which European cultural influences have been present in a given country. In addition, in the cases of the developing nations, particularly in Africa and Asia, the appreciation of the local natural and cultural heritages by European residents appears to have fomented the creation of museums.

¹ The World Bank, World Development Report 1981 (Washington, D. C., 1981) and The National Geographic Society, National Geographic Atlas of the World, 5th edition (Washington, D. C., 1981)

APPENDIX A

Demographic and Museum Data
by Continent - SUMMARY

| | <u>Percentage of world population</u> | <u>Median literacy rate (%)</u> | <u>Median income per capita (US \$)</u> | <u>Number of museums</u> | <u>Percentage of total number of museums</u> | <u>Median number of museums per country</u> | <u>Median ratio of inhabitants to museums (millions)</u> |
|----------------------------------|---|---|---|------------------------------|--|---|--|
| AFRICA | 10.6 % | 31 % | ⌘ 659 | 583 | 2.2 % | 11 | 1.321 |
| ASIA | 57.9 | 52 | 2,717 | 2841 | 10.6 | 67 | 1.420 |
| CENTRAL AMERICA AND CARIBBEAN | 1.2 | 55 | 1,918 | 151 | 0.6 | 8 | 0.659 |
| EUROPE | 17.2 | 93 | 5,794 | 14,244 | 52.9 | 419 | 0.043 |
| NORTH AMERICA | 7.2 | 93 | 7,303 | 6,715 | 24.9 | 2,238 | 0.142 |
| OCEANIA AND THE PACIFIC | 0.5 | 81 | 4,350 | 1,121 | 4.2 | 280 | 0.523 |
| SOUTH AMERICA | 5.4 | 76 | 1,404 | 1,250 | 4.6 | 96 | 0.278 |

APPENDIX A

Demographic and Museum Data
by Continent - AFRICA

| | Area (thou.km ²) | Population (millions) | Literacy rate | Income/cap (US \$) | No. of museums | Km ² :museum (thousands) | Inhab.:museum (millions) |
|----------------|---------------------------------|--------------------------|------------------|-----------------------|-------------------|--|-----------------------------|
| ALGERIA | 2382 | 18.2 | 35 | 1590 | 33 | 72.182 | 0.552 |
| ANGOLA | 1247 | 5.7 | 15 | 440 | 9 | 138.556 | 0.767 |
| BEIN | 113 | 3.4 | 11 | 250 | 5 | 22.600 | 0.680 |
| BOTSWANA | 600 | 0.8 | 35 | 720 | 4 | 150.000 | 0.200 |
| BURUNDI | 28 | 4.0 | 25 | 180 | 2 | 14.000 | 2.000 |
| CAMEROON | 475 | 8.2 | 70 | 560 | 12 | 39.583 | 0.683 |
| CAPE VERDE | 5 | 0.3 | 50 | 270 | 0 | * | * |
| CENTRAL AF REP | 623 | 2.0 | 18 | 290 | 5 | 124.600 | 0.400 |
| CHAD | 1284 | 4.4 | 15 | 110 | 2 | 642.000 | 2.200 |
| COMOROS | 2 | 0.4 | 20 | 210 | 0 | * | * |
| CONGO (F REP) | 342 | 1.5 | 40 | 630 | 4 | 85.500 | 0.375 |
| DJIBOUTI | 22 | 0.4 | 10 | 420 | 0 | * | * |
| EGYPT | 1001 | 38.9 | 44 | 480 | 53 | 18.887 | 0.734 |
| EQUAT GUINEA | 28 | 0.3 | 20 | - | 1 | 28.000 | 0.300 |
| ETHIOPIA | 1222 | 39.9 | 15 | 130 | 13 | 94.000 | 2.377 |
| GABON | 268 | 0.6 | 14 | 3280 | 1 | 268.000 | 0.600 |
| GAMBIA | 10 | 0.6 | 10 | 260 | 0 | * | * |
| GHANA | 239 | 11.3 | 30 | 400 | 16 | 14.938 | 0.706 |
| GUINEA | 246 | 5.3 | 20 | 280 | 8 | 30.750 | 0.663 |
| GUINEA BISSAU | 36 | 0.8 | 5 | 170 | 1 | 36.000 | 0.800 |
| IVORY COAST | 322 | 8.2 | 20 | 1040 | 3 | 107.333 | 2.733 |
| KENYA | 583 | 15.3 | 45 | 380 | 12 | 48.583 | 1.275 |
| LESOTHO | 30 | 1.3 | 52 | 340 | 2 | 15.000 | 0.650 |
| LIBERIA | 111 | 1.8 | 30 | 500 | 6 | 18.500 | 0.300 |
| LIBYA | 1760 | 2.9 | 50 | 8170 | 12 | 146.667 | 0.242 |
| MADAGASCAR | 587 | 8.5 | 50 | 290 | 6 | 97.833 | 1.417 |
| MALAWI | 118 | 5.8 | 25 | 200 | 3 | 39.333 | 1.933 |
| MALI | 1240 | 6.8 | 10 | 140 | 3 | 413.333 | 2.267 |
| MAURITANIA | 1030 | 1.6 | 17 | 320 | 1 | 1030.000 | 1.600 |
| MAURITIUS | 2 | 1.0 | 80 | 1040 | 3 | 0.667 | 0.333 |
| MOROCCO | 447 | 19.5 | 28 | 740 | 16 | 27.938 | 1.219 |
| MOZAMBIQUE | 783 | 10.2 | 20 | 250 | 9 | 87.000 | 1.133 |
| NAIPIA | 824 | 1.0 | - | 1220 | 6 | 137.333 | 0.167 |
| NIGER | 1267 | 5.2 | 8 | 270 | 1 | 1267.000 | 5.200 |

