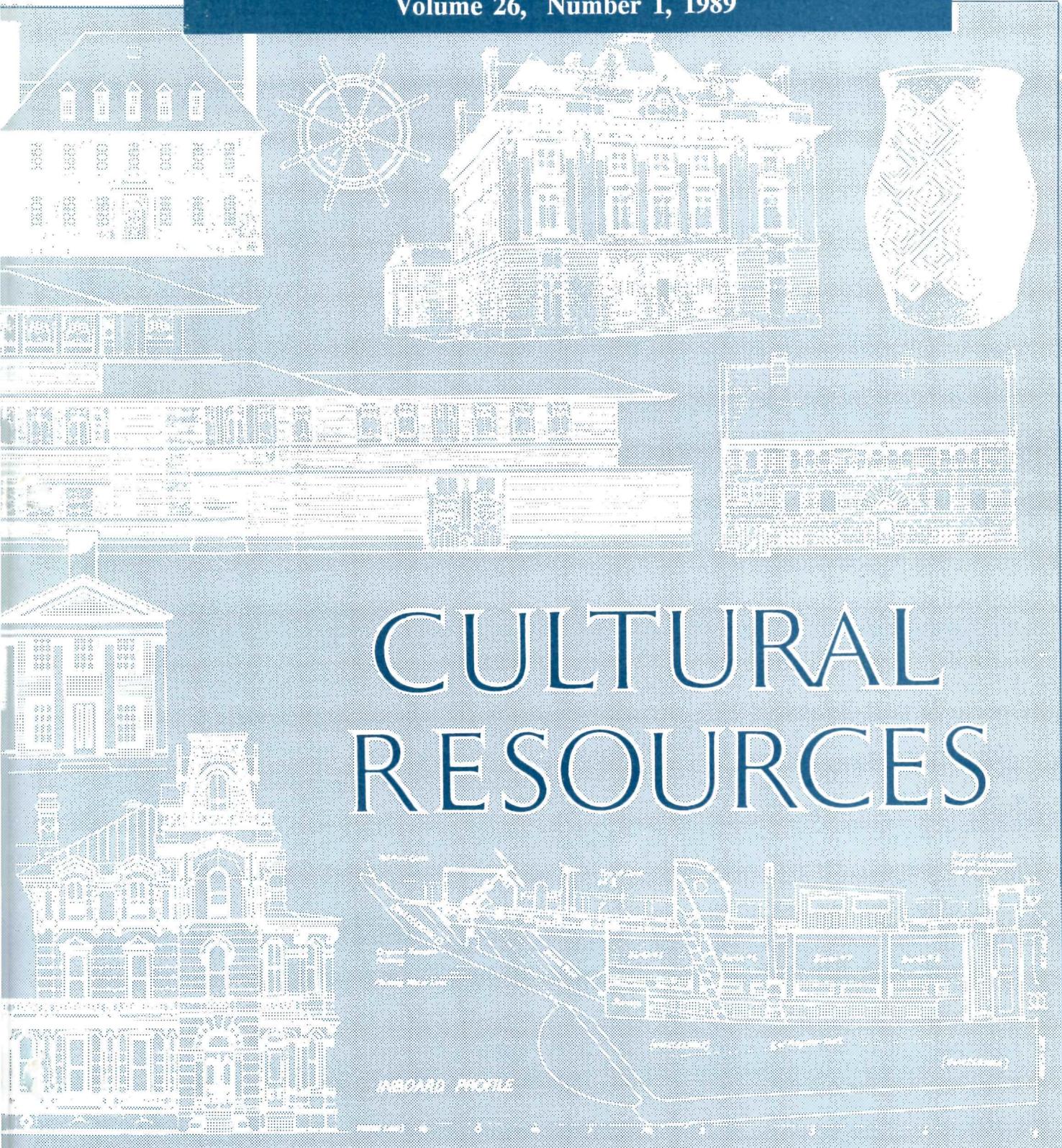


TRENDS

Volume 26, Number 1, 1989



CULTURAL RESOURCES



Contents

Volume 26, Number 1, 1989

TRENDS

A publication of the Park Practice Program
The Park Practice Program is a cooperative effort of the National Park Service and the National Recreation and Park Association.

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Articles, suggestions, ideas and comments are invited and should be sent to the Park Practice Program, National Park Service, P.O. Box 37127, Washington, DC 20013-7127, telephone (202) 343-7067.

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Cultural Resources, the National Park Service and the International Scene

by Jerry L. Rogers



Medina of Fez, Morocco.

UNESCO



Fasil Ghebbi, Gondar, Ethiopia.

UNESCO



Urnes Stave Church, Norway.

UNESCO



Statue of Liberty National Monument, NY.

Jack E. Boucher, NPS



Stonehenge, Wiltshire, England.

U.K. Dept. of the Environment

In October 1987, the eighth triennial General Assembly of the International Council on Monuments and Sites (ICOMOS) met in Washington, D.C. Founded in Cracow, Poland, in 1965 as a non-governmental organization comprised of the world's leading experts in the preservation and restoration of historic buildings and sites, ICOMOS in its first decade was generally European oriented. Its eighth General Assembly and International Symposium was, in fact, the first to be held outside Europe. Therefore, it was a matter of our national pride that we would guarantee the success of the meeting.

The United States Committee of ICOMOS (US/ICOMOS), under the direction of its Chairman, Terry B. Morton, seemed however, to be confronted with an insurmountable obstacle—adequate funding. Many European countries almost effortlessly hosted such international assemblies because their ICOMOS national committees were basically governmental agencies and total funding came from the government.

In the United States, US/ICOMOS is a private activity. The story of how Morton and her colleagues worked over a period of six years to obtain nearly one million dollars from both the private and governmental sectors in order to support the Assembly and Symposium is a story characterized by dedication, ingenuity and perseverance.

Since its inception in 1916, the National Park Service has been involved in historic preservation—initially and continually as the caretaker of sites, structures and objects of historic, artistic and anthropological significance; and subsequently as the preeminent federal agency responsible for historic preservation programs on the national level, e.g., the National Register of Historic Places. Given this mandate and its responsibility for preparing nominations to the World Heritage List (with the help of US/ICOMOS), the Park Service decided to actively support the General Assembly. Federal funds were made available, NPS staff helped in developing exhibitions and a special issue of the *CRM Bulletin*, the National Park Service publication devoted to cultural resources management was published to acquaint the delegates with the cultural heritage programs of the National Park Service which have international dimensions.

It should be noted that the design and publication of the special October 1987 issue of the *Bulletin* itself is an example of international cooperation. Under U.S. Public Law 480 (P.L. 480: "Agricultural Trade Development and Assistance Act of 1954, as Amended"), soft currencies are available for projects in India which are mutually approved by the governments of India and of the United States. Our NPS Office of International Affairs approved the use of such funds

for the design and printing of the special *CRM Bulletin* issue in India. Copies are still available free of charge from: Managing Editor, *CRM Bulletin*, National Park Service, P.O. Box 37127, Washington, DC 20013-7127.

