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Mexican museums; Museums and cultural heritage

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It is with deep sadness that we announce the death on 24 May 1980 of Mrs Anne Erdös, previous Editor of *Museum*, after a long and cruel illness.

Anne Erdös joined Unesco on 9 September 1953. In 1961 she moved to the Museums and Monuments Division (today the Division of Cultural Heritage) and she was successively Sub-Editor, Assistant Editor and Editor (since 1977) of *Museum*.

Long experience of international public service, deep knowledge of museums acquired in the course of her studies, her travels and her work experience, her extremely cordial relations with colleagues in museums the world over made Anne Erdös the ideal Editor for a journal such as ours.

Apart from her professional skills, Anne Erdös had the gift of human warmth, bringing life to every task, even the most arduous ones. All those who worked with her will remember her welcoming manner, her unfailing willingness to help, her passionate interest in every successful endeavour and her capacity to establish meaningful communication.

Her death is a heavy loss for our shared cause.

Anne Erdös loved her work and gave of herself to it with total enthusiasm. She succeeded in maintaining the scientific level of *Museum*, bringing to it all the vitality that characterizes the museums of our time.

It is in this spirit and faithful to her memory that we continue the international mission of *Museum*.

In the autumn of 1978 ill-health forced Mrs Anne Erdös to give up her duties as Editor. Her prolonged absence inevitably caused serious delays in the preparation of issues of Museum *in 1979, which we ask our readers to be kind enough to excuse.*

These delays would have been longer still had we not had the assistance of Mr Georges Henri Rivière, Permanent Adviser of ICOM. His devotion to the international mission of Museum *was without limit. With calls on his services coming in from all over the world Mr Rivière insisted on attending to every detail of the preparation of the magazine, often at the expense of the more elevated contributions that were asked of him. We would like to express to him our profound gratitude.*

We should also like to thank Miss Raymonde Frin, former Editor of Museum *and programme specialist at Unesco, who was kind enough to assist Mr Rivière in this difficult task.*

Mexican museums

Museums and cultural heritage

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Editorial

In this issue of *Museum* we take yet another look, but with a fresh eye, at various aspects of a familiar theme: museums and the immovable cultural heritage.

The relationship could be defined in terms of the 'container' and its 'contents', but even this could be a simplification, for what is needed is often the 'musealization' of the monument itself, or its setting. The problems involved and the precautions required are many; the debate is necessarily broad in its scope. It is fitting then that Unesco should solicit fresh evidence on the subject, at a time when the international museological community is about to address itself to it in truly all-encompassing terms: 'The World's Heritage—the Museum's Responsibilities' (theme of the Twelfth General Conference of ICOM, October/November 1980).

Old buildings have in recent decades been increasingly invested, for better or for worse, with museum collections. It is not a mere coincidence that the second President of ICOM, Georges Salles, declared in 1956 that

> historic monuments and sites are akin to museums, and have much the same significance. What are historic monuments but magnified museum exhibits and what are the exhibits in a museum but historic monuments in miniature?... House a museum in an historic monument and you have not merely provided the museum with a superb setting; you give it a living function; you may even be encouraging its repair.[1]

Since then the International Council on Monuments and Sites (ICOMOS), another godchild of Unesco, has become the international association of those primarily responsible for the safeguard of monuments and sites. But the aims of the two bodies necessarily converge. Thus Hubert Landais recently reinforced the words of his predecessor when he wrote: 'To utilize an historical monument is clearly one of the surest ways of ensuring its safeguard. Whatever ravages may have been caused in old buildings by certain official occupants, we too often forget that it was these very occupants that saved the buildings from certain destruction.'[2]

Mexico was ICOM's first gathering-point in November 1948 and will now welcome the Twelfth General Conference in the autumn of 1980. Highlights of the museum/historical-monument relationship having been presented recently,[3] the present issue contains an article focusing on general trends in the planning and programming of Mexican museums, including recourse to the country's historical heritage, as part of the overall cultural development of this dynamic nation.

A statement by Georges Henri Rivière on the creation of a museum in a historic monument is a useful opener to the main theme, refracted by different contexts in various regions:

Sofia, Bulgaria, characterized by an extraordinary imbrication of archaeological remains and the urban fabric of a modern city.

Gorée, Senegal, island of infamous memory, that will house a site museum complex and a national historical museum.

Toruń, Poland, the 'musealization' of whose medieval fabric is described by a distinguished member of ICOMOS.

Ironbridge Gorge, United Kingdom, the well-known 'cradle of the Industrial Revolution', which is being preserved and interpreted in modern ecological and historical terms.

To complete the issue, an overview of a rich and active alliance: thirty-four years of ICOM's co-operation with Unesco. It is ever necessary to take stock of what has been achieved, for so much more remains to be done to preserve and present the world's cultural and natural heritage!

1. Georges Salles, 'Unesco's Tenth Anniversary: A Review of its Work for Museums, Sites and Monuments', *Museum*, Vol. IX, No. 3, 1956.

2. Hubert Landais, Preface to *Monuments historiques*, No. 104, September 1979. (*Monuments historiques* is published by the Caisse Nationale des Monuments Historiques et des Sites, Paris.)

3. Yani Herreman, 'Using Historic Monuments as Museums: Mexico City, Oaxaca, Guadalajara', *Museum*, Vol. XXXI, No. 2, 1979, p. 100-5.

Mexico: museums

1972-80

Yani Herreman,
Sergio González de la Mora
and Guillermo Schmidhuber

Introduction

The setting up in 1966 of the complex consisting of the Museo Nacional de Antropología, the Museo de Arte Moderno, the Galería de Historia and the Museo de Historia and in the opening of the Museo de la Ciudad de México, the Museo Nacional de las Culturas and the Museo del Virreinato marked the apogee of Mexican museology (Figs. *2*, *3*). It was followed by a period of consolidation, in which work was confined to improving small provincial museums and restoring the houses of notables of former times.

It should be remembered that the majority of Mexico's museums depend on the central government, which is the legal owner of the cultural, archaeological, historical and (in some cases) artistic heritage of the country. Most museums and cultural centres operate under the overall authority of the Ministry of National Education exercised through the Institutes of Ethnography, History and the Fine Arts. However, other institutions—official, independent and private—create and administer museums. It is not surprising therefore that programmes for the creation or renovation of museums should differ according to their promoters' approach to museum work.

Nevertheless, an examination of projects carried out since 1972 reveals certain general trends. These include: an effort to decentralize and set up museums at a variety of levels, particularly the provincial level, and to locate them wherever they will be most suited to regional and local needs; a policy of transferring archaeological objects and works of art to museums close to their places of origin whenever possible; a tendency to use historic monuments that are of undeniable artistic value to house museum collections, thereby displaying the building itself to advantage as a part of the cultural heritage.

Apart from the creation of new museums, the renovation of old ones and other practical achievements, the period 1972–80 has witnessed one crucial development.

It has seen government and independent bodies come to appreciate the full importance of the museum as a means of disseminating and preserving culture.

1
MUSEO NACIONAL DE ANTROPOLOGÍA, Mexico. Surviving fragment (58 cm × 70 cm), dated A.D. 726 by the hieroglyph inscription, of Lintel 26, from Yaxchilán, Chiapas, where Mayan Classic Period bas-relief carvers achieved an unparalleled rhythm and mastery of plane surface. A high priest and priesters, holding the head of a jaguar, a votive gift.

Achievements of the Instituto Nacional de Bellas Artes

In conjunction with the state administrations, the Instituto Nacional de Bellas Artes (INBA) has been building or reorganizing premises to house cultural property. It not only takes account of artistic values, but also attempts to provide an aesthetic and functionally appropriate framework for the important purpose they serve as cultural centres.

In adapting or building these museums in places other than Mexico City, the aim of the INBA has been to give due recognition to provincial artists as well as the towns where these museums are located. This enables artists to show their works in their places of origin or use them for research purposes. Thus, the Museo Nacional de Artes Plásticas is not a single building in a capital, but a series of museums scattered throughout the country, so as to provide active and dynamic cultural centres which can bring Mexicans into closer contact with art and with the artists who produce works of art.

This is why the INBA has made use of buildings of historical, aesthetic or cultural value, such as the Museo Rufino Tamayo in the city of Oaxaca, which possesses a priceless collection of pre-Hispanic exhibits donated by the painter Rufino Tamayo to his native town. The house, a fine example of nineteenth-century architecture, was acquired by the Oaxacan artist, who personally directed the planning and presentation of his substantial collection of Aztec, Mayan, Olmec and Zapotec works. The subtle and expressive colours that set off and enhance the exhibits, which are artistically displayed, immediately remind us of the painter's style. The architecture blends with the exhibits; these are arranged according to the different cultures, and are set out in small rooms that give on to the central patio, which is typical of Mexican colonial architecture.

This small museum, measuring approximately 350 square metres, is immensely popular among both the Oaxacan people and the many tourists who

visit the city. There is no didactic intention in the way in which the exhibits are presented. As we have said, they are shown in such a way as to reveal their aesthetic value to the full. Both the combination of colours and the rough texture of the surface of the walls that form the background enhance the beauty of the collection (Fig. 4).

The Museo de Aguascalientes is another example of the way in which the INBA uses artistic and historic buildings. This museum is located in the old State Teachers' Training College in this town, whose present population is over 300,000. It is an important part of the architectural complex known as San Antonio, and was restored as part of the restoration project carried out jointly by the Mexican Government and the INBA with a view to displaying the work of the famous architect.

The creation of the museum was the result of a sustained effort to disseminate the culture of the region among its inhabitants. The history of the building which housed and trained successive generations of teachers is linked to the city's history and provides an appropriate framework for the establishment of this museum. The condition in which the building was preserved enabled the authorities to carry out their plan for adaptation, which consisted mainly of removing parts which had been added, laying out gardens and arranging the exhibition areas. Public facilities and administrative services were all located in the area opposite, so as to keep the hall of the exhibition area free. The specialized library is also situated here.

Since the building is a first-class example of Mexican Neoclassical architecture and forms part of the city's cultural heritage, the authorities decided that it should be endowed with an equally outstanding collection. They therefore placed in the museum the works of Aguascalientes' greatest and most famous painters such as Saturnino Herrán and José Guadalupe Pasada, thereby creating the INBA's richest collection of paintings by local artists. The library has a similar objective. Another section of the museum contains paintings of local landscapes and customs which illustrate the history of the town.

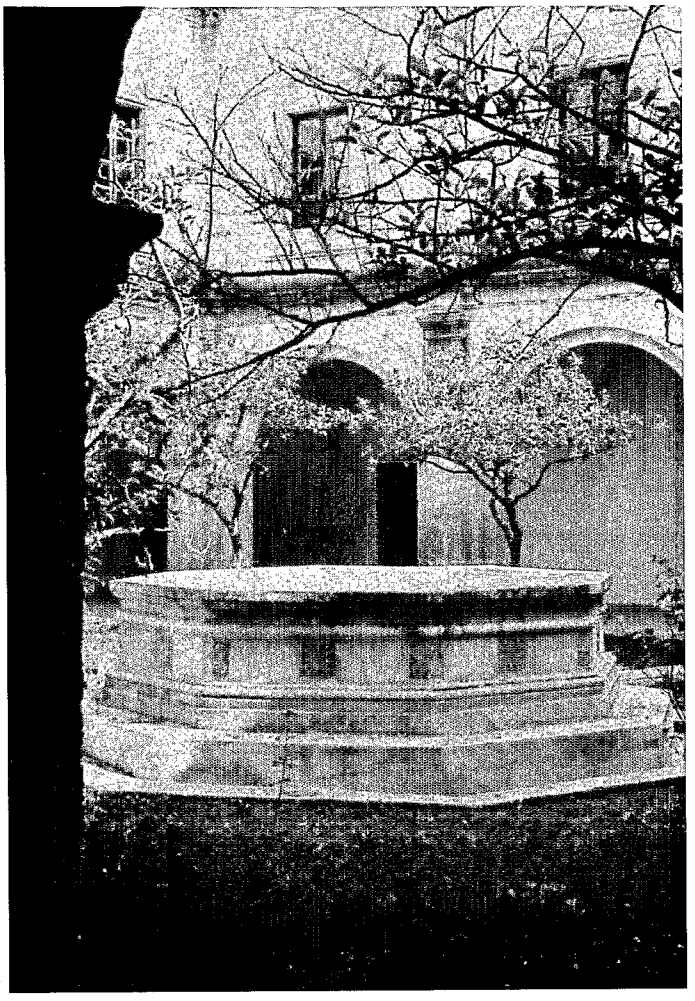
The Museo Goitia, located in Zacatecas, in the state of the same name, is one example of the museum construction or adaptation programme directly related to the INBA's policy of relocating national collections. The building, which was formerly the Casa del Pueblo, was donated to the city some years ago, but it was only in 1978 that it opened its doors to the public as a museum, housing the work of the Zacatecan painter Francisco Goitia.

The alterations consisted in providing suitable rooms for exhibiting the museum's collections and arranging the material in such a way that the visitor would be encouraged to follow a particular itinerary. Space was also set aside for storage, administrative offices and facilities for the public. The public-facilities area includes a library specializing in the arts of the region and in the lives and works of the artists represented.

Among them, Goitia is obviously in the forefront. The Goitia collection was brought from Mexico City, leaving only the most representative works on display at the Museo de Arte Moderno at Mexico City. There was a sufficiently large collection for the setting up of a research centre, as well as a workshop for the young people of the region. The works of other outstanding Zacatecans have recently been added to the collections.

The government of the state of Campeche donated the eighteenth-century church of San José to be adapted into a museum for the work of Joaquin Clausell, the Campechan impressionist painter.

The ground plan was unchanged, but all that was preserved of the original ornamentation was a few frescoes, and these were cleaned and consolidated. The character of the building, its ground plan, its nave and aisles and, especially, its great height constituted a challenge for the planning of the museum project. The climate of Campeche posed another serious problem. Situated on the coast of the Gulf of Mexico, it is extremely hot and humid all the year round. Because resources were limited, air-conditioning the whole building was out of the question, so an attempt was made to solve this problem by a purely museological solution. For this purpose, a sort of show-



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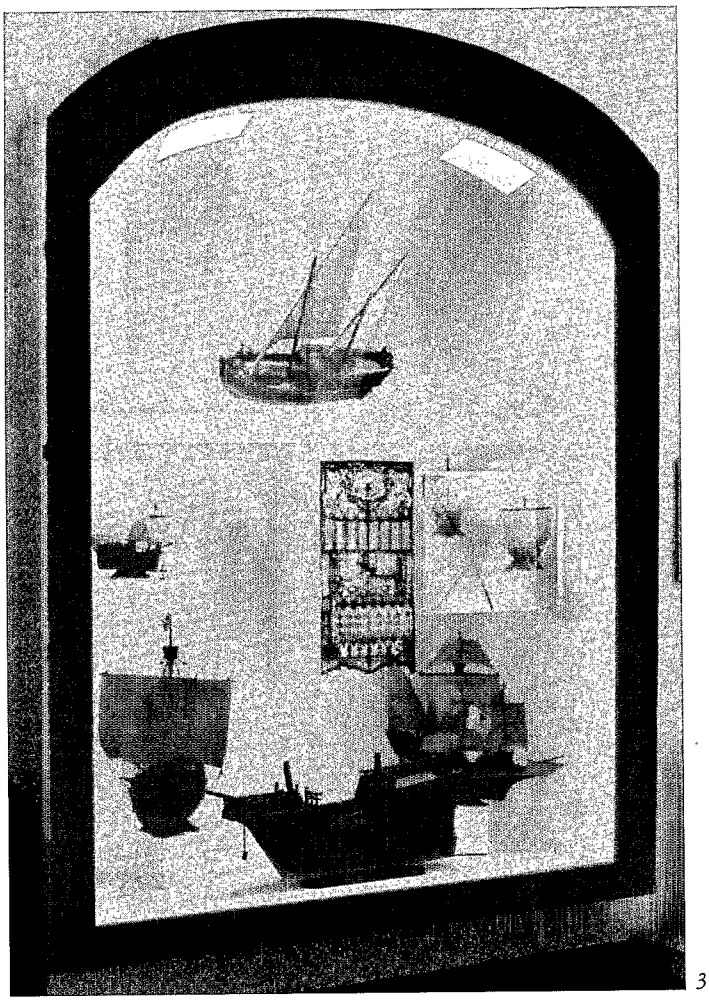

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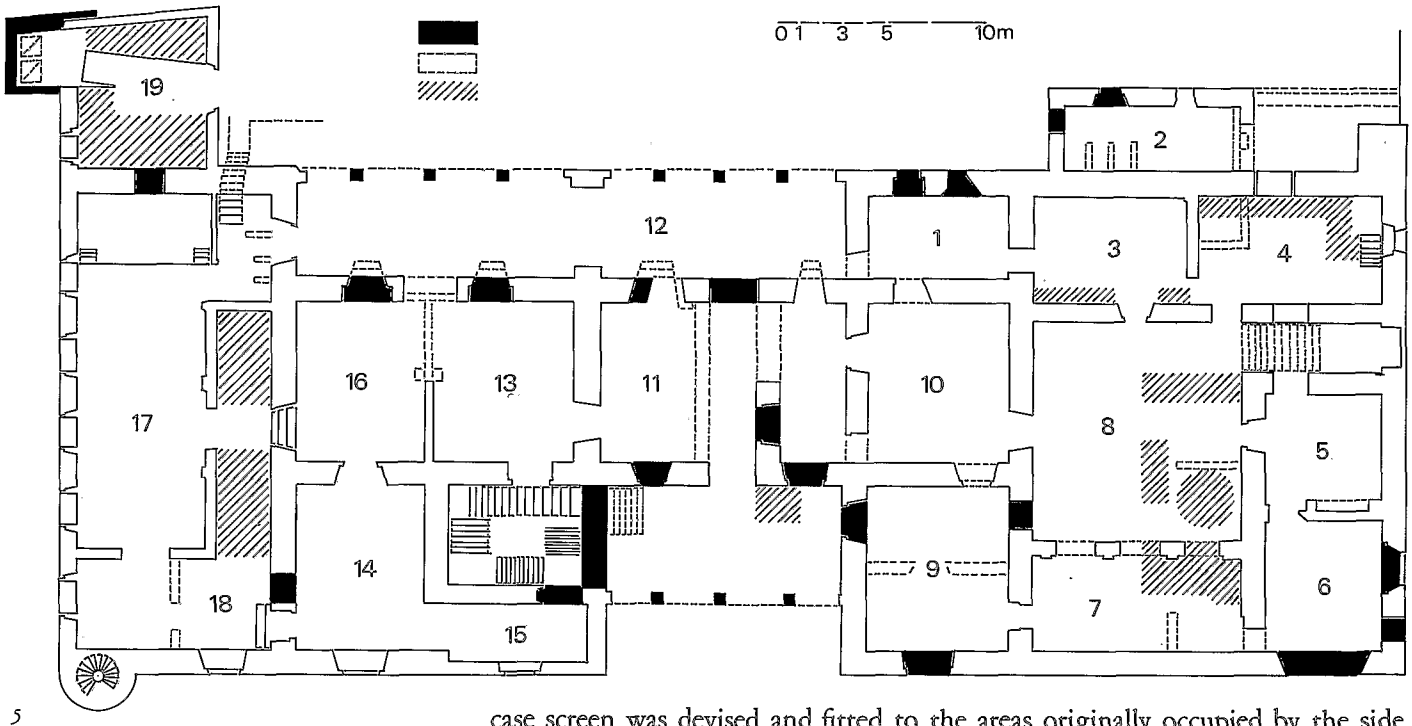
2
MUSEO DE VIRREINATO, Tepotzotlán. The cloister.

3
MUSEO DE VIRREINATO, Tepotzotlán. Show-case illustrating trade between America and Asia, Europe and Africa.

4
MUSEO RUFINO TAMAYO, Oaxaca. This small archaeological museum is entirely the work of a private individual: the celebrated contemporary painter Rufino Tamayo, born at Oaxaca in 1899, who himself constituted the collection, conceived and executed the transformation of his house into a museum, which he then donated to his native town.



5
MUSEO REGIONAL DE CUAUHNÁHUAC, Cuernavaca. A monument that is both museum and museum object: the Cortés Palace, built upon the vestiges of a pre-Columbian pyramid. On the ground floor, *in situ* presentation of archaeological finds (shaded on plan). 1, Mexican Period room; 2, offices; 3, Tlanuica room; 4, Tepozteco room; 5, fall of the Xochicalco room; 6, Xochicalco room; 7, Classical Period room; 8, patio; 9, Pre-Classical Period room; 10, reception area; 11, entrance hall; 12, galleries; 13, Conquest room; 14, temporary exhibitions; 15, temporary exhibitions annex; 16, room showing different stages of the palace's construction; 17, auditorium; 18, auditorium vestibule; 19, textile workshops.

6
MUSEO REGIONAL DE CUAUHNÁHUAC, Cuernavaca. Exhibition room: low, discreet show-cases below high ceilings with magnificent beams, among which lighting fixtures are hidden. The museographical arrangement highlights the severe architecture of the building as much as it does the objects presented.

7
MUSEO REGIONAL DE CUAUHNÁHUAC, Cuernavaca. Ethnographic presentation.

case screen was devised and fitted to the areas originally occupied by the side altars, giving overall harmony, on the one hand, and, on the other, enabling a micro-air-conditioning system to be installed in those parts of the building that contained the pictures. These show-cases also have their own integrated system.

Thus in this museum the safeguarding of the building was combined with the constitution of collections in their place of origin and the exhibition of works of local historical and artistic importance.

Programmes of the Instituto Nacional de Antropología e Historia

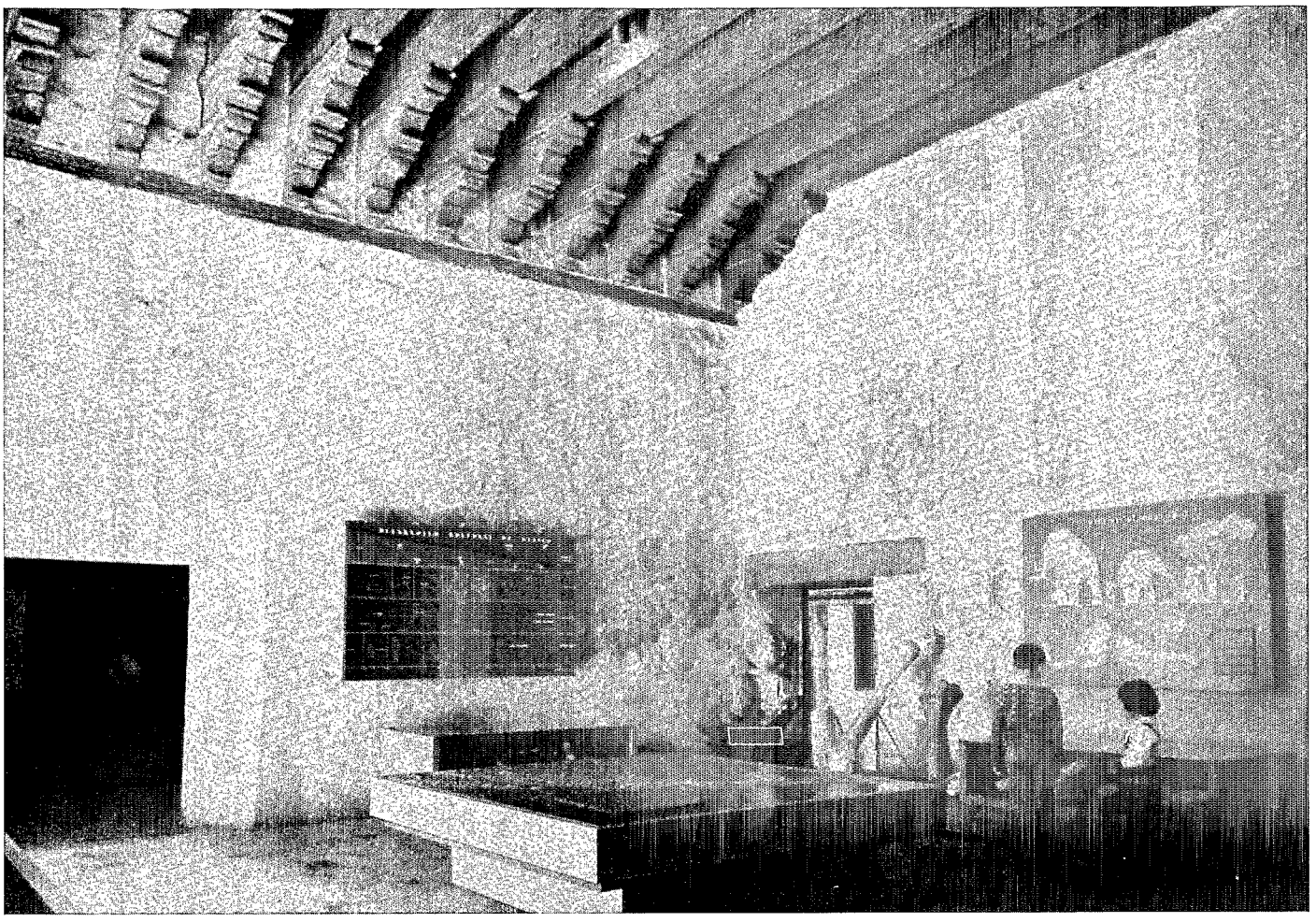
The Instituto Nacional de Antropología e Historia (INAH) is characterized by the fact that it not only possesses material that is part of the pre-Hispanic and colonial cultural heritage, but also has specialists at its disposal—anthropologists, historians, architects, restorers, curators, museologists and technicians—who are able to plan all aspects of its museums, working in multidisciplinary teams. The whole process, from the first technical plans to detailed museum design, is carried out in the same institution, which gives coherence to the museological planning.

The use of historic buildings has been a fundamental part of the institute's national museum policy; it seeks to conserve monuments, while at the same time increasing the people's appreciation of them and emphasizing the connection between the monuments themselves and the collections exhibited in them. Hence its preference for using the architectural heritage, despite all the technical problems involved, rather than erecting new buildings.

The regional museums that have been open to the public since 1972 differ widely from each other. They have different characteristics because an effort has been made to take account of local conditions, so that they will reflect all aspects of the locality in which they are situated. The contexts in which these museums work naturally differ as well. However, the INAH regards all of them as an instrument to publicize the findings of some of the research work done by its specialists and also to stimulate respect for the cultural heritage.

A programme for the restoration and adaptation of historic buildings was begun in 1972 at the Museo Regional de Oaxaca. As a result, new museums have been opened throughout Mexico. Though some are more generously endowed than others, they are all the outcome of an effort to decentralize collections up to the present concentrated in Mexico City.

In keeping with the INAH's general principles, the Palace of Cortés was turned into a museum when it was handed over to the institute by the



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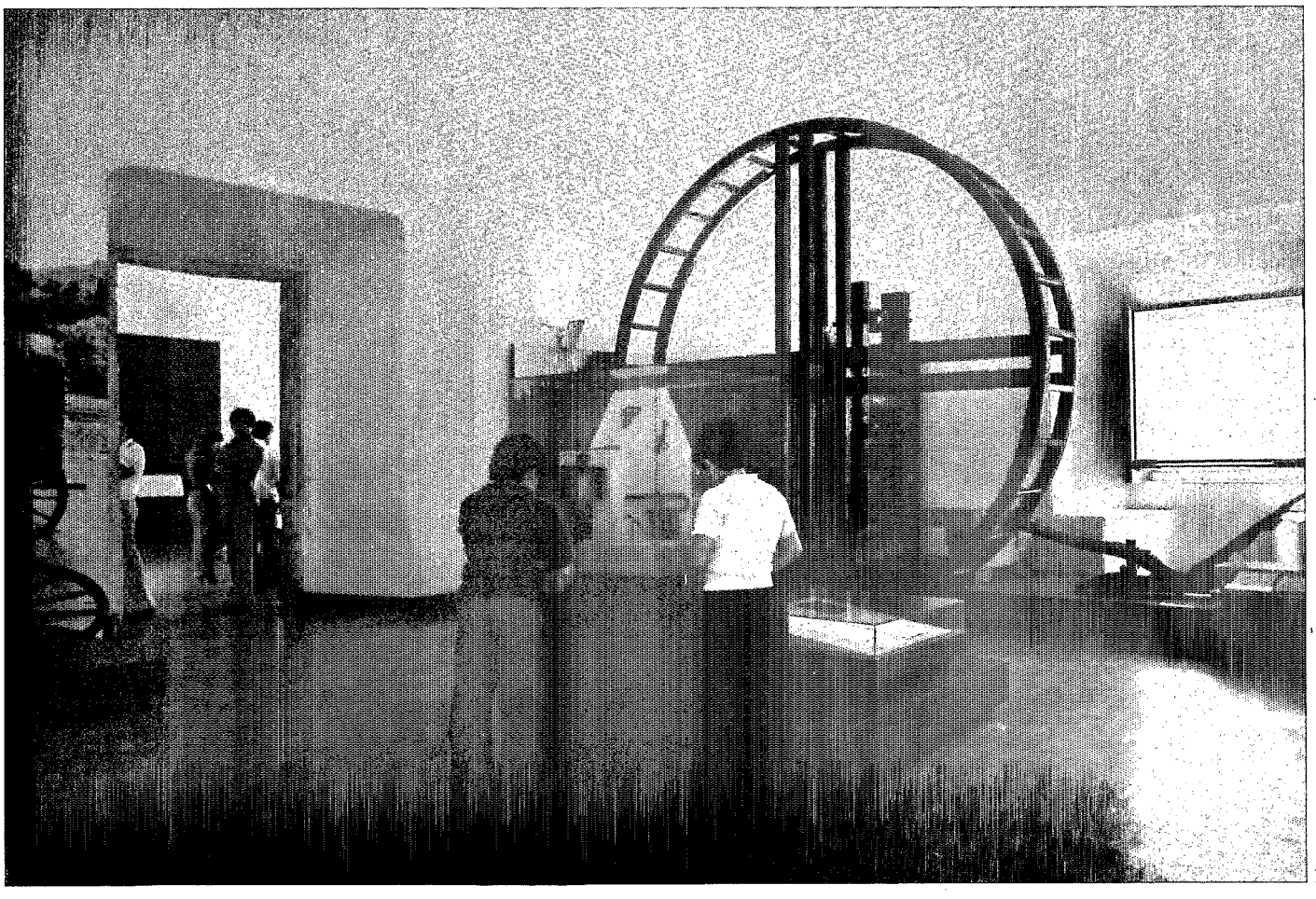

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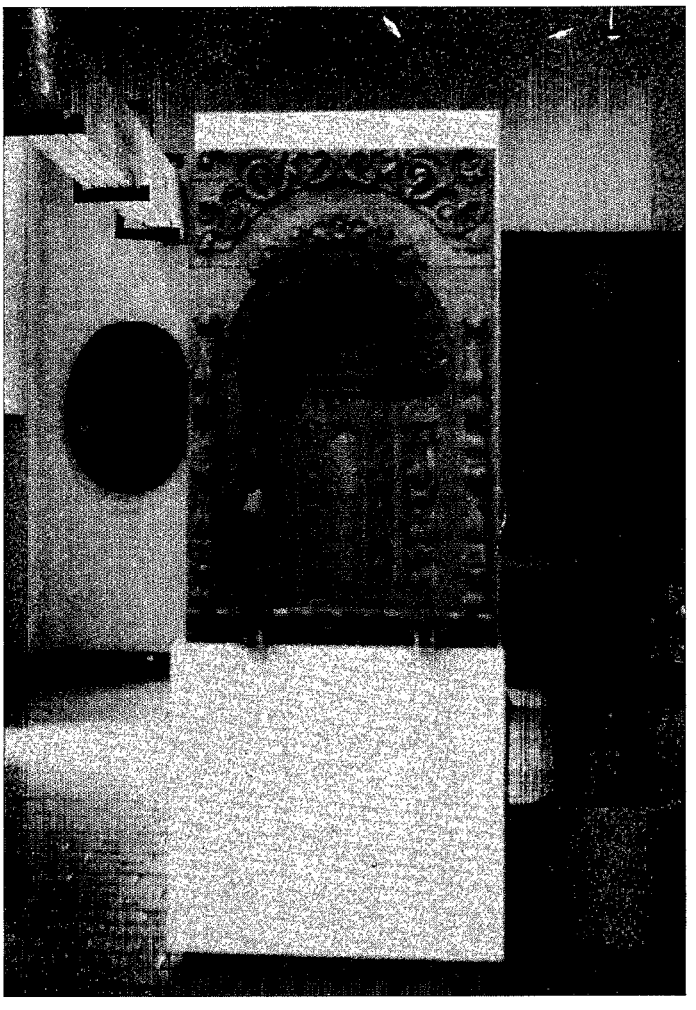
8
MUSEO REGIONAL DE PUEBLA-TLAXCALA. An example of Mexican integrated museographic design. Ethnology, history, technology are used to show the smooth evolution of three parallel cultures (urban, rural and mountain) in the state of Puebla. The material presentation is equal to the ambitious aims of the museum. Dividers, explanatory panels and show-case plinths, all hung from the ceiling, are mobile; they allow easy modification of the show-cases in each room, and of each room in the museum.

9
MUSEO REGIONAL DE MONTERREY. One of the eight exhibition rooms installed in this former bishop's palace. Furniture, paintings and domestic décor from the colonial period.



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Mexican Government. Situated in the main square of the city of Cuernavaca, the palace, along with the cathedral, has always been an integral part of the life and urban physionomy of the people. It was for this reason, as well as to preserve, as far as possible, the building and the gallery frescoes by Diego Rivers that approval was given to establish the Museo Regional de Cuauhnahuac in this building, which is an important example of sixteenth-century secular architecture.

When the studies for the restoration of the building were begun, pre-Hispanic remains of a pyramid were found, which was used as the foundation for the Spanish building. This meant that a decision had to be taken: the authorities were advised to fill in the ground excavated in order to consolidate the building, but on the other hand it was suggested that these important vestiges of the evolution of the building could be incorporated into the museum display. The second alternative was chosen, making the museum a special attraction that aroused great public interest. The archaeologists' excavations were preserved here and there in the ground-floor rooms so that something of the various stages in the life of this palace can be seen (Fig. 5). For instance, in the portico there is a carefully protected tomb of the colonial period. Other finds which were left exposed as an integral part of the display are the textile workshops. Thus the building not only houses the exhibition, but also forms an integral part of it. The design of the equipment and of the electrical fittings is entirely in keeping with the style of the building. The show-cases are simple and light, and merge discreetly with the texture of the walls and the surrounding space. The lighting is designed in such a way as to enhance the beauty of both the exhibits and their surroundings (Fig. 6). The permanent exhibition rooms house historical and ethnographic pre-Hispanic collections of cultural material found in the region over a period of 10,000 years, which illustrate the socio-cultural changes that occurred there (Fig. 7). The Regional Centre, which houses the offices of the various scientific specialists working in the region, is in the same building.