AFRICA (cont,d)

| | Area (thou.km ²) | Population (millions) | Literacy rate | Income/cap (US \$) | No. of museums | Km ² :museum: (thousands) | Inhab.:museum (millions) |
|---------------|---------------------------------|--------------------------|------------------|-------------------------|-------------------|---|-----------------------------|
| NIGERIA | 924 | 82.8 | 49 | 370 | 26 | 35.538 | 3.177 |
| REUNION | 3 | 0.5 | - | - | 2 | 1.500 | 0.250 |
| RUANDA | 26 | 4.9 | 23 | 200 | 3 | 8.667 | 1.633 |
| SAUTONE&FRINC | 1 | 0.1 | 16 | 450 | 1 | 1.000 | 0.100 |
| SENEGAL | 197 | 5.5 | 10 | 197 | 5 | 39.400 | 1.100 |
| SEYCHELLES | 0 | 0.1 | 60 | 1400 | 1 | 0.500 | 0.100 |
| SIERRA LEONE | 72 | 3.4 | 15 | 250 | 1 | 72.000 | 3.400 |
| SOMALIA | 638 | 3.8 | 60 | - | 1 | 638.000 | 3.800 |
| SOUTH AFRICA | 1221 | 28.5 | 79 | 1720 | 190 | 6.426 | 0.150 |
| SUDAN | 2506 | 17.9 | 20 | 370 | 11 | 227.818 | 1.627 |
| SWAZILAND | 17 | 0.6 | 65 | 650 | 1 | 17.000 | 0.600 |
| TANZANIA | 945 | 18.0 | 66 | 260 | 15 | 63.000 | 1.200 |
| TOGO | 57 | 2.4 | 18 | 350 | 1 | 57.000 | 2.400 |
| TUNISIA | 164 | 6.2 | 62 | 1120 | 29 | 5.655 | 0.214 |
| UGANDA | 236 | 12.8 | 45 | 290 | 11 | 21.455 | 1.164 |
| UPPER VOLTÁ | 274 | 5.6 | 10 | 180 | 1 | 274.000 | 5.600 |
| ZAIRE | 2345 | 27.5 | 15 | 260 | 12 | 195.417 | 2.292 |
| ZAMBIA | 753 | 5.6 | 39 | 500 | 6 | 125.500 | 0.933 |
| ZIMBABWE | 391 | 7.1 | 60 | 470 | 14 | 27.928 | 0.507 |

FOR ENTIRE CONTINENT:

| | | | | |
|---------------------------------------|--------|--------|------------|-------|
| Area (thousands km ²): | MEAN = | 566.93 | ST. DEV. = | 644. |
| Population (millions): | MEAN = | 8.7057 | ST. DEV. = | 13.5 |
| Adult literacy rate: | MEAN = | 30.962 | ST. DEV. = | 21.5 |
| Income per capita (US \$): | MEAN = | 658.57 | ST. DEV. = | 1185. |
| Number of museums: | MEAN = | 11.000 | ST. DEV. = | 26.9 |
| Km ² :museum: (thousands): | MEAN = | 143.55 | ST. DEV. = | 253. |
| Inhabitants:museum (millions): | MEAN = | 1.3215 | ST. DEV. = | 1.26 |

APPENDIX A

Demographic and Museum Data
by Continent - ASIA

| | Area (thou, km ²) | Population (millions) | Literacy rate | Income/cap. (US \$) | No. of museums | Km ² :museum (thousands) | Inhab;:museum (millions) |
|----------------|----------------------------------|--------------------------|------------------|------------------------|-------------------|--|-----------------------------|
| AFGANISTAN | 648 | 15.5 | 12 | 170 | 13 | 49.846 | 1.192 |
| BAHRAIN | 1 | 0.4 | 40 | 5460 | 1 | 1.000 | 0.400 |
| BANGLADESH | 144 | 88.9 | 26 | 90 | 38 | 3.789 | 2.339 |
| BHUTAN | 47 | 1.3 | - | 80 | 1 | 47.000 | 1.300 |
| BRUNEI | 6 | 0.2 | - | 10680 | 4 | 1.500 | 0.050 |
| BURMA | 577 | 32.9 | 67 | 160 | 20 | 33.850 | 1.645 |
| CHINA (P REP) | 9597 | 964.5 | 66 | 260 | 68 | 141.132 | 14.184 |
| CHINA (REP OF) | - | 17.9 | - | - | 12 | -0.083 | 1.492 |
| CYPRUS | 9 | 0.6 | 89 | 2940 | 12 | 0.750 | 0.050 |
| HONG KONG | 1 | 5.0 | 90 | 3760 | 4 | 0.250 | 1.250 |
| INDIA | 3288 | 659.2 | 36 | 190 | 360 | 9.133 | 1.831 |
| INDONESIA | 1919 | 142.9 | 62 | 370 | 80 | 23.987 | 1.786 |
| IRAN | 1648 | 37.0 | 50 | - | 35 | 47.086 | 1.057 |
| IRAQ | 435 | 12.6 | - | 2410 | 18 | 24.167 | 0.700 |
| ISRAEL | 21 | 3.8 | 90 | 4150 | 147 | 0.143 | 0.026 |
| JAPAN | 372 | 115.7 | 99 | 8810 | 1500 | 0.248 | 0.077 |
| JORDAN | 98 | 3.1 | 70 | 1180 | 10 | 9.800 | 0.310 |
| KAMPUCHEA | 181 | 5.6 | 42 | - | 9 | 20.111 | 0.622 |
| KOREA (PDREP) | 121 | 17.5 | 95 | 1130 | 5 | 24.200 | 3.500 |
| KOREA (REP OF) | 98 | 37.8 | 93 | 1480 | 65 | 1.508 | 0.582 |
| KUWAIT | 18 | 1.3 | 60 | 17100 | 2 | 9.000 | 0.650 |
| LAOS (PDR) | 237 | 2.7 | 12 | - | 3 | 79.000 | 0.900 |
| LEBANON | 10 | 3.3 | 86 | - | 5 | 2.000 | 0.660 |
| MACAO | 0 | 3.0 | 86 | - | 1 | 0.010 | 3.000 |
| MALAYSIA | 330 | 13.1 | 60 | 1370 | 24 | 13.750 | 0.546 |
| MALDIVES | 0 | 0.3 | 82 | 200 | 0 | * | * |
| MONGOLIA | 1565 | 1.6 | 63 | 780 | 11 | 142.273 | 0.145 |
| NEPAL | 141 | 14.0 | 19 | 130 | 13 | 10.846 | 1.077 |
| QATAR | 213 | 0.9 | 10 | 2970 | 1 | 213.000 | 0.900 |
| PAKISTAN | 804 | 79.7 | 24 | 260 | 44 | 18.273 | 1.811 |
| PHILIPPINES | 300 | 46.7 | 88 | 600 | 87 | 3.448 | 0.537 |
| QATAR | 11 | 0.2 | 21 | 16590 | 1 | 11.000 | 0.200 |
| SAUDI ARABIA | 2150 | 8.6 | 15 | 7280 | 3 | 716.667 | 2.867 |