The interest generated from that issue indicated that other audiences might also find such information of use. Thus, this Winter 1989 issue of *TRENDS* is being produced to further elaborate the activities of the U.S. National Park Service which contribute to international cooperation.

Dr. Ernest A. Connally, formerly the Secretary General of ICOMOS, and James H. Charleton, a historian with the NPS History Division (who has had a primary responsibility for the preparation of World Heritage cultural nominations and for our "Indicative List"), have provided detailed accounts of the World Heritage Convention—its history and implementation.

Terry Morton's article outlines the many international training opportunities which are available to young professionals in the field of cultural resource preservation. Richard Cook addresses the concept of natural and cultural heritage systems as symbols of nationhood and Richard Henderson describes a computer data base project consisting of an inventory of Spanish heritage cultural resource properties of the National Park Service. Further, Russell V. Keune highlights a uniquely

American approach to a restoration project in Yugoslavia—i.e., preservation supported solely by private philanthropy.

We are also extremely pleased to include three articles that are essentially technical or theoretical. Though they do not deal with international themes, two of them—those by Prof. Perry E. Borchers and Alicia Weber—provide valuable information about documentation and data retrieval which could be the basis of state and local park preservation programs and of cultural conservation projects throughout the world.

Hugh C. Miller, until recently the NPS Chief Historical Architect, has contributed an original and thoughtful essay on diagnosing historic structures. It is based on his long experience in the National Park Service, both here in the United States and in countries such as Jordan, Saudi Arabia and Turkey.

To all of our contributing authors we are most indebted.

Jerry L. Rogers is Associate Director, Cultural Resources, National Park Service.

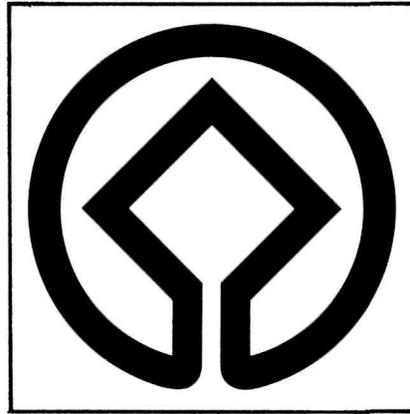
The World Heritage Convention

by Ernest Allen Connally, Ph.D.

The World Heritage Convention brings into focus a positive awareness that our planet is endowed with natural creations of such transcendent significance and is enriched by human works of such outstanding quality that there exists through time and space a tangible heritage pertaining to mankind as a whole. It is a simple truth that the destiny of this irreplaceable heritage through centuries to come devolves upon the nations of the earth. Reality drives home the recognition that the future integrity and meaning of this outstanding heritage, in its wholeness and in its unique parts, are best assured by the willing, positive cooperation of the community of nations. The World Heritage Convention was brought into being for that purpose.

This convention came about as the result of two parallel and approximately simultaneous developments that were eventually joined together as a double structure. One occurred over a long period of time within the framework of the United Nations Educational, Scientific and Cultural Organization (UNESCO). It was concerned with constructing a durable, effective international system for the protection of historic monuments, groups of buildings and sites.

The other development arose over a shorter span of time within the International Union for Conservation of Nature and Natural Resources (IUCN). It was



The World Heritage logo.

concerned with extending the concept of national parks to embrace significant similar resources worldwide.

These two developments were each well advanced when they were put together and harmonized to make up the Convention Concerning the Protection of the World Cultural and Natural Heritage, which was adopted on November 16, 1972, by the General Conference of UNESCO at its 17th session which was held in Paris. The convention can be likened to the crowning arch over the two parallel supports developed for the benefit of the cultural heritage and the natural heritage. (An international convention has the legal force of a treaty among sovereign nations.)

On the same day the Recommendation Concerning the Protection, at National Level, of the Cultural and Natural Heritage was also adopted by the General Conference of UNESCO. The recommendation was effective immediately as an instrument of

advice to guide and assist UNESCO's Member States individually. The Convention, being meant for collaborative action internationally, was open for ratification. According to its own provisions, it would "enter into force three months after the date of the deposit of the 20th instrument of ratification, acceptance or accession, . . ."

The United States had taken a lead in advancing the concept of a world heritage trust, and it had exercised leadership in combining the IUCN proposal and the UNESCO proposal into a single instrument for international cooperation. It then set precedent as the first nation to ratify the World Heritage Convention. On October 30, 1973, the United States Senate voted (95 to 0) to accept the convention. President Nixon approved the action on November 13. On December 7, 1973, the U.S. Permanent Representative to UNESCO deposited the U.S. instrument of ratification with Acting Director-General John E. Fobes, an American, in a ceremony in his office in Paris.

The action of the United States was followed in 1974 by ratifications or acceptances from ten other Member States of UNESCO, in this order: Egypt, Iraq, Bulgaria, Sudan, Algeria, Syria, Australia, Zaire, Nigeria and Niger, making a total of 11. In 1975 the further nine needed to reach the effective number followed in this order: Iran, Tunisia, Jordan, Yugoslavia, Ecuador, France, Ghana, Cyprus

and Switzerland, the 20th. The Swiss instrument was deposited with the Director-General on September 17, 1975. Thus, according to provisions of the convention, it entered in force three months later—December 17, 1975, three years after its adoption by the General Conference of UNESCO. Although the Convention was now validated, its operating mechanisms were not yet installed and functioning.

On the day the convention became effective Gérard Bolla, Deputy Assistant Director-General for Culture and Communication, called a small meeting in his office in UNESCO, with Dr. Hiroshi Daifuku (an American) and other key members of his organization in attendance, to discuss with the Secretary-General of ICOMOS, Ernest A. Connally, and his staff a schedule of preparatory work necessary for ready implementation of the convention after the specified Intergovernmental Committee would be constituted.

Consequently, a preliminary meeting with representatives of the specialized international organizations named in the convention was held in Morges at IUCN headquarters, May 19–20, 1976. The discussions addressed such fundamental issues as criteria for admission of natural and cultural properties to the World Heritage List, definition and application of the criteria, format and documentation to be required from the States Parties, priorities for granting assistance, guidelines for grants and

technical assistance and other matters pertinent to effectuating a system.

Recognizing that the convention directed UNESCO to utilize the services of these organizations to the fullest extent possible, the participants acknowledged that the most valuable service IUCN and ICOMOS could render would be the disinterested professional evaluation, within their respective fields, of nominations from States Parties for the World Heritage List. This was essential to the validity of the List. This being done with irrefragable integrity would also help relieve any inclination of the World Heritage Committee, composed of governments after all, to render its ultimate decisions under the weight of political influence.

IUCN and ICOMOS would also be able to evaluate the need for financial or technical assistance in specific instances, and recommend appropriate measures to be taken. They could also advise on the conduct of necessary surveys. The International Centre for the Study of the Preservation and the Restoration of Cultural Property (ICCROM) would be the principal source of expertise and coordination in carrying out certain kinds of technical assistance, particularly regarding the materials and structure of cultural property.