This civic building has thus assumed a new role in the life of Cuernavaca. It has always been a local landmark, but now, through its integration into the urban environment, it has become a cultural centre, in which local and foreign visitors alike can learn something of the history of the region.

An example of integral museological design

The Museo Regional Puebla-Tlaxcala is an example of integral museological design. At the inception of the project for the remodelling of the Regional Centre in 1976, an attempt was made to find a museographical solution that would make all the parts of the display a coherent whole and express in a modern and dynamic way the historical and anthropological ideas to be conveyed. Situated in an area of great historical significance, the building was constructed several years ago as a crafts museum. However, when the new museological characteristics were studied, it was found that the whole building would have to be altered. Fortunately, as it was not a historic monument, the authorities were completely at liberty to make the appropriate changes.

The exhibition begins with information about the ecology of the area. Samples of the flora of the state of Puebla can be seen, as well as of the fauna that abound there. The idea is to help members of the public to understand the environment that has produced many of the cultural objects that they will see as they visit the exhibition rooms.

The visitor traces the history of Puebla from prehistoric times.

An effort has been made to show that the exhibits are not isolated works of art or objects, but part of a whole region's cultural evolution. Accordingly, the different items illustrate aspects not only of technology, but also of social organization, art and religion. The aim is to enable the visitor to obtain an overall view of cultural development, while students can follow the evolution of, for instance, technology or social organization, from prehistory to the post-classical period, the Conquest being illustrated by replicas, manuscripts

and other documents concerning this crucial moment in the history of Mexico. The museographical project is designed to give the general public an idea of the continuity of history; therefore, there are no clear-cut divisions between the end of one period and the beginning of another. The pre-Hispanic era is linked with the colonial period both by Indian artefacts as they were when the colonists arrived and by Spanish pictorial records of the period. History is similarly linked with ethnography; in the latter domain, exhibits are used to show that three types of culture existed side by side in the Puebla area; the urban, the mountain and the rural cultures.

To meet the requirements of presentation, a modular system was devised; it comprises the ceiling, from which lights and the display boards bearing illustrations are suspended as well as the enormous iron grille-work platforms which support the show-cases. These platforms are of three different sizes according to the size of the show-cases in which the objects are displayed. The system, which is really a huge meccano, makes it very easy to alter the whole layout or sections of it, and this in turn makes it possible to incorporate new archaeological finds. This museum, therefore, possesses a dynamic potential in so far as it can be reorganized as often as necessary (Fig. 8).

The museum has a temporary-exhibition room and an auditorium that also serves the Regional Centre located in another part of the same building in which, as is often the case in INAH, the various specialists working in the area are accommodated.

10
PALACIO NACIONAL, Mexico. Detail of fresco painted by Diego Rivera between 1929 and 1945, 450 m², retracing the history of Mexico. Seat of the Government of the United States of Mexico, the palace is located on the site of the New Palace of Moctezuma Xocoyotzin, rebuilt by Cortez in 1523.

Museo Regional de Monterrey

This museum is located in the former bishop's palace, which was built in 1878 on a site overlooking the city. A walk to the museum has always been a favourite outing for the inhabitants of this industrial centre, because of both the natural beauty of the place and the character of the building, which is one of the town's rare examples of colonial architecture.

Right from its foundation and up to and including more recent events in independent Mexico this palace has been closely linked to the history of the town, and because of this it was decided to turn it into a history and archaeology museum after a final restoration was completed in 1977. Since 1979, with the opening of eight rooms which together with the central patio—a typical feature of this kind of colonial architecture—provide a total of 600 square metres of exhibition space, furniture, colonial and nineteenth-century painting, weapons, documents and objects connected with the history of Nuevo León are on view (Fig. 9).

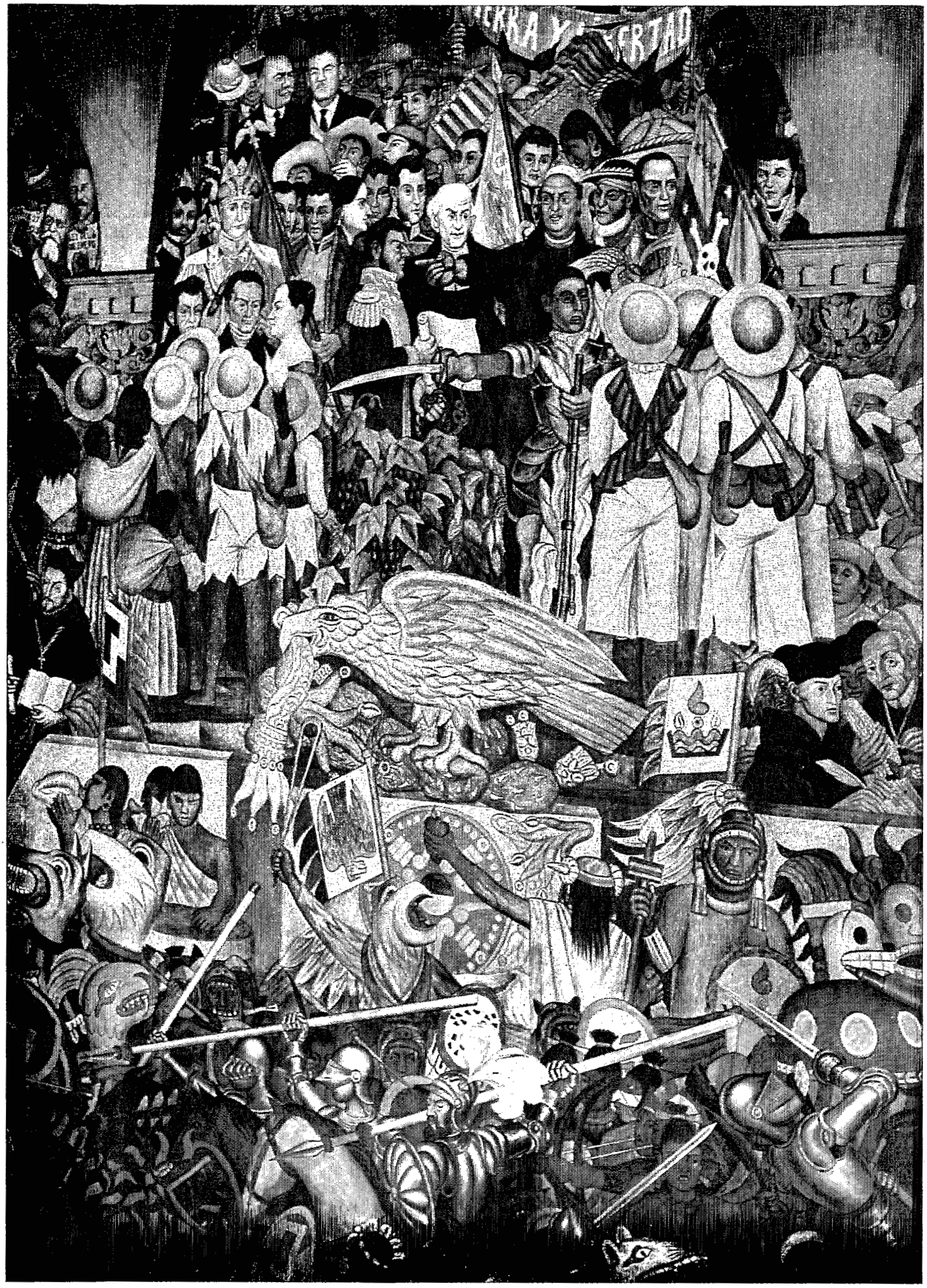
In the museum project carried out by the INAH with the participation of the Mexican Government, an effort has been made to preserve the original building as far as possible. Accordingly, the museum fittings are not placed directly on the floors, but on low frames, thereby avoiding additional damage to the floors. In keeping with the present trend towards decentralization, the museum staff were given every possible assistance so that they might carry through the project and prepare and arrange the display areas themselves.

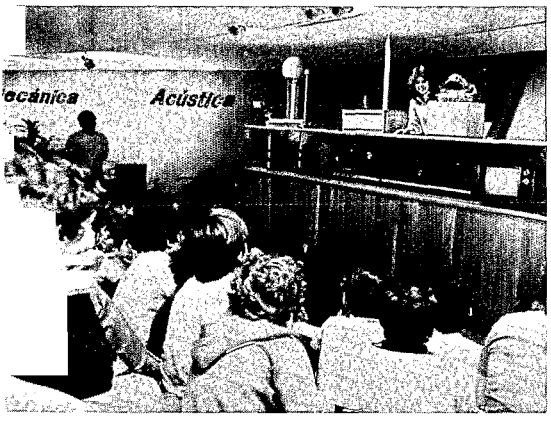
To end this brief analysis of the principal museums of the INAH in recent years, we must mention the Museo Regional de Guadalajara. We shall not give details of it, as it has already been described in another issue of *Museum,*[1] but merely point out that it is an outstanding example of the national museums programme, to which the INAH constantly devotes its best endeavour and for which it makes available the experience of an entire multidisciplinary specialist team.

Private museums at Monterrey

An important feature of the last decade is the opening of several museums under the auspices of the private sector, especially industrial groups, a new development in a country where most museums belong to the state. Since 1977, for example, there has been an extraordinary cultural movement in

1. Yani Herreman, 'Using Historic Monuments as Museums: Mexico City, Oaxaca, Guadalajara'. *Museum,* vol. XXXI, No. 2, 1979, p. 102–7.





11
CENTRO CULTURAL ALFA, Monterrey. Physics demonstration for children. Each year 120,000 schoolchildren come here to learn more about science and technology.

Monterrey, the second largest industrial city in Mexico, marked in particular by the construction of museums and exhibition premises.

Museo de Monterrey. This museum is the first of its kind in Mexico to be installed in a building that was originally a brewery, and constitutes a precedent for the future use of other industrial buildings as museums. Situated in an urban area, its location enables it to establish close contact with the workers employed in the present brewery which stands alongside.

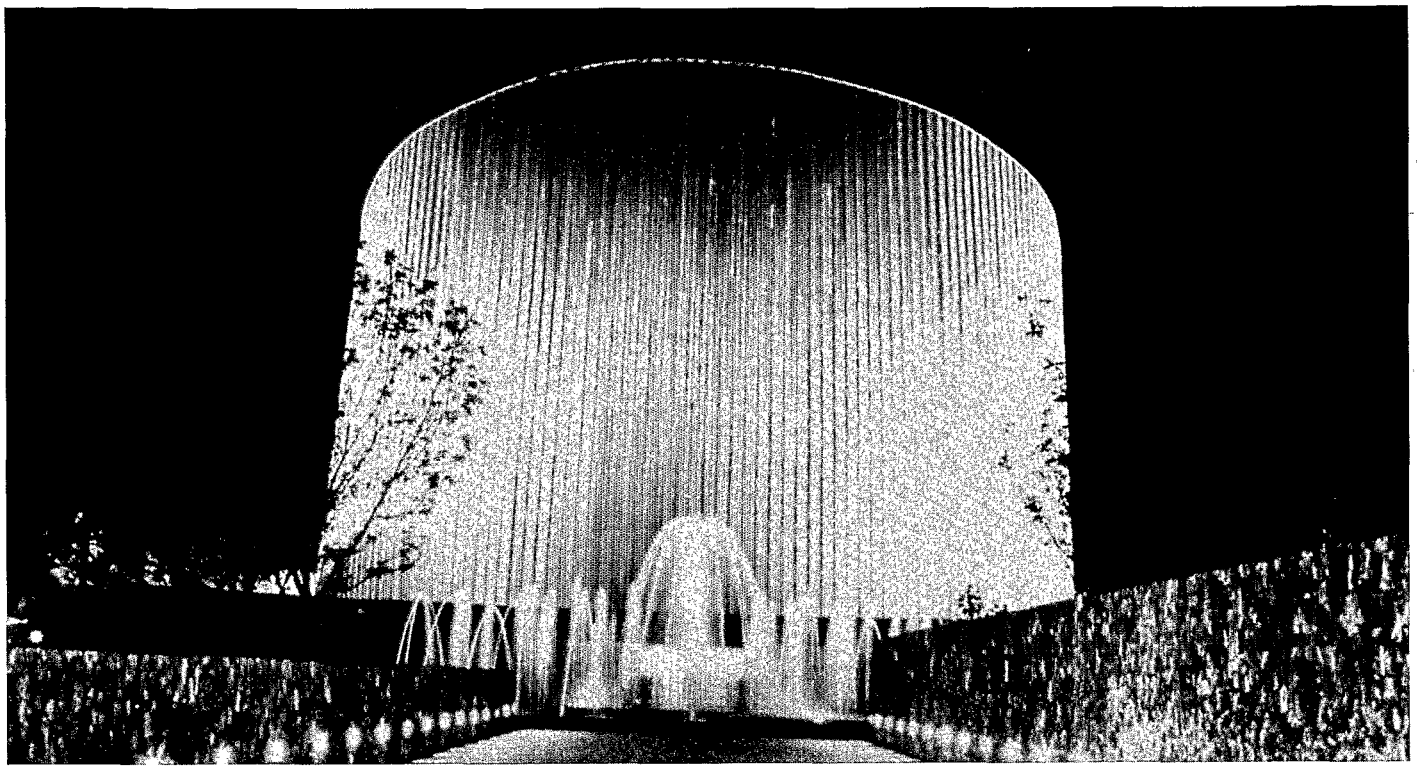
The character of the late nineteenth-century building has been preserved. Its brick walls and its floors of wood and brick have been kept intact; its high ceilings, with unconcealed pipes supplying electricity and conditioned air, are a characteristic element of the building, as are two beautiful copper vats, 6 metres in diameter, which were originally used in the preparation of beer, and are now the main attraction in the entrance hall (Fig. *17*). With its iron staircase and brass handrail and its large windows which retain the character of this late nineteenth-century building, it is an art museum whose purpose is to give the community a chance to become acquainted with the work of great national and international artists. This year a 300-seat auditorium will be opened in which recitals, concerts and other types of performances can be given. The building of storage rooms for the Mexican numismatic collections, regional costumes and paintings which form part of this museum's possessions will be completed in 1980.

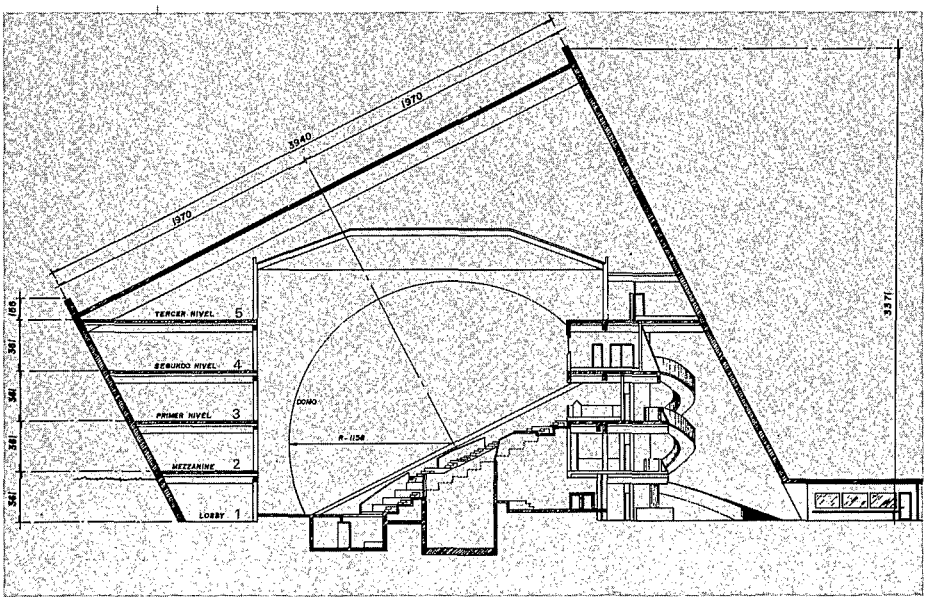
Centro Cultural Alfa. A completely different rural setting, surrounded by impressive mountains at the foot of the Sierra Madre Oriental, was found for the site of the Centro Cultural Alfa. The building, which is in a totally modern architectural style, consists of a leaning cylinder 40 metres high, with an aluminium top, above another circular vertical structure housing one of the great attractions of this museum: the multi-purpose theatre. There is a completely computerized planetarium in this area, which can hold up to 300 people. We regard the Centro Cultural Alfa as a fine example of modern architecture: its silhouette, which stands out against the mountain mass behind it, throws the centre into relief; its very shape, its proportions and the style of its finish give it the character of a monument, while at the same time linking it to the industrial centre in which it is situated (Figs. *12*, *13*).

The present trend towards ensuring greater participation on the part of the museum visitors is exemplified in this modern museum. Out of a total area of 5,000 square metres, the exhibitions occupy 2,200 square metres, and are mainly composed of equipment demonstrating physical principles and games which give the visitor, especially the child, some idea of science and technology. The main feature of the Centro Cultural Alfa may be said to be its use of the latest audio-visual equipment and a variety of techniques in museographical presentation; for instance, in the rooms devoted to 'Man and Culture', 'The Adventure of Science' (exact and natural sciences), astronomy and recreational physics—where the visitor is encouraged to participate by using machinery which he himself sets in motion (Fig. *11*).

This museum shows how a well-designed building, modern museum organization that is both dynamic and attractive and appropriate educational and promotion programmes can elicit a positive response from the public. Now, two years after its inauguration, it is visited by an average of 180,000 adults and 120,000 students every year. The only problem posed by the museum, that of its location, is solved by providing students with free transport from the town.

Galería de Promoción de las Artes, A.C. This gallery was founded in 1977 in the city of Monterrey. It covers a surface of 1,200 square metres; its programmes are intended to promote contemporary art and to disseminate art of different periods among the inhabitants of this industrial town. It holds temporary exhibitions of the artistic property of the Alfa Industrial Group, to which it belongs, and it also organizes national and foreign art exhibitions in co-operation with official and private bodies.





12
CENTRO CULTURAL ALFA, Monterrey.
A futuristic vision.

13
CENTRO CULTURAL ALFA, Monterrey.
Cross-section with the multi-theatre and planetarium dome in the centre. 1, hall; 2, gallery; 3, first floor; 4, second floor; 5, third floor.

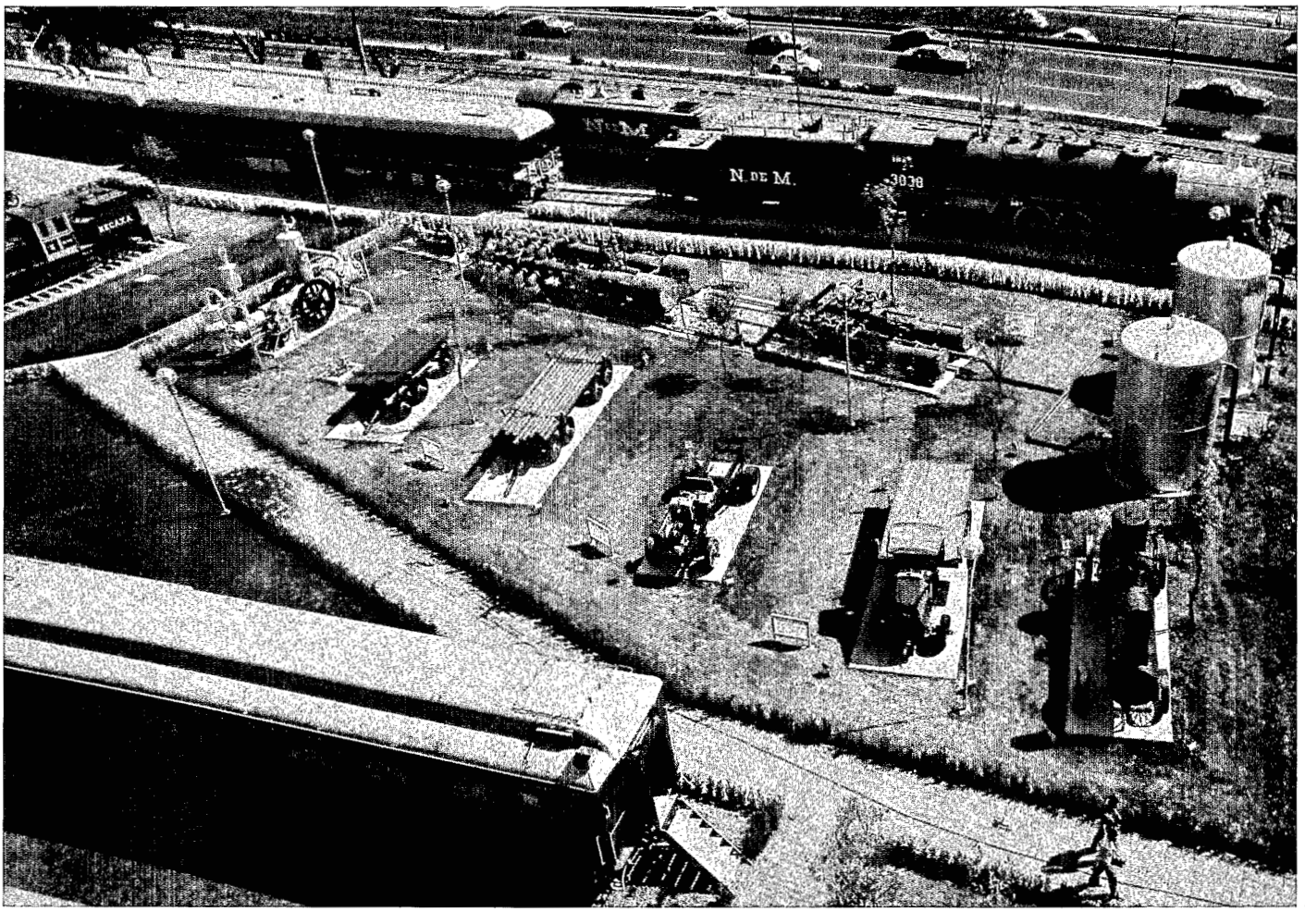
From museum-cum-library to museum of electricity

The Museo-Biblioteca Pape, which is named after its founders, is situated in a town of 350,000 inhabitants, the majority of whom are employed in the large iron and steel works. Since its inauguration in 1977, it has striven to encourage a mainly industrial community, remote from the capital, to take an interest in culture. Its principal aim has been to stimulate creativity among the inhabitants of this small town and make them aware of cultural matters, by means of exhibitions, art competitions and other activities that it carries out in its premises, which are specially built for the purpose.

One of the four floors of the building is used as a room for temporary exhibitions, while two house an open-access library. The coin collection, an important part of the museum's property, is on permanent display.

This museum typifies the role of museums today as genuine cultural centres. Its temporary exhibitions give the visitor an opportunity to appreciate the principal national and international artistic movements, and the museum also serves as a centre for the promotion of cultural activity.

14



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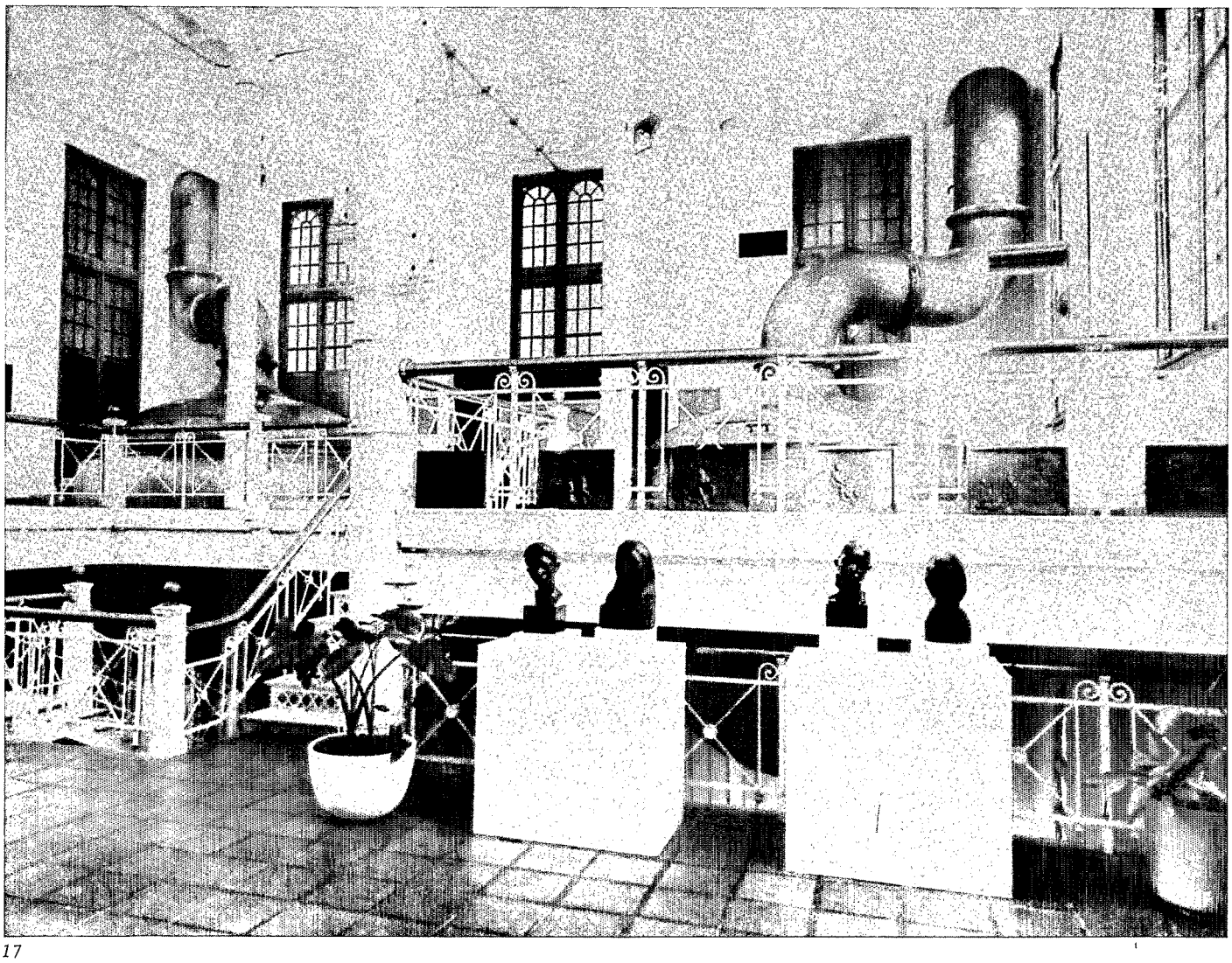
14
MUSEO TECHNOLÓGICO, Comisión Federal de Electricidad. A game that reveals the mysteries of electrical traction and the marvels of rail transport.

15
MUSEO TECHNOLÓGICO, Comisión Federal de Electricidad. In the gardens of the museum, toys of yesterday and today—life-size!

16
Restoration of an archaeological object in the workshop alongside the Templo Mayor site. In the new regional museums set up by the INAH are research centres that are available to restorers and other specialists—museologists, archaeologists, historians—who work in the region.

16



17

17
MUSEO REGIONAL DE MONTERREY. Use of the industrial heritage: entrance hall of the art museum, which is a private institution, installed in a nineteenth-century brewery.

The Museo Tecnológico of the Federal Electricity Commission was established in 1970, but remodelled in 1974, the museum techniques employed being based on experimentation equipment. The phenomena of electromagnetics, electrostatics, electric currents and magnetism are explained by means of exhibits specially designed for schoolchildren. The exhibition areas are intended to enable children to grasp scientific concepts intuitively (Fig. *14*).

Another important part of the museum is the section devoted to transport, in which different systems of internal combustion engines are displayed, as well as models which illustrate the origins, development and achievements of transport technology (Fig. *15*).

A subject of great importance today—the use of energy—is illustrated in this connection. The way in which electricity is generated, transmitted and distributed is explained. So as to make the explanation clearer and easier for the general public to understand, a series of devices have been designed, which are set in motion by the visitors.

The object is not only to demonstrate the principle of electricity but also to establish a more direct relationship between the visitor and the way in which electricity is produced so as to create a sense of responsibility in his use of it. There is also an open-air exhibition, where the visitor can stroll among scale models of thermoelectric, hydroelectric, nuclear and geothermic plants, etc.

The subject of petroleum is dealt with in two different areas. As in the case of electricity, a part of the garden has been set aside for displaying the machinery for drilling and extracting oil used in Mexico from the beginning of the century to the present time.

In another room oil-production equipment is displayed, and various techniques, machinery, diagrams and explanations are employed to give the public some understanding of oil and its significance.

Since Mexico is a developing country, this museum places particular emphasis on the understanding of technological and scientific progress and also of the generation of various types of energy and their rational and appropriate use.

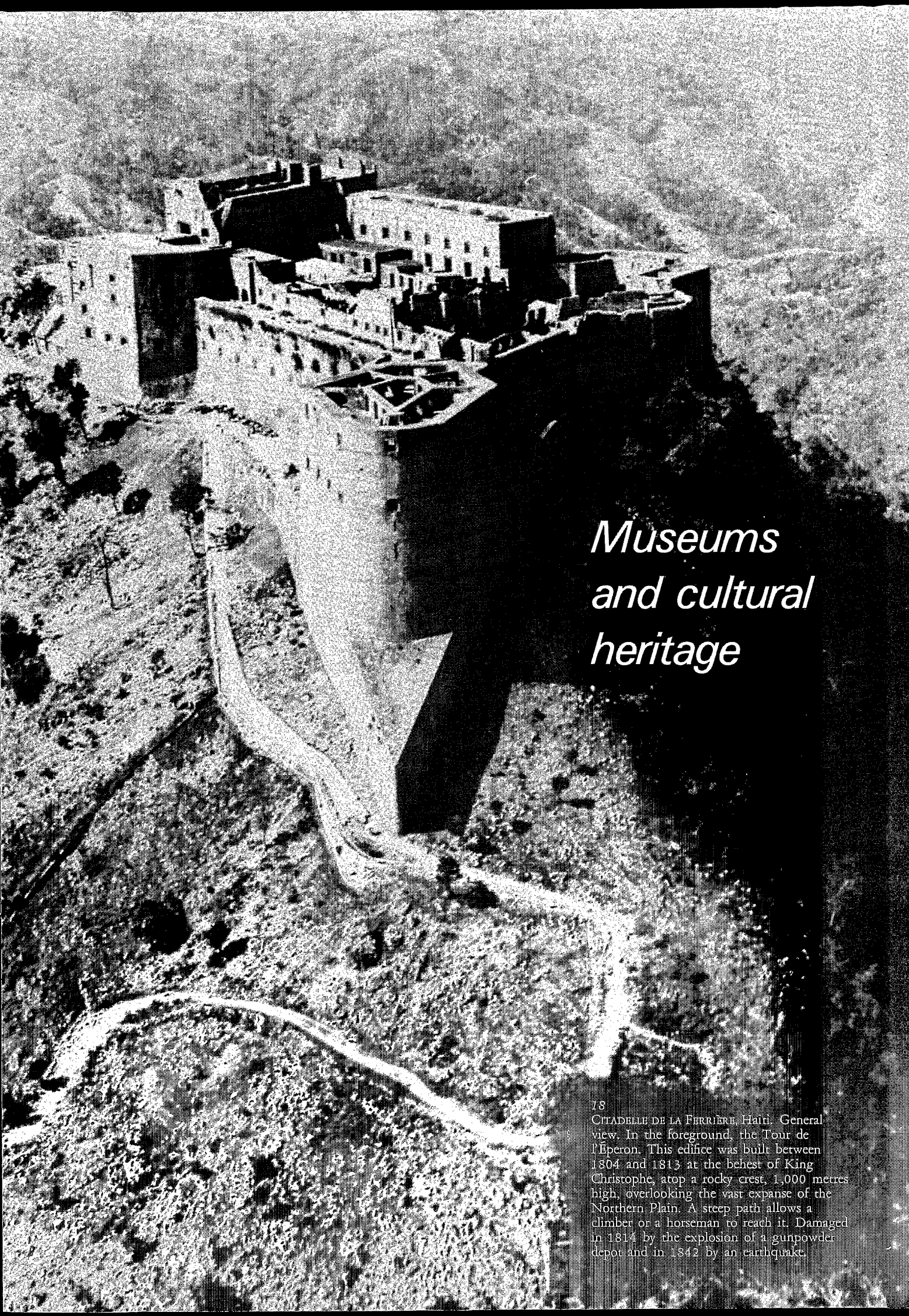
Conclusion

Of the museums built in Mexico since 1972, we have chosen to concentrate on examples which reveal current trends in Mexican museology: a decentralization of knowledge. National institutions are dispersing museums and collections throughout the provinces so as to give the various local communities the chance to get to know the treasures of their national museums in all the different disciplines. At the same time, local communities and organizations, both official and private, are setting up their own museums and galleries, which are enlivened by travelling exhibitions.

The adaptation of historical or artistic sites and monuments for use as museums—in addition to making for better conservation of the buildings, showing them off to advantage and providing an ideal setting for collection—simplifies the task of integrating museums into the urban fabric. On the one hand, a museum that restores life to a cherished monument will find favour with the local population, since its establishment indicates respect for local traditions; on the other, its presence serves to remind the inhabitants of the significance of a monument that is part of their history.

In countries like our own which are living through great changes, preservation of the cultural heritage that has shaped our personality meets a fundamental need. The technical and industrial development that Mexico is experiencing is changing cultural values, indeed some of them will disappear if people are not made aware of the consequences of their loss. It is one of the main tasks of the museum to strive to awaken this awareness (Fig. *16*).

[*Translated from Spanish*]



Museums and cultural heritage

18
Citadelle de la Ferrière, Haiti. General view. In the foreground, the Tour de l'Éperon. This edifice was built between 1804 and 1813 at the behest of King Christophe, atop a rocky crest, 1,000 metres high, overlooking the vast expanse of the Northern Plain. A steep path allows a climber or a horseman to reach it. Damaged in 1814 by the explosion of a gunpowder depot and in 1842 by an earthquake.

Concerning the creation of a museum in a historic monument

Georges Henri Rivière

Throughout the world, there is a constant rise in the number of edifices that have become vacant but to which the communities concerned nevertheless attach significant importance by reason of the nature, depending on each local situation, of the events which took place therein; of the individuals or families who lived there; of the public or private organizations which built or used them; of the representative quality of their architecture or of their use; and, most importantly, of the artistic value now attributed to them.

By the same token, there is great diversity in the different forms the restoration of these historic monuments may take: thus, for example, each could become the residence of a head of state or of his representatives within the country or of a foreign ambassador; a cultural, corporative or tourist centre; a youth centre or alumni headquarters; a ceremonial site for a town hall . . . or a museum.

The theoretical reflections below will be illustrated by the concrete examples in the four articles that follow.

Museum programme and planning norms

Every museum programme and every museum project have their own norms, worked out in relation to the institution's specific disciplines; to the organization of its public, semi-public, semi-private and private areas and of access and visitor traffic; to parameters of expansion and flexibility, of optical and hygrothermal atmospheric conditions, of security systems against theft and fire; to the social categories of its visitors; to its size and the part of the world in which it is located.