ASIA (cont.d)

| | Area (thou.km ²) | Population (millions) | Literacy rate | Income/cap (US \$) | No. of museums | Km ² :museums (thousands) | Inhab.:museums (millions) |
|---------------|---------------------------------|--------------------------|------------------|-------------------------|-------------------|---|------------------------------|
| SINGAPORE | 1 | 2.4 | 78 | 3830 | 8 | 0.125 | 0.300 |
| SRI LANKA | 66 | 14.5 | 85 | 230 | 12 | 5.500 | 1.208 |
| SYRIAN ARAB R | 185 | 8.6 | 58 | 1030 | 13 | 14.231 | 0.662 |
| UN ARAB EMIRT | 84 | 1.1 | 25 | 15590 | 1 | 84.000 | 1.100 |
| THAILAND | 514 | 45.5 | 84 | 590 | 38 | 13.526 | 1.197 |
| TURKEY | 781 | 44.2 | 60 | 1330 | 142 | 5.500 | 0.311 |
| YEMEN (PDR) | 333 | 1.9 | 27 | 480 | 6 | 55.500 | 0.317 |
| YEMEN (ARB R) | 195 | 5.7 | 13 | 420 | 3 | 65.000 | 1.900 |
| VIET NAM | 330 | 52.9 | 87 | - | 15 | 22.000 | 3.527 |

FOR ENTIRE CONTINENT:

| | | | | |
|--------------------------------------|--------|--------|------------|-------|
| Area (thousands km ²): | MEAN = | 656.62 | ST. DEV. = | 1575. |
| Population (millions): | MEAN = | 59.871 | ST. DEV. = | 176. |
| Adult literacy rate: | MEAN = | 51.571 | ST. DEV. = | 32.8 |
| Income per capita (US \$): | MEAN = | 2716.5 | ST. DEV. = | 4570. |
| Number of museums: | MEAN = | 67.500 | ST. DEV. = | 235. |
| Km ² :museum (thousands): | MEAN = | 46.928 | ST. DEV. = | 116. |
| Inhabitants:museum (millions): | MEAN = | 1.4197 | ST. DEV. = | 2.24 |

APPENDIX A

Demographic and Museum Data
by Continent - Central America and the Caribbean

| | Area (thou.km ²) | Population (millions) | Literacy rate | Income/cap (US \$) | No. of museums | Km ² :museum. (thousands) | Inhab.:museum (millions) |
|-------------------|---------------------------------|--------------------------|------------------|-------------------------|-------------------|---|-----------------------------|
| BAHAMAS | 14.000 | 0.20 | 93 | 2780 | 40 | 0.350 | 0.005 |
| BARBADOS | 0.400 | 0.20 | 99 | 2400 | 1 | 0.400 | 0.200 |
| BELIZE | 22.000 | 0.1 | - | - | 0 | * | * |
| BERMUDAS | 0.050 | 0.05 | - | 9440 | 7 | 0.007 | 0.007 |
| COSTA RICA | 51.000 | 2.2 | 90 | 1820 | 9 | 5.667 | 0.244 |
| CUBA | 115.000 | 9.8 | 96 | 1410 | 27 | 4.259 | 0.363 |
| DOMINICAN REP | 49.000 | 5.3 | 67 | 990 | 2 | 24.500 | 2.650 |
| EL SALVADOR | 21.000 | 4.4 | 62 | 670 | 2 | 10.500 | 2.200 |
| GUADELOUPE | 3.000 | 0.6 | - | - | 3 | 1.000 | 0.200 |
| GUATEMALA | 109.000 | 6.8 | 47 | 1020 | 9 | 12.111 | 0.756 |
| HAITI | 28.000 | 4.9 | 23 | 260 | 3 | 9.333 | 1.633 |
| HONDURAS | 112.000 | 3.6 | 60 | 530 | 4 | 28.000 | 0.900 |
| JAMAICA | 11.000 | 2.2 | 86 | 1260 | 9 | 1.222 | 0.244 |
| NICARAGUA | 130.000 | 2.6 | 90 | 660 | 4 | 32.500 | 0.650 |
| PANAMA | 77.000 | 1.8 | 82 | 1400 | 13 | 5.923 | 0.138 |
| PUERTO RICO | 9.000 | 3.2 | - | 2970 | 15 | 0.600 | 0.213 |
| TRINIDAD & TOBAGO | 5.000 | 1.2 | 95 | 3390 | 2 | 2.500 | 0.600 |
| NETH ANTILLES | 0.200 | 0.9 | - | 3540 | 1 | 0.900 | 0.200 |

FOR ENTIRE AREA:

| | | | | |
|--------------------------------------|--------|---------|------------|-------|
| Area (thousands km ²): | MEAN = | 42.025 | ST. DEV. = | 45.9 |
| Population (millions): | MEAN = | 2.7417 | ST. DEV. = | 2.69 |
| Adult literacy rate: | MEAN = | 54.722 | ST. DEV. = | 40.4 |
| Income per capita (US \$): | MEAN = | 1918.8 | ST. DEV. = | 2187. |
| Number of museums: | MEAN = | 8.3889 | ST. DEV. = | 10.3 |
| Km ² :museum (thousands): | MEAN = | 8.1690 | ST. DEV. = | 10.4 |
| Inhabitants:museum (millions): | MEAN = | 0.65910 | ST. DEV. = | 0.780 |