The second “informal consultation on the implementation of the Convention

Concerning the Protection of the World Cultural and Natural Heritage” took place in Paris at ICOMOS headquarters, March 21–23, 1977. The participants reviewed the comments received from specialists who responded to the “Morges Report” which has been sent out by UNESCO. The group examined and revised the draft criteria, nomination models, guidelines and procedures, providing roles for IUCN, ICOMOS and ICCROM. They prepared a report to the first meeting of the World Heritage Committee, with recommendations and draft documents for its consideration. The work of this group provided the substantive basis on which the convention finally became operational. The principals in this fruitful meeting were Bolla, Anne Raidl (cultural heritage) and Bernd von Droste zu Hulshoff (natural heritage) for UNESCO, Duncan Poore and Raymond F. Dassmann for IUCN, Raymond Lenaire and Connally for ICOMOS, Louis-Jacques Rollet-Andriane for ICCROM, and three internationally respected individuals: Juan Black of Ecuador, Mme. Naima El Khatib Bougibar of Morocco, and Eskander Firouz. Deputy Prime Minister of Iran, who presided.

Meanwhile, the first General Assembly of States Parties to the Convention had met in Nairobi on November 26, 1976, during the 19th session of the General Conference of UNESCO. Attending were representatives of 25 of the 26 States that had by

that date adhered to the convention. Also present were observers from 14 other States participating in the General Conference and from several relevant international organizations: UNEP (United Nations Environmental Program), IUCN, ICOMOS and IFLA (International Federation of Landscape Architects). Ambassador Hamid Rahnama of Iran was chosen as chairman, and Michel Parent of France was *rapporteur*. The Assembly decided that the amount of the compulsory or voluntary contribution of States Parties to the World Heritage Fund would be fixed at 1% of their contribution to the Regular Budget of UNESCO.

The main item of business was the selection of the World Heritage Committee. In accordance with the number of States Parties at that time, as provided in the convention, it would be composed of 15 States, with due regard for representation of the geographic and cultural areas of the world. (Since then, with the increase in States Parties, the number making up the committee has risen to 21.) Of the 15 States initially elected it was determined by lot which would have the shortened terms necessary to initiate the staggered process of elections, as required. The result was that France, the Federal Republic of Germany, Canada, Poland and Senegal would serve until the General Conference of 1978; Nigeria, Iran, Yugoslavia, Ecuador and Ghana would serve until 1980; and Tunisia, the United States of



Mont-Saint-Michel, France.

Ernest A. Connally, NPS

America, Egypt, Australia and Iraq would serve until 1982. The governing body for the convention was at last in existence. It was just ten years since the General Conference of UNESCO had first authorized studies specifically intended for the formation of a convention.

The First Session of the Intergovernmental Committee for the Protection of the Cultural and Natural Heritage of Outstanding Universal Value—the World Heritage Committee—met from June 27 to July 1, 1977, in Paris on the international ground of UNESCO. All 15 member States were represented, and Firouz Bagherzadeh of Iran was selected chairman. Peter H. Bennett of Canada was *rapporteur*. ICOMOS,

IUCN, and ICCROM, as well as UNESCO, were given prominent places and had official roles in the deliberations. There were observers from the United Nations, the International Organization for the Protection of Works of Art (OIPA), and Morocco and Norway, as Member States of UNESCO.

The U.S. was represented in the committee by David H. Hales, Deputy Assistant Secretary of the Interior (for Fish and Wildlife and Parks), assisted by a large delegation. After intensive discussion and some revision of draft documents, including further refinement of the criteria for the cultural heritage by a committee headed by Michel Parent of France, the basic operational procedures, roles and responsibilities, criteria and guidelines recommended by the informal consulting group were adopted. By these actions the World Heritage Convention was at last operational.

Dr. Ernest Allen Connally, Hon. A.I.A., is the Chief Appeals Officer in the National Park Service for historic preservation certification. Formerly Associate Director, he guided the Service's preservation program for many years. He was also the Secretary General of ICOMOS during the critical phase of implementing the World Heritage Convention.

WORLD HERITAGE LIST

(as of November 1988)

Cultural Resource Properties

The World Heritage Committee has approved the following cultural properties for inscription on the World Heritage List, under the Convention Concerning the Protection of the World Cultural and Natural Heritage (1972). The properties are arranged alphabetically by the nominating countries.

Algeria

Al Qal'a of Beni Hammad
Tassili n'Ajjer
M'Zab Valley
Djemila
Tipasa
Timgad

Argentina & Brazil

Jesuit Missions of the Guaranis:
San Ignacio Mini, Santa Ana,
Nuestra Senora de Loreto and
Santa Maria Mayor (Argentina),
Ruins of Sao Miguel das
Missoes (Brazil)

Australia

Kakadu National Park
Willandra Lakes Region
Western Tasmania Wilderness
National Parks

Bangladesh

The Historic Mosque City of
Bagerhat
Ruins of the Buddhist Vihara at
Paharpur

Benin

Royal Palaces of Abomey

Bolivia

City of Potosi

Brazil

Historic Town of Ouro Preto
Historic Center of the Town of
Olinda
Historic Center of Salvador de
Bahia
Sanctuary of Bom Jesus do
Congonhas
Brasilia

Bulgaria

Boyana Church
Madara Rider
Thracian Tomb of Kazanlak

Cameroon

Rock-hewn Churches of Ivanovo
Ancient City of Nessebar
Rila Monastery
Thracian Tomb of Sveshtari

Canada

L'Anse aux Meadows National
Park
Anthony Island
Head-Smashed-In Bison Jump
Complex
Quebec (Historic area)

China (People's Republic of)

Mount Taishan
The Mausoleum of the First Qin
Emperor
Peking Man Site at Zhoukoudian
Mogao Caves
The Great Wall
Imperial Palace of the Ming and
Qing Dynasties

Colombia

Port, Fortresses and Group of
Monuments, Cartagena

Cuba

Old Havana and its Fortifications

Cyprus

Paphos
Painted Churches in the Troodos
region

Ecuador

City of Quito

Egypt

Memphis and its Necropolis—the
Pyramid fields from Giza to
Dahshur
Ancient Thebes with its
Necropolis
Nubian Monuments from Abu
Simbel to Philae
Islamic Cairo
Abu Mena

Ethiopia

Rock-hewn Churches, Lalibela
Fasil Ghebbi, Gondar Region
Lower Valley of the Awash
Tiya
Aksum
Lower Valley of the Omo

France

Mont-St.-Michel and its Bay
Chartres Cathedral
Palace and Park of Versailles
Vezelay, Church and Hill
Decorated Grottoes of the Vezere Valley
Palace and Park of Fontainebleau
Chateau and Estate of Chambord
Amiens Cathedral
The Roman Theater and its surroundings and the "Triumphal Arch" of Orange
Roman and Romanesque Monuments of Arles
Cistercian Abbey of Fontenay
Royal Saltworks of Arc et Senans
Place Stanislas, Place de la Carriere and Place d'Alliance in Nancy
Church of St.-Savin-sur-Gartempe
Pont du Gard (Roman aqueduct)

Germany (Federal Republic of)

Aachen Cathedral
Speyer Cathedral
Wurzburg Residence with the Court Gardens and Residence Square
Pilgrimage Church of Wies
The Castles of Augustsburg and Falkenlust at Bruhl
St. Mary's Cathedral and St. Michael's Church at Hildesheim
Monuments of Trier
Hanseatic City of Lubeck

Ghana

Forts and Castles of Volta, Greater Accra and the Central and Western Regions
Ashante Traditional Buildings



Acropolis, Athens, Greece.