The primacy of the historic monument

Nothing shall be planned, or executed once work is under way, by either the client commissioning authority[1] or the consultant team[2] which may adversely affect the cultural values of the architecture or the furnishings of the historic monument in question.

To achieve this goal, the commissioning authority will form a team composed of historians and architects, specialists in the field, whose role will be to draw up a history of the monument and of the furnishings of historical interest which are still on the site. They will base their study on manuscript, printed, iconographic, photographic, cinematographic and oral sources. This study will be complemented by research on furnishings similar to those scattered abroad by the vissicitudes of different epochs and on the procedures to follow in order to try to recover them.[3]

Preservation and creation by the consultant team

In the project, with respect to the remains of or lacunae in structure or furnishings of historical value, the consultant team will try to work out a balance between what should be restored in an identical manner by appropriate techniques, what should be left undone and so noted, what should be sketched out and what should be created according to modern criteria. No effort is to be spared to give importance to the missing elements by other means.

[*Translated from French*]

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19
In the north of Haiti stand the ruins of several monuments built by King Henri Christophe in the early nineteenth century: the Citadel (FIG. *18*), the 'Sans-Souci' Palace and the 'Ramiers' site.

The 'Sans-Souci' Palace was built in 1811 as a royal residence and was surrounded by various buildings, ornamental gardens and orchards. Ringed by luxuriously verdant mountain slopes, this major architectural ensemble reflected the need to concentrate around the sovereign the basic administrative functions of the young monarchy. Today these structures are seriously endangered. As at the Citadel and the 'Ramiers' site, safeguard measures are urgently required.

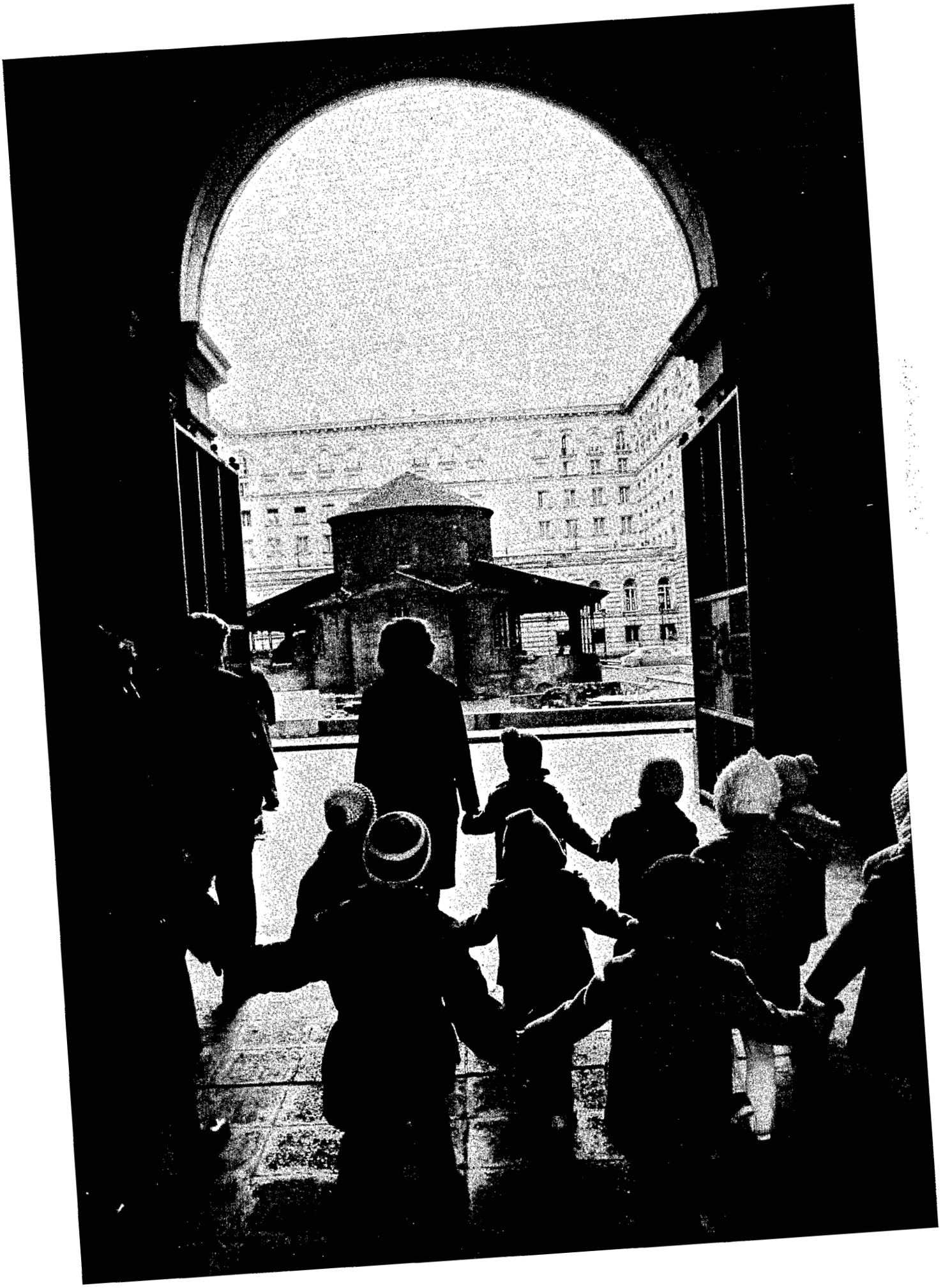
This is why the Haitian Government, which has already taken steps to preserve these essential elements of the historical heritage, requested Unesco's assistance in 1973. It was in March 1980 that the Director-General, Amadou-Mahtar M'Bow, launched an appeal to the international community for its help in ensuring the success of a campaign to safeguard these monuments that are so representative of the history of the Haitian people.

The restoration programme has been drawn up as part of planning for a National Historical Park which will cover the entire zone around the three sites. This project, as well as the museological adaptation in the monuments themselves, will be described in a future issue.

1. In French: *maître d'ouvrage*; in German: *Bauherr* (cf. 'Museum and Architecture', *Museum,* Vol. XXVI, No. 3/4, 1974, where these words and their equivalents are found in the initial glossary).

2. In French: *maître d'œuvre*; in German: *Baubeauftragter*; in English: master builder, architect, design consultant team (cf. 'Museum and Architecture', op. cit).

3. Cf. especially *Museum,* Vol. XXXI, No. 1, 1979, on 'Return and Restitution of Cultural Property'.



Museums in the street...

Architectural heritage and contemporary town planning in Sofia

Magdalina Stantcheva

In the heart of Sofia, the capital of Bulgaria, modern urban architecture and archaeological monuments of different periods coexist in harmony. Modern constructions provide a setting for the relics of the past in a way that is at once unexpected and natural (Fig. *25*).

Most of the large buildings have been constructed since the Second World War, which saw the centre of the town largely destroyed by bombing. The reconstruction programme is continuously updated in the light of changing circumstances, for building in this zone initially involves excavation and this excavation is constantly posing the problem of preserving *in situ* the archaeological monuments that it brings to light.

To explain this situation, a little history would not come amiss.

7,000 years of history buried beneath a city

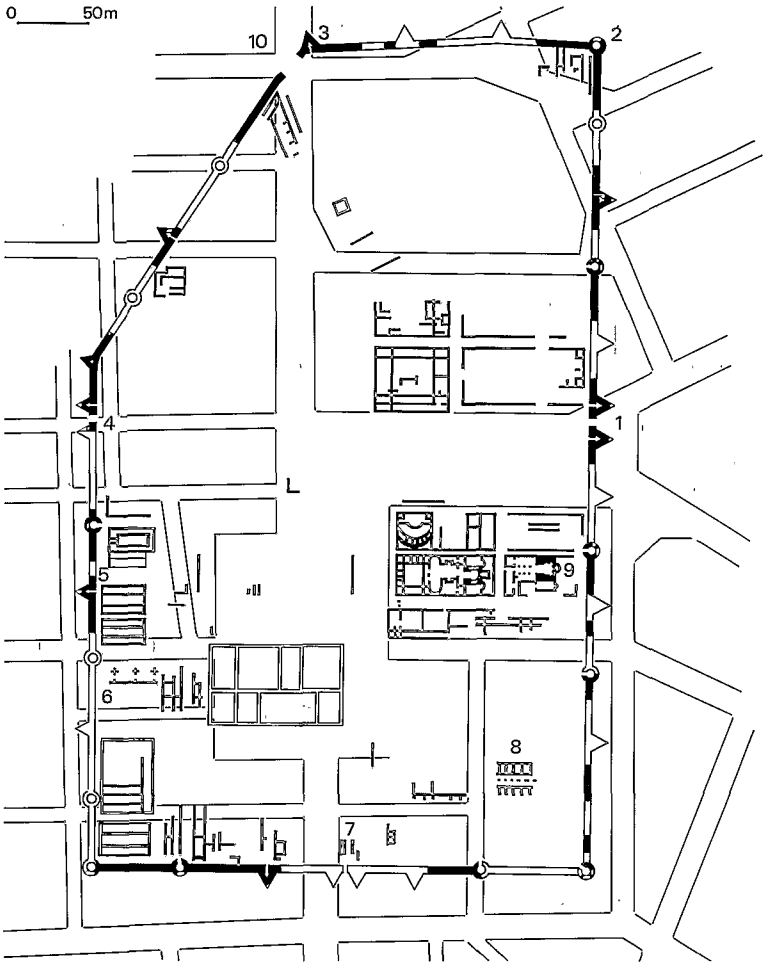
The city of Sofia is 7,000 years old. The Neolithic site (roughly fifth millennium B.C.) is situated in a district slightly away from the centre; the Aeneolithic site (roughly fourth millennium B.C.) is on a sandy terrace formed by the waters of a lake at a spot where the National Museum of Fine Arts now stands, occupying a former royal palace which, until Bulgaria freed itself from the Turkish yoke in 1878, was the residence of the Bey, who governed in the name of the Sultan.

Ever since the Bronze Age (roughly second millennium), when the country was inhabited by the Thracians, life has focussed on the thermal springs; the 4,000-year history of the city centre—to use the word in its strict sense—dates from this time.

Sofia is not the only European city with a history going back thousands of years; what is extraordinary about it, however, is that its history has occurred in such a remarkably confined area, around a focal point that has remained unchanged to the present day.

There are, of course, reasons for this. Geographical, first of all: the main route from Central Europe to Asia through the Balkan peninsula crosses the plain of Sofia which stretches from east to west and between the Balkan mountain range in the north and Mount Vitos to the south. The natural and best route, the one historically followed, still passes through the centre of the city. There it meets another of those great highways that have been trodden out over the centuries: that which links the Carpathians and, beyond them, the northern territories, to the shores of the Aegean Sea, the gateway to the Mediterranean. This crossroads has played an enormous part in the destiny of Sofia, since these routes have, over the ages, brought the city riches, disaster and, above all, an unceasing flow of new life.

20
Courtyard of the Council of State: archaeological ensemble made up of the Rotunda of St George, built in the fourth century, transformed into a church in the sixth century and where three layers of mural paintings executed from the tenth to the seventeenth centuries have been discovered. (The outhouses on either side shelter parts being restored at present.)



21
Plan of Serdica and indication of the eleven archaeological islands in the city centre: 1, main east gate and pedestrian subway; 2, round tower, open to the sky, north-east wall (open to the public); 3, 'triangular north tower at basement level, in a shop (open to the public); 4, west gate, flanked by two towers, part of the wall, a triangular tower, square where archaeological excavations are being carried out (open to the public); 5, part of the surrounding wall with round tower, street, temple, medieval church (presently being fitted out in the basement of the Bulgarian Bank for External Affairs); 6, part of a public building (in a basement room, presently being fitted out, of the Cultural Committee headquarters (open to the public); 7, part of a street dating back to the second century (basement of an administrative building, next door to a café which is being fitted out); 8, central part of a former large residence of the late Roman era, with mosaic pavements (work in progress in the basement of an administrative building which is no longer open to the public); 9, ensemble including the Rotunda of St George situated in an interior courtyard (rotunda at present being restored, open to the public); 10, remains of the Roman praesidium of Serdica (under Lenin Square and only open to specialists); 11, remains of a house of the late Roman era, *extra muros* (basement of an administrative building).

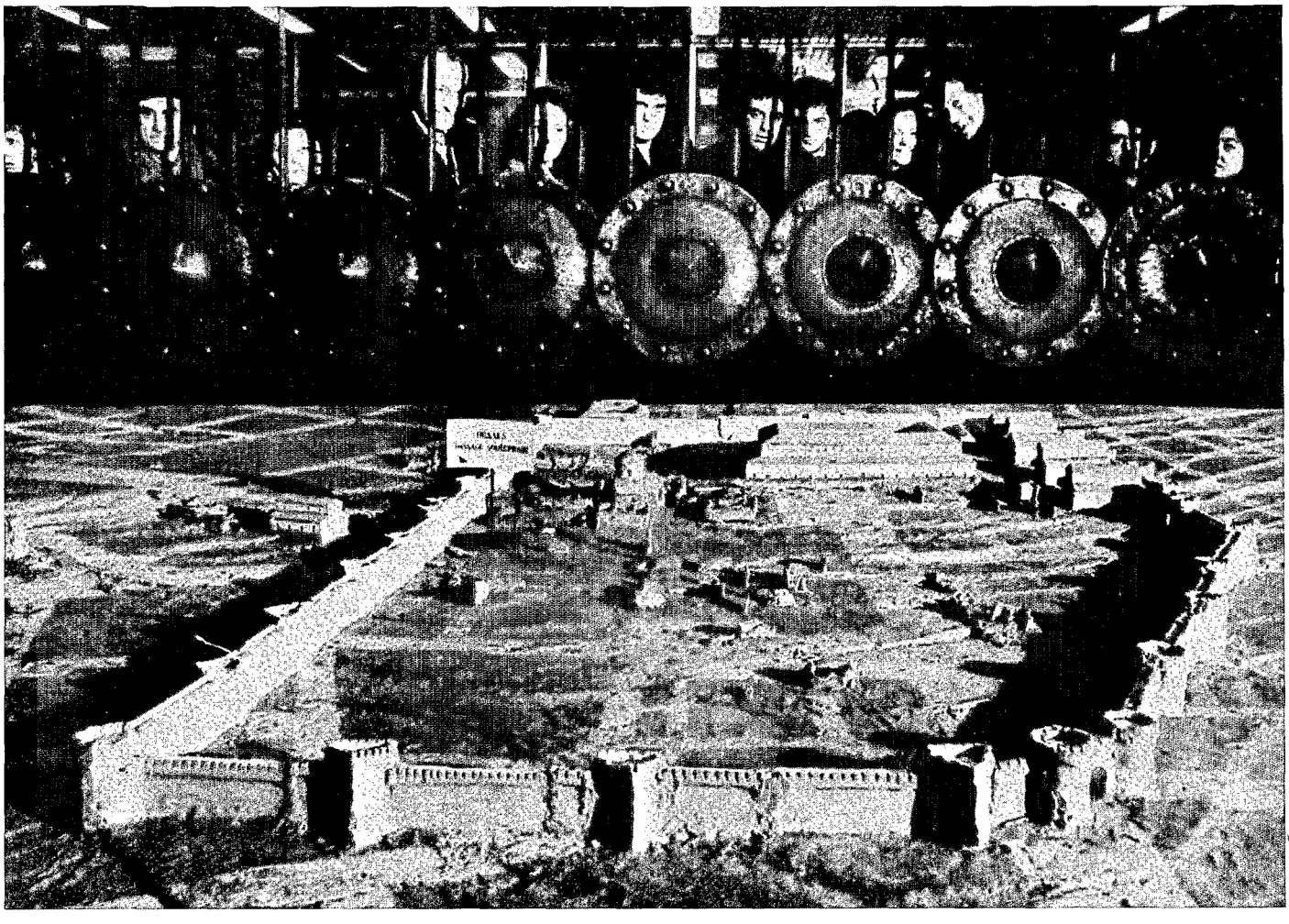
The second reason why the centre of the city should have been situated at this meeting of the ways is the presence, close by, of thermal springs yielding waters at temperatures close to boiling point. Deified by the Thracians and domesticated by the Romans, who built thermal baths on the site, these springs have always been a source of wealth and they still are, in so far as they now supply a balneotherapy centre.

To the gifts of nature—the springs, the fertile surrounding plain and the near-by mountains with their well-wooded slopes and abundant freshwater springs—man has added his handiwork as a builder, accumulating the advantages of town-dwelling and creating over the centuries an ineradicable human settlement.

From Serdonpolis to Sofia

From the Bronze Age through to the twentieth century, which has buried at this spot a testimony to the destructive fury of war, the remains of this ancient settlement have continued to accumulate in strata which extend to a depth of 10 metres. Each age, while overlaying the traces of the previous one, has nevertheless assimilated a part of its heritage. The result, from an archaeological point of view, is a situation of great complexity which, besides posing problems of interpretation even for the specialist, makes the safeguarding and clear presentation of the remains to the public a difficult matter.

The deepest levels, dating from the Bronze and Early Iron ages, yield little identifiable material; but Serdonpolis, the Thracian city of the last centuries before the modern era, has left more distinct traces. Following the romanization of Thrace in the first century A.D. the emperors Marcus Aurelius and Commodus surrounded the city with a wall, which was to enclose it for twelve centuries. The resulting precinct, crowded for the most part with baths, temples and administrative buildings, proved too confined for the life of the city, which spilt over into the surrounding areas. Justinian, while preserving the first wall, added a second and constructed, on the site of a previous basilica,



22
Serdica, of which the Emperor Constantine the Great declared: 'This is my Rome.' It was fortified by Marcus Aurelius, Commodus and Justinian I. The Roman rectangular plan is broken on the north-west where over a stretch of 200 metres the wall follows the bank of a stream, a natural line of defence before the ramparts. Sredetz, the medieval capital of the Bulgarian state, saw a greater urban concentration within the same area of 16 hectares bounded by the walls. The model shown was for quite some time displayed in an underground public passage but was then withdrawn by the specialists at the City of Sofia History Museum who had built it, since further vestiges had since been unearthed.

the basilica of St Sophia, which later gave its name to the city. The first Bulgarian state, established in 681, made the city part of its territory in the eleventh century. The city, previously known as Serdonpolis and called Serdica by the Romans, then became Sredetz, which in Slavonic means 'centre' or 'central place' (Figs. *21, 22*).

Among those buildings which it adapted to its own needs, the medieval city preserved the gates of the Roman city, its *decumani* and *cardines,* which it narrowed in accordance with the practice of the age; but it also demolished old buildings to make way for new ones—including a dozen small churches whose murals turn the narrow confines of the ancient city into a realm of art and spirituality.

At the end of the fourteenth century, the town, together with the rest of the country and almost the whole of the Balkan peninsula, came under Turkish domination, which was to last 500 years. To an area already over-endowed with monuments large numbers of mosques and huge caravanserais were added during this period. Sofia, the economic and administrative centre, was quick to sense the decline of the Ottoman Empire, which became apparent towards the end of the seventeenth century. It was one of the centres for that renaissance of national feeling which led eventually to the liberation of the country in 1878 and it was chosen as the capital of the newly reconstituted State. Three figures will give some idea of its development in the space of a century: in 1878, its population was 12,000; by 1940, it had risen to about 300,000; today, it is almost 1 million.

Archaeology in the city

Until independence, the city hoarded its archaeological heritage, burying its past and concentrating on the present. The history of its archaeology begins with its elevation to the rank of capital city. The first decades, however, had a generally destructive effect. The centre, divided into plots which were de-

23
The two insulae situated behind the Rotunda of St George.

24 (a), (b)
The second-century road.

veloped as their owners saw fit, was built up without any thought for the treasures which lay hidden beneath it. The only constructions to be spared were three or four religious buildings—including the rotunda of St George's church, dating from the fourth century, and the basilica of St Sophia, erected in the sixth century, which had survived the vicissitudes of history. All attempts to save the monuments of the past were thwarted by private interests. The pioneers of archaeology had to confine themselves to gathering information and documents and hope for better times. However, although it scorned the relics of the past, the first plan for the capital re-established links with town-planning traditions which ran so deep that they still proved fertile after five centuries of neglect.

Everything changed following the Second World War and the Socialist Revolution in Bulgaria. The centre, which had been bombed, set on fire and razed to the ground during the war, had to be rebuilt. The first step in the transformation of the old commercial centre into the political and administrative heart of the country was the construction of a number of large blocks. The government recognized the importance of archaeological excavations for the history of the capital and included in the budget for the five projected buildings provision for such work. This decision marked the beginning of an extremely productive period (1947–52) for archaeological science—and for the museum, which acquired many interesting new finds. But—although a baptistry together with its cruciform pool was carefully transferred to the courtyard of the neighbouring National Museum of Archaeology—no-one considered the possibility of incorporating in the ministry buildings or Party Headquarters rooms in which the relics of the past would be preserved *in situ.*

Early successes

Fortunately, the development plan for the city centre provided for vast open spaces between the buildings. The rotunda of St George was thus preserved within an interior courtyard and the City of Sofia History Museum organized excavations on the site. Four years' continuous work turned this courtyard into an archaeological ensemble of great richness: a second-century road separates two *insulae*: one, to the west, is occupied by the rotunda; the other, to the east, comprises a public building converted into a church in the fifth century, a thirteenth- or fourteenth-century house and another house dating from the seventeenth century. Though somewhat severe in its neo-classical architectural setting, the whole complex is nevertheless impressive.

At the same time, excavations brought to light a round tower in the north-east corner of the walled enclosure. It is to be preserved, and the architects had to abandon one of their projects in order to allow space for it between residential buildings in a busy street. A little to the west, on the same thoroughfare, on the corner of the Boulevard George Dimitrov, the main north–south artery of the capital, building plans were modified on the insistence of archaeologists following the discovery, during the laying of the foundations, of a triangular tower, an innovation introduced in the age of Justinian as part of Serdica's defences. Today, its ruins have as their setting the basement of the building in question—a shop to be precise. So the tower that once faithfully guarded the city is now to be found watching over the sports goods on display in the shop.

With these early successes, hopes of enriching Sofia with the relics of its past took shape and support for the idea of integrating archaeology into the fabric of urban life grew rapidly.

1968–70: the decisive years

The period 1968–70 was of decisive importance. This was when the plan was conceived of constructing two subways beneath the central esplanade. The first was designed to link the headquarters of the Council of Ministers, the Council of State and Party Headquarters. As the work on these sites would block the main entrances of these three buildings, speed was called for, to complete the job in six months. However, the first blow of the pick brought to light historical remains. Excavations began and disclosed the main east gate of Serdica, flanked by two towers, and the roadway which led to the centre of the city. In fact the work lasted eighteen months and its cost substantially exceeded initial estimates. However the gate and the towers survived and the inhabitants of Sofia today, towards the end of the twentieth century, tread the antique paving of the Serdica highway. Following long discussions and with the support of the government, the decision to integrate into the present-day life of the city this part of its archaeological heritage carried the day.

Today the visitor finds a square bustling with activity day and night. Descending one of the four stairways leading to it, he is free to roam beside the towers and ramparts, to pass through the gateway, enter the ancient city and walk on paving stones that have remained unchanged since the sixth century; but where a Roman or medieval shop once stood he will find a modern kiosk and telephone booths—immediately recognizable symbols of our age (Figs. *26–28*).

The subway is decorated with a variety of architectural fragments, reliefs and photographs recording the different phases of the excavations. A gate leads to an exhibition hall which can be visited at fixed times in the company of a guide (Figs. *29–30*). Explanatory notices, while few in number, are to be found, in both Bulgarian and French, at each entrance. A place of honour—close to a stairway—is reserved for the ancient inscription once placed over the gateway recalling the date of its erection (Fig. *31*).

At the other end of the esplanade, the construction of a second pedestrian subway came up against difficult problems posed by the presence of a medieval chapel. The level of the small church was higher than that of the subway, while its roof projected above the level of the esplanade.

The solution arrived at was far from inelegant. The subway opens out into a small paved square, open to the sky. In the centre, as if on a plinth, stands the sanctuary, at its original level and in the open air. The square, surrounded by shops, is a hive of activity; almost the whole of one side of it is taken up by a café. Long and painstaking restoration work on the fifteenth-century murals of the medieval building have made the overall effect even more picturesque. The chapel had been built on the ruins of a construction of late antiquity, the remains of which, underneath the chapel, have been made the setting for a small exhibition which explains the history of this little sanctuary, originally maintained by the Saddlers' Guild—Saint Petka Samardjiiska (Saint Petka of the Saddlers) (Fig. *32*).

24a

24b

These two achievements have earned the admiration not only on the inhabitants of Sofia, but also of all the specialists who have come to see them; the team that devised and carried them out has been awarded the medal of honour of the city of Sofia.

Political will

Of course, for this kind of project to be successful the right conditions must prevail, the most crucial in this case being the Bulgarian Government's sustained policy of safeguarding the cultural heritage. This was given expression in the law of 1965 on monuments and museums, which made it obligatory for all bodies concerned, when undertaking public and construction works, to take account of the need of archaeological research. The fate of newly discovered monuments is discussed and decided by ad hoc commissions or, where appropriate, by the Council for Cultural Monuments, a specialized branch of the Culture Committee.

Special provisions were obviously necessary for Sofia. In 1976, the Council of Ministers declared the historic centre of the capital an archaeological site and prescribed special regulations for four surrounding zones which contain the extramural monuments and necropolises of the ancient and medieval cities. The decree listed obligations incumbent upon all institutions engaged in activities relating to the architectural heritage of the city: the City of Sofia History Museum, the National Institute for Cultural Monuments and planning and construction organizations of every sort. Following the appearance of this text, a vast programme covering work in prospect was drawn up and co-ordination and collaboration with the Directorate of the General Plan for Sofia were instituted on a more regular basis.

These years of intense activity provided the City of Sofia History Museum, and in particular its archaeological section, with a fund of experience which has helped its archaeologists to adopt an overall view, principles, working methods and an approach to problems which can be geared to particular cases. The results speak for themselves.

The City of Sofia History Museum

Reference has been made to the City of Sofia History Museum. This museum only came into being in 1952, when it replaced another which had no fixed programme. At the present time, its storage rooms are overflowing with collections as rich as they are varied, while it lacks space to put them on general display. Temporary exhibitions provide all too brief glimpses of the city's past.

It archaeological section assumed energetic control of excavations in the capital in 1955. Its permanent team—which made regular use of temporary scientific help—was, for many years, often occupied by rescue operations for as much as ten months of the year. The work was organized in such a way that, at any given moment, the archaeologist on duty was available to visit any site where a discovery had been made. An attempt was made, at the same time, to plan activities by linking excavation with the building programmes of the various bodies concerned with construction in the capital. This made it possible to excavate before building began, rather than coming to the rescue when it was already under way. Of course, emergencies will still arise, since even the planting of a tree in a zone classified as an archaeological site requires the presence of an archaeologist.

The data assembled over the last twenty-five years, together with the information collected prior to that, allow reasonably accurate predictions regarding the work that will have to be undertaken and how it should be organized. In addition, the scientific research carried out has made a substantial contribution to our knowledge of the city's history. An attempt has been made to 'separate' the different periods, to define their own particular style of architecture and town planning and to understand how much their approach to town planning owed to tradition and how much to their own individual dynamics. This

25
The past is ever present in the life of modern Sofia. Cars are parked between the lapidary collection of the National Archaeological Museum and buildings in glass and concrete.

research has clarified countless aspects of the economic, social and artistic life of the city over the ages; it has revealed a mass of details of daily life and thrown light on the historical events through which it lived; and it has added objects of great interest and valuable works of art to the museum's collections. But its most important contribution has been to increase the number of 'archaeological islands' in the centre of the capital. The network now taking shape is becoming gradually clearer to the public at large, for whom the stones are beginning to tell their own story. There are now eleven such islands (Fig. *31*).

Their number will doubtless increase still further. Archaeological studies made on the areas earmarked for building in the general development plan give reason to suppose that still more parts of the ancient and medieval city, its wall and necropolises will be uncovered. Attempts have been made to estimate the state of conservation of the remains with reference to the erosion of time and the damage caused by modern building works. A colour chart sets out all the possibilities and the results of this predictive venture are available to development architects, with whom a good working relationship has been established, holding out hopes of interesting results in the future.

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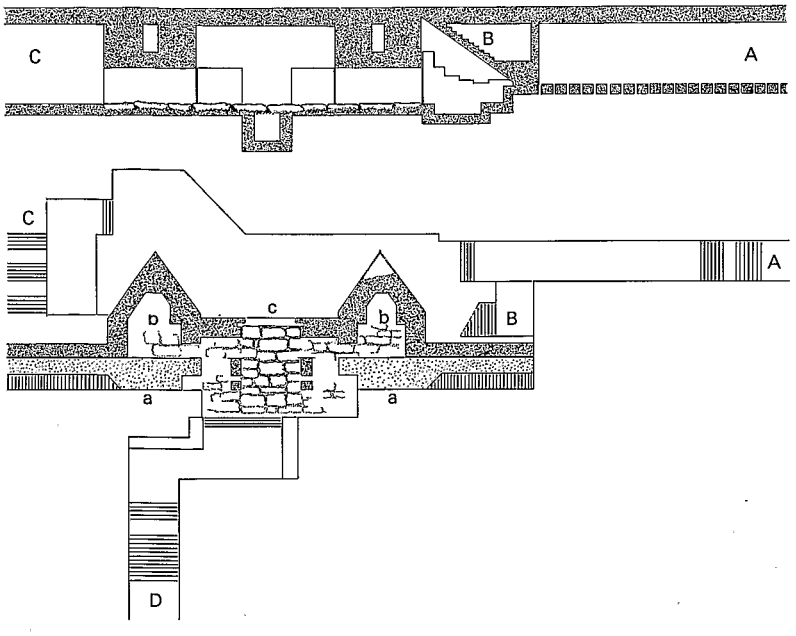

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26
On the central esplanade, entrance to the underground passage (A on Figure *28*) which begins in front of the Council of State and ends up near the ancient east gateway.

27
East gateway of the Roman and medieval cities, maintained *in situ* in the pedestrian subway, underneath the central esplanade of the capital. Passers-by walk on the age-old paving stones of the Roman street.

28
Plan and cross-section of the subway at the east gateway: A, (a) remains of walls; (b) towers; (c) street; A, south entrance (Council of State); B, staircase opening on to the Party headquarters; C, entrance on Boulevard Dondoukov; D, entrance on the side of the Council of Ministers.

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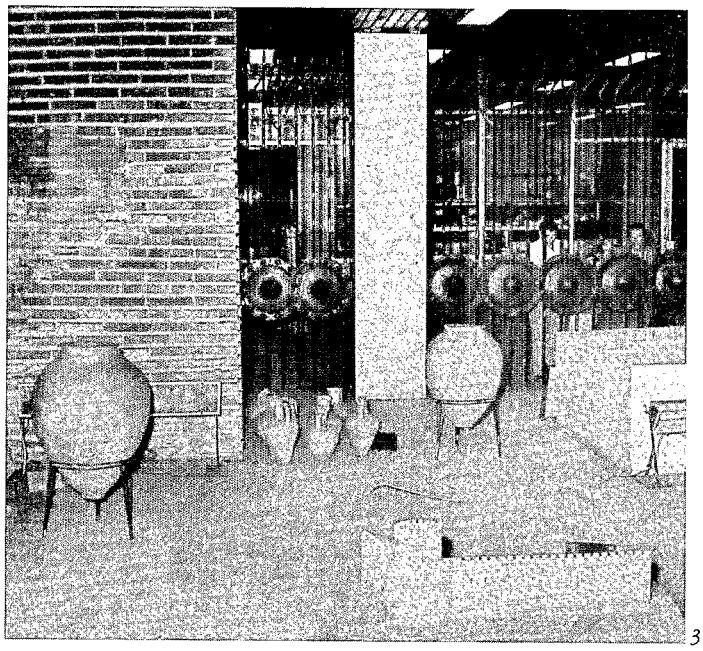
29
An escapade after school: on the way home schoolchildren can stop in a small exhibition room arranged by the City of Sofia History Museum in one of the pedestrian subways.



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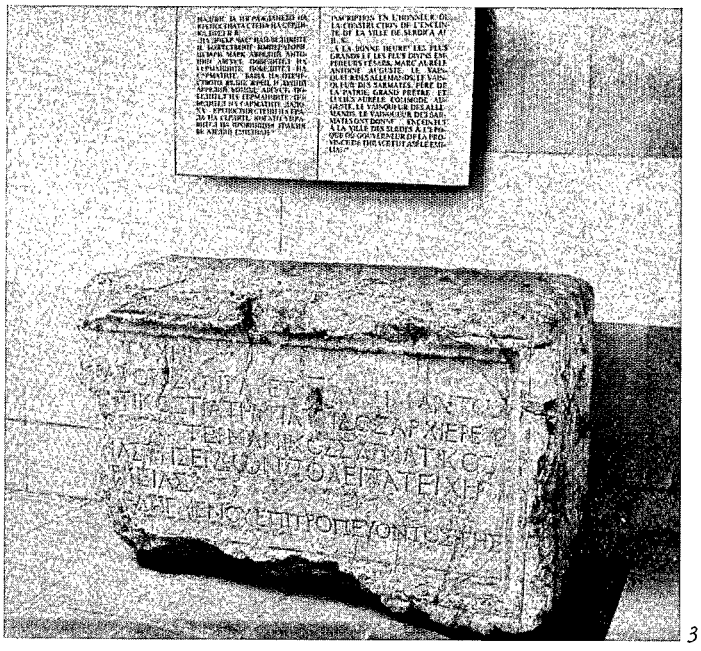

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32

Integrating the past with the present

It should not be imagined, though, that the development of the archaeological heritage does not cause serious controversy. There are difficulties of all kinds, as was bound to be the case. Sofia is a living city, a modern capital with all that this implies. Under the city's coat of arms the motto reads: 'Grows but does not age'. The city remains faithful to this motto. It is turned towards the future, not towards the past. The relics of this past are simply the visible part of its deep-rooted present; a testimony to its unshakeable confidence in itself and in life, a confidence so often demonstrated in the course of its often dramatic history.

Although it is precious, what lies beneath the feet of the inhabitants of Sofia is none the less fragmentary. It will remain so; it cannot be reconstructed—indeed the attempt should not even be made. For what is profoundly meaningful—and what adds to the charm of this city so youthful in style—is the integration of the past with the present. The idea which inspires those who carry out this archaeological work is precisely that of integrating the physical presence of history into the everyday life of today and, if possible, tomorrow.

From this point of view, one cannot lay too much stress on the importance of the educational and informational material displayed with the monuments. Not only the historical significance of each relic, but also its place in the whole needs to be clearly brought out. In this area, the talent and imagination of architects and museologists are given full scope.