APPENDIX A

Demographic and Museum Data
by Continent - EUROPE

| | Area (thou;km ²) | Population (millions) | Literacy rate | Income/cap (US \$) | No. of museums | Km ² :museum (thousands) | Inhab.:museum: (millions) |
|-----------------|---------------------------------|--------------------------|------------------|-----------------------|-------------------|--|------------------------------|
| ALBANIA | 70,500 | 0.003 | 100 | - | 0 | * | * |
| ALBANIA | 29,000 | 2,700 | 75 | 840 | 12 | 2,417 | 0,225 |
| AUSTRIA | 84,000 | 7,500 | 99 | 8630 | 503 | 0,167 | 0,015 |
| BELGIUM | 31,000 | 9,800 | 99 | 10920 | 806 | 0,038 | 0,012 |
| BULGARIA | 111,000 | 9,000 | 95 | 3690 | 188 | 0,590 | 0,048 |
| CZECHOSLOVAK | 128,000 | 15,200 | 99 | 5290 | 514 | 0,249 | 0,030 |
| DENMARK | 43,000 | 5,100 | 99 | 11900 | 300 | 0,143 | 0,017 |
| FINLAND | 337,000 | 4,800 | 100 | 8160 | 228 | 1,478 | 0,021 |
| FRANCE | 547,000 | 53,400 | 99 | 9950 | 1250 | 0,438 | 0,043 |
| GERMANY (DEM R) | 108,000 | 16,800 | 99 | 6430 | 700 | 0,154 | 0,024 |
| GERMANY (FED R) | 249,000 | 61,200 | 99 | 11730 | 1550 | 0,161 | 0,039 |
| GIBRALTAR | 0,006 | 0,030 | - | 4320 | 1 | 0,006 | 0,030 |
| GREECE | 132,000 | 9,300 | 95 | 3960 | 340 | 0,388 | 0,027 |
| HUNGARY | 93,000 | 10,700 | 98 | 3850 | 203 | 0,458 | 0,053 |
| IRELAND | 70,000 | 3,300 | 98 | 4210 | 101 | 0,693 | 0,033 |
| ICELAND | 103,000 | 0,200 | 100 | 10490 | 18 | 5,722 | 0,011 |
| ITALY | 301,000 | 56,800 | 98 | 5250 | 1134 | 0,265 | 0,050 |
| LICHTENSTEIN | 0,200 | 0,030 | 99 | - | 4 | 0,050 | 0,008 |
| LUXEMBOURG | 2,000 | 0,400 | 100 | 12820 | 14 | 0,143 | 0,029 |
| MALTA | 0,300 | 0,300 | 83 | 2640 | 10 | 0,030 | 0,030 |
| MONACO | 0,002 | 0,030 | 99 | - | 5 | 0,000 | 0,006 |
| NETHERLANDS | 41,000 | 14,000 | 99 | 10230 | 514 | 0,080 | 0,027 |
| NORWAY | 324,000 | 4,100 | 99 | 10700 | 320 | 1,013 | 0,013 |
| POLAND | 313,000 | 35,400 | 98 | 3830 | 425 | 0,736 | 0,083 |
| PORTUGAL | 92,000 | 9,800 | 70 | 2180 | 97 | 0,948 | 0,101 |
| ROMANIA | 238,000 | 22,100 | 98 | 1900 | 331 | 0,719 | 0,067 |
| SAN MARINO | 0,060 | 0,020 | 100 | - | 5 | 0,012 | 0,004 |
| SPAIN | 505,000 | 37,000 | 97 | 4380 | 750 | 0,673 | 0,049 |
| SWEDEN | 450,000 | 8,300 | 99 | 11930 | 280 | 1,807 | 0,030 |
| SWITZERLAND | 41,000 | 6,500 | 99 | 13920 | 538 | 0,076 | 0,012 |
| UNITED KINGD | 245,000 | 55,900 | 99 | 6320 | 1008 | 0,243 | 0,055 |
| USSR | 22402,000 | 234,100 | 100 | 4110 | 1400 | 16,001 | 0,189 |
| VATICAN | 0,000 | 0,001 | 100 | - | 13 | 0,000 | 0,000 |
| YUGOSLAVIA | 256,000 | 22,100 | 85 | 2430 | 682 | 0,375 | 0,032 |

EUROPE (cont.d)

| | | | | |
|--------------------------------------|--------|----------|-----------|--------|
| Area (thousands km ²): | MEAN = | 802.24 | ST.DEV. = | 3820. |
| Population (millions): | MEAN = | 21.939 | ST.DEV. = | 46.5 |
| Adult literacy rate: | MEAN = | 93.382 | ST.DEV. = | 18.1 |
| Income per capita (US \$): | MEAN = | 5794.3 | ST.DEV. = | 4323. |
| Number of museums: | MEAN = | 418.94 | ST.DEV. = | 438. |
| Km ² :museum (thousands): | MEAN = | 1.0932 | ST.DEV. = | 2.88 |
| Inhabitants:museum (millions): | MEAN = | 0.042805 | ST.DEV. = | 0.0481 |

APPENDIX A

Demographic and Museum Data
by Continent - NORTH AMERICA

| | <u>Area</u> <u>(thou.km²)</u> | <u>Population</u> <u>(millions)</u> | <u>Literacy</u> <u>rate</u> | <u>Income/cap</u> <u>(US \$)</u> | <u>No. of</u> <u>Museums</u> | <u>Km²:museum</u> <u>(thousands)</u> | <u>Inhabitants:museum</u> <u>(millions)</u> |
|--------|---|--|--------------------------------|-------------------------------------|---------------------------------|--|--|
| CANADA | 9976 | 23.7 | 99 | 9640 | 1035 | 9.639 | 0.023 |
| MEXICO | 1973 | 65.5 | 82 | 1640 | 180 | 10.961 | 0.364 |
| USA | 9363 | 223.6 | 99 | 10630 | 5500 | 1.702 | 0.041 |

FOR ENTIRE CONTINENT:

| | | | | |
|--------------------------------------|--------|---------|-----------|-------|
| Area (thousands km ²): | MEAN = | 7104.0 | ST.DEV. = | 4454. |
| Population (millions): | MEAN = | 104.27 | ST.DEV. = | 105. |
| Adult literacy rate: | MEAN = | 93.333 | ST.DEV. = | 9.81 |
| Income per capita (US \$): | MEAN = | 7303.3 | ST.DEV. = | 4930. |
| Number of museums: | MEAN = | 2238.3 | ST.DEV. = | 2857. |
| Km ² :museum (thousands): | MEAN = | 7.4340 | ST.DEV. = | 5.01 |
| Inhabitants:museum (millions): | MEAN = | 0.14248 | ST.DEV. = | 0.192 |

APPENDIX A

Demographic and Museum Data
by Continent - OCEANIA AND THE PACIFIC

| | <u>Area</u> <u>(thou.km²)</u> | <u>Population</u> <u>(millions)</u> | <u>Literacy</u> <u>rate</u> | <u>Income/cap</u> <u>(US \$)</u> | <u>No. of</u> <u>museums</u> | <u>Km²:museum</u> <u>(thousands)</u> | <u>Inhabitants:museum</u> <u>(millions)</u> |
|---------------|---|--|--------------------------------|-------------------------------------|---------------------------------|--|--|
| AUSTRALIA | 7687 | 14.3 | 100 | 9120 | 1000 | 7.687 | 0.014 |
| NEW ZEALAND | 269 | 3.2 | 99 | 5930 | 118 | 2.280 | 0.027 |
| PAPUA/NGUINEA | 462 | 2.9 | 51 | 660 | 2 | 231.000 | 1.450 |
| FIJI | 18 | 0.6 | 75 | 1690 | 1 | 18.000 | 0.600 |