Acropolis, Athens, Greece.

Ernest A. Connally, NPS

Ernest A. Connally, NPS

Greece

Temple of Apollo Epicurius at
Bassae
Archaeological Site of Delphi
The Acropolis, Athens

Guatemala

Tikal National Park
Antigua Guatemala
Archaeological Park and Ruins of
Quirigua

Haiti

National History Park—Citadel,
Sans Souci, Ramiers

Holy See

Vatican City

Honduras

Maya Site of Copan

Hungary

Budapest, the Banks of the
Danube
Holloko

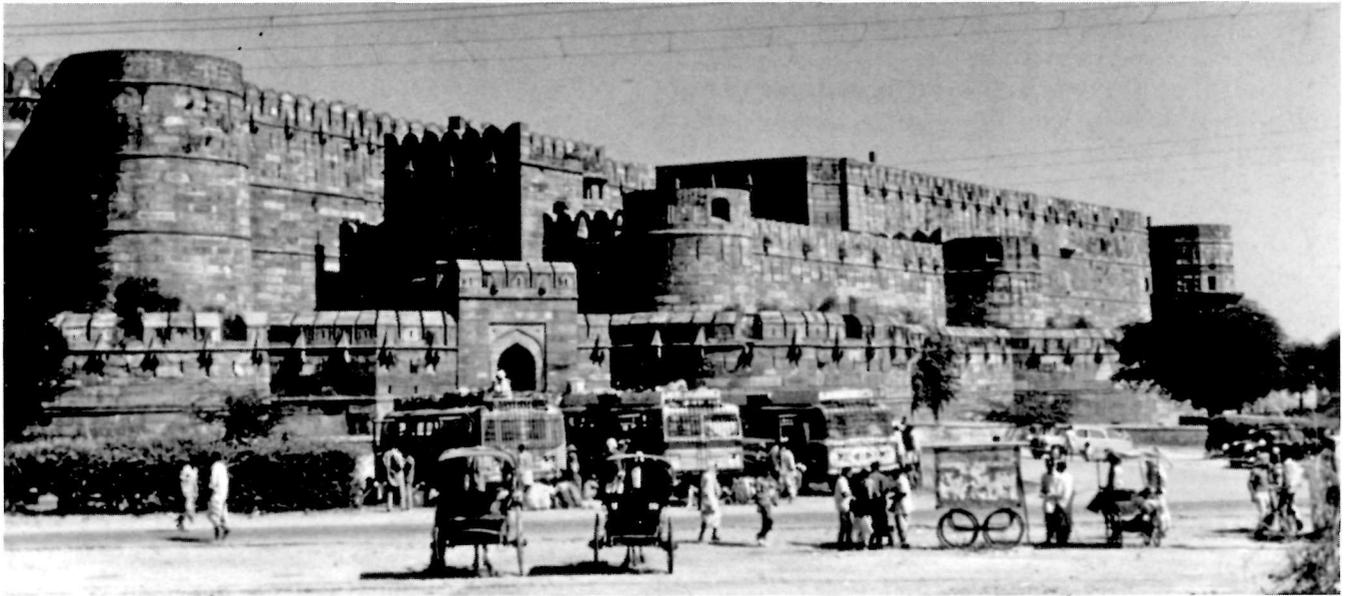
India

Ajanta Caves
Brihdisvara Temple, Thanjavur
Ellora Caves
Agra Fort
Taj Mahal
The Sun Temple, Konarak
Group of Monuments at
Mahabalipuram
Churches and Convents of Goa



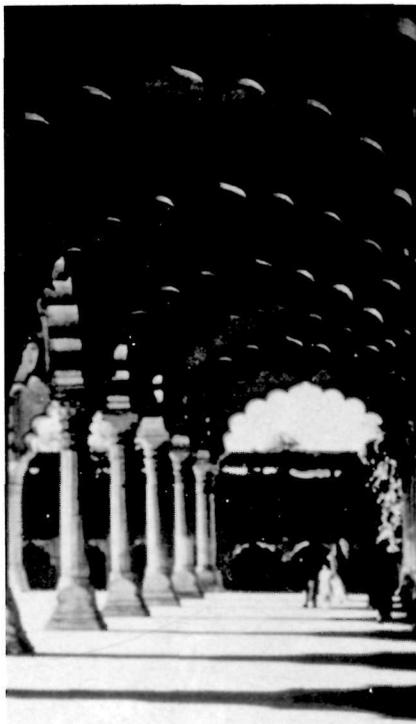
Ancient Mayan temple in Tikal National Park, Guatemala.

UNESCO



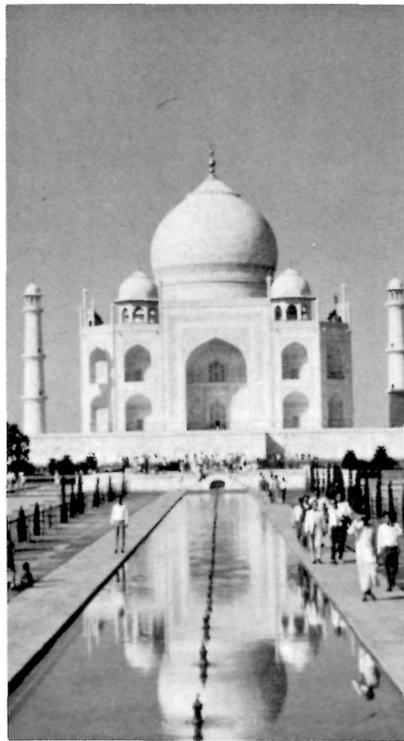
Amar Sing Gate, Fort at Agra, India.

Ernest A. Connally, NPS



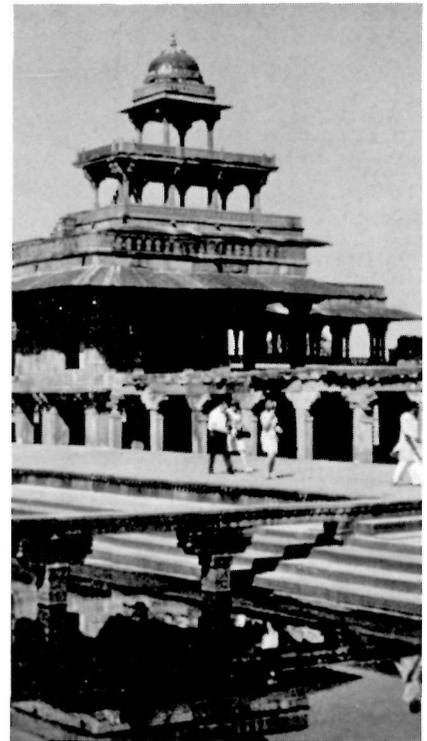
Public Audience Hall, Fort at Agra, India.