It should be underlined that an individual solution is sought in each case and that there is no question of adopting a single model for integrating modern architecture and ancient monuments. The approach is determined not so much by any pre-established principle as by the diversity of the situations that arise. Even those projects most rapturously received by the public are subjected to critical analysis to detect possible shortcomings. Some of the operations undertaken are extremely risky and difficult, such as the excavations presently being carried out at the west gate; the importance of exploring the older layers is always borne in mind, since the aim is to safeguard the historical evidence of all ages and not of one particular age, so as to show a historical evolution and not present a static moment in history; an attempt is made to evaluate archaeological discoveries with reference to their role in this evolution and not solely with regard to their intrinsic value. In this way, something of the dynamism of past ages can be preserved—in so far as it is possible to reconcile two notions as opposed to each other as dynamism and preservation.

An extremely testing time awaits those archaeologists, curator-restorers, architects and engineers who will work on the construction of the underground railway that Sofia is to acquire. Once again, the strength of tradition has made itself felt in this development project. The main lines will cross beneath the ancient crossroads around which the town was built and the central station will be situated in the quadrilateral of the ancient city. From the start, the archaeological problems raised by this project have been examined in the greatest detail and a group of experts has been appointed to supervise it from excavation to its opening to the public.

Wide-ranging consultations were organized to ensure that the best methods of excavation and safeguarding were employed. A Unesco/UNDP project, currently in progress, provides for consultations of experts, study trips for Bulgarian specialists and equipment for continuous excavation on the routes followed by the underground railway.

All these efforts, the investment and even sacrifices required, are, however, strongly motivated. It is the privilege and duty of our generation to decide, on behalf of those who will follow, whether Sofia's heritage will be safeguarded or not. The decision cannot wait, since modern development is likely to prove much more dangerous for the heritage of the past than that of all previous ages. At the same time, present-day techniques provide us with the means to resolve the most difficult problems in this sphere.

30
A small exhibition room arranged by the City of Sofia History Museum. The room is closed in by a simple grille of lances and shields so its models and objects can be seen from the passage-way even during closing hours.

31
At the foot of staircase A, the inscription that crowned the east gateway. Above it, the Bulgarian and French translations.

32
The Chapel of Saint Petka of the Saddlers is an admirable example of the insertion of archeological remains in the urban fabric. The subway opens out on to a patio, at the foot of a department store so as to enable the integral conservation *in situ* of this fourteenth-century monument. In the covered portion around the small square, boutiques and a café whose terrace goes right up to the chapel.

The museum and preservation in situ

However, the most important thing is that, as we approach the end of the twentieth century, we are becoming aware of the need to save our cultural heritage.

The museologist today must, as a professional, accept his share of responsibility for the future of the archaeological heritage of living towns.

The preservation *in situ* of archaeological ensembles constitutes one of the most important trends in modern museology. This tendency is in keeping with the most rigorous requirements of science: it represents the only possibility of a close approach to the truth of the past, of understanding the past and of interpreting it objectively; it alone ensures that items providing information on a whole ensemble can be studied constantly and on more than one occasion in their unchanged state.

It also leaves options open for the future. It is not unreasonable to suppose that technology may one day provide us with better equipment than we at present possess for re-siting archaeological ensembles. It is well known that the fundamental rule of all conservation work is to allow for reversibility of procedures. And it is extremely rare for the transfer of a monument—which is, by definition, immobile—to be other than an irreversible act.

Preservation *in situ* can be seen as part of the attempt to preserve the harmony between the artefact and its natural environment, a harmony to which men in the past seem to have been very sensitive. The concept of preservation *in situ* is directly related to that of the eco-museum and the multidisciplinary museum. All represent an attempt to safeguard, present and explain a variety of elements as a coherent whole. There are links also between this concept and the very strong present-day concern to seek and preserve cultural identity; on quite a different level, it ties in with the movement created by that contemporary phenomenon, tourism.

However, preservation *in situ,* while it constitutes normal procedure for specialists in the protection of historical monuments, is a revolutionary concept in museology.

Indeed, it is quite opposed to the traditional principle of collection, which requires that every moveable object should find its way to the exhibition or storage rooms of a museum. While it is undoubtedly true that the assembling of collections has in the past, and particularly in the last century, saved for mankind many of the riches that make up its cultural and natural heritage, it is also true that this has been done at the expense of the monuments themselves. In fact, collection leaves the monument an empty shell, immovable on its site.

Far from devaluing the traditional museum, preservation *in situ* turns it into the centre from which paths lead out to the source of archaeological treasures. At this source, the public is in contact with historical remains at a variety of levels. But it is not necessarily a public which the keeper of a museum would recognize as such: it may consist simply of passers-by, with their preoccupations and everyday thoughts. The monuments they pass by each day are not without effect on them. Most often, in Sofia, they look upon these monuments simply as an agreeable feature of their lives; then one day, while taking a stroll, their interest may suddenly be aroused. If their curiosity gets the better of them, they may return, as invited by the notices, at a given time to the gate in the subway where the museum guide awaits them. After that, the discovery of a monument or a visit to the excavations in progress involves no more than a short walk. The visitor may find himself in the company of a party of schoolchildren or he may be whisked away at once on his own by the guide; when the group is small, the tour may develop into a pleasant conversation on the archaeology and history of the city.

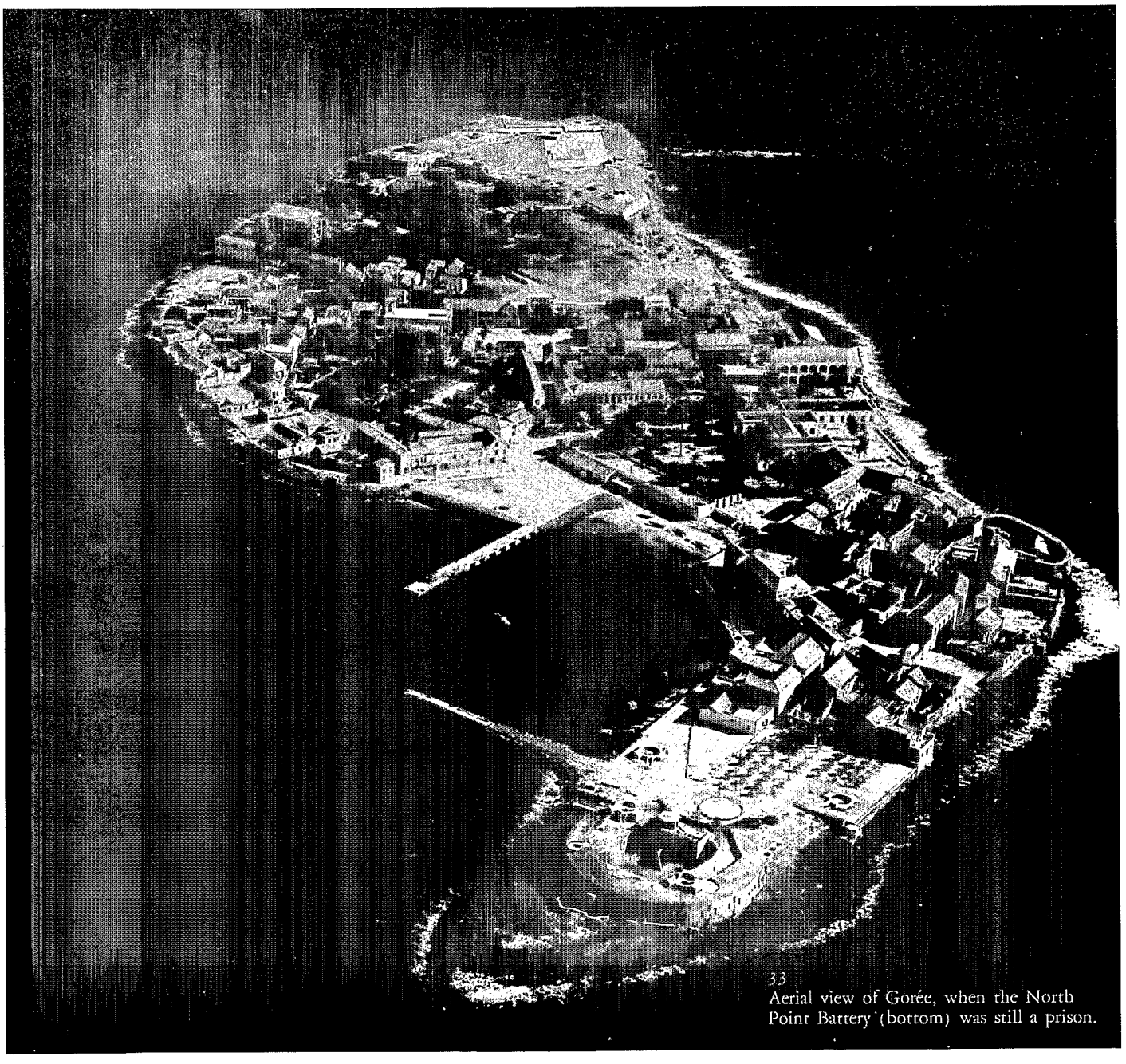
The museologist will also benefit from such contacts. They not only enable him to understand the interests of the public better, but the questions and answers to which they give rise lead to more searching discussions in the museum itself.

Thus, an informal approach to the relics of the past, where these are integrated into the life of the city, can be the starting-point for the understanding of the cultural heritage which is the main objective of all museum activities. [*Translated from French*]

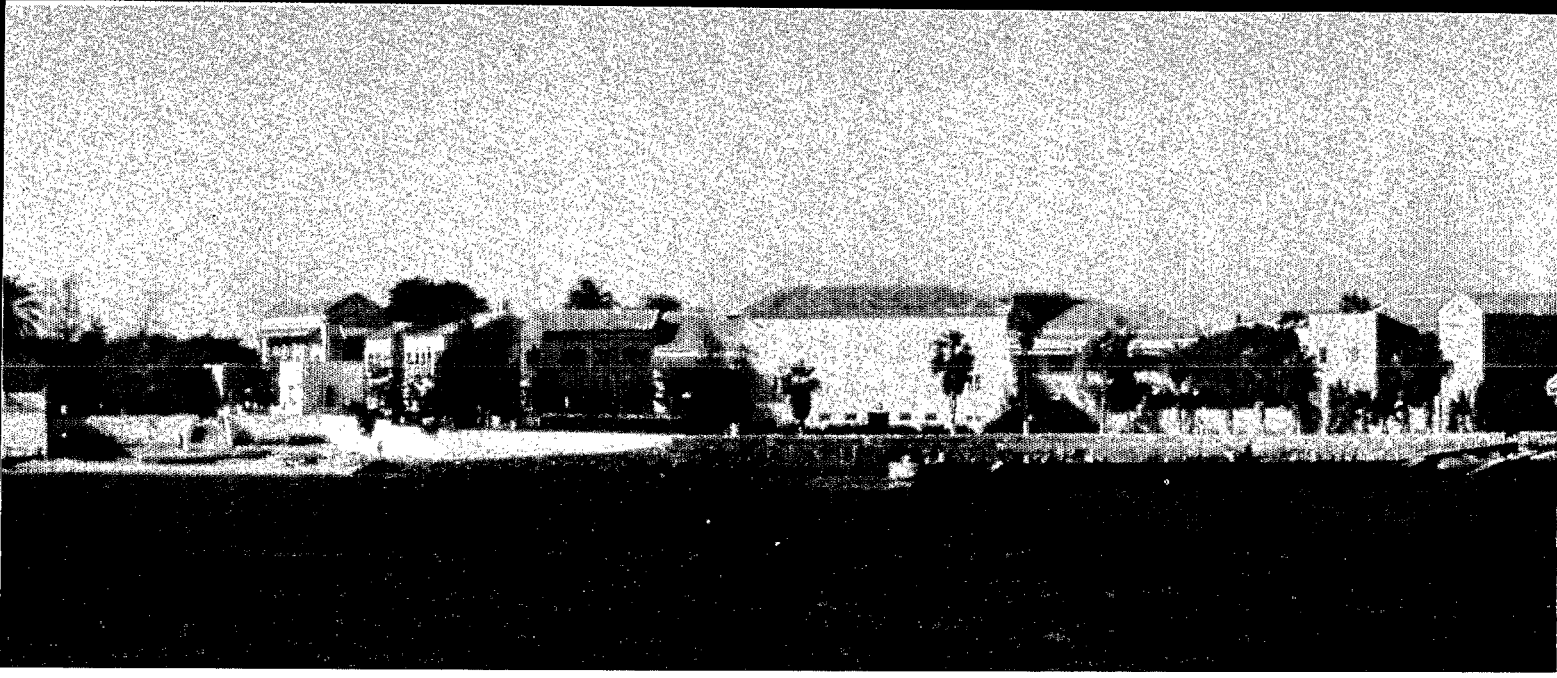
Gorée—the museum island

Creation of a history museum

Alassane Thiam with the
collaboration of Guy Thilmans



33
Aerial view of Gorée, when the North Point Battery (bottom) was still a prison.



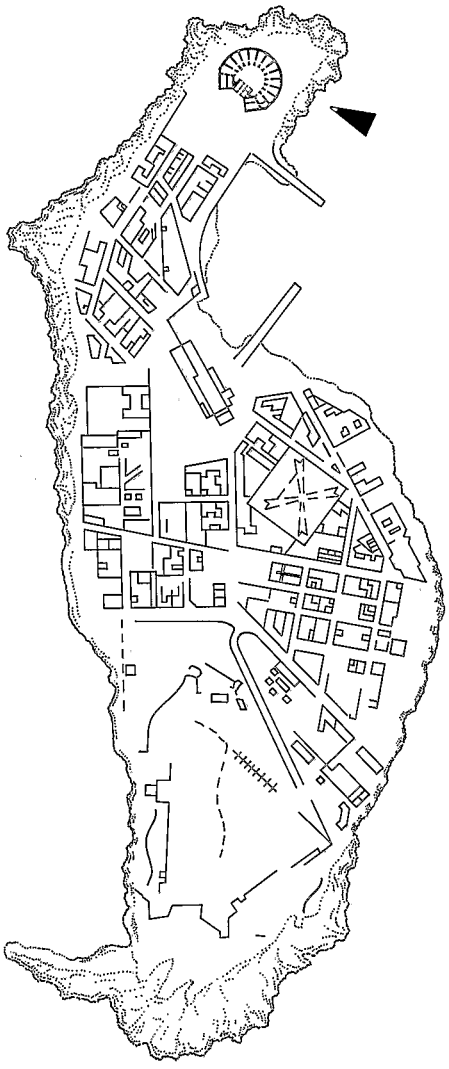
Off the coast of Dakar, from which it is separated by a 3-kilometre-wide channel, the island of Gorée, of volcanic origin, is only some 900 metres in length and 300 metres in breadth at its widest point. The island presents two very contrasting landscapes. In the south, a third of the surface is taken up by a huge mass of basaltic rock—the Castel—whose steep cliffs rise 30 metres above the waves. The second part of the island is a 'raised beach', very close to water level. There the town has spread out its houses, built in a very typical architectural style and dating for the most part from the eighteenth and nineteenth centuries—periods during which trade enriched the island. There were then up to 1,500 inhabitants, while now there are only about 900 left (Figs. *33–35*).

The northern tip is narrowed considerably by a small bay which digs into the north-eastern coast. This bay provides so sure an anchorage that in the seventeenth century the Dutch called it Goede Reede (the good roadstead). This designation is perhaps the origin of the island's name, Gorée.

It should be noted in passing, however, that according to other sources, the name has simply been derived from the name of an island in the Low Countries, Goeree. Such a theory could well be possible. For a long time, navigators and colonists have given the lands where they settled names drawn from the toponymy of their native countries.

In any case, the first Europeans to land on Gorée were not the Dutch but the Portuguese. In 1444, Dinis Dias, whom Henry the Navigator had commissioned to explore the coast of Guinea, was the first to round the Cape Verde Peninsula and drop anchor off Gorée. The only architectural trace left by these first visitors is a chapel, built in 1481. It has undergone numerous transformations—it has housed, among other trades and services, a bakery, a prison, a fish-shop and finally a police station. In spite of this fact, it is still the oldest building on the island.

It does not seem that the Portuguese accorded any great importance to their discovery, for they hardly occupied the island although several settled on the coast. They probably put in here frequently, to take on basalt rocks as ballast or to repair their long-boats on the narrow beach of the bay. This seems to have been the practice of the Dutch at any rate, for in 1615 Jacob le Maire, the discoverer of Cape Horn, called the island Sloupen Eylant (island of the sloops) and from 1595 on the Dutch began to put in there regularly. In 1627, the Dutch West Indies Company 'bought' the island from a local chief and built two forts, one on the Castel, the other on the lower part. Fifty years later, Vice-Admiral d'Estrée took Gorée from the Dutch and levelled its fortifications. The French were, however, to construct others, for having made the island one of their first trading posts in Africa, they had to defend it from the British in the course of the numerous wars between the two nations. The British even supplanted the French on Gorée four times, albeit for brief periods (1693 ; 1758–63 ; 1779–84 ; 1800–17). But the French occupation did not really cease until the independence of Senegal in 1960.



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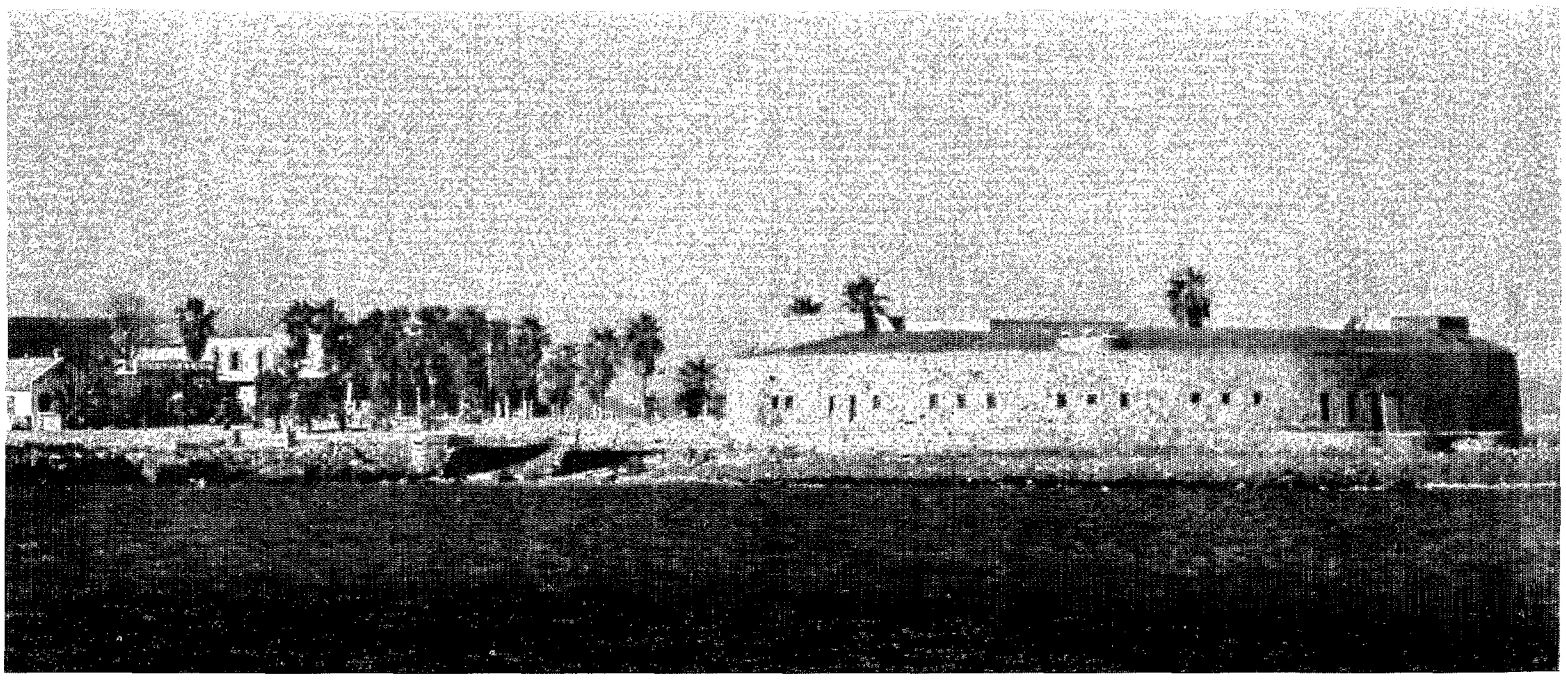
Plan of the island of Gorée.



34
Northern part of the island with, on the right, the Battery, partly renovated for transformation into a museum.

A plan for the rehabilitation of the site

In 1941 the island was classified as a historical site, but it was only after independence that the government of the Republic of Senegal began to consider its restoration. With the active assistance of Unesco[1] and of the World Bank it commissioned in-depth studies in order to co-ordinate economic, social and cultural imperatives which seem hardly compatible.

Thus on the economic and social plane, it became apparent that it would be necessary to exploit the island's sole potential source of wealth—the tourist trade—to guarantee not only the stability, but also a reasonable growth of the island's population by assuring it of adequate means of existence. At the same time, it would be necessary to protect both the site and the traditional life-style of the islanders from the ravages of a brutal tourist invasion, of which there are only too many examples throughout the world.

On the cultural plane, Gorée seemed a priviledged site to illustrate President Senghor's thought:

> ... the acceptance of this fact of civilisation [Negritude] and of its projection in perspective into history and in the continuing course of the civilisation of the black world, to actualize these two elements, to bring them to fruition, if necessary with outside help, to live them by and for oneself, but also to make them live through and for others, thus defining the contribution of the new blacks to Universal civilisation.[2]

Indeed this miniature portion of the African continent, anchored about fifteen cables' length from Dakar has been marked by the passage of its different occupants and the island is thus a witness to the colonial history of all of Black Africa (Fig. *38*). Then with its decline, it fell into oblivion; into oblivion long enough for it to escape, these last few decades, from real-estate speculation and the leisure-time industry. The witnesses of the past on the island have therefore been more or less spared and without great effort it is possible to bring to life again a historic whole of remarkable homogeneity on these 30 hectares. Consequently, a vast educative and cultural complex is under construction. The historical museum of the Fundamental Institute of Black Africa (IFAN) is one of its components.

There is already such a museum on Gorée; begun twenty-six years ago, it is housed in a handsome eighteenth-century dwelling, at the corner of the Rue Saint-Germain and the Rue Malavois. The house's small size has meant however that the building cannot be transformed into the important museum envisaged. That is why when the annex to Dakar's civil prison in the North Point Battery was closed in 1977, the Head of State appropriated the site for the future museum at the request of Professor Samb, Director of IFAN. In point of fact, the building could furnish a rather large space after relatively inexpensive restoration. Historically, this example of nineteenth-century military architecture marks a turning-point in the destiny of Black Africa, when the slave trade was succeeded by the systematic colonization of the continent.

1. Mission reports: *Monuments historiques de l'île de Gorée et de Saint Louis, Sénégal,* by A. Grégoire, May 1974; *Plan directeur de rénovation de l'île de Gorée,* by J. P. Frapolli; *Aspects juridiques et financiers du programme de rénovation de l'île de Gorée,* by M. Clerc, 1975; *L'avenir de Gorée,* by Michel Parent, 1977; *Projet touristique de la Petite Côte,* by P. A. Lablaude, 1978.

2. Léopold Sédar Senghor, 'Liberté III', *Négritude et civilisation de l'Universel,* p. 270, Paris, 1977.

The historical museum of IFAN is thus being set up in the North Point Battery, generally known by the name of Fort d'Estrée since 1944. In fact it was in that year, almost a century after the construction of the edifice that one morning over the door white letters on a black background appeared to announce the Fort d'Estrée—a rather belated military tribute to Count Jean d'Estrée, rear-admiral and field marshal who had taken Gorée from the Dutch in 1677. This act of homage was at the initiative of Dr Pierre-André Cariou, the author of a very interesting monograph on the island, which has unfortunately never been published. This erudite military physician had an annoying habit for a historian—he rechristened streets and buildings, giving them names which seemed to him more appropriate.

As a matter of fact, the substitution had little foundation. In 1851 the French engineering corps began construction of the edifice, which was finished in 1856. Its plans had been the subject of much discussion and had undergone many alterations. No one at that time even dreamt of giving it the name of an admiral who had been dead for some 150 years. It was known to everyone—and known for almost a century—as the North Point Battery, a name to which all the documents bear witness and which the historians of IFAN have retained.

An edifice from the 'age of the bronze cannon'

Captain Pinet-Laprade of the engineering corps, who was to become Governor of Senegal, drew up the final plans for the battery in 1850, a year before construction began. The structure is one of the last examples of coastal fortifications from the era of wooden ships whereas the appearance of the breech-loading steel cannon, the occulting gun turret and the steamship, armoured and armed with large calibre, long-range guns would soon revolutionize the art of defence.

36
North Point Battery before restoration. A watch-tower dominates the defensive keys, the loopholes have been enlarged into windows. On the left two abandoned 24-pound cannons.

37
The Battery restored. The old glacis has been reconstructed. Only the gun-turrets built in 1929, of which one is visible on the right, still have to be removed.

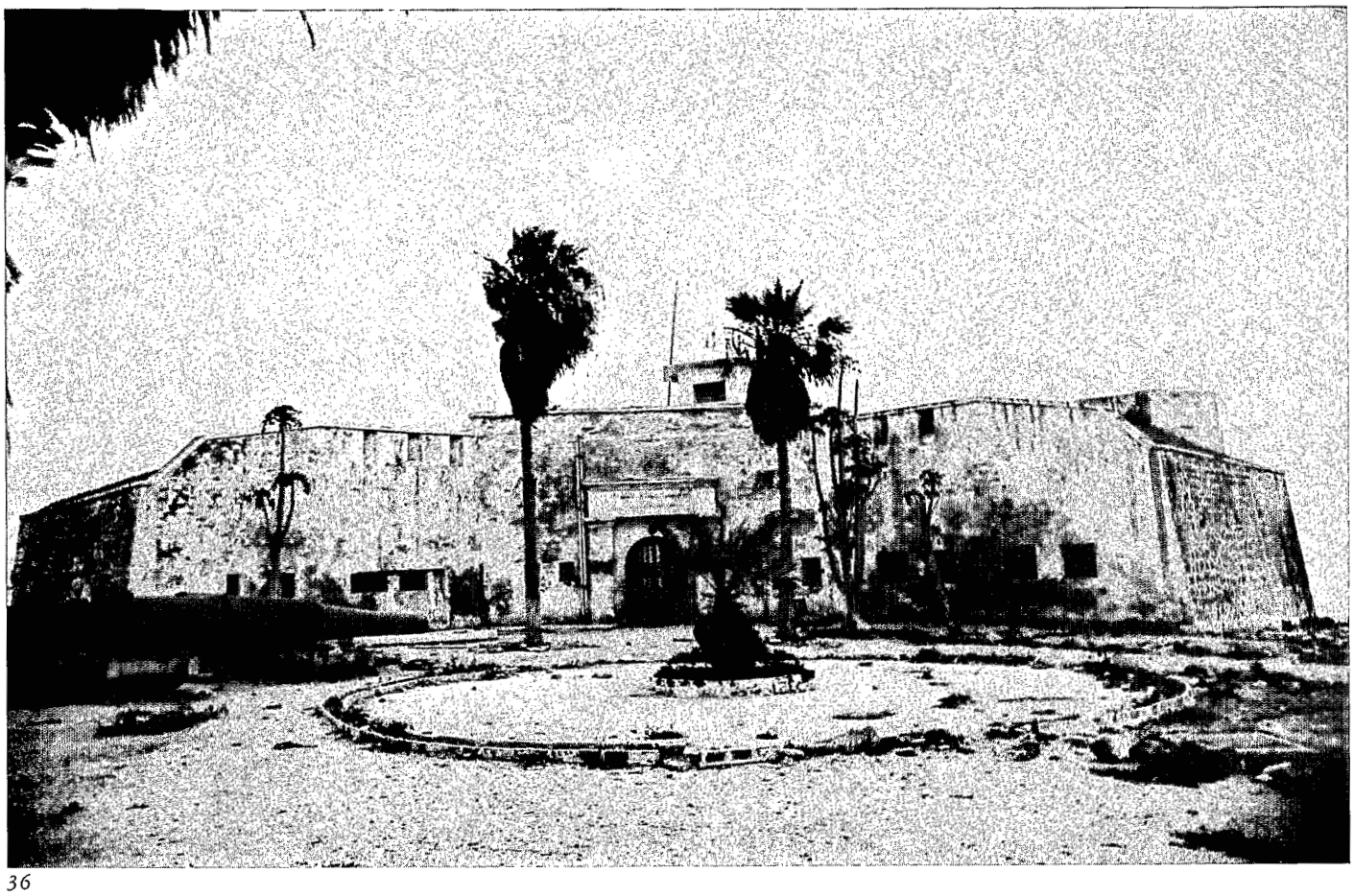
At the extreme northern tip of the island, beyond the ruins of a small old redoubt, so close to the water that a narrow beach of pebbles and basaltic rocks barely separates it from the sea, on a block of basalt which is scarcely 3.5 metres high, rises the fort. Its horseshoe-shaped silhouette, 53 metres at the widest point, stands well above the ocean as at high tide its terreplein is still 8.5 metres above the waves. In this way its cannons could reach the upper battery of the period's warships.

The rounded line of the scarp seaward is broken in the south, towards the land, to form two salients which straddle an opening whose door was originally a drawbridge. There, a trench and a glacis complete the defences in the most classical spirit of the fortifications of the 'age of the bronze cannon'.

Inside, the barracks of the fifty-odd men who made up the garrison and the storerooms for food and munitions took up thirteen vaulted casemates, each 13 metres long, 6.5 metres wide (maximum) and 3.6 metres high under the vaulting. The rooms spread out in a semicircle around a large courtyard whose area was 355 square metres.

Four other casemates together with three rooms—the largest was the governor's apartment, one small room, the duty hall, and the other the powder room—are situated around the entrance vault. The whole forms a defensive keep. There is a cistern with a capacity of 100,000 litres (there is still water in the cistern today) and in the thickness of one of the two enormous abutments, there was a spiral staircase by which one could reach the terreplein directly without having to go through the courtyard and up the two large outside staircases exposed to grape-shot.

The terreplein still has its artillery platforms and its masoned breastwork, pierced with openings like any good coastal battery of that time. Through the loopholes in the casemates, muskets could keep the long-boats under fire if ever there were an attempt to land.



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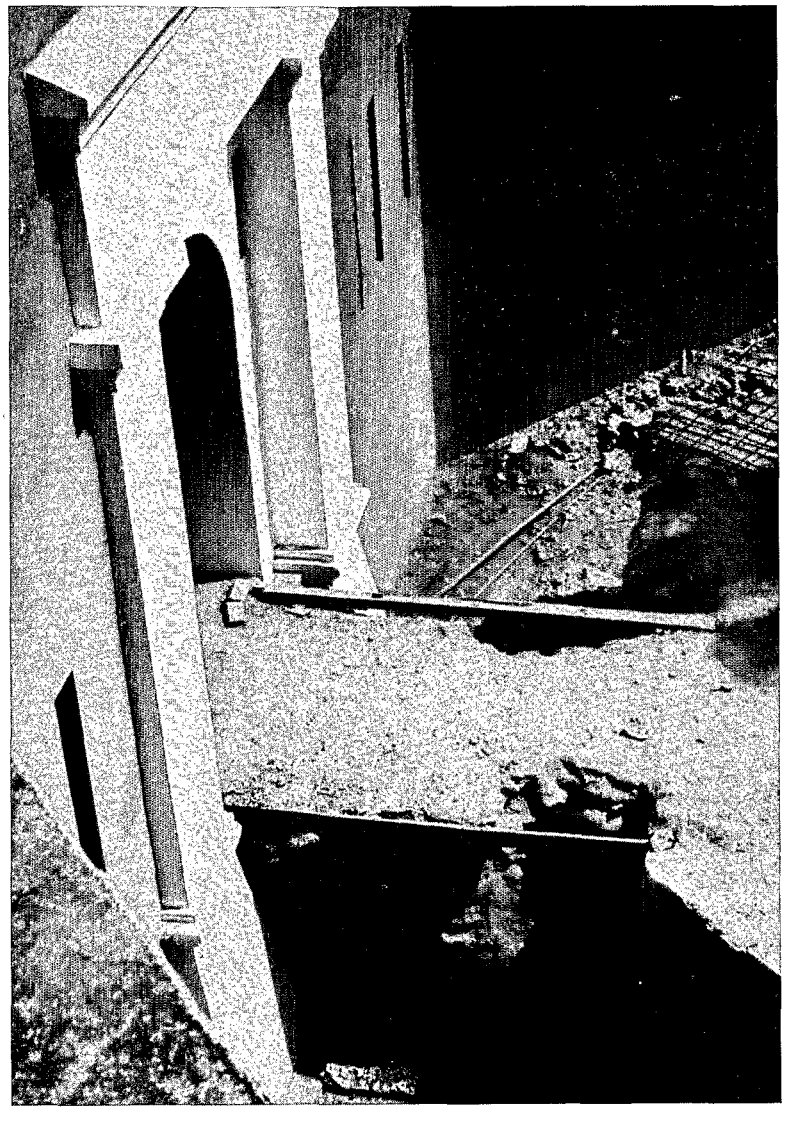
Construction and armament

Construction materials used for the 95- to 165-centimetre thick walls were essentially blocks of basalt (basanite and ankaratrite). They were used in the rough or hewn; the vaults of the casemates and the arches of the staircases were made of slabs of the same rock. The rock probably came from the peninsula and not from Gorée itself, for in 1827 the government council forbade the quarrying of rock on the island in order 'not to reduce its surface even the slightest'.

The door-, window- and loophole-frames as well as the ornamental bands and moulding on the façade are of brick, usually red, more rarely light ochre. The brick probably came from the Fleuve ovens (Saint Louis, Podor) where it was produced in industrial quantities.

The only imported material was the trachyte, a purplish-blue, grey volcanic rock, cut into square slabs which were 6 to 10 centimetres thick and which measured 42 centimetres on each side. These slabs were used as wall ridge-tiles, loophole sills and stair steps. This trachyte came from the Canary Islands, a fact which is confirmed by documents in the archives. These slabs can also be found in the paving of numerous courtyards of houses on Gorée as well as in military constructions deep in the interior of Senegal, such as the Bakel and Sénoudébou forts.

The cement used was a mortar with a lime base made from finely crushed sea shells. The floor, in very bad condition and for the most part redone, was made of pebbles set in mortar; the pavement under the entrance vault where the carriages passed was of larger rocks which had been hewn down.



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38
The entire island is a moment from the past, frozen in the stones of the village. Interior courtyard and staircase of the notorious Slave House built in 1776. On the ground floor the rooms where the victims of this infamous human traffic were made to await embarkation; on the floor above the luxurious apartments of the slave-traders.

39
The entrance to the Battery. The loopholes have been restored and the moat cleaned, except at the spot of the former drawbridge.

In the beginning, the battery was armed with twelve rifled muzzle-loading 16-pound cannons (1858–60 model) whose carriage rotated on an iron chassis with a forward pivot. This system of coastal artillery in use at the time furnished a range of 90 degrees on the horizon. They were the last of this type to be produced by the Ruelle navy cannon foundry. Today they are priceless collection pieces for there are few guns left of this model which most works on artillery do not even mention.