FOR ENTIRE CONTINENT:

| | | | | |
|--------------------------------------|--------|---------|-----------|-------|
| Area (thousands km ²): | MEAN = | 2109.0 | ST.DEV. = | 3723. |
| Population (millions): | MEAN = | 5.2500 | ST.DEV. = | 6.14 |
| Adult literacy rate: | MEAN = | 81.250 | ST.DEV. = | 23.2 |
| Income per capita (US \$): | MEAN = | 4350.0 | ST.DEV. = | 3913. |
| Number of museums: | MEAN = | 280.25 | ST.DEV. = | 483. |
| Km ² :museum (thousands): | MEAN = | 64.742 | ST.DEV. = | 111. |
| Inhabitants:museums (millions): | MEAN = | 0.52285 | ST.DEV. = | 0.676 |

APPENDIX A

Demographic and Museum Data
by Continent - SOUTH AMERICA

| | Area (thou.km ²) | Population (millions) | Literacy rate | Income/cap (US \$) | No. of museums | Km ² :museum (thousands) | Inhabitants: museum (millions) |
|-----------|---------------------------------|--------------------------|------------------|-----------------------|-------------------|--|--------------------------------------|
| ARGENTINA | 2767 | 27.30 | 94 | 2230 | 456 | 6.068 | 0.060 |
| BOLIVIA | 109 | 5.40 | 63 | 550 | 25 | 4.360 | 0.216 |
| BRAZIL | 851 | 116.50 | 76 | 1780 | 430 | 1.979 | 0.271 |
| CHILE | 75 | 10.90 | 90 | 1690 | 68 | 1.103 | 0.160 |
| COLOMBIA | 113 | 26.10 | 80 | 1010 | 136 | 0.831 | 0.192 |
| ECUADOR | 28 | 8.10 | 77 | 1050 | 18 | 1.556 | 0.450 |
| FR GUIANA | 9 | 0.06 | - | - | 1 | 9.000 | 0.060 |
| GUYANA | 21 | 0.90 | 92 | 570 | 1 | 21.000 | 0.900 |
| PARAGUAY | 40 | 3.00 | 84 | 1070 | 13 | 3.077 | 0.231 |
| PERU | 128 | 17.10 | 80 | 730 | 36 | 3.556 | 0.475 |
| SURINAME | 16 | 0.40 | 80 | 2360 | 4 | 4.000 | 0.100 |
| URUGUAY | 176 | 2.90 | 94 | 2100 | 22 | 8.000 | 0.132 |
| VENEZUELA | 912 | 14.50 | 82 | 3120 | 40 | 22.800 | 0.362 |

FOR ENTIRE CONTINENT:

| | | | | |
|--------------------------------------|--------|---------|------------|-------|
| Area (thousands km ²): | MEAN = | 403.46 | ST. DEV. = | 773. |
| Population (millions): | MEAN = | 17.935 | ST. DEV. = | 31.0 |
| Adult literacy rate: | MEAN = | 76.231 | ST. DEV. = | 24.7 |
| Income per capita (US \$): | MEAN = | 1404.5 | ST. DEV. = | 889. |
| Number of museums: | MEAN = | 96.154 | ST. DEV. = | 158. |
| Km ² :museum (thousands): | MEAN = | 6.7176 | ST. DEV. = | 7.20 |
| Inhabitants:museum (millions): | MEAN = | 0.27762 | ST. DEV. = | 0.231 |

APPENDIX B

Demographic and Museum Data
by Economic Classification - SUMMARY

| | <u>Percentage of world population</u> | <u>Median literacy rate (%)</u> | <u>Median income per capita (US \$)</u> | <u>Number of museums</u> | <u>Percentage of total number of museums</u> | <u>Median number of museums per country</u> | <u>Median ratio of inhabitants to museums (millions)</u> |
|---|---------------------------------------|-----------------------------------|---|--------------------------|--|---|--|
| INDUSTRIALIZED COUNTRIES | 15.6 % | 99 % | \$ 9,332 | 17,685 | 65.7 % | 982 | 0.031 |
| MIDDLE INCOME COUNTRIES | 22.9 | 67 | 1,312 | 4,756 | 17.6 | 78 | 0.752 |
| LOW INCOME COUNTRIES | 52.7 | 29 | 210 | 796 | 3.0 | 22 | 2.166 |
| NON MARKET ECONOMIES | 8.2 | 98 | 4,533 | 3,430 | 12.7 | 572 | 0.071 |
| CAPITAL SURPLUS OIL EXPORTING COUNTRIES | 0.6 | 41 | 8,740 | 35 | 0.1 | 9 | 1.115 |

APPENDIX B

Demographic and Museum Data
by Economic Classification - INDUSTRIALIZED COUNTRIES

| | Area (thou.km ²) | Population (millions) | Literacy rate | Income/cap (US \$) | No. of museums | Km ² :museum (thousands) | Inhab.:museum (millions) |
|-----------------|---------------------------------|--------------------------|------------------|-----------------------|-------------------|--|-----------------------------|
| JAPAN | 372 | 115.7 | 99 | 8810 | 1500 | 0.248 | 0.077 |
| AUSTRIA | 84 | 7.5 | 99 | 8630 | 503 | 0.167 | 0.015 |
| BELGIUM | 31 | 9.8 | 99 | 10920 | 806 | 0.038 | 0.012 |
| DENMARK | 43 | 5.1 | 99 | 11900 | 390 | 0.143 | 0.017 |
| FINLAND | 337 | 4.8 | 100 | 8160 | 228 | 1.478 | 0.021 |
| FRANCE | 547 | 53.4 | 99 | 9950 | 1250 | 0.438 | 0.043 |
| GERMANY (FED R) | 249 | 61.2 | 99 | 11730 | 1550 | 0.161 | 0.039 |
| IRELAND | 70 | 3.3 | 98 | 4210 | 101 | 0.693 | 0.033 |
| ITALY | 301 | 56.8 | 98 | 5250 | 1134 | 0.265 | 0.050 |
| NETHERLANDS | 41 | 14.0 | 99 | 10230 | 514 | 0.080 | 0.027 |
| NORWAY | 324 | 4.1 | 99 | 10700 | 320 | 1.013 | 0.013 |
| SWEDEN | 450 | 8.3 | 99 | 11930 | 280 | 1.607 | 0.030 |
| SWITZERLAND | 41 | 6.5 | 99 | 13920 | 538 | 0.076 | 0.012 |
| UNITED KINGD | 245 | 55.9 | 99 | 6320 | 1008 | 0.243 | 0.055 |
| CANADA | 9976 | 23.7 | 99 | 9640 | 1035 | 9.639 | 0.023 |
| USA | 9363 | 223.6 | 99 | 10630 | 5500 | 1.702 | 0.041 |
| AUSTRALIA | 7687 | 14.3 | 100 | 9120 | 1000 | 7.687 | 0.014 |
| NEW ZEALAND | 269 | 3.2 | 99 | 5930 | 118 | 2.280 | 0.027 |