Ernest A. Connally, NPS



Taj Mahal, Agra, India.

Ernest A. Connally, NPS



Audience Hall and Pool at Fatehpur-Sikri, India.

Ernest A. Connally, NPS

Khajuraho Group of Monuments
 Group of Monuments at Hampi
 Fatehpur Sikri
 Group of Monuments at
 Pattadakal
 Elephanta Caves

International

Old City of Jerusalem and its
 Walls

Iran

Tchogha Zanbil
 Persepolis
 Meidan-e Shah, Esfahan

Iraq

Hatra

Italy

Rock drawings in Valcamonica
 Historic Center of Rome
 The Church and Dominican
 Convent of Santa Maria delle
 Grazie with "The Last Supper"
 by Leonardo da Vinci
 Historic Center of Florence
 Venice and its lagoon
 Piazza del Duomo, Pisa

Jordan

Petra
 Quseir Amra

Lebanon

Anjar
 Baalbek
 Byblos
 Tyr



Piazza San Pietro Colonnade and Palazzo Vaticano, Rome, Italy.

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Libyan Arab Jamahiriya

Archaeological Site of Leptis
 Magna
 Archaeological Site of Sabratha
 Archaeological Site of Cyrene
 Rock-art sites of Tadrart Acacus
 Old Town of Ghadames

Malta

Hal Saflieni Hypogeum
 City of Valetta
 Ggantija Temples

Mexico

Pre-Hispanic City and National
 Park of Palenque
 Historic Centre of Mexico City
 and Xochimilco
 Pre-Hispanic City of Teotihuacan
 Historic Centre of Oaxaca
 Historic Centre of Puebla

Morocco

Ksar of Ait-Ben-Haddou
 Medina of Fez
 Medina Marrakesh

Nepal

Kathmandu Valley

Norway

Urnes Stave Church
Bryggen in Bergen
Roros
Rock Drawings of Alta

Oman

Bahla Fort

Pakistan

Archaeological ruins at
Moenjodaro
Taxila
Buddhist ruins of Takht-i-Bahi
and neighboring city remains at
Sahr-i-bahlol
Historical Monuments of Thatta
Fort and Shalamar Gardens in
Lahore

Panama

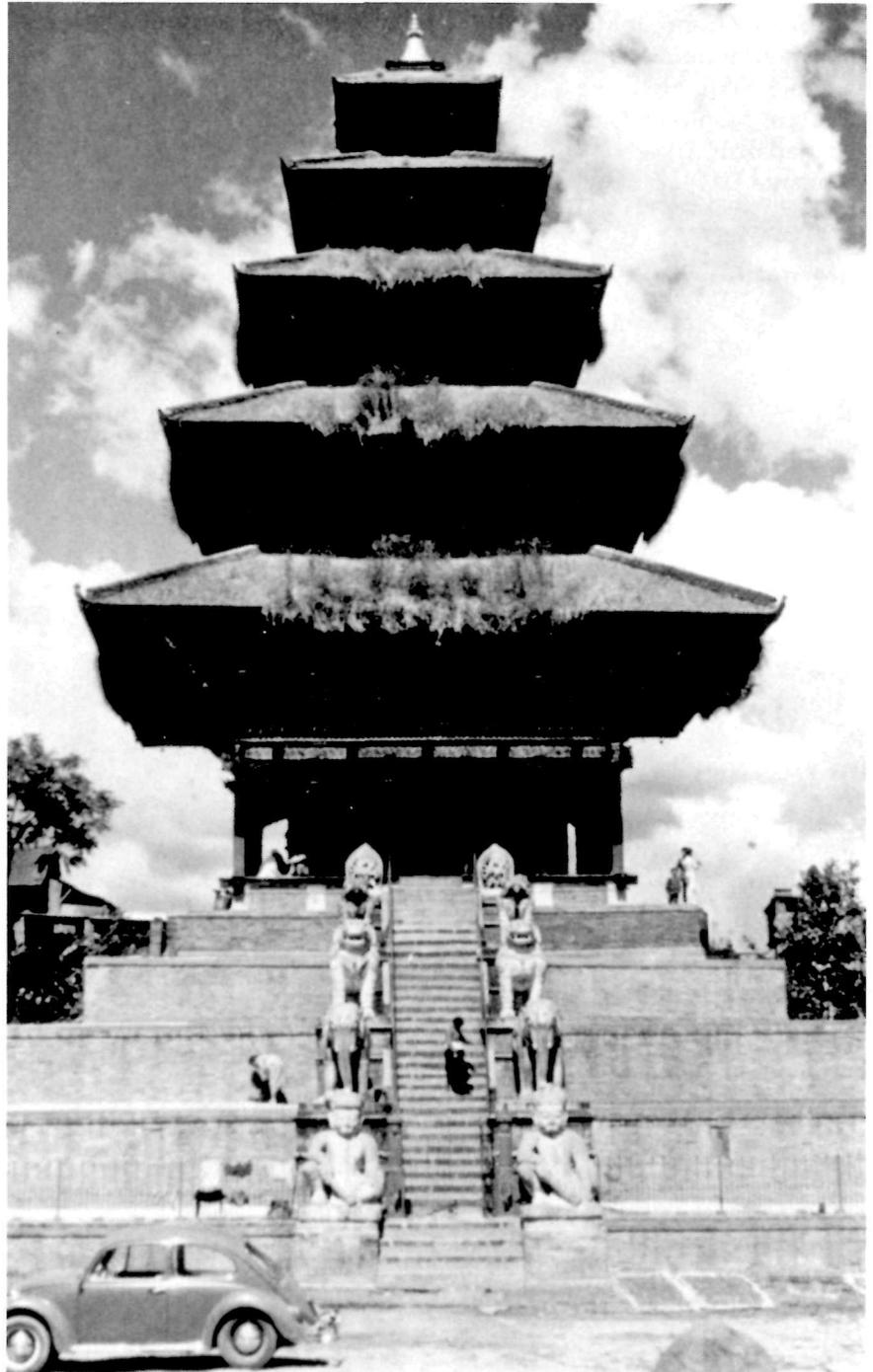
The fortifications on the
Caribbean side of Portobelo-
San Lorenzo

Peru

City of Cuzco
Historic Sanctuary of Machu
Picchu
Chavin (Archaeological site)
Chan Chan archaeological zone

Poland

Historic Center of Cracow
Wieliczka Salt Mine
Auschwitz Concentration Camp
Historic Center of Warsaw



Nyatadola Pagoda at Bhadgaon, Nepal.