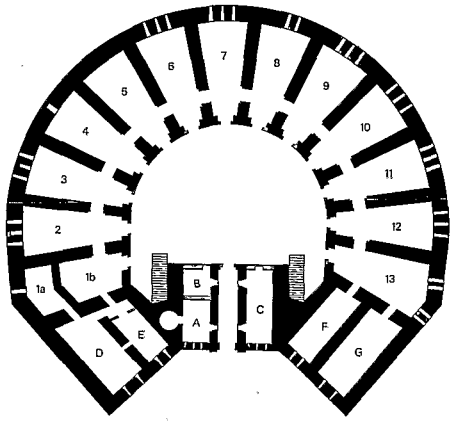
This weapon, however, became obsolete ten years after it was put into service. In the meantime breech-loading cannons and armoured ships made their appearance.

Numerous projects for the modernization of the fort saw the light of day after the Franco-Prussian War of 1870; but all that happened was the installation of four 24-pound cannons, also from Ruelle, though this time the 1870 model, which was breech-loading and mounted on a chassis with a forward pivot. This artillery was itself declared obsolete and replaced in 1905 by more modern equipment. Finally in 1939 it was reduced to four 75-millimetre anti-aircraft guns, two on the terreplein and two on the glacis.

A destiny without glory

When the North Point Battery was constructed, the time of heroic cannon fights was happily over for Gorée and its inhabitants.

The monument's history is more marked by the interminable guerrilla warfare of red-tape which preceded its construction and accompanied the attemps to reinforce the site than by glorious feats of arms.



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Original plan of the Battery which was used by the IFAN archaeologists and architects when restoring the edifice. The letters and figures indicate the various sections of the future museum (see text).

In fact the battery has only known one skirmish—when General de Gaulle's Free French Forces tried to land in Dakar in 1940. A shell chipped off a corner of the keep's breastwork and a burst of gunfire from the keep reached a vedette and wounded the future Admiral Thierry d'Argenlieu.

On the other hand, the administrative war lasted for years. It began under the reign of Louis-Philippe, King of the French, when the Chambers of Commerce of Rouen and Bordeaux were putting pressure on the government to have a well-equipped and well-protected trading port established on Gorée. Between 1843 and 1845, different port construction projects were evolved. Then in 1846, after an inspection tour of the site, Major Creuilly of the Engineering Corps drew up plans to rehabilitate the island's defences notably by building a fortified structure at its northern tip. It seems evident that the opposition caused by the restoration of Gorée was as violent as the will of the project's advocates was steadfast, for from commission to study group and from study group to commission, some eight years of study were brutally annihilated by a negative vote of the Chamber of Deputies.

The Second Republic reopened the file and this time Captain Pinet-Laprade won the day—at least in what concerned the construction of the North Point Battery.

After the Franco-Prussian War of 1870, the administrative battles began anew—this time to modernize a battery which was obviously not adapted to the new war conditions. The report drawn up by Lieutenant-Colonel E. Levy of the Engineering Corps in 1874 even proposed making the walls 5 metres thick; reinforcing the terreplein by raising it, constructing vaulting over the inner courtyard; and protecting the keep by a wall of earth. This officer's recommandations were not acted on and the battery kept its original structure. Many other projects were evolved, but finally the only result was the replacement of the 16-pound cannons by 24-pound cannons.

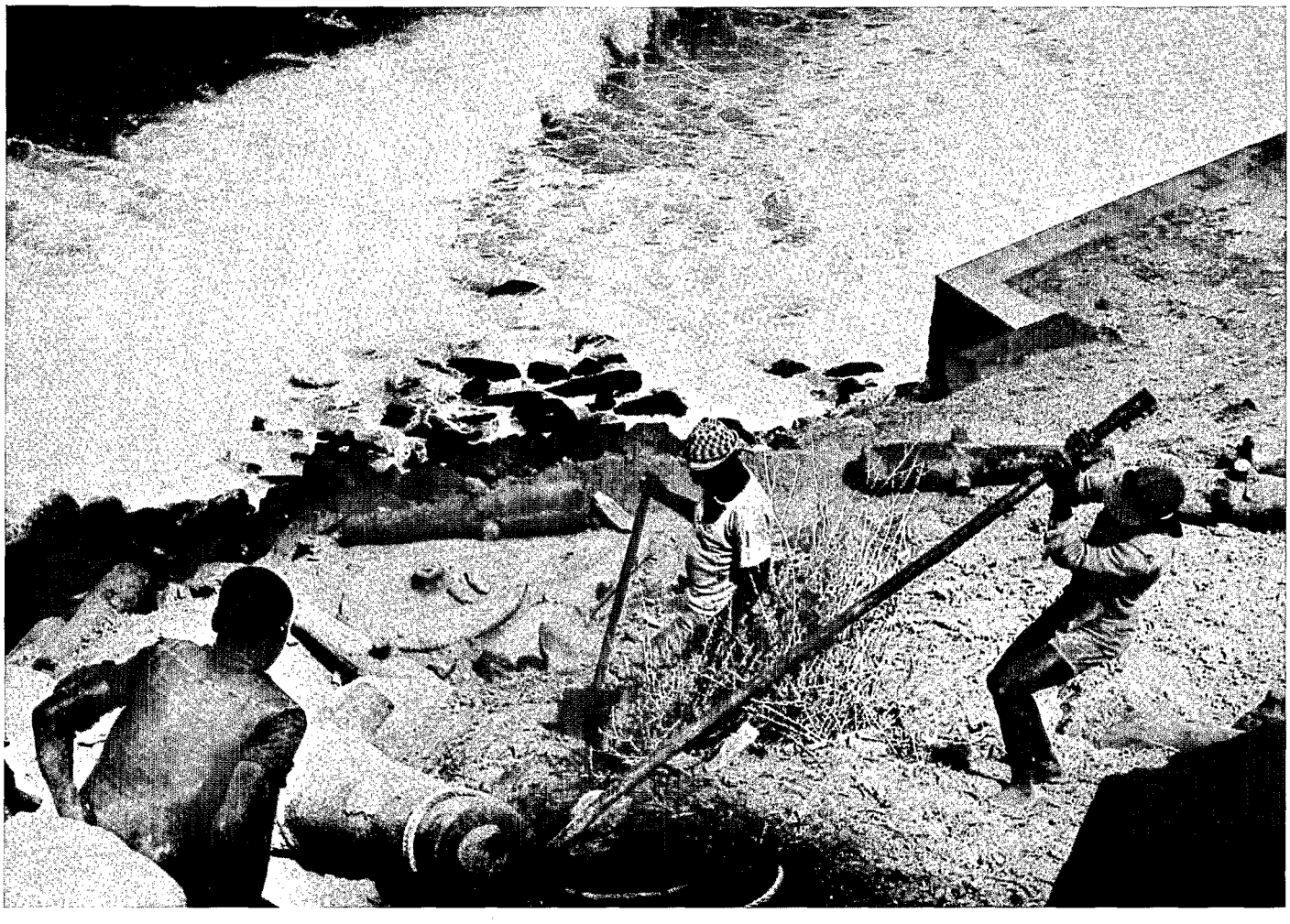
In 1945 the structure was dismantled; it was transformed and made into an annex of Dakar's civil prison, which it remained until 1977. Since then Gorée—fortunate island—has had neither prison nor prisoners. And the battery was handed over to IFAN.

The restoration process

Initially, IFAN's archaeologists established that if the building had not been fundamentally altered, it had however undergone rather significant modifications so that major restoration would be necessary before initiating the organization of the museum proper (Figs. *36–37*). Just for the outworks, it was necessary to rebuild the glacis and dig out the trench, filled in 1942 (Fig. *39*). The drawbridge had disappeared; a thick wall shaped like a Y partitioned the inner courtyard and a mirador had been built above the keep; the casemates had been divided into cells, inside doors walled up, loopholes closed up or made into windows, and the modern artillery platforms had disfigured the terreplein itself.

This restoration operation is of significant interest, for if the battery's military history is hardly brilliant, the structure is still a witness to the type of fortifications of the era of wooden ships, a period Gorée still seems to live. Even more, it is the only fortified structure able to be restored as it was originally—armament included. In fact, its first artillery—the 16-pound cannons—lay on the other side of the island on the slopes of the Castel (Fig. *41*). Two 24-pound 'second-generation' cannons were found rusting on their chassis at the base of the keep. There are many much older forts, built between the fifteenth and seventeenth centuries at other points along the African coast, notably along the Ivory Coast, but none can be totally restored with armament included.

Based on documents in the archives, Pinet-Laprade's plans, and on archeological research, soundings and digs to find the exact location of the old walls, the works were supervised by the Historic Monument's Office of Architecture (BAMH). They began by the elimination of all parasitical additions—walls,



41
Recovery of the cannons that armed the Battery originally and that were lying abandoned on the other side of the island.

partitions, mirador—and by the opening of walled-up doors and other apertures. The excavations which lay before the fort and were levelled out made it possible to reconstruct the original glacis. The stairway was rebuilt and the loopholes restored to their original state. The drawbridge mechanism was reinstalled in its original location which had been discovered and restored. The 16-pound cannons which each weigh 3.5 tonnes were hauled across the island to the inner courtyard so that the battery could be reconstituted. The 24-pound cannons, each weighing 15,700 kilogrammes, were dragged 50 metres. They will be mounted on wooden carriages—presently under construction—then, later, on their chassis with forward pivot and installed on the cement platforms built in front of the fort in 1939 for the 75-millimetre anti-aircraft guns. They will be the museum's hallmark.

The work of restoration, transport included, has been carried out under the constant direction of IFAN's archaeologists, by a small team composed of a mason and six labourers using only hand tools—shovels, trowels, sledge-hammers, miner's bars, burins, wheelbarrows, levers, ropes, logs for rolling—as the narrowness of Gorée's streets prohibits the use of heavy machinery. It has thus been with hammer and chisel that they have hewn and planed the basalt, the only material used for the restoration.

The money allocated for the enterprise presently amounts to $22,000, of which IFAN has provided $12,000 and France $10,000. Saudi Arabia and the Federal Republic of Germany have promised contributions equalling that of the French Government. The Canadian Government seems to be on the point of agreeing in principle to participate in this cultural undertaking—the restoration of the North Point Battery.

The museum

With reference to the setting up of the museum, this next stage, the goal of the work accomplished up to now in the edifice, will be financed by Unesco as part of the renovation of Gorée.

The historical museum of Gorée, still open in the town, wanted to become the museum of western Africa—quite a lot of ambition in such a small space. The museum which will open in the battery will be limited to the history of Senegal, from its beginnings to today, and everything which concerns other African states will be transferred to the projected Museum of Black Civilizations in Dakar.

On the one hand, this restriction of the territorial zone to be treated and on the other hand, the increase of the surface in which museum-quality items can correctly be displayed would seem, at first view, to facilitate the task before the IFAN museum specialists who will create the battery museum. In fact, for these very reasons, they have been set the very delicate job of thematically reorganizing the collections and of making choices which must take into account considerations of a historical, aesthetic and educational order. For the moment, the museum's different departments have been allotted rooms along the following broad lines: within the fort on either side of the entrance are three rooms (A, B, C of the museum plan, Fig. 40). The largest will cover the history of the battery; the other two will house the curator's office and guard-posts.

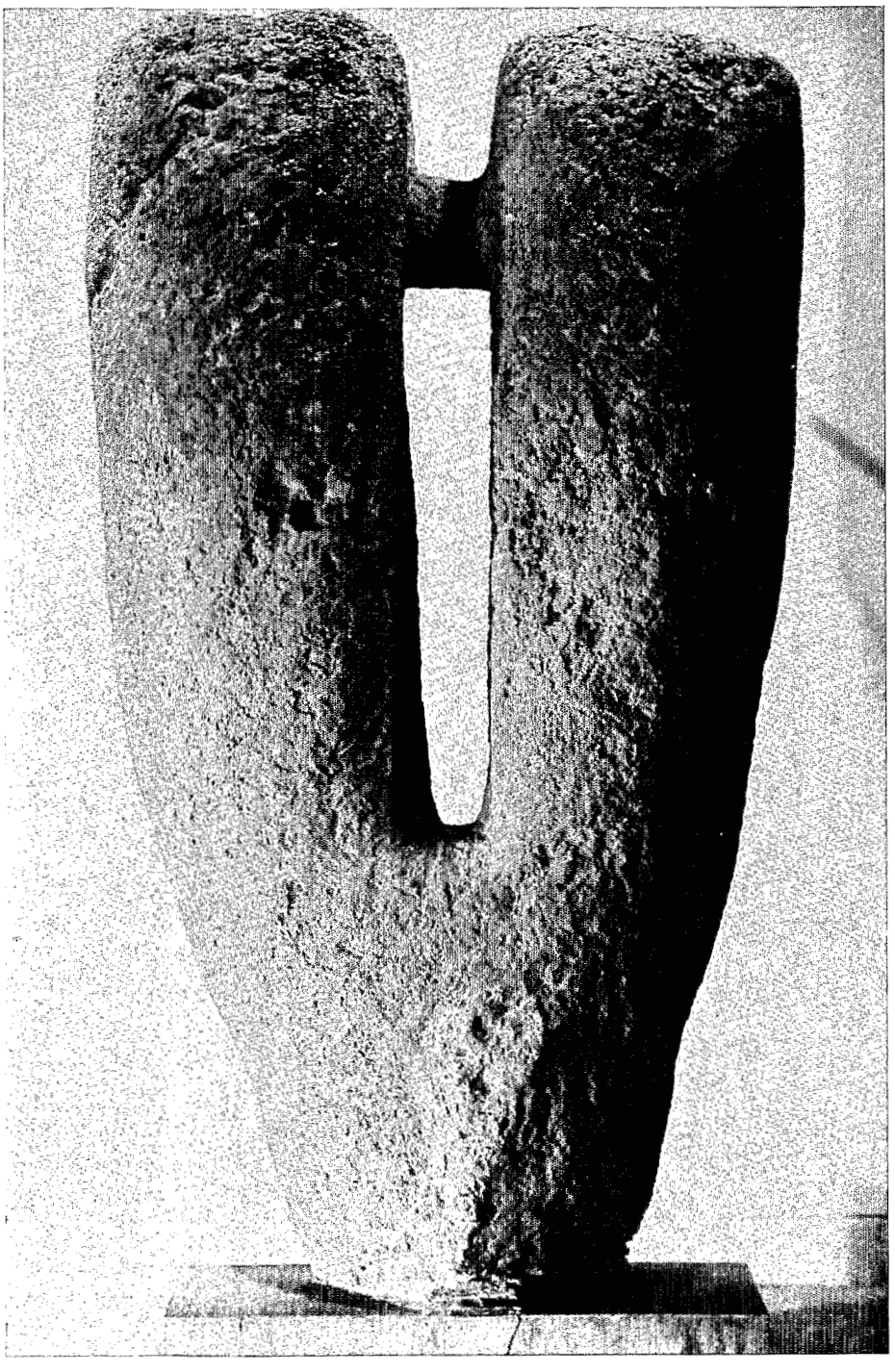
Two casemates (2, 3 on the plan) will be dedicated to the prehistory of Senegal; as the country's protohistory is especially rich, the next four casemates (4 to 7) will present the four principal provinces of Senegal at the protohistoric period (Figs. *42–43*), two others (8 and 9), traditional and precolonial history, that of the great kindgoms. The next room (10) will present the slave trade and two others (11 and 12) Senegal's colonial history (the presence of the Portuguese, the Dutch and the French) and then another (13) the recent history of free Senegal. Other uses will be decided upon according to needs as they arise. Toilets and a storage area will be installed in the last casemate.

In each exhibition room, the collections will be organized around a 'star' object chosen for its dramatic character, which will grip the visitor's attention. Thus in the room dedicated to the 'megalithic province', the privileged centre of interest will be a 3-tonne monolith.

The arrangement of the museum, the casemates-cum-exhibition rooms around the inner couryard, to which they almost all have direct access, will make it possible to open the museum to the public department by department, as each department's collections are put on display and before the whole museum is finished. That is what is foreseen. But here again, the final decision will be dependent on the way in which a certain number of problems can be solved.

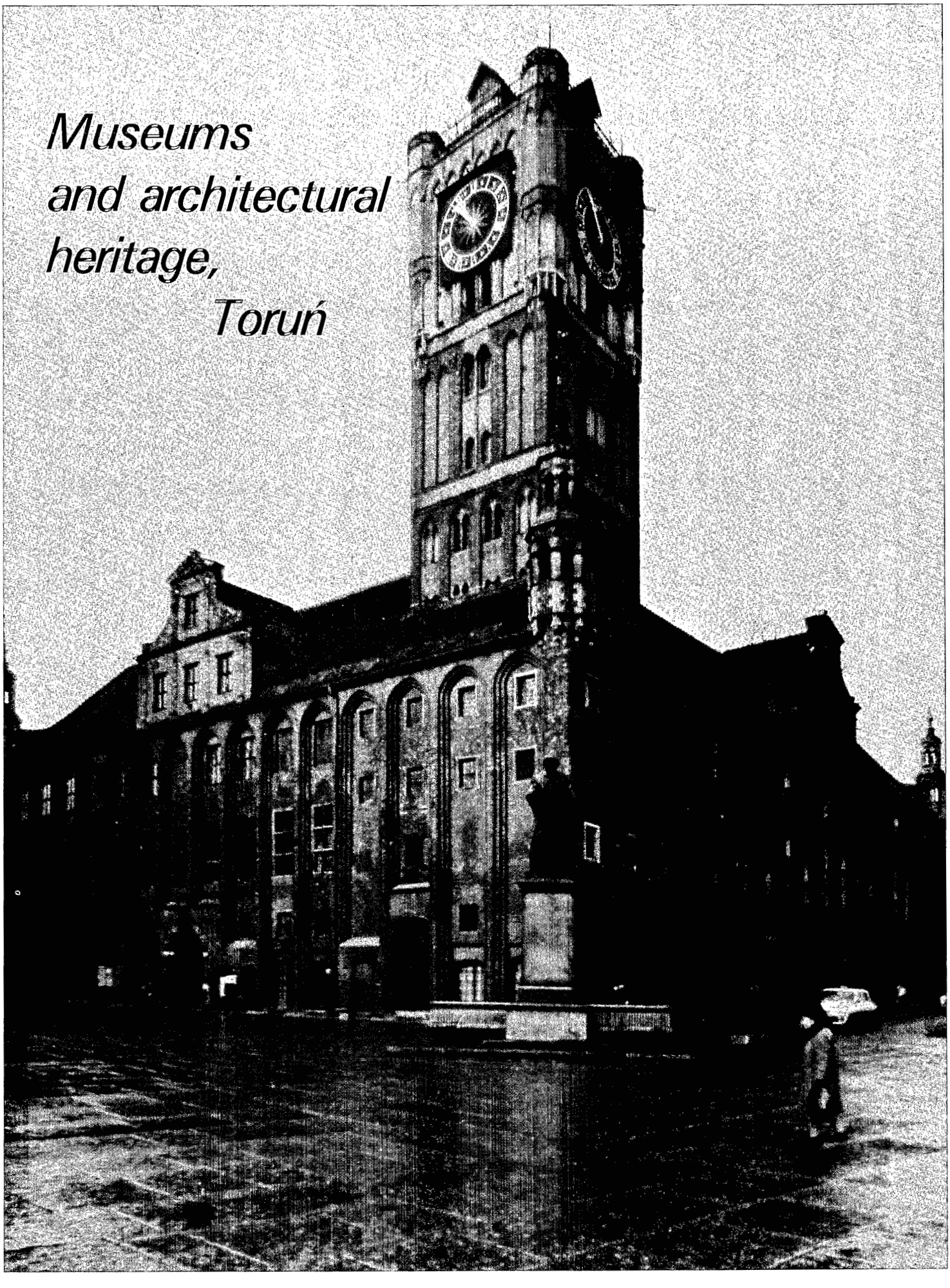
The circumspect approach adopted in the organization of the museum, as previously in the restoration of the battery, is characteristic of the policy of wise prudence which the Senegalese Government manifests in the area of culture: a prudence which is exemplified by the constant refusal to auction off the country's tourist resources and by the desire not to sacrifice either natural or historic sites, or even more importantly traditional sociological strutures, to immediate economic considerations; a prudence which is fully manifested in the restoration of Gorée—begun after years of study undertaken jointly by national and international cultural institutions, in the forefront of which is Unesco; a prudence which has merited for Gorée a place in the world's patrimony and which will make of the island, with its secular urban fabric intact, with its university and cultural institutions, with its historical museum of Senegal, one of the landmarks of African civilizations.

[*Translated from French*]



42
Among the treasures of the future museum: stone lyre, 3-tonne monolith from a Megalithic circle at Sine-Salovm, Senegal (A.D. 1000).

43
Prehistoric pottery from excavations in the Matam region (on the Senegal River) destined for the History Museum.


Museums
and architectural
heritage,
Toruń

The existence of close ties between the work of the curators of historic monuments and sites and the expansion of the museum system are characteristic of the protection of the architectural heritage in Poland.

Toruń offers an interesting example.

Located on the Vistula, at almost equal distance, as the crow flies, from Warsaw in the south-east and Gdańsk in the north, Toruń was built between the thirteenth and the fifteenth centuries. The medieval town has survived in the heart of the modern city. It has undergone numerous changes throughout the ages, especially in the nineteenth century. But happily, wars have spared it, and thus has survived one of the most vualable ensembles of bourgeois architecture in Poland. Although a non-polluting industry is presently in full expansion near by, Toruń has become the cultural focal point for an urban centre with 170,000 inhabitants. There is a university and tourist services, the cultural centres have become so numerous that several have had to be transferred to the commercial and administrative suburb, provided for in city planning projects, outside the old town where the museums occupy an important place.

Bohdan Rymaszewski

In 1958, the author of this article, then curator of Toruń's historic monuments, had drawn up restoration project for this old sector which has a surface area of 44 hectares. He advised using the historic buildings as museums and in this connection emphasized the correlation between the needs of a museum and those of the care and maintenance of monuments. Torún, which at that time had only one pluridisciplinary museum installed in a wing of the town hall, today has twelve in different buildings which are part of the national heritage. It seems that this experience could allow us to judge to what degree the transformation of a historic edifice into a museum respects the principle of complete protection of the monument's worth.

A surgical operation

For a curator of historic monuments, the architectonic adaptation of an edifice for a function other than that for which it was conceived can well be compared to a surgical operation. The surgeon, who wants to save a life, tries to correct a natural biological process and to that end he assaults the human organism. In the same way, the curator, in his desire to put a stop to the deterioration which is the death of every unoccupied building, tries to adapt it to a living activity and he must also assault, in a manner of speaking, the original structure, its authentic architectural nature. The transformation of an edifice into a museum cannot avoid this necessity.

Attention has often been drawn to the fact that by their specific activity museums constitute the best links in the chain of protection of the monuments of a country's cultural patrimony. In fact, the safekeeping of collections, which is the very reason a museum exists, most frequently involves the maintenance of the building which houses them.

Moreover, museum curators are generally considered to be among the best possible administrators of historic edifices. Nothing is easier to understand than the confidence that is shown them. By vocation, education and profession, are they not better qualified than many others to judge a monument's worth? However, the setting up of a museum is more than a simple administrative act. It requires structural transformations, changes, thus compromises.

Such was the case in Toruń. There, however, the choice of which buildings should be adapted was subordinated to a more general conception of the restoration of a complete ensemble, of which one of the guiding principles was to make it possible to visit buildings of exceptional value. Except for religious edifices, whose role has remained unchanged throughout the centuries, all the other monuments have been put to uses different from those for which they were built. Restoring the original vocation of a bourgeois house—both family dwelling and seat of the owner's commercial activity—required considerable work, to such a degree had major modifications been made throughout the ages. Again nothing better serves to give importance to the time-honoured

44
OLD TOWN HALL, Toruń. Twenty years ago the only pluridisciplinary museum, it now houses the Muzeum Okregowe w Toruniu (Regional Museum) but its collections have been dispersed among a dozen other historical buildings.

character of a building than a museum—to the extent, obviously, that it is integrated into the architectural context whose specificity and richness it emphasizes. That is why in Toruń the most convincing examples of different types of monuments have been selected to house museums which will illustrate as far as possible the region's and the town's historical past. There is only one exception to this rule; the natural history museum is located in the modernly conceived university centre.

From the town hall to the arsenal

The town hall houses the Regional Museum (Fig. *44*). Only one part remains of the original structure which dates from the thirteenth century. Enlarged first in the following century and then again in the seventeenth century, it was destroyed by fire in 1703; rebuilt more soberly than the original structure between 1722 and 1727; then restored during the nineteenth century. Finally, from 1958 to 1964, work was carried out to reinforce the edifice structurally and to adapt the building to the needs of a museum. It was necessary to plan not only exhibition rooms (Figs. *45–47*), but also administrative offices, work-rooms and laboratories for restorers and curators, storage rooms, a library, study and projection rooms, posts for the security and museum guards, etc. Such a plan implied the division of available space into two distinct parts: that open to the public and that reserved for the various services, provided with at least two completely separate means of access. The existence of three staircases was to facilitate visitor traffic without altering the interior architecture.

As concerns the basic structure of the building, the beams and framework had to be replaced. This made it possible to modernize the electrical wiring and the water and heating ducts. In general, great attention was paid to the restoration of the rooms to their primitive arrangement and decoration. Many partitions built at an earlier date were eliminated, especially those dating from the nineteenth century and from the first half of the twentieth century. In the cellars and on the ground floor, liberating this space emphasized the long succession of beautiful Gothic vaults.

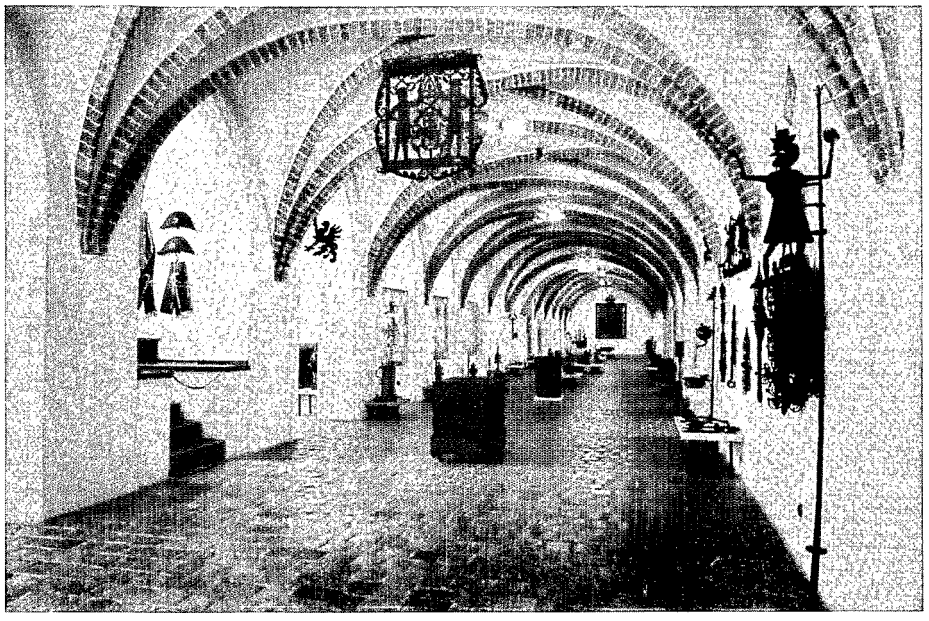
The third floor and the attic rooms present little of architectural interest; thus most of the services have been put there, with the exception of the storerooms and the central heating system which occupy a part of the vaulted cellars.

The choice and presentation of the collections, furniture and *objets d'art* which constitute the decoration fully respect both the rooms' architectural value and their historical and artistic character. Moreover, they evoke their original function as far as possible. Thus it is that in the courtroom, where some of the furnishings and adequate decoration have been reinstalled, an exhibit was organized to present Toruń's money and town seals throughout the centuries as well as instruments of measurement and verification used by the guilds.

The only room in which the architecture's medieval character has been disguised is that created in the former town armoury and dedicated to Polish painting.

The Ethnographic Museum found a home in the former arsenal, built in 1825. The basic structure—enormous wooden beams resting on massive stone pillars—was, to all intents and purposes, left untouched. No new openings, doors or windows, were created, with the exception of an underground passage which leads to an annex built expressly to house the museum services and the central heating system—totally lacking in the arsenal as were electrical wiring and water ducts. The work undertaken was thus basically in these three areas. The beams were fireproofed; two wooden staircases, also fireproofed, and a few thin partitions which separate service areas, were constructed as well. On the other hand all of the building's original elements have been respected—its heavy doors, the trap-doors and ramps which made it possible to move the heavy pieces of artillery.

The restoration workshop was installed in a casemate dating from 1880 that was part of the system of fortifications which defended Toruń in the nineteenth century.



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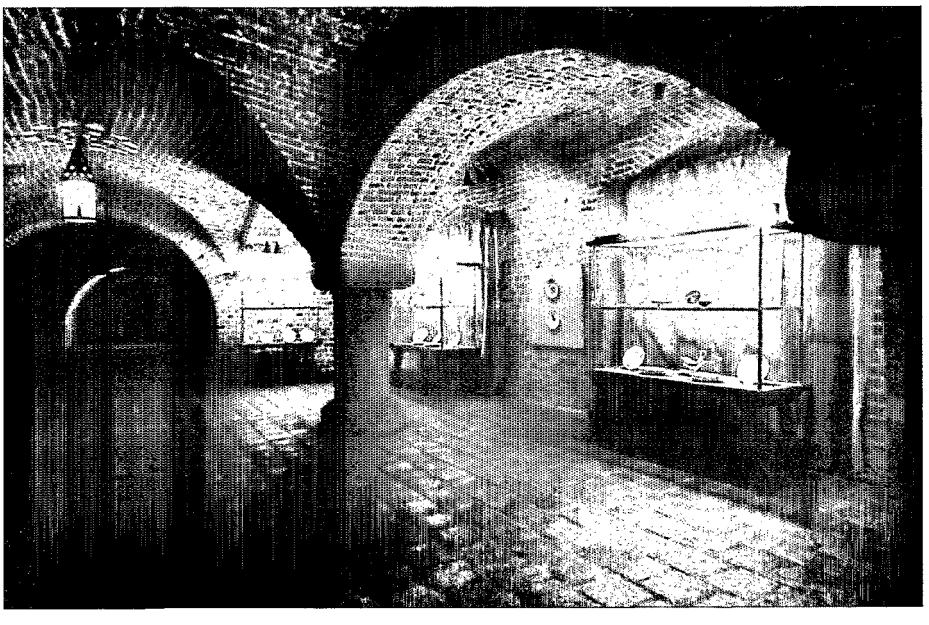

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MUZEUM OKREGOWE W TORUNIU. Crafts exhibition under the noble vaults of the ground floor of the Regional Museum in the old town hall.