FOR WHOLE CLASSIFICATION:

| | | | | |
|--------------------------------------|--------|----------|------------|--------|
| Area (thousands km ²): | MEAN = | 1690.6 | ST. DEV. = | 3395. |
| Population (millions): | MEAN = | 37.289 | ST. DEV. = | 55.6 |
| Adult literacy rate: | MEAN = | 99.000 | ST. DEV. = | 0.485 |
| Income per capita (US \$): | MEAN = | 9332.2 | ST. DEV. = | 2581. |
| Number of museums: | MEAN = | 982.50 | ST. DEV. = | 1219. |
| Km ² :museum (thousands): | MEAN = | 1.5532 | ST. DEV. = | 2.69 |
| Inhabitants:museum (millions): | MEAN = | 0.030524 | ST. DEV. = | 0.0178 |

APPENDIX B
Demographic and Museum Data
by Economic Classification - MIDDLE INCOME COUNTRIES

| | Area (thou.km ²) | Population (millions) | Literacy rate | Income/cap (US \$) | No. of museums | Km ² :museum (thousands) | Inhab.:museum (millions) |
|------------------|---------------------------------|--------------------------|------------------|-----------------------|-------------------|--|-----------------------------|
| ALGERIA | 2382 | 18.2 | 35 | 1590 | 33 | 72.182 | 0.552 |
| ANGOLA | 1247 | 6.9 | 15 | 440 | 9 | 138.556 | 0.767 |
| CAMEROON | 475 | 8.2 | 70 | 560 | 12 | 39.583 | 0.683 |
| CONGO (P. REP.) | 342 | 1.5 | 40 | 630 | 4 | 85.500 | 0.375 |
| EGYPT | 1001 | 38.9 | 44 | 480 | 53 | 18.887 | 0.734 |
| GHANA | 239 | 11.3 | 30 | 400 | 16 | 14.938 | 0.706 |
| IVORY COAST | 322 | 8.2 | 20 | 1040 | 3 | 107.333 | 2.733 |
| KENYA | 583 | 15.3 | 45 | 380 | 12 | 48.583 | 1.275 |
| LIBERIA | 111 | 1.8 | 30 | 500 | 6 | 18.500 | 0.300 |
| MOROCCO | 447 | 19.5 | 28 | 740 | 16 | 27.938 | 1.219 |
| NIGERIA | 924 | 82.6 | 49 | 670 | 26 | 35.538 | 3.177 |
| SENEGAL | 197 | 5.5 | 10 | 197 | 5 | 39.400 | 1.100 |
| SOUTH AFRICA | 1221 | 28.5 | 79 | 1720 | 190 | 6.426 | 0.150 |
| TUNISIA | 164 | 6.2 | 62 | 1120 | 29 | 5.655 | 0.214 |
| ZAMBIA | 753 | 5.6 | 39 | 500 | 6 | 125.500 | 0.933 |
| ZIMBABWE | 391 | 7.1 | 60 | 470 | 14 | 27.929 | 0.507 |
| HONG KONG | 1 | 5.0 | 90 | 3760 | 4 | 0.250 | 1.250 |
| IRAN | 1648 | 37.0 | 50 | - | 35 | 47.086 | 1.057 |
| ISRAEL | 21 | 3.8 | 90 | 4150 | 147 | 0.143 | 0.026 |
| JORDAN | 98 | 3.1 | 70 | 1180 | 10 | 9.800 | 0.310 |
| KOREA (P.D.R.P.) | 121 | 17.5 | 95 | 1130 | 5 | 24.200 | 3.500 |
| KOREA (R.P.O.F.) | 98 | 37.8 | 93 | 1480 | 65 | 1.508 | 0.582 |
| LEBANON | 10 | 3.3 | 86 | - | 5 | 2.000 | 0.660 |
| MALAYSIA | 330 | 13.1 | 60 | 1370 | 24 | 13.750 | 0.546 |
| MONGOLIA | 1565 | 1.6 | 63 | 780 | 11 | 142.273 | 0.145 |
| PHILIPPINES | 300 | 46.7 | 88 | 600 | 87 | 3.448 | 0.537 |
| SINGAPORE | 1 | 2.4 | 78 | 3830 | 8 | 0.125 | 0.300 |
| SYRIAN ARAB R. | 185 | 8.6 | 58 | 1030 | 13 | 14.231 | 0.662 |
| THAILAND | 514 | 45.5 | 84 | 590 | 38 | 13.526 | 1.197 |
| TURKEY | 781 | 44.2 | 60 | 1330 | 142 | 5.500 | 0.311 |
| YEMEN (P.D.R.) | 353 | 1.9 | 27 | 480 | 6 | 55.500 | 0.317 |
| YEMEN (A.R.P.) | 195 | 5.7 | 13 | 420 | 3 | 65.000 | 1.900 |
| VIET NAM | 330 | 52.9 | 87 | - | 15 | 22.000 | 3.527 |
| ALBANIA | 29 | 2.7 | 75 | 840 | 12 | 2.417 | 0.225 |