Ernest A. Connally, NPS

Portugal

Central Zone of the Town of Angra do Heroismo in the Azores
Monastery of the Hieronimites and Tower of Belem in Lisbon
Monastery of Batalha
Convent of Christ in Tomar
Historic Center of Evora

Senegal

Island of Goree

Spain

Mosque of Cordoba
The Alhambra and the Generalife, Granada
Burgos Cathedral
Monastery and site of the Escorial, Madrid
Parque Guell, Palacio Guell and Casa Mila, Barcelona
Altamira Cave
Old Town of Segovia and its Aqueduct
Churches of the Kingdom of the Asturias
Santiago do Compostela (Old Town)
Old Town of Avila with its Extramuros Churches
Mudejar Architecture of Teruel
Historic city of Toledo
Old Town of Caceres
The Cathedral, the Alcazar and the Archivo de Indias in Seville

Sri Lanka

Sacred City of Anuradhapura
Ancient City of Polonnaruwa
Ancient City of Sigiriya

Switzerland

Convent of St. Gall
Benedictine Convent of St. John at Mustair
Old City of Berne

Syrian Arab Republic

Ancient City of Damascus
Ancient City of Bosra
Site of Palmyra
Ancient City of Aleppo

Tunisia

Medina of Tunis
Site of Carthage
Amphitheater of El Jem
Punic Town of Kerkwan and its Necropolis

Turkey

Historic areas of Istanbul
Goreme National Park and the rock sites of Cappadocia
Great Mosque and Hospital of Divrigi
Hattusha
Nemrut Dag

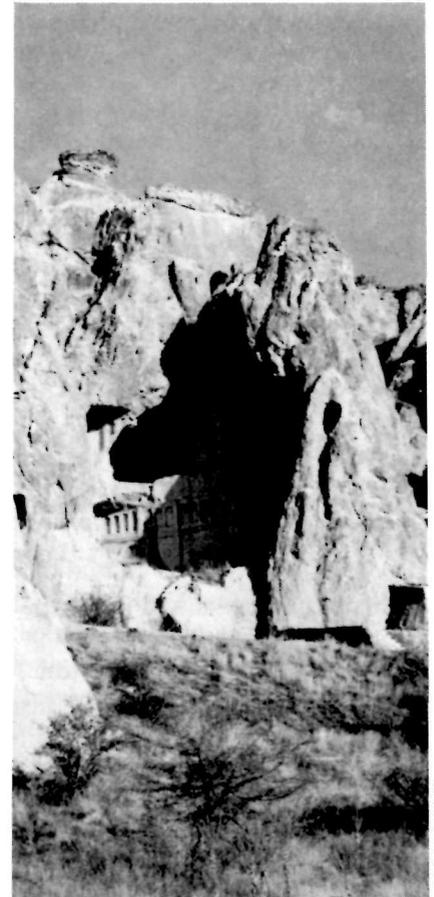
United Kingdom

Durham Castle and Cathedral
Ironbridge Gorge
Studley Royal Park including the ruins of Fountains Abbey
Stonehenge, Avebury and associated sites
The Castles and Town Walls of King Edward in Gwynedd
Blenheim Palace
City of Bath
Hadrian's Wall

Palace of Westminster Abbey of Westminster and Saint Michael's Church

United Republic of Tanzania

Ruins of Kilwa Kisiwani and Ruins of Songo Mnara



Rock Sites of Cappadocia, Goreme National Park, Turkey.

UNESCO

United States of America

Mesa Verde
Independence Hall
Cahokia Mounds State Historic Site
La Fortaleza and San Juan
Historic Site, Puerto Rico
The Statue of Liberty
Chaco Culture National Historical Park
Monticello and University of Virginia in Charlottesville

Yemen

Old City of Sana'a

Democratic Yemen

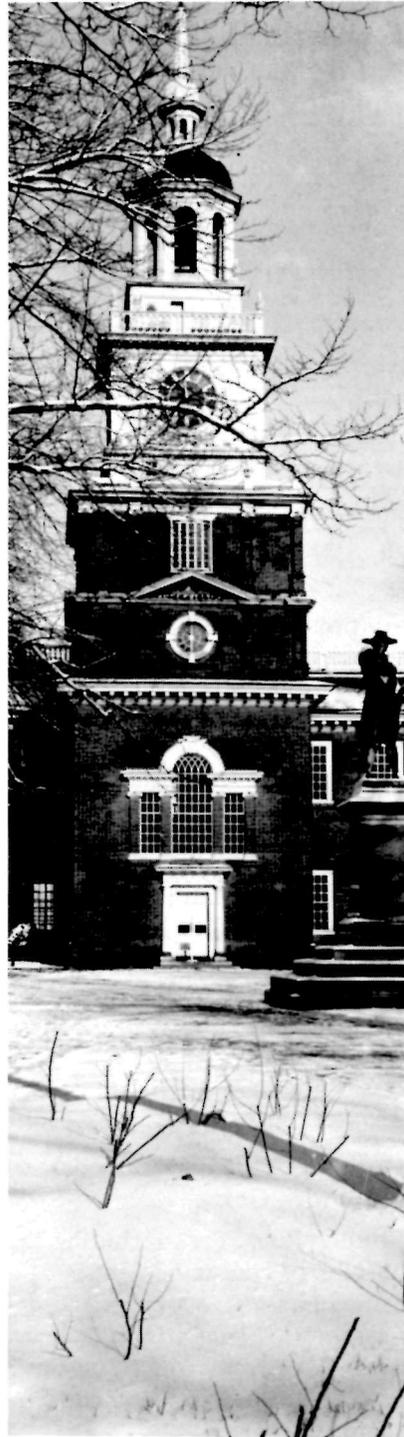
Old Walled City of Shibam

Yugoslavia

Old City of Dubrovnik
Stari Ras and Sopocani
Historical complex of Split with the Palace of Diocletian
Ohrid region with its cultural and historical aspect and its natural environment
Natural and Cultural-Historical Region of Kotor
Studena Monastery

Zimbabwe

Great Zimbabwe National Monument
Khami Ruins National Monument



Independence Hall, Philadelphia, Pa.