46
MUZEUM OKREGOWE W TORUNIU. Stained glass and Gothic sculpture room.

47
MUZEUM OKREGOWE W TORUNIU. The ceramic collections have been installed in the basement of the Old Town Hall.

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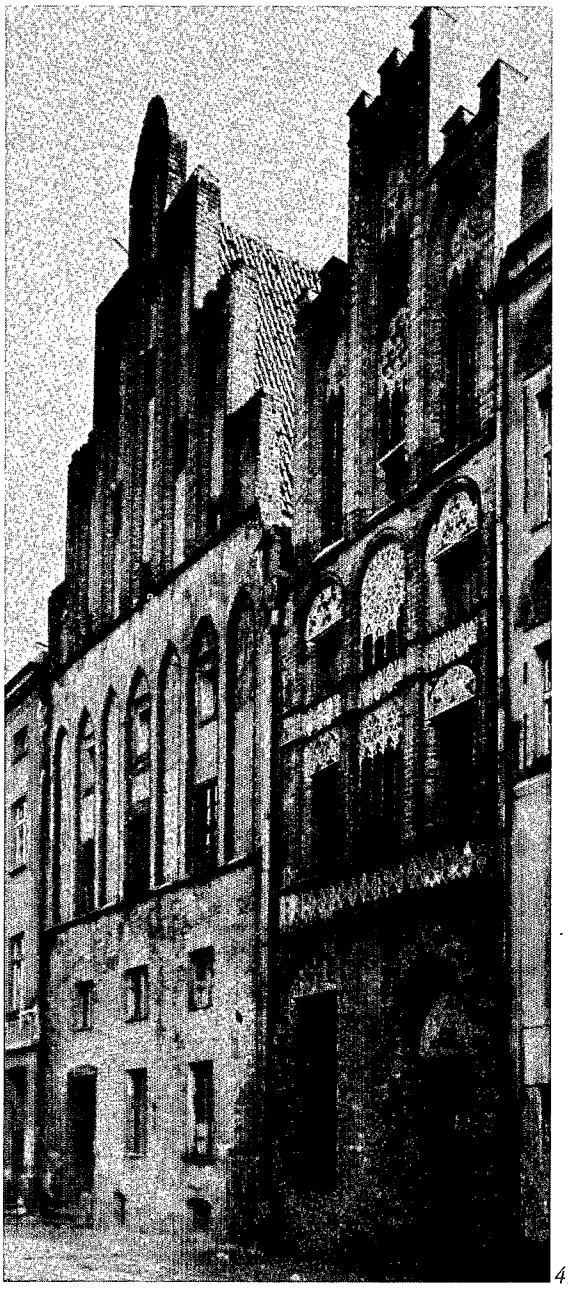

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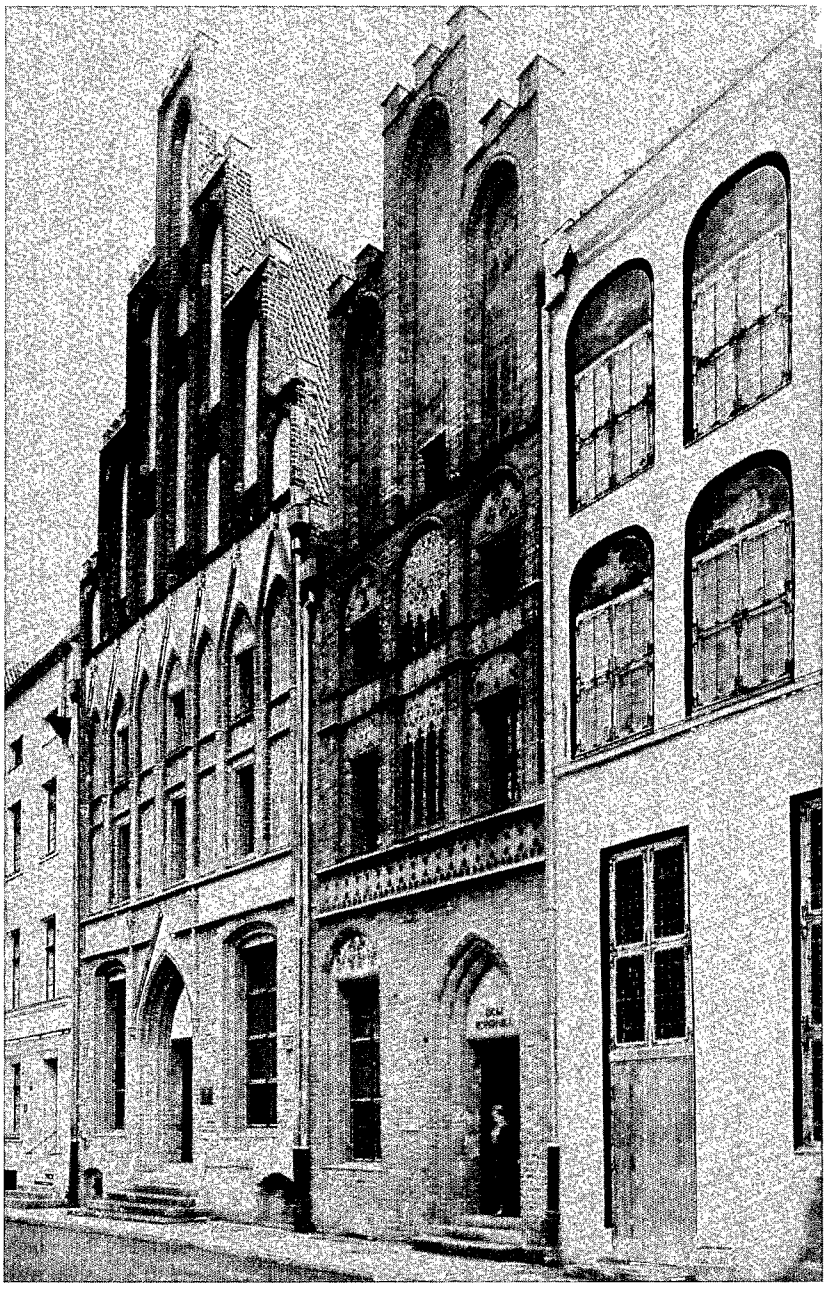

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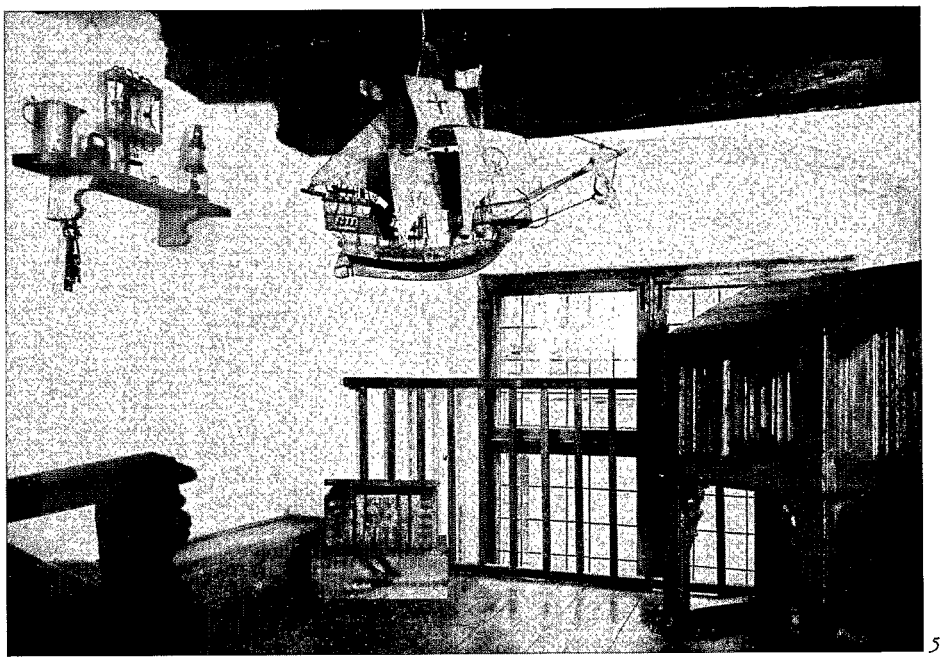
48
The ruins of the fortress built by the Teutonic knights *c.* 1230, razed by the bourgeois in 1454, have now been cleared.

49, 50
MUZEUM MIKOŁAJA KOPERNIKA, Toruń. Situated at numbers 15 and 17 on Copernicus Street, the museum consists of two adjacent mansions: the astronomer's birthplace at number 17 and its neighbour, built at the same time, but whose interior has changed less over the centuries. Both have been restored. The work on the façade of number 15 (on the left) alone shows the extent to which the buildings were altered by the successive generations of occupants.



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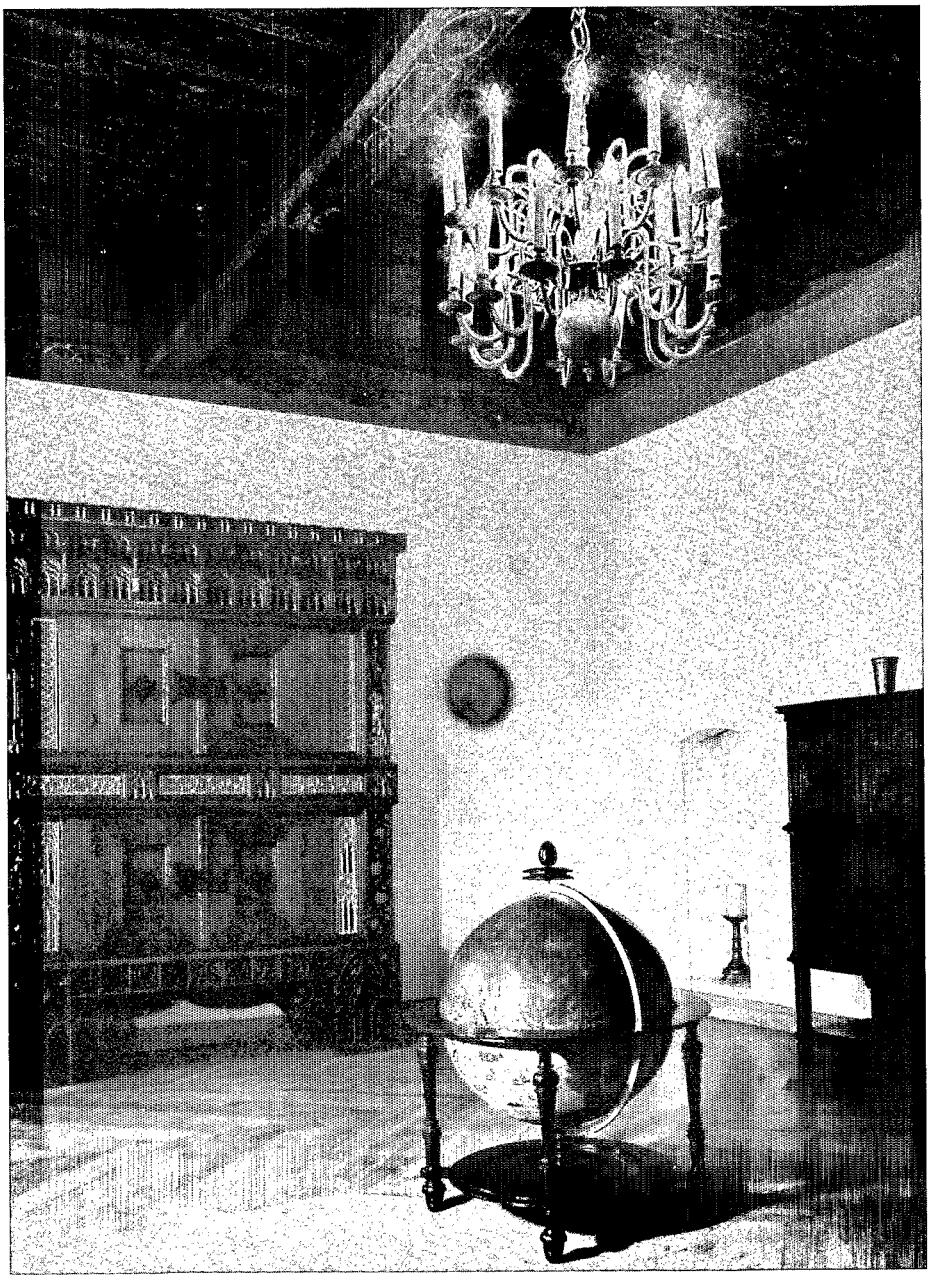
51
MUSEUM MIKOŁAJA KOPERNIKA, Toruń. Reconstituted merchant's counter at number 15.

52
MUSEUM MIKOŁAJA KOPERNIKA, Toruń. The 'back room' in Copernicus' birthplace.



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The fortress and its houses

The Order of Teutonic Knights here built one of its first fortresses on Polish soil, in about 1230. The fortress was dismantled in 1354 by order of the Town Council, after the victorious insurrection of Toruń's bourgeois (Fig. *48*). From 1958 to 1966 excavations were carried out in oder to bring to light the ruins hitherto buried under several metres of earth and rubble. Only the rooms underground, whose vaulting had caved in, were restored and the fortress housed a section of the regional museum. In the restored cellars are brought together witnesses to the history of the fortress as well as to the bourg from which Toruń developed. During the tourist season, sound and light shows can be seen from the pavement of a café recently built not far from the dungeon.

But the city's good fortune lies in its having preserved more than 300 houses, most of which date from medieval times. A certain number of these historic houses have been transformed into museums, according to a project whose guiding principle was to emphasize the old-fashioned economy of the structure and the original decoration.

On Copernicus Street, at numbers 15 and 17, two of these bourgeois mansions constitute a significant ensemble together with the stores and craft workshops alongside. At number 17, Nicolaus Copernicus was born in 1473. Unfortunately, as a consequnce of the numerous alterations it has undergone since the fifteenth century, the edifice's interior has lost its original character. On the other hand, the house next door, number 15, with the rich decoration that has been preserved is a notable architectural witness to the period in which and the society into which was born the theoretician of heliocentrism, he who opened the way for Kepler and Galileo (Fig. *49–52*).

Thus it was decided to make the whole ensemble into a Copernicus Museum. At number 15 restoration uncovered ancient paintings; a passage was cut through to give direct access to the astronomer's birthplace—his life and works are illustrated by a permanent exhibition. This exhibit is complemented by a model of Toruń in the fifteenth century which is accompanied by an audio-visual presentation in the shop next door. Finally, in the cellars wooden vestiges of the village which gave birth to Toruń about 1200 A.D. are exhibited *in situ*.

Another private house of great character is the 'House under the Star', number 35 on the Old Market Square (Fig. *53(a)* (*b*)). It was built in the Middle Ages, but its opulent decoration dates from the seventeenth and eighteenth centuries. The Regional Museum has there placed its collection of Oriental art. The gift of a private collector, the whole is a witness to the tradition of enlightened amateurs which the bourgeois of northern Poland cultivated.

Up to this point, we have seen that the adaptation of a monument to museum purposes is, we can say, balanced by the submission of the museum to the character of the architectural structure. This is however not always the case.

Near the street of the Holy Spirit, modern art can, without clashing, find harbour in a group of old houses, so great is their simplicity. By the same token the modest aspect of the former inn on the Market Place in the part of the city called 'New Town' has made it possible to install a children's art gallery without shocking anyone. As for the archaeological museum, it occupies the seventeenth-century grain market on Ciasna Street. There, restoration—replacement of the enormous beams in the framework and the elimination of partitions, which made it possible to reconstitute large rooms with a surface area similar to that of yesteryear—had to be complemented by the creation of other spaces and by the construction of a new staircase.

In these examples, the balance is heavier on one side; the compromise is totally in the museum's favour. It is no more a question of evoking the prime function of the monument. It fades, obscured by the new. But the structure still remains in the service of the knowledge of a past which nourishes the present and prepares the future.

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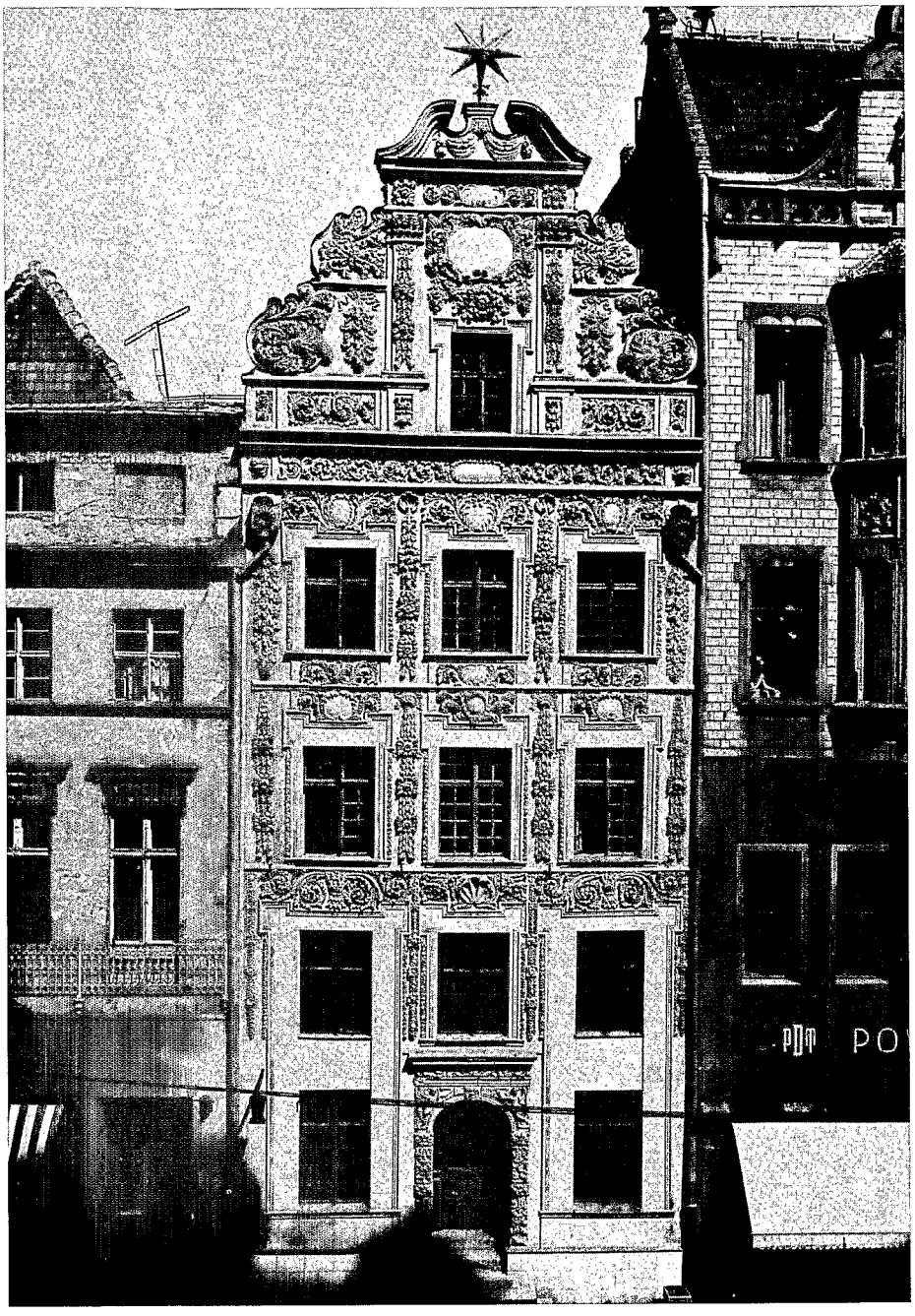

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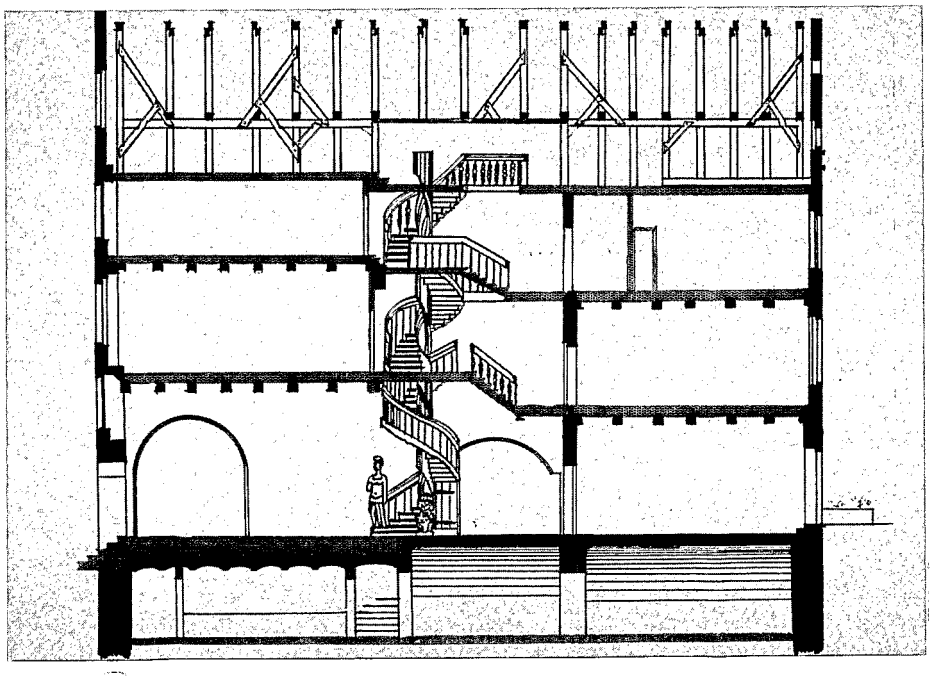


b

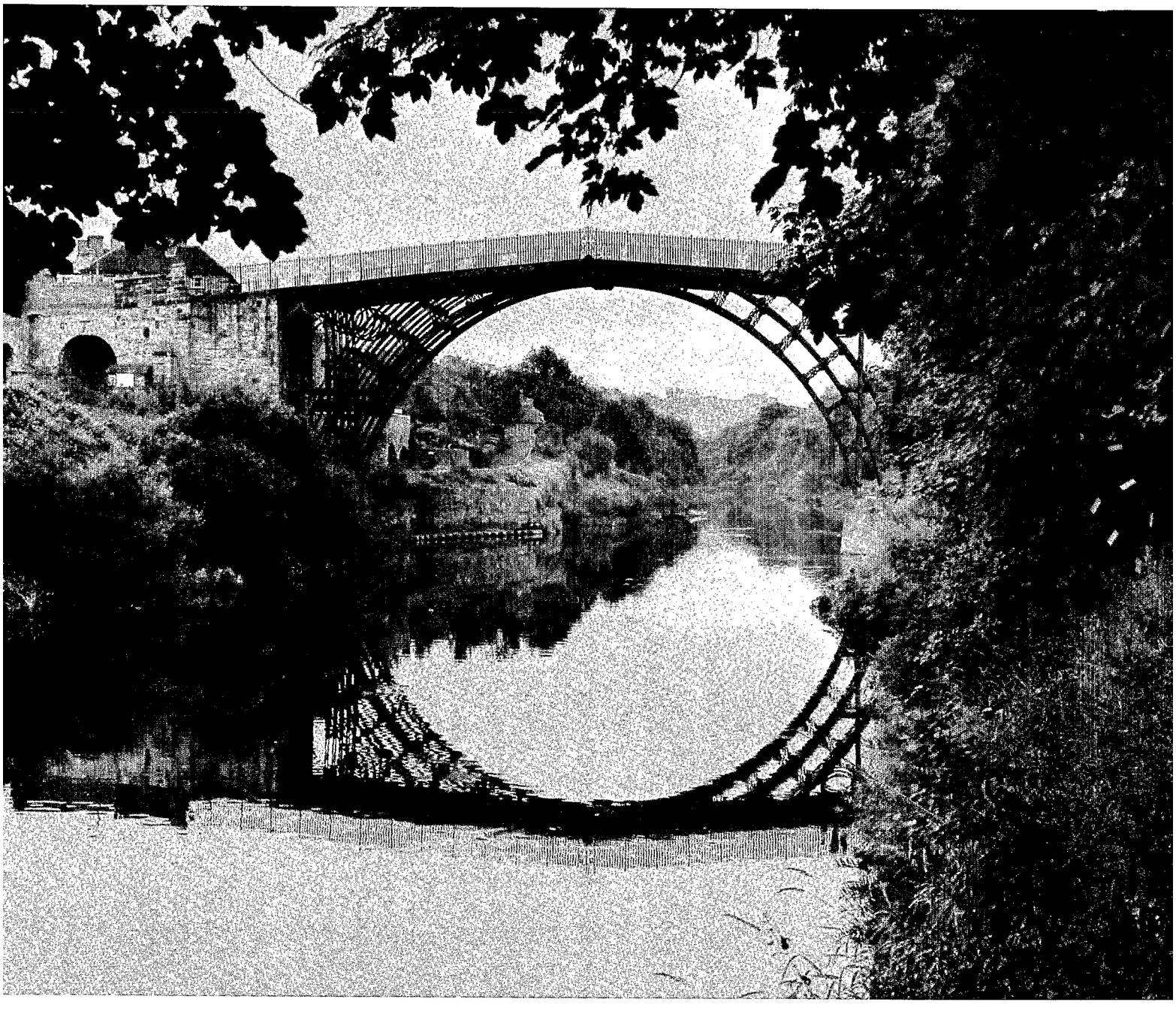
Basic structure
Modernization

0 1 2 3 4 5 6 7 8 9 10m

53 (*a*), (*b*)
THE HOUSE UNDER THE STAR, Toruń. (*a*) 35 Old Market Square, with its remarkable early eighteenth-century Baroque façade, houses the Oriental Art collection of the Regional Museum; (*b*) cross-section.

The museum in the valley, Ironbridge Gorge

Neil Cossons



'Cradle of the Industrial Revolution'

In 1979 the first iron bridge in the world celebrated its bicentenary. One of the best-known symbols of industrialization in eighteenth-century England, it is also the focal point of the Ironbridge Gorge which stretches for 5 kilometres from Coalbrookdale to Coalport in Telford, Shropshire. Here the Ironbridge Gorge Museum Trust has been engaged for the last ten years in preserving and interpreting the remains of this 'cradle of the Industrial Revolution', an area of outstanding importance in the development of industrialization throughout the world. In 1978, the museum received the first 'European Museum of the Year' award created by the Council of Europe (Fig. 54).

If any single area can claim the distinction of being the 'birthplace' of modern industrial technology, the valley of the River Severn in Shropshire, England, centred on Coalbrookdale and Ironbridge, can amply justify that claim. Here, in the first decades of the eighteenth century, events took place which were fundamental in the evolution of human civilization, not only in Britain but ultimately throughout the world. Here may be found still the evidence, surviving in profusion, of the industrial awakening, which made Britain the first industrial society.

It was in Coalbrookdale in 1709 that the Quaker ironmaster Abraham Darby perfected the technique of smelting iron ore with coke in place of the traditional charcoal and this one breakthrough led to an enormous growth of ironfounding in the surrounding area. In the succeeding century Coalbrookdale became the heart of a new technology based on readily available iron; in and around it the first iron cylinders were cast for Newcomen steam engines, the first iron rails were made, forerunners of the modern railway, and the first iron bridge, iron boat, iron aqueduct and iron-framed building were fashioned by men with a new and unique expertise. In 1802 Richard Trevithick, the famous Cornish engineer, came to Coalbrookdale to use that expertise in building the world's first steam railway locomotive.

After 1810 the Shropshire iron industry suffered a relative decline in the face of the rapidly growing production of areas such as South Wales and the Black Country, and was particularly hard-hit in the post-1815 depression. Ironmaking moved north, away from the Severn, although iron-using industries continued, particularly in Coalbrookdale, where in 1851 the works was considered to be the largest foundry in the United Kingdom. By then its activities were concentrated largely on architectural and decorative casting for which it gained a worldwide reputation and an enormous export market (Figs. 55–57). The 1850s also saw the beginnings of new industrial activity in the Severn Gorge, to some extent compensating for the decline in iron. Decorative tile manufacture was the most important and the tileries of Craven Dunnill and Maw, set up on the south bank of the river, upstream from the already well-established Coalport China Works, thrived until the 1960s when they too closed down.

Today the unique quality of Coalbrookdale and Ironbridge derives from the surviving monuments to this early and explosive industrial growth. Abraham Darby's furnace is still extant whilst nearby the present Coalbrookdale Company, now part of the Glynwed Foundry Group—the oldest ironworks in the world active on its original site—continues to make iron castings. The first iron bridge, built in 1779, has given its name to the town which grew up around it and near by, at Longdon-upon-Tern, is the first iron aqueduct, built by Telford in 1796, a prototype for his great Pontcysyllte aqueduct of 1805. However, the Ironbridge Gorge offers much more than the technological monuments themselves, and the early decline of the area, which resulted in the survival of much of the industrial environment—the houses of ironmasters and men, their churches, chapels, schools, institutes and public houses—has provided a remarkable opportunity to preserve *in situ* this 'cradle of the Industrial Revolution'. The landscape, which has matured in cask for 250 years, unaffected by large-scale nineteenth-century industrial activity or urban growth, provides the vital context for the specific sites of technological

54
The Iron Bridge, constructed in 1779, was the first major civil engineering work in the world to use iron structurally, marking the beginning of the Industrial Age. Now responsible for conserving it, the Ironbridge Gorge Museum Trust has undertaken major consolidation work. In 1972, the north abutment, weakened by constant inward pressures, had to be reinforced. The massive ashlar-filled approach was excavated and the solid fill replaced by concrete diaphragm walls. A new concrete deck was built to support the road surface. In a second phase, begun in 1973, a trench in the River Severn was excavated, using sheet-pile coffer dams, and a reinforced concrete invert arch installed between the two abutments so as to maintain them in constant relationship to each other.

achievement. The idiosyncratic townscape spread up the south-facing slopes of the gorge, the dramatic hanging woods of Benthall across the river, the thrown-togetherness of town and country, the unselfconscious ordinariness, are an essential setting for the sites themselves. It was with the object of preserving as much as possible of this area that the Ironbridge Gorge Museum Trust was set up in 1968.

Origins of the museum

The first steps towards preserving the industrial archaeology of the gorge can be traced back much further than this. In 1959 Allied Ironfounders, the then owners of the Coalbrookdale Ironworks, commemorated the 250th anniversary of Abraham Darby's coke-smelting process by opening to the public the newly excavated Old Furnace together with a museum of ironfounding which, with its open displays, represented a notable step forward in museum thinking at the time. Two men, Dr Arthur Raistrick, Quaker, historian and writer, and Dr G.F. Williams, Managing Director of the works, were largely responsible for bringing this enlightened and far-sighted project to fruition. Both had long connections with the area; Raistrick's work over many years had resulted in the publication of *Dynasty of Ironfounders* in 1953 while, curiously, nearly thirty years earlier Williams had been responsible for dismantling the Coalbrookdale beam engine for preservation in the Henry Ford Museum in Detroit. In the 1930s the Iron Bridge was closed to vehicular traffic and scheduled as an ancient monument, the first industrial structure to be protected in this way.

With the 1950s and 1960s came the rapid growth of interest in industrial archaeology and the Ironbridge Gorge as a whole was recognized as an area of outstanding importance, not only in view of the significance of its industrial history, but because so much survived on the ground substantially intact. Michael Rix's celebrated 1955 paper in the *Amateur Historian,*[1] in which the term 'industrial archaeology' first appeared, referred extensively to the gorge, while in the third issue of the *Journal of Industrial Archaeology,* in November 1964, he made an impassioned plea for the establishment of 'national parks' of industrial archaeology stating that the 'Ironbridge Gorge is a prime candidate for such a designation'.[2] But it was the establishment of a new town, Dawley (later to be enlarged and renamed Telford), that marked the first step towards a coherent policy for preserving the industrial remains of the gorge.

The proposal was to revitalize the economy of the decayed East Shropshire coalfield area by using the provisions of the New Towns Act 1946 to establish a new town with new houses and factories, many of them built on rehabilitated derelict industrial land, in order to provide a new home for the 'overspill' population of the West Midlands conurbation, a concept which was to blossom for only a decade and a half before itself succumbing to a redirection of government resources in response to the problems created by decay in the inner cities, low economic growth and a static population. The gorge was specifically included within the designated area of the new town in recognition of its historical importance and amenity potential and it was the new Dawley Development Corporation which helped to bring the Ironbridge Gorge Museum Trust into existence. The trust was set up as a company limited by guarantee, registered as a charity,[3] and governed by an Executive Board of fifteen of whom the county and district councils and the development corporation nominated two members each. The Chairman was E. Bruce Ball, the recently retired Managing Director of a nearby engineering company, and deeply interested in the history of technology and the preservation of his company's blastfurnace blowing engines, *David* and *Sampson.*

A Friends of the Museum organization was established in order to encourage and channel support from the community for the new museum project, and they have worked long hours to clear undergrowth, dismantle, transport and restore machinery and re-erect it on site. Young offenders[4] from a local institution make a great contribution as do school parties, holiday and weekend volunteer groups and the army.

1. M. Rix, 'Industrial Archaeology', *Amateur Historian,* Vol. II, No. 8, 1955, p. 225–9.

2. M. Rix, 'A Proposal to Establish National Parks of Industrial Archaeology', *Journal of Industrial Archaeology',* Vol. I, No. 3, 1964, p. 184–92.

3. The Museum Trust is a 'company limited by guarantee with no share capital' and registered as a charity; thus it is a non-profit organization benefiting from certain tax advantages, notably relief of property tax (rates), and the ability to recover personal and corporation tax from donors who covenant funds to it.

4. An extension of the use of offenders took advantage of the 1972 Criminal Justice Act under which certain categories of (usually) first offenders, instead of being sent to prison, can carry out work at the museum as part of a rehabilitation scheme.

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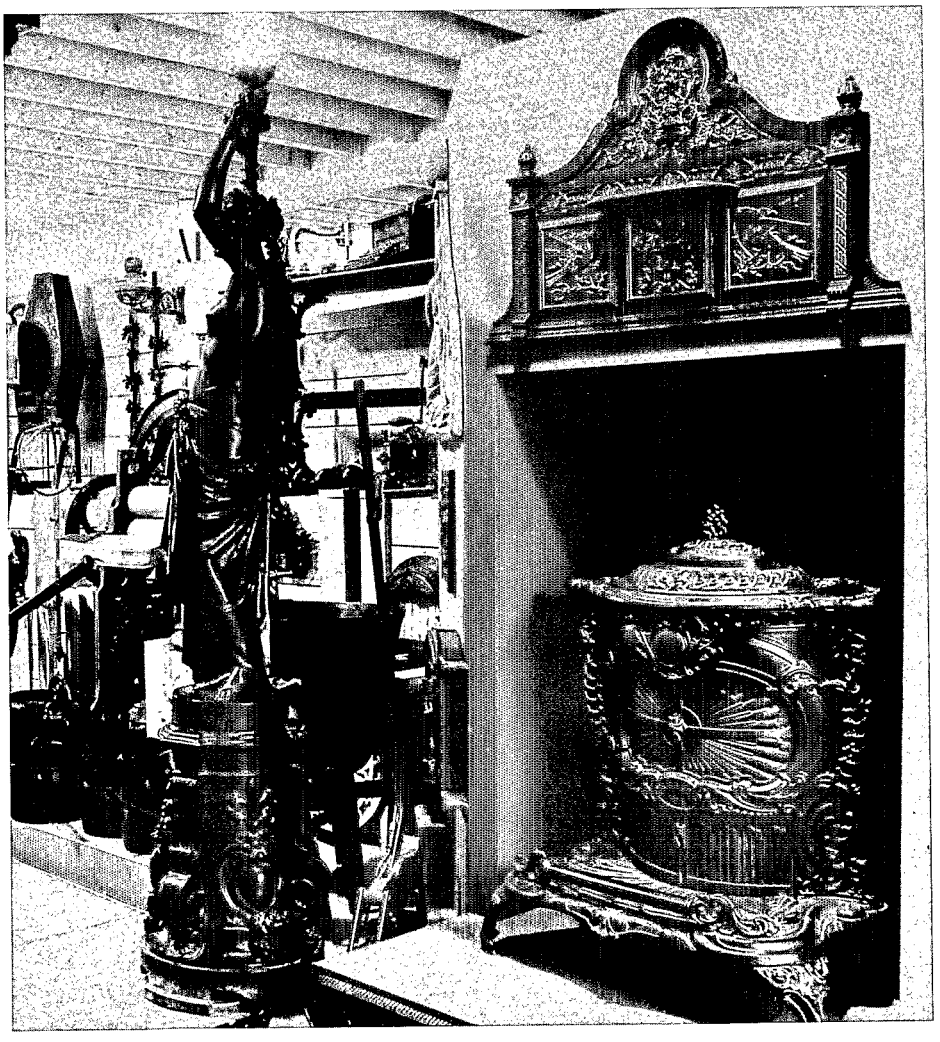
MUSEUM OF IRON, Coalbrookdale. In the entrance hall, the visitor is welcomed by this iron fountain, cast in 1851, which was displayed the same year at the Great Exhibition in London, the world's first international exhibition. The Crystal Palace, the world's first iron and glass monument, was built at the same time.