MIDDLE INCOME COUNTRIES (cont,d)

| | Area (thou.km ²) | Population (millions) | Literacy rate | Income/cap (US \$) | No. of museums | Km ² :museum (thousands) | Inhab.:museum: (millions) |
|-------------------|---------------------------------|--------------------------|------------------|-----------------------|-------------------|--|------------------------------|
| GREECE | 132 | 9.3 | 95 | 3960 | 340 | 0.388 | 0.027 |
| PORTUGAL | 92 | 9.8 | 70 | 2180 | 97 | 0.948 | 0.101 |
| ROMANIA | 238 | 22.1 | 98 | 1900 | 331 | 0.719 | 0.067 |
| SPAIN | 565 | 37.0 | 97 | 4380 | 750 | 0.673 | 0.049 |
| YUGOSLAVIA | 256 | 22.1 | 85 | 2430 | 682 | 0.375 | 0.032 |
| MEXICO | 1973 | 65.5 | 82 | 1640 | 180 | 10.961 | 0.364 |
| COSTA RICA | 51 | 2.2 | 90 | 1820 | 9 | 5.667 | 0.244 |
| CUBA | 115 | 9.8 | 96 | 1410 | 27 | 4.259 | 0.363 |
| DOMINICAN REP | 49 | 5.3 | 67 | 990 | 2 | 24.500 | 2.650 |
| EL SALVADOR | 21 | 4.4 | 62 | 670 | 2 | 10.500 | 2.200 |
| GUATEMALA | 109 | 6.8 | 47 | 1020 | 9 | 12.111 | 0.756 |
| HONDURAS | 112 | 3.6 | 60 | 530 | 4 | 28.000 | 0.900 |
| JAMAICA | 11 | 2.2 | 86 | 1260 | 9 | 1.222 | 0.244 |
| RICARAGUA | 130 | 2.6 | 90 | 660 | 4 | 32.500 | 0.650 |
| PANAMA | 77 | 1.8 | 82 | 1400 | 13 | 5.923 | 0.138 |
| TRINIDAD & TOBAGO | 5 | 1.2 | 95 | 3390 | 2 | 2.500 | 0.600 |
| ARGENTINA | 2767 | 27.3 | 94 | 2230 | 456 | 6.068 | 0.060 |
| BOLIVIA | 109 | 5.4 | 63 | 550 | 25 | 4.360 | 0.216 |
| BRAZIL | 851 | 116.5 | 76 | 1780 | 430 | 1.979 | 0.271 |
| CHILE | 75 | 10.9 | 90 | 1690 | 68 | 1.103 | 0.160 |
| COLOMBIA | 113 | 26.1 | 80 | 1010 | 136 | 0.831 | 0.192 |
| ECUADOR | 28 | 8.1 | 77 | 1050 | 18 | 1.556 | 0.450 |
| PARAGUAY | 40 | 3.0 | 84 | 1070 | 13 | 3.077 | 0.231 |
| PERU | 128 | 17.1 | 80 | 730 | 36 | 3.556 | 0.475 |
| URUGUAY | 176 | 2.9 | 94 | 2100 | 22 | 8.000 | 0.132 |
| VENEZUELA | 912 | 14.5 | 82 | 3120 | 40 | 22.800 | 0.363 |
| PAPUA/NGUINEA | 460 | 2.9 | 51 | 660 | 2 | 231.000 | 1.450 |

FOR WHOLE CLASSIFICATION:

| | | | | |
|--------------------------------------|--------|---------|------------|-------|
| Area (thousands km ²): | MEAN = | 440.92 | ST. DEV. = | 591. |
| Population (millions): | MEAN = | 17.025 | ST. DEV. = | 21.7 |
| Adult literacy rate: | MEAN = | 67.148 | ST. DEV. = | 24.5 |
| Income per capita (US \$): | MEAN = | 1312.0 | ST. DEV. = | 1073. |
| Number of museums: | MEAN = | 78.213 | ST. DEV. = | 155. |
| Km ² :museum (thousands): | MEAN = | 27.226 | ST. DEV. = | 43.1 |
| Inhabitants:museum. (millions): | MEAN = | 0.75183 | ST. DEV. = | 0.849 |

APPENDIX B

Demographic and Museum Data
by Economic Classification - LOW INCOME COUNTRIES

| | Area (thou.km ²) | Population (millions) | Literacy rate | Income/cap (US \$) | No. of museums | Km ² :museum ^a (thousands) | Inhabitants:museum (millions) |
|----------------|---------------------------------|--------------------------|------------------|-----------------------|-------------------|---|----------------------------------|
| BENIN | 113 | 3.4 | 11 | 250 | 5 | 22.600 | 0.680 |
| BURUNDI | 28 | 4.0 | 25 | 180 | 2 | 14.000 | 2.000 |
| CENTRAL AF REP | 623 | 2.0 | 18 | 290 | 5 | 124.600 | 0.400 |
| CHAD | 1284 | 4.4 | 15 | 110 | 2 | 642.000 | 2.200 |
| ETHIOPIA | 1222 | 30.9 | 15 | 130 | 13 | 94.000 | 2.377 |
| GUINEA | 246 | 5.3 | 20 | 280 | 8 | 30.750 | 0.663 |
| GUINEA BISSAU | 36 | 0.8 | 5 | 170 | 1 | 36.000 | 0.800 |
| LESOTHO | 30 | 1.3 | 52 | 340 | 2 | 15.000 | 0.650 |
| MADAGASCAR | 587 | 8.5 | 50 | 290 | 6 | 97.833 | 1.417 |
| MALAWI | 118 | 5.8 | 25 | 200 | 3 | 39.333 | 1.933 |
| MALI | 1240 | 6.8 | 10 | 140 | 3 | 413.333 | 2.267 |
| MAURITANIA | 1030 | 1.6 | 17 | 320 | 1 | 1030.000 | 1.600 |
| MOZAMBIQUE | 783 | 10.2 | 20 | 250 | 9 | 87.000 | 1.133 |
| NIGER | 1267 | 5.2 | 8 | 270 | 1 | 1267.000 | 5.200 |
| RWANDA | 26 | 4.9 | 23 | 200 | 3 | 8.667 | 1.633 |
| SIERRA LEONE | 72 | 3.4 | 15 | 250 | 1 | 72.000 | 3.400 |
| SOMALIA | 638 | 3.8 | 60 | - | 1 | 638.000 | 3.800 |
| SUDAN | 2506 | 17.9 | 20 | 370 | 11 | 227.818 | 1.627 |
| TANZANIA | 945 | 18.0 | 66 | 260 | 15 | 63.000 | 1.200 |
| TOGO | 57 | 2.4 | 18 | 350 | 1 | 57.000 | 2.400 |
| UGANDA | 236 | 12.8 | 45 | 290 | 11 | 21.455 | 1.164 |
| UPPER VOLTA | 274 | 5.6 | 10 | 180 | 1 | 274.000 | 5.600 |
| ZATRE | 2345 | 27.5 | 15 | 260 | 12 | 195.417 | 2.292 |
| AFGANISTAN | 648 | 15.5 | 12 | 170 | 13 | 49.846 | 1.192 |
| BANGLADESH | 144 | 88.9 | 26 | 90 | 38 | 3.789 | 2.339 |
| BHUTAN | 47 | 1.3 | - | 80 | 1 | 47.000 | 1.300 |
| BURMA | 677 | 32.9 | 67 | 160 | 20 | 33.850 | 1.645 |
| CHINA (P REP) | 9597 | 964.5 | 66 | 260 | 68 | 141.132 | 14.184 |
| INDIA | 3288 | 659.2 | 36 | 190 | 360 | 9.133 | 1.831 |
| INDONESIA | 1919 | 142.9 | 62 | 370 | 80 | 23.987 | 1.786 |
| KAMPUCHEA | 181 | 5.6 | 42 | - | 9 | 20.111 | 0.622 |
| LAOS (PDR) | 237 | 2.7 | 12 | - | 3 | 79.000 | 0.900 |
| NEPAL | 141 | 14.0 | 19 | 130 | 13 | 10.846 | 1.077 |
| PAKISTAN | 804 | 79.7 | 24 | 260 | 44 | 18.273 | 1.811 |
| SRI LANKA | 66 | 14.5 | 85 | 230 | 12 | 5.500 | 1.208 |
| HAITI | 28 | 4.9 | 23 | 260 | 3 | 9.333 | 1.633 |