U.S. Properties Inscribed on The World Heritage List

(as of November 1988)
(Natural and Cultural)

- *Cahokia Mounds State Historic Site, Illinois
- *Chaco Culture National Historical Park, New Mexico
- Everglades National Park, Florida
- Grand Canyon National Park, Arizona
- Great Smoky Mountains National Park, North Carolina-Tennessee
- Hawaii Volcanoes National Park, Hawaii
- *Independence Hall, Pennsylvania
- *La Fortaleza and San Juan National Historic Site (Spanish Colonial Fortifications), Puerto Rico
- Mammoth Cave National Park, Kentucky
- *Mesa Verde National Park, Colorado
- *Monticello-University of Virginia, Virginia
- Olympic National Park, Washington
- Redwood National Park, California
- *The Statue of Liberty, New Jersey-New York
- Wrangell-St. Elias National Park and Preserve, Alaska (listed jointly with Canada's Kluane National Park)
- Yellowstone National Park, Idaho-Montana-Wyoming
- Yosemite National Park, California
- *Cultural Sites

Selecting America's World-Class Treasures: The Indicative List of Potential World Heritage Nominations

by James H. Charleton

Even during the first deliberations of the World Heritage Committee, it was easy to foresee a flood of possible nominations to the World Heritage List coming in from the member nations, each nation laboring in isolation to identify its most important treasures. Every country had its "old towns" or historic city centers, every major European nation was likely to come forward with cathedrals, those in Southeast Asia would expect to put forward their Buddhist temple complexes, the Western Hemisphere states might present many Native American sites, and so on. Obviously, if the List was to maintain its intended *highly* exclusive standard, the Committee had to devise a method to coordinate comparative international evaluation of the properties and provide reasoned evaluation of obscure, but very significant sites, as well as the familiar "Wonders of the World."

Accordingly, the notion of indicative lists, as specified in the World Heritage Convention's text, was given new emphasis. Each nation was asked to review its own national inventory of natural and cultural treasures and prepare tentative lists of those properties that they eventually intended to consider for nomination. By comparing the proposed nominations from different nations, the Committee would get a clearer idea of the properties that might be suitable for World Heritage designation, and also be in a position to advise member nations on what nominations

were likely to be favorably received.

Initially, the call for indicative lists went unheeded. This was understandable since the preparation of such a list, in theory at least, involved an evaluation of all of a nation's cultural and natural resources. A critical factor in the submittal of the first indicative list, that by the United States, was the fact that Dr. Ernest Allen Connally, then Secretary-General of the International Council on Monuments and Sites (ICOMOS), the non-governmental organization advising the infant World Heritage Committee on cultural issues, was also a key official of the U.S. governmental bureau (The Heritage Conservation and Recreation Service), coordinating his nation's participation in the World Heritage List. (The function was returned to the National Park Service in 1981.)

Dr. Connally, in his domestic responsibility, had earlier convened a working group that, over a period of several years, met and drew up lists of candidate cultural properties for the United States. The group had not, however, been able to conduct thorough studies of the properties on its lists.

In 1980, when it became clear to Dr. Connally that it was timely for the United States to submit its indicative list, and potentially embarrassing to procrastinate, he directed staff to draw up a list for submittal to ICOMOS, the International Union for the Conservation of Nature (the non-

governmental group advising the World Heritage Committee on natural areas), and, ultimately, the World Heritage Committee. The task of drafting the list of cultural sites fell to Jim Charleton, then of the National Register of Historic Places. A counterpart effort was undertaken for natural areas by Arthur Stewart and Jim Orr of the National Natural Landmarks Program.

In drawing up the list of United States cultural sites, Charleton consolidated the results of the meetings of the World Heritage task force that Connally had previously convened. He dropped from the proposed list all properties that had not been designated as National Historic Landmarks or included in the National Park System, on the basis that verified national significance should be a prerequisite for World Heritage nomination.

After doing this, it became clear to him that, while there was consensus on a number of properties, there were many critical differences of opinion regarding many of the 225-odd properties remaining. For example, architectural historians and architects involved in the working group sessions had argued among themselves on which of Frank Lloyd Wright's 600-odd designs might be candidates for the List, while engineering historians disagreed on the merits of the fortification systems that had protected the Spanish Main.

Indeed, practically all of the suggestions had been advanced without formal evaluation of their international importance or influence. Some of the disagreements arose out of parochial interests or a failure to consult the criteria; others could not be resolved except by exhaustive study. Advice was sought through circulation of the draft indicative list to professionals outside government and by its publication in the *Federal Register*. The resulting advice was as discordant and bewildering as the internal discussions of the issue had been.

Troubled by this dilemma, Charleton brought the issue to the attention of his superiors, who made a series of decisions that have proved judicious. His list of 225 cultural sites was pruned to around 50; this was to indicate that the United States took the need for a highly selective process seriously. This short list was the one forwarded to ICOMOS and the World Heritage Committee.

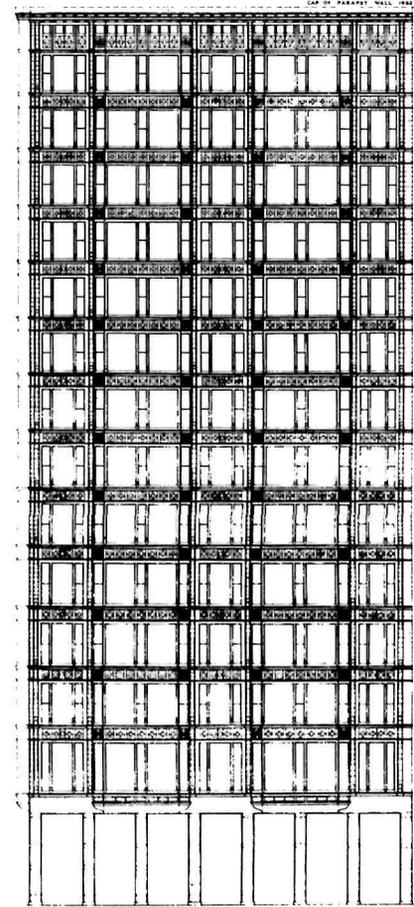
The U.S. Indicative List, however, was conceived as an open-ended one. Although drawn up and submitted, it would be refined by additions and deletions in an annual review cycle; thus it would be available for comment and suggestions on a continuing basis, as research progressed and nominations were prepared. All U.S. nominations would be drawn from the Indicative List, preferably preceded by study that would review select groups of

properties on a thematic basis, such as "Tall Buildings" for American skyscraper architecture or Spanish missions. Finally, nominations would be approved for submittal to the World Heritage Committee only if complete and technically correct nomination forms had been submitted and carefully reviewed.

In 1981, under legislative authority, U.S. program regulations were published that established a Federal Interagency Panel on World Heritage to review and approve U.S. nominations. The principles that had been worked out in the preparation of the Indicative List were embedded in these regulations and continue to govern the World Heritage nomination process in the United States today.

The current Indicative List of Potential U.S. World Heritage cultural nominations accompanies this article. It has been annotated to reflect the recommendations of the Federal Interagency Panel on World Heritage. Properties already approved for inscription on the World Heritage List are listed elsewhere in this issue.

James Charleton is a historian with the National Park Service's History Division. He is responsible for coordinating the documentary studies which are the basis for the final U.S. nominations to the World Heritage List.



The Reliance Building, Chicago, Ill.