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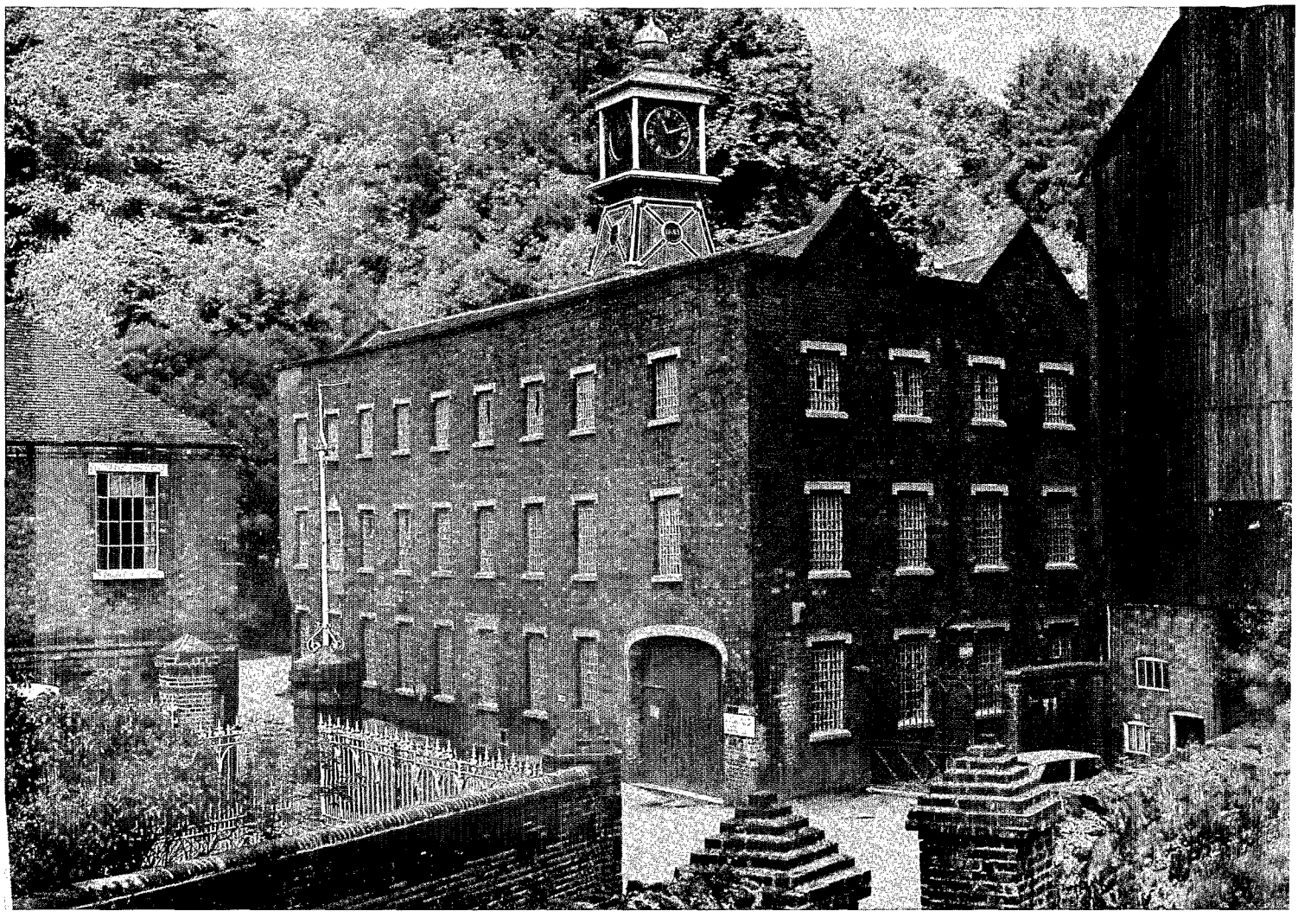
MUSEUM OF IRON, Coalbrookdale. The Coalbrookdale Company specialized in the production of decorative and domestic cast iron which earned the region's ironworks a worldwide reputation during the nineteenth century.

57
MUSEUM OF IRON, Coalbrookdale. The Severn Warehouse of the Coalbrookdale Company, built in the 1840s, and loading dock on the Severn. Goods were taken to Bristol by barge and canal boat and sent from there to all parts of the world. Today the warehouse is an information centre for visitors.

The museum concept

The general concept of the museum was that the major sites of historical and archaeological importance in the gorge—an area some 5 kilometres long by 1 kilometre wide—should come under the management of a trust for the purposes of their conservation and interpretation. In addition an open-air museum of more traditional type would be set up at Blists Hill at the eastern end of the gorge. The fundamental principle of the Museum Trust is to preserve *in situ* wherever possible. Only where this cannot be done, because of urban renewal, industrial modernization or road developments, for example, is removal and re-establishment at Blists Hill Open-Air Museum considered. In following this principle the Ironbridge project has a number of intrinsic advantages of which the relative compactness of the total area involved is perhaps the most significant. This makes on-site preservation more realistic in consumer terms although there is no doubt that given the right interpretive and promotional management policies the same technique could be applied quite reasonably and cost-effectively over a fair-sized region.

This concept of the integrated management of the historic sites of the gorge by a single authority has provided both the inspiration and the challenge of the Ironbridge project ever since. For the first time a 'purpose-built' organization, and a non-statutory one at that, has had the opportunity to plan, co-ordinate and manage the conservation and interpretation of an area which was not only richly endowed with important remains but, equally important, was historically and geographically coherent and desperately in need of care and attention. The scheme, significantly and rightly conceived as a 'museum', by no means satisfied the full requirements of a 'national-park' type of approach but it was practical and, with the beneficial ingredient of independent charitable status, it was also achievable.



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MUSEUM OF IRON, Coalbrookdale. The museum is installed in the Great Warehouse of the company, a handsome three-storey building erected in 1838. The clocktower which, like the window frames, lintels and sills, is in cast iron, was added in 1843.

If one accepts that the primary function of any museum is conservation/preservation and secondarily utilization then the basic museum philosophy must stem from the most satisfactory means of conserving its assets. In the industrial heritage field in the United Kingdom, the last ten years have seen *in situ* preservation demonstrated as the only feasible and archaeologically acceptable means of retaining some types of site and the most desirable for many. Over 150 preservation projects are under way, the vast majority outside the orbit of existing traditional museum organizations. From the consumer's point of view the inherent fascination of a building still on its original site is a logical extension of the oft-quoted adage that the magic of the museum lies in its original objects. Increased interest in industrial heritage, increased leisure, increased mobility of people and new, promotionally minded regional tourist boards, anxious to take the pressure off 'traditional' attractions, are all contributing towards the economic feasibility of on-site preservation. Initial capital costs are, of course, significantly lower.

In Ironbridge the Blists Hill Open-Air Museum thus forms a reservoir for exhibits which have to be moved, and although it will for the visitor develop into a coherent whole, in conservation terms it must be viewed in the context of the Museum Trust's other sites. It is not simply an overflow storage area—nor is it an orphanage for unwanted buildings; a master plan and acquisition policy form the basis for its development, and individual exhibits are built into the landscape of the site to create eventually a total environment of the past. In this respect the open-air museum reflects what might be called North American principles in its reconstruction work rather than the more traditional Scandinavian or mid-European folk-museum type of approach.

Specific areas are designated for various industries, the topography and wooded nature of the site allowing considerable latitude within the framework of the master plan to absorb new exhibits as they become available. Another

advantage is that the Blists Hill museum attempts to reflect as closely as possible the industrial landscape of East Shropshire which is typified by a random mixture of housing, industry and agriculture without any obvious plan. The creation of this randomness in the museum, however, has to be very deliberately and consciously contrived.

Management and finance

What the new trust lacked was money and staff and the first three years were largely devoted to this matter. An initial appeal aimed primarily at local industry realized £73,000 and this enabled the first staff to be appointed. In 1970 the Coalbrookdale furnace site and museum were handed over to the trust by the then owners, Glynwed Foundries, on a ninety-nine-year lease and in the following year the trust appointed a Director. The long-term cash requirements of the Museum Trust were considerable and it was quickly recognized that unless the capital income could be substantially increased—the cost of the first phase of development was estimated at £1 million—the scheme would never get off the ground. Accordingly a firm of fund-raising consultants was retained to advise the trust on fund-raising policy and as a result of their recommendations the Ironbridge Gorge Museum Development Trust was set up in 1971.

The objects of this trust were simple: to raise capital for the museum and feed it 'horizontally' into the Museum Trust. By this means, it was argued, the management of the fund-raising operation could be separated from the day-to-day job of developing and manning the museum proper, thereby avoiding the crossfeeding of problems, from one to another. It was felt that donors should have a stake in the operation as trustees of the fund-raising body thus enabling them to use their influence and 'asking power' more effectively and the separate trust made this possible. A full-time Development Officer was appointed to manage the affairs of the Development Trust and to form the link with the museum's management. There is no doubt that the considerable success of this fund-raising campaign owed much to its formal separation from the activities of the Museum Trust itself which was more than fully preoccupied with organizing its own development programme. The initial target of £1 million was reached in less than six years, the income coming largely in the form of convenanted gifts from industries and foundations supplemented by grants from statutory bodies, and the Development Trust is now engaged on its 'second million campaign'. In less than a year it has passed the halfway point.

With a reasonably predictable annual capital income coming in from the Development Trust it was possible for the museum to plan its own programme with confidence. The project had already been running for more than three years and it was essential that it should make rapid progress towards an opening in order to demonstrate to both the public and the donors of funds that the museum was a worthwhile venture. Efforts were concentrated at Blists Hill Open-Air Museum where the canal was excavated and the steam winding engine and Telford tollhouse reconstructed in time for a formal opening in March 1973.

In order to achieve and continue this rate of development a management structure was implemented in 1972 which reflected as closely as possible the operational and budgetary requirements of the museum, and which was capable of expansion and, if necessary, fairly painless modification; this management structure is, in essence, still in operation today. Three section heads were appointed to form, with the Director, the policy and management team and each had specific responsibilities coinciding with a budget area. The first was a Curator of Technology responsible for all capital works, collections, conservation and documentation with a small team of craftsmen responsible to him. A Head of Interpretation became responsible for the day-to-day running of the museum, site interpretation, visitor services, exhibit manning, publications policy, editorial control and security. A Visitor Services Manager, together

with site staff, demonstrators and security personnel were under his control. The third appointment was a Commercial Manager responsible for all trading activities, the management and operation of the museum's sales outlets, mail order and wholesaling museum products to other retailers.

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COALPORT CHINA WORKS MUSEUM, Coalport. The shell of one of the remaining kilns is now used to display Coalport China.

Interpretation and promotion

Two areas not properly embraced by the functional struture of the management team required special attention from the outset: the visual image and promotion of the museum to the public. The philosophy behind the museum's visual design policy is a simple one. For the public a museum is primarily a visual experience and so for a museum to succeed it needs the highest standards of visual interpretation and presentation. In the case of Ironbridge this is all the more important for the various elements of the museum are spread in small pieces over a sizeable area so sign-posting, display, graphics and publications design have to fulfil the additional function of integrating the parts to form a comprehensible whole. Careful choice of an outside design consultant is more likely to guarantee quality than the setting up of a full-scale design studio in the museum, provides the opportunity to 'choose horses for courses', and is significantly cheaper. Finally there has to be a rapport between client and designer if the results are not to be second-rate or worse. These factors led to the choice of Robin Wade Design Associates who have been working for the Museum Trust for seven years, handling all display and graphics design and fulfilling a fundamental role in the development of interpretive policy.

Holding the line on design quality has been one of the most difficult tasks for the museum's staff as so few people appreciate its value, but there is no doubt that any successes which the museum has achieved since its opening in 1973 have to a great extent been the result of a determination to consciously integrate quality and style of design and this has been of vital importance to the visitor's enjoyment and understanding of the gorge. The magazine *Design* admirably summed this up in its review of the museum:

> It takes a strong identifying element to pull all the parts into a whole and an equally strong editorial policy... Ironbridge has licked the first problem very simply—using excellent graphics and literature that is made so available that it would take a strong minded visitor to fail to leave with an armful. The graphics house style is discreet enough to suit a preservation area but distinct enough to pull you up short... As a design project, the Ironbridge Museum is on the whole so quiet and unobtrusive as to make you wonder what there was to do. But then imagine the whole project handled strictly by the preservationists and you recognise the contribution.[5]

The museum has been promoted from the beginning using a small publicity budget linked to a clear philosophy. First, the place is unique and of supreme importance; second, the work of the Museum Trust is new and interesting; third, the museum is constantly changing; and fourth, publicity must not compromise integrity. Efforts have therefore been concentrated on editorial exposure in the media starting in February 1973 with a reception in the London Press Club which led directly to a six-page supplement in *The Times*, followed by extensive international newspaper and magazine coverage. Radio and television have been energetically and persistently wooed and response has been admirable. In 1978 some 220,000 people visited the museum, half of them children or students on educational visits and about 12 per cent from overseas.

From all this it should be clear that Ironbridge is not simply a preservation exercise aimed at satisfying the interests of an enthusiast minority, nor is it an industrial archaeological safari park. The nature of the place and the geographical and political circumstances of the gorge to a great extent determined the way in which the Museum Trust came into being, and subsequent attitudes to conservation and industrial heritage, coupled with the financial facts of life, have substantially influenced not only the way in which it has developed but

5. 'Hardly what you'd Call Museums', *Design*, No. 349, 1978, p. 46–51.

the order in which its various projects have been achieved. It is essential therefore to recognize that the museum is the product partly of its own philosophies and dynamics but partly of contemporary attitudes and circumstances too.

It is also only part way through its capital development programme and the ultimate form of the museum may not be reached for several years yet; Blists Hill for example should be actively developing at least until the end of the century. Future policy, however, will be aimed as much at consolidation as at growth, filling in the gaps in the overall spectrum of the trust's activities as part of a broader initiative aimed at placing the museum in a stronger position to determine its own future both locally and nationally and to ensure that the gorge receives the right sort of care and management in perpetuity.

The museum sites

Coalbrookdale, a side valley of the River Severn, is where the area's historical significance has its origins. Here, at the head of the dale, the Museum Trust administers the Old Furnace, where Abraham Darby I first smelted iron with coke in 1709, and the Museum of Iron opened by H.R.H. the Prince of Wales in July 1979. The museum occupies the Great Warehouse, a fine three-storey building built by the Coalbrookdale Company in 1838 and which had stood empty for many years prior to its conversion (Fig. *58*). The museum tells the story of iron from man's earliest use of the metal through to the Coalbrookdale period of the eighteenth and early nineteenth centuries, culminating with the introduction of large-scale steel-making based on the Bessemer and open-hearth processes. The top floor is devoted to the community of Coalbrookdale, the Darbys, the company, and the people on whose skill and enterprise the area depended.

Also in the head of the dale the Museum Trust administers the Quaker Burial Ground where most of the Darbys and their Quaker colleagues lie; Carpenters Row, built by the company in 1783 for their employees and now restored to illustrate the living conditions of working families in the dale; and Rosehill House, the Darby mansion overlooking the furnace site which is being restored as a furnished ironmaster's house. The coach house of Rosehill House has been converted into a small gallery and here are displayed illustrations from the Elton Collection, an outstanding assemblage of books and pictures of the Industrial Revolution period. Further down Coalbrookdale four timber-framed cottages built in 1636 have been restored. At some date, probably in the early nineteenth century, one of the cottages was converted into a blacksmith's shop and today a group of smiths making wrought-ironwork of modern design but using traditional techniques are at work here. The remaining cottage, like a number of other small residential properties owned by the trust, provides residential accommodation for people working in the museum—staff, volunteers or research students.

One of the major conservation objectives of the Museum Trust was to ensure the long-term survival of the Iron Bridge, the focal point of the whole gorge area and of the museum complex. The bridge, cast in 1779, the earliest civil engineering work in which metal played a structural role, is fundamental in the history of technology and its archaeological importance as a monument to the origins of modern industrial man is recognized throughout the world. Today the bridge reflects years of neglect and the effects of serious bank movement on both sides of the Severn Gorge, but the restoration work begun in April 1972 should prevent further deterioration. As the result of efforts made by the Museum Trust the £180,000 needed to complete the work of restoration has been raised. The first stage of the preservation work was devoted to strengthening the north abutments. The second concerned the whole structure and as an extension of it the tollhouse on the south side of the bridge was restored. It is now used as a visitor information centre, exhibition and sales area.

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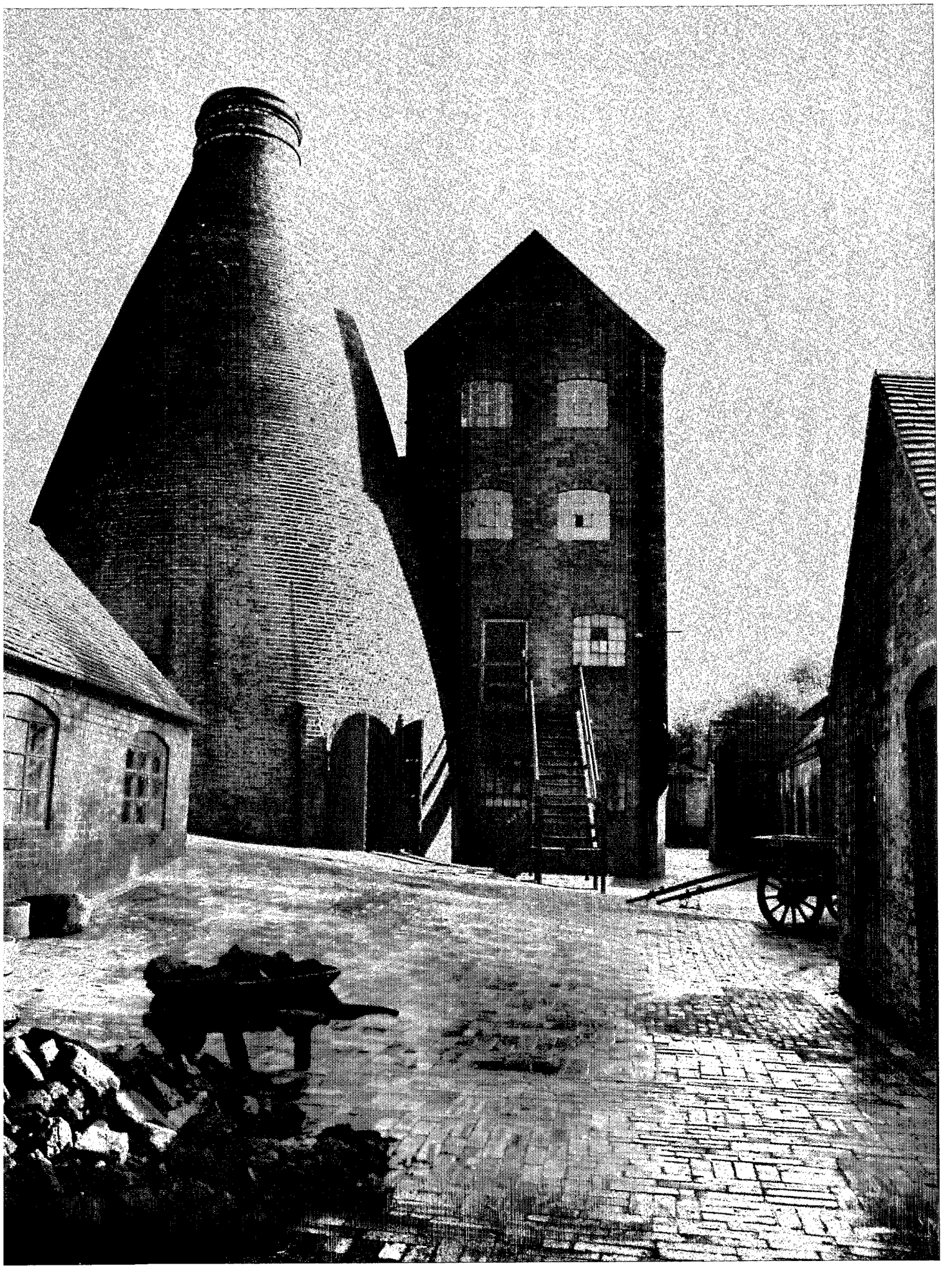
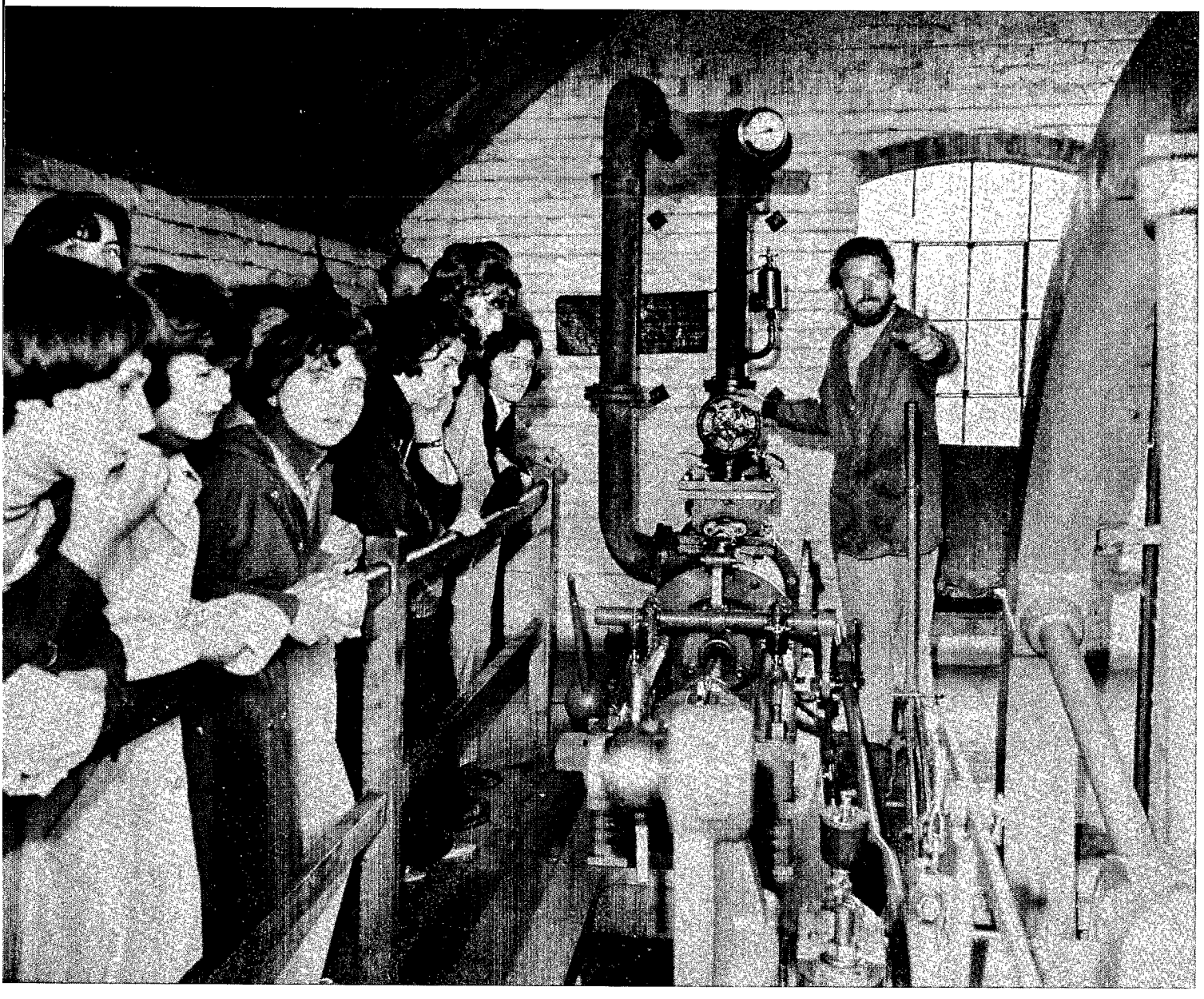
COALPORT CHINA WORKS MUSEUM, Coalport. The museum is installed in a former workshop. Shown here is the courtyard and one of the characteristic kilns.





61
BLISTS HILL OPEN-AIR MUSEUM. A group of schoolchildren watches the functioning of a steam-powered extraction engine.

A quarter of a mile down-river from the bridge stand the remains of the Bedlam blast furnaces of 1757, the only furnaces of the great period of expansion in the Shropshire iron industry in the mid-eighteenth century of which anything substantial remains. A grant from the Department of the Environment has enabled the first stage of excavation and restoration to be completed and a charitable trust has given funds for landscaping the surrounding area. At Coalport the china works, which closed in 1926, has been restored, together with the adjacent section of the Shropshire Canal, and forms the basis of the Coalport China Works Museum where the techniques of china manufacture are illustrated in reconstructed workshops, together with the story of the people and products of the company over a period of 150 years (Fig. *59*, *60*).

Blists Hill Open-Air Museum occupies a heavily wooded hillside overlooking Coalport and is itself rich in the remains of former industrial activity. Here the upper level of the Shropshire Canal and the inclined plane which connected it with Coalport have been restored and three early nineteenth-century blast furnaces, together with their blowing-engine houses, have been excavated and consolidated. A coal mine shaft has been re-excavated and a steam engine is in daily use winding the cage (Fig. *61*). Other reconstructed buildings include a tollhouse designed by Thomas Telford as part of his Holyhead Road improvement (Fig. *62*), a miner's cottage and a mission church built in the 1880s for a nearby mining community, a printing shop (Fig. *63*), butcher's shop, cobbler's shop and sawmill. The largest exhibit at Blists Hill is an

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BLISTS HILL OPEN-AIR MUSEUM. A section of the former toll-road and a tollhouse dating from the 1820s designed by Thomas Telford.

ironworks, currently being reconstructed, where wrought-iron will be made by the traditional puddling process and the resultant rolled iron bar sold through a local stockholding company.

As an interpretive adjunct to the rest of the gorge, Blists Hill is becoming essential and although like all traditional open-air museums it will be regarded critically from the conservation point of view, its immense potential as a vivid communicator of images and ideas is more than justification for its existence. Here the concept of the 'living museum' can be fully exploited with numerous working exhibits including the manufacture of wrought-iron and various craft processes in operation, horse-drawn vehicles and canal boats, furnished houses and cottages. Exhibit demonstrators and guides, electronic 'listening posts' and museum literature form the interpretive media whilst there is a strongly held policy against the use of on-site labelling as this contaminates the exhibits and the landscape and destroys any illusion of time and place in the minds of visitors.

Research and education

Let us now briefly examine the museum's current position and future policies. Much of the input of historical research has come from the museum's honorary historian, Barrie Trinder, and a network of voluntary advisory groups covering specialist areas. In addition the museum has actively encouraged the use of its collections for research purposes and a succession of postgraduate

research students, many from overseas, have worked in Ironbridge on topics relating to the work of the museum. These have ranged from straightforward historical and archaeological research on, for example, vernacular architecture and the history of pottery and tile manufacture, to recreational management policies in the gorge and the interpretation of engineering exhibits. The arrangement has been a good one, putting research on to a programmed basis and achieving results with the minimum of expense to the museum itself. Scholarly research is one of those activities which few museums put on to a formal footing but it has been felt essential to co-ordinate and manage research at Ironbridge in order to ensure that there is a sound foundation of scholarship for all aspects of the museum's work. The rapid growth of the museum's research library has greatly helped and the recent appointment of a full-time Librarian and Documentation Assistant to administer the existing library and the Elton Collection has put the museum in a particularly strong position to expand its research activities.

In November 1978 the Institute of Industrial Archaeology was launched, the culmination of many months of planning by a working party consisting of Dr Jennifer Tann, Professor John Harris, Professor Gordon Tucker, Barrie Trinder, Stuart Smith and Neil Cossons. The institute will eventually assume responsibility for the postgraduate research programme in the museum; there are currently six Ironbridge students working for higher degrees at the University of Aston in Birmingham. In addition it is intended shortly to offer a postgraduate Diploma in Industrial Archaeology which will combine academic studies in economic and social history and the history of technology with practical archaeology and conservation, legislation finance and management and fill, it is hoped, part of the small but growing job market in the United Kingdom and abroad for trained industrial archaeologists.

In terms of the educational use of the gorge by schools and colleges the museum has still a long way to go towards fulfilling its commitments, although adult education groups are reasonably well served. With only token financial support for its educational activities most of the responsibility for guiding and the preparation of course materials has had to rest with teachers and lecturers themselves although since 1972 the museum has run a series of well-attended seminars aimed at familiarizing teachers with its facilities. Pressure on the museum's resources from educational users is now intense and visits to Ironbridge feature in the curricula of schools and colleges throughout the United Kingdom. As the museum becomes more experienced at handling educational groups it is possible to help them in their use of the gorge which is increasingly being treated rather like a library—a place where with careful selection, it is possible to study a great variety of themes, drawing in many different academic disciplines. The educational visit of the future will, it is hoped, be a carefully prepared and highly selective experience embracing not only museum sites but the numerous other historical and environmental features of the gorge.

In order to realize the full potential for field teaching in the gorge the museum is providing various teaching facilities. In 1978 a seminar room with an associated work area was provided at the Coalport China Works Museum while in April 1979 the first stage of an ambitious residential field-study centre in Coalbrookdale was opened. Based on the Coalbrookdale Literary and Scientific Institute, residential facilities are being provided for up to sixty-five students on a hostel, the residential part of which is administered jointly with the Youth Hostels Association. The annex of the institute has been converted into the Walker Study Centre, generously funded by the Walker Trust, and now provides classroom facilities for visiting educational groups. With the opening of the residential facilities in 1980 it is now possible to satisfy the increasing demand, mainly from senior schools and college groups, who want to spend several days studying in the gorge.

A test for the future

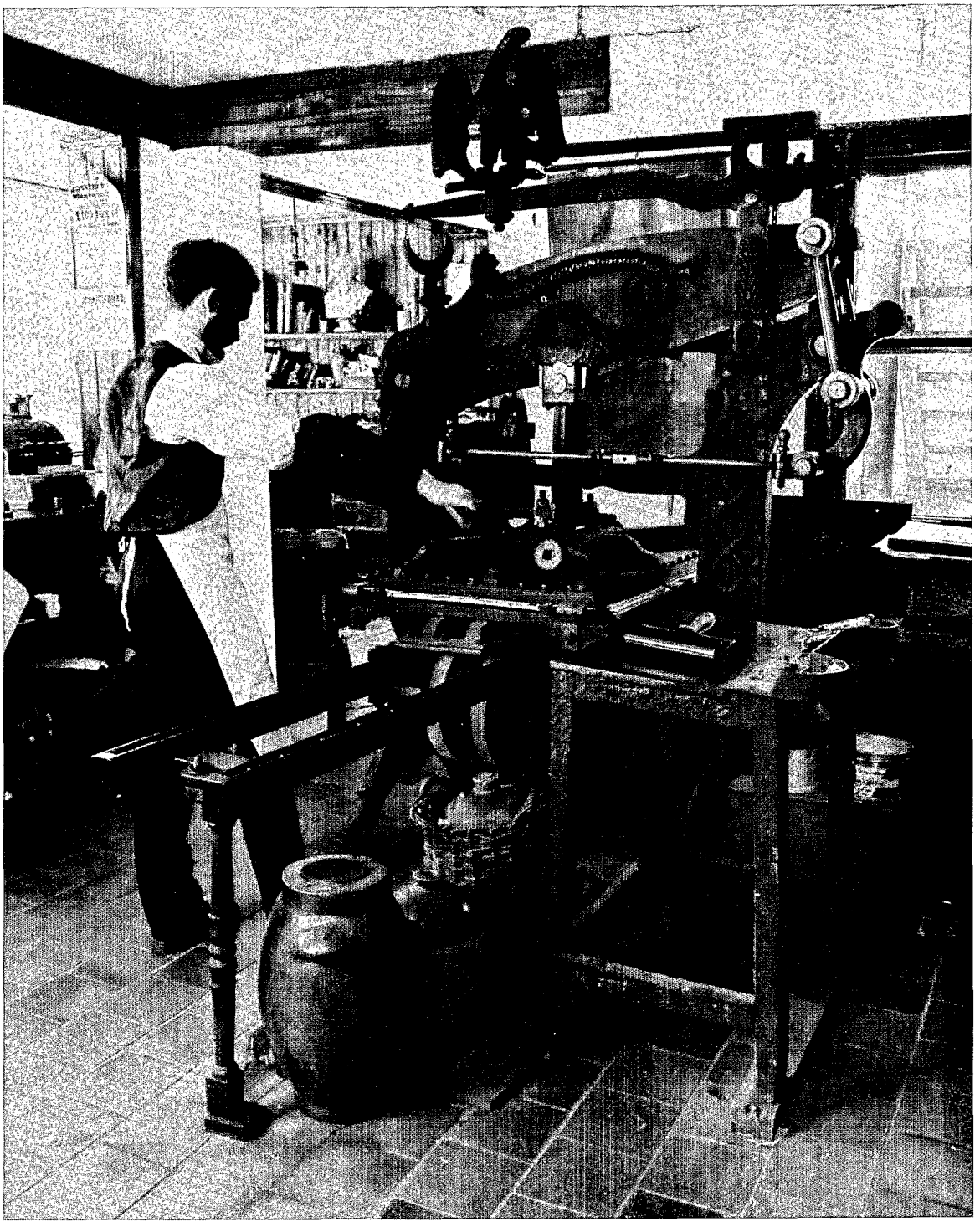
Although the primary structure of the Museum Trust remains as it was in 1972 there have been some notable changes: the growth of the museum's financial control, accounting and administration functions now supervised by a Controller. In addition, expansion of trading activities began to attract corporation tax, from which charities are not exempt, and so the museum's sales and publishing activities are now handled by a wholly owned share capital subsidiary company—the Ironbridge Trading Company Limited—which covenants its profits to the Museum Trust. The trust, as a charity, subsequently reclaims the tax. The trading company has four directors—the museum's Chairman, Deputy Chairman, Director and Controller—and employs a Managing Director and ten staff. Yet another trust has been spawned, the Upper Severn Navigation Trust, in order to build a replica of a Severn sailing barge and preserve various features of the river navigation. In the current financial year the gross turnover of the Museum Trust and its trading subsidiary for the first time exceed £1 million and this excludes the substantial contribution from the government's Manpower Services Commission in funding various schemes whereby the museum is able to take on young unemployed, who currently number over sixty. One of the unfortunate paradoxes of many industrialized nations is that unemployment amongst young and often well-qualified people is on the increase.

The museum has provided a framework within which, over the last three years, some 300 unemployed persons have been able to work, making an enormous contribution to the museum itself and, one hopes, deriving some satisfaction and sense of fulfilment from what they have achieved. In this respect as in many others the participative museum has become a reality in Ironbridge.

One of the future sections of the museum, devoted to decorative ceramic wall and floor tiles, is currently being developed entirely with Manpower Services Commission support, the first stage consisting of a small manufacturing workshop making Victorian tiles again in the original buildings where they were made a century ago (Fig. *64*).