LOW INCOME COUNTRIES (cont.d)

FOR WHOLE CLASSIFICATION:

| | | | | |
|--------------------------------------|--------|--------|-----------|-------|
| Area (thousands km ²): | MEAN = | 930.08 | ST.DEV. = | 1683. |
| Population (millions): | MEAN = | 61.475 | ST.DEV. = | 190. |
| Adult literacy rate: | MEAN = | 28.778 | ST.DEV. = | 21.4 |
| Income per capita (US \$): | MEAN = | 210.47 | ST.DEV. = | 99.4 |
| Number of museums: | MEAN = | 21.694 | ST.DEV. = | 60.7 |
| Km ² :museum (thousands): | MEAN = | 164.52 | ST.DEV. = | 290. |
| Inhabitants:museum (millions): | MEAN = | 2.1657 | ST.DEV. = | 2.36 |

APPENDIX B

Demographic and Museum Data
by Economic Classification - NON MARKET ECONOMIES

| | <u>Area</u> <u>(thou.km²)</u> | <u>Population</u> <u>(millions)</u> | <u>Literacy</u> <u>rate</u> | <u>Income/cap</u> <u>(US \$)</u> | <u>No. of</u> <u>museums</u> | <u>Km²:museum</u> <u>(thousands)</u> | <u>Inhabitants:</u> <u>museums</u> <u>(millions)</u> |
|----------------|---|--|--------------------------------|-------------------------------------|---------------------------------|--|--|
| BULGARIA | 111 | 9.0 | 95 | 3690 | 188 | 0.590 | 0.048 |
| POLAND | 313 | 35.4 | 98 | 3830 | 425 | 0.736 | 0.083 |
| HUNGARY | 93 | 10.7 | 98 | 3850 | 203 | 0.458 | 0.053 |
| USSR | 22402 | 264.1 | 100 | 4110 | 1400 | 16.001 | 0.189 |
| CZECHOSLOVAKIA | 120 | 15.2 | 99 | 5290 | 514 | 0.249 | 0.030 |
| GERMANY (DR) | 108 | 16.8 | 99 | 6430 | 700 | 0.154 | 0.024 |

FOR WHOLE CLASSIFICATION:

| | | | | |
|--------------------------------------|-------|--------|----------|--------|
| Area (thousands km ²): | MEAN= | 3857.8 | ST.DEV.= | 8293.5 |
| Population (millions): | MEAN= | 58.533 | ST.DEV.= | 92.33 |
| Adult literacy rate: | MEAN= | 98.000 | ST.DEV.= | 1.57 |
| Income per capita (US \$): | MEAN= | 4533 | ST.DEV.= | 1002 |
| Number of museums: | MEAN= | 572 | ST.DEV.= | 410.39 |
| Km ² :museum (thousands): | MEAN= | 3.03 | ST.DEV.= | 5.8 |
| Inhabitants:museum (millions): | MEAN= | 0.0712 | ST.DEV.= | 0.056 |

APPENDIX B

Demographic and Museum Data
by Economic Classification
CAPITAL-SURPLUS OIL EXPORTING COUNTRIES

| | <u>Area</u> <u>(thou.km²)</u> | <u>Population</u> <u>(millions)</u> | <u>Literacy</u> <u>rate</u> | <u>Income/cap</u> <u>(US \$)</u> | <u>No. of</u> <u>museums</u> | <u>Km²:museum</u> <u>(thousands)</u> | <u>Inhabitants:</u> <u>museum</u> <u>(millions)</u> |
|--------------|---|--|--------------------------------|-------------------------------------|---------------------------------|--|---|
| IRAQ | 435 | 12.6 | - | 2410 | 18 | 24.167 | 0.700 |
| SAUDI ARABIA | 2150 | 8.6 | 15 | 7280 | 3 | 716.667 | 2.867 |
| LYBIA | 1760 | 2.9 | 50 | 8170 | 12 | 146.667 | 0.242 |
| KUWAIT | 18 | 1.3 | 60 | 17100 | 2 | 9.000 | 0.650 |

FOR WHOLE CLASSIFICATION:

| | | | | |
|---------------------------------------|-------|------------|----------|---------|
| Area (thousands km ²): | MEAN= | 1090.75 | ST.DEV.= | 887.51 |
| Population (millions) | MEAN= | 6.35 | ST.DEV.= | 4.5 |
| Adult literacy rate: | MEAN= | 41 | ST.DEV.= | 19.29 |
| Income per capita (US \$): | MEAN= | 8740 | ST.DEV.= | 5301.29 |
| Number of museums: | MEAN= | 8.75 | ST.DEV.= | 6.61 |
| Km ² :museums (thousands): | MEAN= | 179,211.71 | ST.DEV.= | 310,300 |
| Inhabitants:museum (millions): | MEAN= | 1.115 | ST.DEV.= | 1.027 |