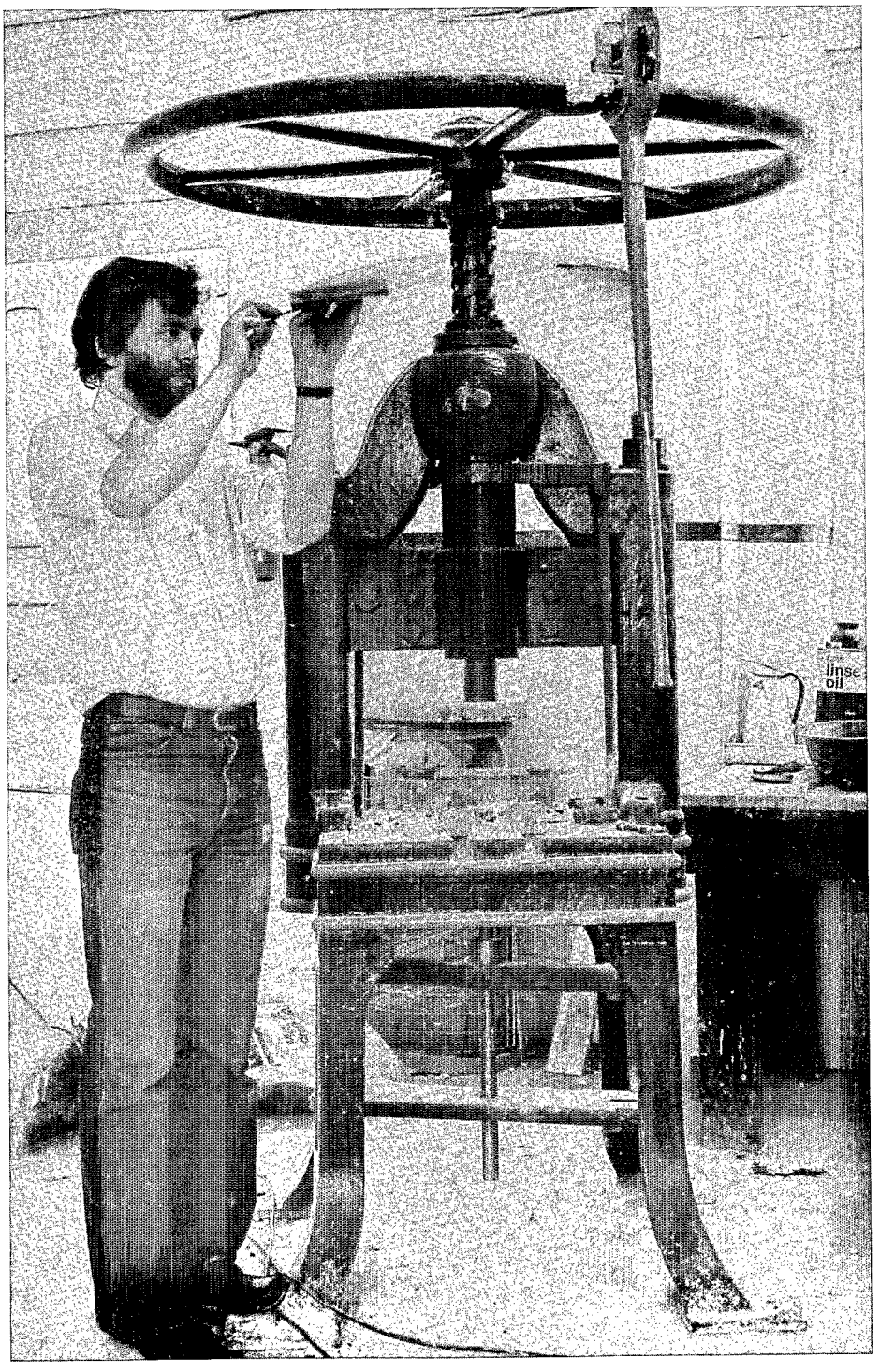
The future of the gorge and of the museum are inextricably linked. Ten years ago there were few options for the area: continued decay accompanied by demolition, or some form of rehabilitation linked either with recreation and amenity or history and archaeology. Although the choice of the latter was by no means inevitable, once it had been made the obligations were—to protect in perpetuity the industrial monuments of the gorge as part of the National Estate. Over the next few years the Museum Trust will be looking for some guarantee of the inalienability of the sites in its care, an underwriting by the nation of those responsibilities for conservation and integrated management which for the last decade have provided its *raison d'être.* To what extent it may be possible or even desirable to move further towards a 'national park' model in which the whole environment of the gorge is coherently managed is difficult to see particularly in the light of the prevailing movement towards a dilution of many of the traditional ideals of the 1949 National Parks Act. It is not only the industrial landscape of the gorge which is unique but also the nature of its conservation requirements. No existing legislation adequately fits the bill, one of the perennial problems of industrial archaeology. The imminent review of national-park administration which may conceivably establish the concept of inalienable heartlands surrounded by a less strictly controlled periphery, and embrace at the same time Areas of Outstanding Natural Beauty, could show the way, but what is really needed is a National Estate Act, tying all aspects of environmental conservation, protection and control into one legislative spectrum.

For the foreseeable future therefore the museum will remain as a non-statutory body, to be guaranteed eventually by the nation, and with specific responsibilities for the archaeology of the gorge. The voices of the past must be reconciled with the everyday necessities of a living and evolving community.



63
BLISTS HILL OPEN-AIR MUSEUM. In the reconstituted houses traditional skills are revived. Here a printer works at a late nineteenth-century hand press.

It is essential also to hold together the conservation philosophies so carefully built up over the last few years, although the problem of making clear the distinctions between history and archaeology on the one hand and amenity and enhancement on the other presents increasing difficulties. In an area as sensitive as the gorge its essential character can be destroyed by 'enhancement', the introduction of alien materials and design concepts or pastiche landscaping which fulfills no obvious social function but diminishes the historical and archaeological integrity of the place. There are remarkable opportunities for sensitive control in the gorge and one of the tests of the already agreed conservation policies for the area will be the extent to which they can be maintained in the spirit as well as in the letter. Paradoxically the problem lies not so much with individuals who may wish to alter their properties, fell their trees, or render their brickwork, however insensitive their actions may be, nor does it rest primarily with visitors who perhaps represent one of the most easily controllable elements in the equation, readily susceptible to management tech-



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At Jackfield the Ironbridge Gorge Museum Trust re-created a decorative ceramic-ware workshop, using Victorian period methods and materials. One of the craftsmen is checking the thickness of one of the tiles as it emerges from the press.

niques which can largely eliminate any deleterious effects they may have on the community and the landscape, but to a great extent with the very statutory bodies in whose hands, on a macro-scale, the future of the landscape lies.

For the legacy of the gorge to have a future requires an understanding in depth as well as breadth, a detailed archaeological, historical and ecological appreciation of why the gorge is like it is, an ability to stand by principles, a conscious exercise of restraint, but above all a sense of humility.

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Thirty-four years between

The International Council of Museums, better known by its acronym ICOM, is 34 years old. It was created in Paris in November 1946, with the aid of Unesco, at the initiative of Chauncey J. Hamlin, then President of the American Association of Museums (Fig. 64). One year later, in November 1947, ICOM started its cycle of General Conferences, holding its first session in Mexico.

Once again it is Mexico that will welcome the twelth General Conference, from 25 October to 4 November 1980, on the eve of its thirty-fourth anniversary.

On the occasion of this double event, Museum *presents its readers with an overview of thirty-four years of ICOM's activity in the service of international co-operation under the auspices of Unesco. The film of these thirty-four years is both long, and brief.*

Long, because one cannot summarize in a few sentences so many years of close collaboration between Unesco and its godchild (ICOM is a non-governmental organization subsidized by Unesco, enjoying the closest possible links with our Organization) whose purpose is to give museums the place they deserve in the contemporary world. Brief, because an article can only evoke the work of regional organizations which ICOM fostered; the task of International Committees which, in each field of museum work, grouped experts to seek solutions to the greatest problems facing the profession; and the task of national committees who associated museums in each country with a common cause.

We hope that, through the dry outline of this chronology, will clearly appear the mission of ICOM during its thirty-four years of activity.

What is ICOM?

The International Council of Museums: a professional organization devoted to museum development throughout the world. Its members are over 7,000 museum people in 112 countries. It is associated with Unesco as one of the latter's 'Category A' Non-governmental Organizations and its headquarters are at Unesco, Paris. It represents the museum profession internationally and is a technical partner in the execution of Unesco programmes in the field of museum development.

# of co-operation Unesco and ICOM

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Chronology

1946 The International Council of Museums is founded in November of this year in Paris, at the initiative of Chauncey J. Hamlin (United States), who becomes the first President of the organization.
The Documentation centre is placed by Unesco under the responsibility of ICOM and the direction of Yvonne Oddon. It becomes the Unesco/ICOM Documentation Centre—the only resource centre for museums of all fields existing in the world. The centre provides information, orientation and research services to museum professionals, researchers, Unesco and its Member States (Fig. 68).
Publication of the first issue of the periodical *ICOM News/Nouvelles de l'ICOM.*

1947 An agreement is signed between Unesco and ICOM on 2 October establishing the ways and means of co-operation between the two organizations.
First Interim Conference of ICOM in Mexico City, Mexico, 7–14 November.

1948 First General Conference in Paris, 28 June to 3 July. Museologists from fifty-three countries attend. Twelve specialized committees are created. Georges Henri Rivière is named Director of ICOM (Fig. 67).
First meeting of the International Commission for Cleaning and Restoration of Paintings, London, United Kingdom, 13–15 December.
Technical and legal study on exchanges and deposits between museums, carried out by Professor A. Leroi-Gourhan. It is the starting-point for preparatory work requested by Unesco, which culminates in 1976 in the adoption, by the nineteenth session of the General Conference of Unesco at Nairobi, of the Recommendation Concerning the International Exchange of Cultural Property.

1949 Second meeting of the International Committee for the Care of Paintings was held in Rome, Italy, from 12 to 15 December, under the chairmanship of Professor Cesare Brandi.

65
Chauncey J. Hamlin, President of the Buffalo Society of Sciences and the American Association of Museums was the founder of the International Council of Museums, and became the first President (1946–53). The Constituent Assembly was held from 16 to 20 November 1946 at the Louvre Museum, Paris.

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Hubert Landais, Director of Museums in France, who became ICOM's sixth President in 1977.

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1950 First conference of the International Committee of ICOM for Museum Techniques in Stockholm, Sweden, 8–13 May.
Second General Conference in London, United Kingdom, 17–22 July, attended by members from thirty-one countries and five continents. Main themes are: exchange of collections and conservation personnel; inventory of scientific instruments; museums and education; problems of professional training.
Creation of international committees for laboratories and documentation.

1951 Meeting of the ICOM Commission on Racial Questions, a subcommittee of the International Committee on Museums of Ethnography and Folklore, on 9 June in Paris, under the chairmanship of Dr G. W. Locher.
Crusade for museums, organized by Unesco and ICOM: this campaign marks the beginning, on an international scale, of a public awareness of the educational role of museums. Public information activities follow, leading to the institution in 1977 of an International Museums Day (18 May), celebrated every year in many countries.

1952 International Seminar in Brooklyn on the role of museums in education, 14 September to 12 October, organized by Unesco in co-operation with ICOM.
Publication of *Museums and Young People,* by G. Cart, M. Harrison and C. Russell, under the auspices of the ICOM Committee for Education and the ICOM Committee for Children.

1953 Third General Conference in Genoa, Milano and Bergamo, Italy, 6–12 July. Georges Salles (France) (Fig. 69) succeeding Chauncey J. Hamlin, becomes the second President of ICOM. Twenty-four countries are represented at the conference. Ten specialized committees discuss, among other themes: museum architecture and museums in modern city planning; museums and scientific and technical progress; natural history museums and protection of nature; museums and international understanding; modern art museums at the service of living art.
Conference on museums of archaeology and history, Naples, July. Main themes: museums and international understanding; international regulations in regard to archaeological excavations.

1954 International conference on 'Local Museums and Cultural Development Outside Large Centres' at the Schaffhouse Museum, Switzerland, 7–9 July.
International seminar on the role of museums in education in Athens, Greece, 12 September to 10 October. Organized by Unesco in co-operation with ICOM.

1955 Publication, with the help of Unesco, of *Type Specimens in Botany and Zoology. Recommendations for their Conservation in Natural History and General Museums,* by W.E. Swinton.

1956 Fourth General Conference, Basel, Zürich, Schaffhouse, Neuchâtel and Geneva, Switzerland, with members from thirty-five countries attending. Main themes: the natural history museum in the modern world; the problem of history museums in our times; modern installations and museum techniques.
Conference on problems of museums in the Near East, in Damas, Syrian Arab Republic, 23–27 October. The purpose of this first meeting was the development of co-operation between museums in this region.
First international museums campaign.

67
Georges Henri Rivière, ICOM's first Director (1946–65), and since then Permanent Adviser to the Council.

68
Reading room in the Unesco/ICOM Documentation Centre, Unesco House, Paris.

1957 Meeting of the ICOM commission for international art exhibitions on 2 July, at the Musée du Louvre. In order to facilitate exchanges of exhibits, the commission decides to make a customs label for works of art. This measure is carried out in the framework of the Florence Agreement on the importation of educational, scientific and cultural materials adopted by the fifth session of the General Conference of Unesco in July 1950. The customs services of the Member States of the Customs Co-operation Council recognize the validity of this label.
ICOM meeting on open-air museums in Denmark and Sweden, 5–9 July; guidelines on the aims and organization of this type of museum are adopted by participants from twenty-four countries.

1958 Symposium on museums, film and television, organized under the auspices of Unesco in Brussels, Belgium, 8–11 July. Publication of a handbook on this subject.
Regional seminar on the role of museums in education, Rio de Janeiro, Brazil, 7–30 September organized by Unesco in co-operation with ICOM. After a survey, ICOM prepares the study on 'international regulations on the most effective means of rendering museums accessible to everyone' for Unesco, which becomes a recommendation in 1960. This is one of the first efforts to foster adoption by Unesco of measures encouraging a more democratic participation in culture by the public, leading to the 'Recommendation on Participation by the People at Large in Cultural Life and their Contribution to It', adopted in 1976 by the General Conference of Unesco at its nineteenth session.

1959 Fifth General Conference in Stockholm, Sweden, 1–8 July. Sir Philip Hendy (United Kingdom) (Fig. 70), becomes the third President of ICOM, following Mr Georges Salles. Thirty countries are represented; nine international committees hold working meetings. Main themes discussed: exchanges between museums and international art exhibits; survey of the museum profession; advice for the establishment of museums of science and technology; the role of ethnographic museums as an instrument for research.
Founding, on 1 March 1959, at the initiative of Unesco and ICOM, of the International Centre for the Study of the Preservation and Restoration of Cultural Property (now called ICCROM) in Rome: an intergovernmental institution which will become one of the principal partners of Unesco and ICOM in this field.
Founding of the Museums Association of Tropical Africa, associated with ICOM.

1960 ICOM co-operates with Unesco in launching the international campaign to save the monuments of Nubia.
Regional seminar on the museum as a cultural centre in the development of the community, Tokyo, Japan, 3–30 September, organized by Unesco in co-operation with ICOM.
International meeting on regional and specialized museums in Belgrade, Yugoslavia, 18–30 September.

1961 International meeting of ICOM on museum architecture in Turin, Genoa and Milan, Italy, 23–27 May.

1962 Symposium on the problems of museums in countries undergoing rapid change, in Neuchâtel, 17–25 June. Publication of the procedings as a handbook.
Sixth General Conference, the Hague, Netherlands, 2–11 July, with partici-

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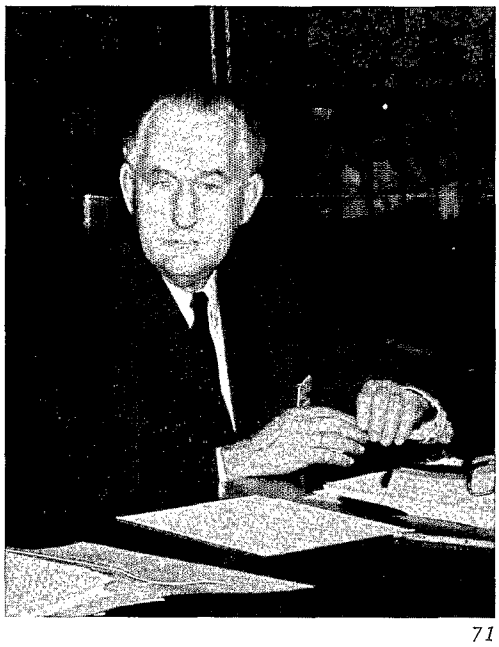
Georges Salles, Director of Museums in France, succeeded Chauncey J. Hamlin as the second President of ICOM (1953–59). (Drawing by Picasso, Cabinet des Dessins, Musée du Louvre.)

70
Sir Philip Hendy, Director, National Gallery, London, United Kingdom, was the organization's third President (1959–65).



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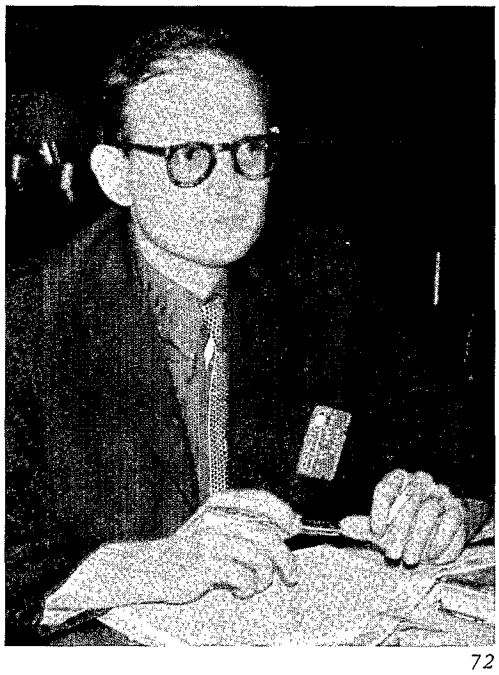

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pants from twenty-two countries. Main items studied: protection methods against theft of art works; problems pertaining specifically to the conservation of cultural property in tropical and subtropical countries; the role of museums of history and folklore in a changing world; the functions of museums—research centres or show places?

1963 Meeting of an international committee of experts to study the measures to be taken to promote bilateral exchanges of cultural property, on 3 July at the Musée des Arts et Traditions Populaires, Paris.
Joint meeting of the Committee for the Care of Paintings and the Committee for Scientific Museum Laboratories, in Leningrad and Moscow, 16–23 September.

1964 Regional seminar on the 'Role of Museums in Contemporary Africa', at Jos, Nigeria, 24 August to 18 September, organized by Unesco in co-operation with ICOM. The Jos seminar tries to answer, for Africa, the questions raised during the symposium at Neuchâtel (see above).
Participation in the Freedom from Hunger Campaign. National committees of ICOM organize exhibitions devoted to the fight against hunger.
International Symposium on the Educational and Cultural Role of Museums, Paris, 23–27 November.

1965 Creation of the ICOM Foundation with the purpose of providing financial means to enlarge the scope of members' activities, on 15 June.
Sixth General Conference in Washington, Philadelphia and New York, United States, 16 September to 3 October. For the first time, an overall working theme is adopted: 'Training of Museum Personnel'. Dr Arthur van Schendel (Fig. 71), Director of the Rijksmuseum in Amsterdam, succeeds Sir Philip Hendy and becomes the fourth President of ICOM. Georges Henri Rivière leaves the directorship of ICOM to become Permanent Advisor; Hugues de Varine-Bohan (France) (Fig. 72) who was Assistant Director since 1962, becomes the Director of ICOM.

1966 Seventh regional seminar on 'The Role of Museums in the Community', in New Delhi, India, from 31 January to 28 February, organized by Unesco in co-operation with ICOM. It is envisaged to create an ICOM Regional Agency in Asia.
Symposium on the conservation of wooden objects in museums organized in Dakar, Senegal, 18–23 April, by the Museums Association of Tropical Africa (AMAT/MATA) and ICOM.

1967 Meeting of experts on urgent ethnology: co-ordinated development of museums and scientific research, held in Baghdad, Irak, 1–6 April, organized by the ICOM Committee for Ethnography Museums.
Creation of the ICOM Regional Agency for South and South-East Asia. Dr Grace Morley is named head of the agency.
The Committees for Scientific Museum Laboratories and for the Care of Paintings are merged to become the ICOM Committee for Conservation, at Brussels, Belgium, during their joint meeting from 6 to 13 September.
Lauching of the second International Museums Campaign on 1 October.
Meeting of a group of experts on the training of museum personnel in Europe in Brno, Czechoslovakia, marking the first effort to have museology recognized as a scientific discipline in universities.

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Her Majesty Queen Margrethe II of Denmark opens the proceedings of the Tenth General Conference, Copenhagen, Denmark (5–14 June 1974). The Statutes were altered by the Assembly, transforming the Director's post to that of Secretary, to which Mr Louis Monreal was elected.

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Mrs Irina Antonova, Curator at the State Pushkin Museum of Fine Arts, Moscow, USSR, President of the Soviet National Committee for ICOM, and Vice-President of ICOM (1971–77), who organized the eleventh General Conference of ICOM on behalf of the Soviet National Committee. This meeting was held in Leningrad and Moscow from 18–29 May 1977.

1968 Meeting of the Committee for Education and Cultural Action, in Leningrad and Moscow, USSR, 14–21 May, on the theme: 'Educational and Cultural Tasks of Museums'.
Eighth General Conference, in Cologne and Munich, Federal Republic of Germany, 29 July to 9 August, with participants from sixty-five countries, on the theme: 'Museums and Research'.
International symposium on museums and their new public, in Krakow, Poland, 18–24 September, the main purpose of which is to define the concept of 'new museum public' in different social systems and cultural backgrounds.
Symposium on museum architecture, organized by ICOM with the participation of the International Union of Architects (UIA), at Mexico City, Mexico, 8–14 December.

1969 Pilot project of training seminars for young curators and museum assistants organized by ICOM for three French-speaking countries: France, Belgium and Switzerland, in Brussels, Paris and Neuchâtel, January, February and November.
Publication of the first issue of *Annual—Museums, Education and Cultural Action* which will later become *ICOM Education.* Publication of the first volume of the *International Museological Bibliography.*
International Round Table on 'The Role of Museum in the World of Today', organized by Unesco in co-operation with ICOM in Paris, 24–28 December.

1970 Meeting of a committee of experts named by the Executive Council of ICOM to study the ethics of acquisitions for museums, in Paris, France, 8–10 April. The committee decides to adopt a professional code of ethics in the field of acquisitions. In October of the same year, the General Conference of Unesco, during its sixteenth session, adopts the text of the International Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property.

1971 Ninth General Conference of ICOM, in Paris and Grenoble, France, from 20 August to 10 September, on the theme: 'Museums in the Service of Man, Today and Tomorrow—The Educational and Cultural Role of Museums'. Fifty countries are represented. Dr Jan Jelinek (Czechoslovakia) (Fig. 73), succeeds Mr A. van Schendel and becomes fifth President of ICOM.

71
Dr Arthur van Schendel, Director of the Rijksmuseum, Amsterdam, The Netherlands, fourth President of ICOM (1965–71).

72
Hugues de Varine-Bohan, Assistant Director (1962–65), and then Director until 1974.

73
Jan Jelinek, Director, Anthropos Muzeum, Brno, Czechoslovakia, was ICOM's fifth President from 1971 to 1977.

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From left to right: Luis Monreal, Secretary-General of ICOM; Percy Stulz, Director of the Division of Cultural Heritage, Unesco, representing the Director-General, Amadou-Mahtar M'Bow; Dr Taaitta-Toweett, Minister for National Education, Kenya; Dr Julia Ojiambo, Deputy Minister of Environment and Social Affairs, Kenya, at the Constituent Assembly of the Organization for Museums, Monuments and Sites in Africa (OMMSA) held at Nairobi in January 1978.

1972 Round Table on the importance and development of museums in the contemporary world, organized by Unesco in co-operation with ICOM, in Santiago, Chile, 20–31 May.
International symposium on the problems of security in museums, at Saint-Maximin, France, 28 May to 1 June. ICOM decides to publish a handbook on security.
One hundred and forty-five societies of Friends of Museums meet at the First Congress of Friends of the World's Museums in Barcelona, Spain, 19–23 June.
International symposium on 'Museums and Environment', at the initiative of the French Ministry for the Environment and the French National Committee of ICOM, in Bordeaux, Istres and Lourmarin, France, 25–30 September. A museum should strive to achieve complete symbiosis with the community it serves. A new type of museum, with a specific relationship to the environment is described, which will be called an 'ecomuseum'.
Symposium on the role of museums in continuing adult education for the development of South-East Asian countries is held in Malacca, Malaysia, 12–13 December.

1973 Establishment of ICOM Guidelines for Loans by the working party on insurance, created in 1971. These guidelines are adopted in 1974 by the committee of experts convened by Unesco to study insurance and other forms of coverage of risks to works of art.

1974 Publication of a handbook of national legislations on the protection of cultural property, the culmination of efforts pursued since 1970 to denounce illicit trade in cultural property and to encourage museums to oppose such trade by disseminating information on national legislations governing the protection of the cultural heritage.
ICOM prepares, for Unesco, a study on the technical, legal and administrative aspects of an international instrument on the exchange of original objects and specimens among institutions in different countries. This study is the basis of discussions between governmental experts entrusted with compiling the Recommendation Concerning the International Exchange of Cultural Property, adopted in Paris by the General Conference of Unesco at its nineteenth session, 1976.
Tenth General Conference of ICOM in Copenhagen, Denmark, 5–14 June. Theme: 'The Museum and the Modern World'. Sixty-two countries are represented. Luis Monreal (Spain), is nominated to the office of Secretary-General

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of ICOM (Fig. 74), replacing Hugues de Varine-Bohan. The General Assembly adopts new statutes for ICOM. The structure adopted is more democratic, allowing a larger participation of ICOM members in the organization of its activities. The immediate result is a large increase in membership.

1975 Fourth Triennial Conference of the Committee for Conservation in Venice, Italy, 13–17 October, with more than 400 participants. Papers presented at this meeting appear for the first time as preprints, in three volumes.
Seminar on the training of museum technicians in Barcelona, Spain, 20–24 October.

1976 Creation of the International Committee of ICOM for Public Relations, on 25 June. Two international committees study the necessity for cultural decentralization: in Bologna, Italy, 7–11 June, the International Committee for Museums and Collections of Modern Art discusses 'Centralization/Decentralization/Noncentralization', and in Umeå, Skelefteå and Vilhelmina, Sweden, from 11 to 19 September, the International Committee for Education and Cultural Action studies 'The Roles of the Museum in a Decentralized Cultural Policy'.
Meeting of experts on 'Modern Methods of Inventory of Movable Cultural Property', organized by Unesco in co-operation with ICOM, in Barcelona, Spain, 4–8 October.
The nineteenth session of the General Conference of Unesco, convening in October at Nairobi, Kenya, proposes the creation of an International Documentation centre, through co-ordination with the Unesco/ICOM and the Unesco/ICOMOS documentation centres. ICOM requests two experts to study the implementation of this project.
First Regional General Assembly of National Asian Committees at Tehran, Iran, 13–18 November.
International conference of experts on museum storage, organized by ICOM and Unesco, under the auspices of the American National Committee of ICOM, and the ICOM Committee of the American Association of Museums (AAM/ICOM), in Washington, United States, 13–16 December.

1977 Eleventh General Conference, in Leningrad and Moscow, USSR, 18–29 May, on the theme: 'Museums and Cultural Exchanges' (Fig. 75). More than 1,500 participants from ninety-nine countries attend. Mr Hubert Landais (France), succeeds Dr Jan Jelinek, and be-

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Mr Kwasi Myles (Ghana), Secretary-General of OMMSA since 1978.

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Second Regional Assembly of ICOM Asian National Committees, Bangkok, Thailand, held in December 1979. Visit to a museum between two working sessions. From left to right: R. Thapa, President of the Nepalese National Committee; T. Iwasaki, Secretary of the Japanese National Committee; E. Haque, President of the Bangladesh National Committee; N. Ivanov, Vice-President of the National Committee of the Soviet Union; J. C. Yaldwyn, President of the New Zealand National Committee; S. Roy, Secretary of the Indian National Committee; Mrs Nilima Roy, National Museum, New Delhi; S. Sharma, ICOM Regional Agency in Asia; Mrs Chira Chongkol, President of the Thai National Committee; S. Fukuda, President of the Japanese National Committee.

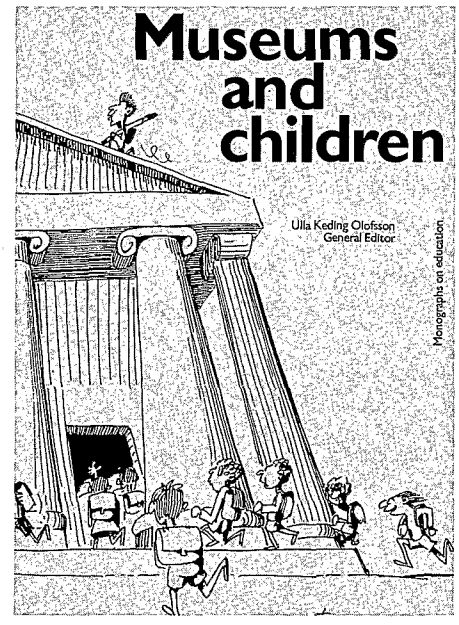
comes the sixth President of ICOM (Fig. 66). Two international committees are created: the Committee for Museology and the Committee for Literature Museums. Among the resolutions adopted are: The International Museums Day, on 18 May, to be celebrated each year; the creation of an ad hoc committee for the restitution or return of cultural property to the country of origin; the decision to produce a Treatise on Museology.
Several international committees publish the results of their work: *International Directory of Musical Instrument Collections,* by the International Committee for Museums and Collections of Musical Instruments; *Museum Public Relations: Results of a Survey,* by the International Committee for Museum Public Relations; *Museum Security,* by the International Committee for Museum Security.
At the request of Unesco, the Ad hoc Committee of ICOM prepares a Study on the Principles, Conditions and Means for the Restitution or Return of Cultural Property in View of Reconstituting Dispersed Heritages.
Organization of the twelfth Unesco travelling exhibition: 'The Arts of Latin America'.
Regional symposium on traditional, rural and tribal cultures in Asia, in Colombo, Sri Lanka, 10–20 December, organized by the National Museums of Sri Lanka, with the collaboration of Unesco and ICOM.
Starting in 1977 ICOM, at the request of Unesco, undertakes projects for technical assistance to museums, and collaborates on the establishment or renovation of numerous museums in several countries.

1978 First issue of *ICOM Press* in January.
First General Assembly of the Organization for Museums, Monuments and Sites of Africa (OMMSA), to constitute this organization which ICOM helped to create, in Nairobi, Kenya, 8–14 January (Figs. 76, 77).
Following its policy to promote exchanges between museums, ICOM creates the Museum Exchange Programme (MUSEP).
Janine Schotsmans replaces Dr Grace Morley as Head of the ICOM Regional Agency in Asia on 1 October.
Meeting of experts on the principal criteria for the planning of museums of science and technology in developing countries, in Manila, the Philippines, 11–15 December, organized by Unesco in collaboration with ICOM.

1979 Publication in May of the first issue of the *ICOM Asia Newsletter,* by the ICOM Regional Agency in Asia. Following the recommendation adopted by the ninth General Conference of ICOM, museums carry out numerous activities to celebrate the International Year of the Child, among which are conferences on museums and children in Brussels, Belgium, 17–18 February, and Washington, United States, 28–31 October. Participation in the preparation of several Unesco publications, in particular the issues of *Museum* for this year. Second Regional Assembly of the National Asian Committees of ICOM in Bangkok, Thailand, 10–15 December (Fig. 78).

1980 Publication of the Spanish edition of the Museum security handbook.
Twelfth General Conference, in Mexico City, Mexico, from 25 October to 4 November, on the theme: 'The World's Heritage—The Museum's Responsibilities'.

Recent Unesco publications



Museums and Children, edited by Ulla Keding Olofsson. Paris, Unesco, 1979. 195 p. illus., bibliog. (Monographs on Education, 10).

It will surprise no-one that Unesco brought out this volume during the International Year of the Child. Nor the choice of subject in itself, for since 1970 eight international gatherings organized under Unesco's auspices have studied the role that the museum does, can and should play with regard to the school, in educational systems throughout the world. The museum as an 'instrument of pedagogy' also receives continuous attention from ICOM's International Committee for Education and Cultural Action (CECA). The choice of editor for the volume fell naturally upon Mrs Ulla Keding Olofsson, member of the Executive Council of ICOM, active member of CECA and one of the directors of the Swedish Travelling Exhibitions Service.

Mrs Olofsson's introduction constitutes a critical panorama of the work of museums in relation to teaching practice throughout the world today. She notes both the progress made to date and new directions, without avoiding the obstacles encountered. Her survey is based on the material presented by the authors of the various chapters, on her own personal experiences and on the abundant literature available on the subject. A substantial but selective bibliography is included in the volume.

Eighteen specialists from fourteen Member States of Unesco[1] have contributed monographs describing their various experiences in different parts of the world and under widely varying conditions. Despite its diversity the material contains a wealth of useful information for the international community as a whole.

A serious work on a serious subject, but humourously illustrated by the drawings of Gérard Teichert, this book deserves wide circulation among museums and schools the world over.

La protection du patrimoine culturel mobilier. Recueil de textes législatifs. [The Protection of the Movable Cultural Heritage. Collection of Legislative Texts]. Paris, Unesco, 1979. 362 p. (In French; English version in preparation.)

This timely volume will be of considerable use to museum professionals, politicians, jurists and decision-makers needing to know exactly how their countries provide legal protection to the cultural heritage. It is likely to become a work of reference for collectors, antique dealers and others who are involved with movable cultural property in any way.

The present hard-bound volume is in fact only the first of a series, for a huge amount of work is involved. Mr Hanna Saba, former Legal Adviser to Unesco, assisted by Mr Nabil G. Salamé, has gathered together the international conventions and recommendations concerning the safeguard of movable cultural property, particularly those dealing with the import, export and illicit transfer of cultural property and with archaeological excavations. These texts are reproduced *in extenso.* In addition the national legislative provisions of twenty-three states[2] have been dealt with. A preliminary analysis brings out common features and underlines different tendencies and systems that are the inevitable result of the differing constitutions (e.g. centralized or federal states), legal traditions, artistic and historic patrimony and conservation experience of various states.

1. Algeria, Belgium, Botswana, Canada, German Democratic Republic, Iran, Mali, Mexico, Nigeria, Portugal, Thailand, USSR, United Kingdom and the United States.

2. The legislations studied in this first volume are those of the following twenty-three states: Algeria, Austria, Belgium, Bulgaria, Chile, China, Czechoslovakia, France, German Democratic Republic, Federal Republic of Germany, India, Indonesia, Lebanon, Madagascar, Poland, Senegal, Socialist People's Libyan Arab Jamahiriya, Syrian Arab Republic, United Arab Emirates, USSR, Venezuela, Yugoslavia, Zaire.

Biographies

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Former Deputy Director of the City of Liverpool Museums. Dr Neil Cossons has been Director of the Ironbridge Gorge Museum Trust since 1971. He is President of the Association for Industrial Archaeology and Chairman of the Association of Independent Museums. A leading proponent of industrial archaeological conservation he is author or co-author of a number of books and papers on the subject and has broadcast widely in the United Kingdom on radio and television.

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MAGDALINA STANTCHEVA

Studied classical philology and history at the University of Sofia. Assistant curator and research director at Sofia History Museum. Director of Sofia archaeological excavations since 1954. Member of the Editorial Board of the review *Museums and Monuments of Culture* since 1960. Since 1979, professor of museology at the Academy of Fine Arts and of medieval Bulgarian culture at University of Sofia since 1975. Author of numerous publications on archaeology. Member of Bulgarian National Committee of ICOM and of ICOM's International Committee of Museums of Archaeology and History (ICMAH).

ALASSANE THIAM

Studied at Conservatoire des Arts et Métiers, Paris (1965–68); architecture studies at Rio de Janeiro and with Oscar Niemeyer (1968–70). Ministry of Public Works, Senegal (1971–73). Technical adviser to Ministry of Culture, Dakar; Professor at the School of Architecture and Head of the Department of Research in Traditional Architecture. Head of the Bureau of Architecture and Historical Monuments, Ministry of Town Planning, Habitat and Environment, Senegal. In charge of Gorée safeguard project; Unesco consultant for the restoration of the Citadel and Sans-Souci Palace, Haiti. Dissertation and publications on African architecture.

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