HABS

Indicative List of Potential U.S. World Heritage Cultural Nominations— 1988

| Property | Status |
|--|---|
| Aleutian Island Unit of the Alaska Maritime National Wildlife Refuge (Pribilof Islands Fur Seal Rookeries) | No action |
| Auditorium Building, Ill. | To be considered in "Tall Buildings" theme |
| Bell Telephone Laboratories, N.Y. | No action |
| Brooklyn Bridge, N.Y. | No action |
| Cape Krusenstern Archeological District, Alaska | May be considered for joint nomination with the Soviet Union |
| Carson, Pirie, Scott and Company Store, Ill. | To be considered in "Tall Buildings" theme |
| Chapel Hall, Gallaudet College, D.C. | No action |
| Eads Bridge, Ill.-Mo. | No action |
| Edison National Historic Site, N.J. | Nominated, withdrawn |
| Fallingwater | Nomination will be considered as part of Wright theme |
| General Electric Research Laboratory, N.Y. | No action |
| Goddard Rocket Launching Site, Mass. | No action |
| Hohokam Pima National Monument, Ariz. | No action |
| Leiter II Building, Ill. | To be considered in "Tall Buildings" theme |
| L'Enfant Plan, D.C. | Nomination encouraged by ICOMOS; not yet drafted |
| Lindenmeier Site, Colo. | No action |
| Lowell Observatory, Ariz. | No action |
| Marquette Building, Ill. | To be considered in "Tall Buildings" theme |
| McCormick Farm and Workshop, Va. | No action |
| Mound City Group National Monument, Ohio | No action |
| Moundville, Ala. | No action |
| New Harmony Historic District, Ind. | No action |
| Ocmulgee National Monument, Ga. | No action |
| Poverty Point, La. | No action |
| Prudential (Guaranty) Building, N.Y. | May be nominated in Louis Sullivan theme |
| Pupin Physics Laboratories, N.Y. | No action |
| Pu'uhonua o Honaunau National Historical Park, Hawaii | Nominated; deferred by World Heritage Committee pending survey of Pacific cultures |
| Reliance Building, Ill. | To be considered in "Tall Buildings" theme |



Library of Congress

Taos Pueblo, New Mexico.

| | |
|--|--|
| Robie House, Ill. | To be considered in Wright theme |
| Rookery Building, Ill. | To be considered in "Tall Buildings" theme |
| San Antonio Missions National Historical Park, Tex. | Recommended for nomination in "Spanish Missions" theme |
| San Xavier del Bac, Ariz. | Recommended for nomination in "Spanish Missions" theme |
| Savannah Historic District, Ga. | No action |
| South Dearborn Street-Printing House Row North Historic District, Ill. | To be considered in "Tall Buildings" theme |
| Taliesin | Nomination, jointly with Taliesin West in preparation by Frank Lloyd Wright Foundation |
| Taliesin West | See Taliesin |
| Taos Pueblo | Nomination pending before World Heritage Committee |
| Trinity Site, N. Mex. | No action |
| Unity Temple, Ill. | To be considered in Wright theme |
| Ventana Cave, Ariz. | No action |
| Wainwright Building | Draft nomination prepared; deferred by Interagency Panel |
| Warm Springs Historic District, Ga. | No action |
| Washington Monument, D.C. | Would be included in L'Enfant Plan nomination |
| Wright Brothers National Memorial, N.C. | Nominated; withdrawn |
| Wright (Frank Lloyd) Home and Studio, Ill. | May be considered as part of Wright theme |

Spanish Heritage Cultural Resources Inventory

by Richard R. Henderson

The Spanish Heritage Cultural Resources Inventory (SHCRI) is a computer data base which correlates the National Park Service's historical and architectural documentation collections of buildings, structures, objects and sites found in National Park Service units and/or national historic landmarks. The inventory was prepared by the US/ICOMOS (United States Committee, International Council of Monuments and Sites) for the U.S. Department of the Interior's National Park Service through grant support of the *Comite Conjunto Hispano-Norte Americano of Spain* in 1987.

The inventory focuses primarily on properties chosen by the Chief Historian of the National Park Service from the more than 1800 National Historic Landmark and NPS entities. They are the principal examples of Spanish influence upon and/or interaction with indigenous and other colonial peoples of the territory now under the jurisdiction of the United States.

Due to the different evolutionary processes during the period of Spanish influence, to unique geographical situations and to the administrative division of territory by the Spanish government, the National Park Service's thematic outline of United States history concerning the Spanish exploration and colonial period has been broken down into the following geographic regions: Caribbean, Southeast United States, Southwest United States,



Mission Carmel Church, Carmel, Calif.

National Park Service

Western United States and the Pacific. (Note: There are no Pacific Region sites in the current inventory.)

Minimum Qualifying Standards

Minimum qualifying standards were developed to determine which sites were eligible for inclusion in the inventory. For the purposes of the SHCRI, the term cultural resource is defined as *any man-made structure, building, object or well-documented site of an historic event which occurs individually or as a group of individuals (a district)*. The resource must also have been created by, or have been the site

of an event involving subjects of the government of Spain during the exploration and/or Spanish colonial period of territory in the New World now within the jurisdiction of the United States. Each cultural resource included in the SHCRI must meet at least two of the three following minimum qualifying standards:

1. The date of the resource's creation or historical event must coincide with the Spanish colonial period for that particular region. The time frame of Spanish occupation varies depending on the location. In general terms the periods of Spanish occupation were:

Puerto Rico 1493-1898
Florida 1503-1763 and 1783-1819/
1821

Georgia 1503-1740
The Southwest U.S. 1540-1821
—Gadsden Purchase 1540-1853
California 1592-1822
Miss. Valley 1762-1800/03

2. There must be physical remains of the structures, buildings or objects created by the Spaniards. The remains may be in an archeological site or above ground.

3. A well-documented historic event took place on the site of the proposed resource. Nominated resources which purport to be the site of an historic event for which no exact location can be determined may qualify under this term. However, sites of events or structures, buildings and objects for which the original site has been lost, due to erosion or some other factor, should not qualify.

The Spanish Heritage Cultural Resources Inventory database is composed of eleven tables:

1. Main Resources Survey Table
2. Resource Names
3. Resource Location and Address
4. Resource Type Information
5. Related Resources
6. Data Base Reference Documentation
7. Significant Names, Events and Dates
8. Resource Bibliography
9. Cultural Affiliation
10. Mailing Address Table
11. Historical Narrative File Names Table

Researcher's Guide

The information stored in these

tables was used to generate a 400+ page researcher's guide to the National Park Service's resource documentation collections. Entitled "Preliminary Inventory of Spanish Colonial Resources Associated with National Park Service Sites and National Historic Landmarks, 1987," this publication will facilitate new research about little known or controversial cultural resources which date from the Spanish colonial period. Four hundred copies were printed and distributed to the Spanish Ministry of Culture, managers of the properties appearing in the publication, National Park Service offices, state agencies, historical associations, the Organization of American States, scholars working in the field of Hispanic studies and some private citizens. Although the supply of copies was quickly exhausted, additional copies are now available from the Eastern National Park and Monument Association. [Orders may be placed through America's National Parks, P.O. Box 47, Yorktown, VA 23690 (1-800-821-2903, in Virginia, 1-804-898-3383). The guide costs \$16.00, including postage and handling. Purchase orders, checks or credit cards (Visa, Master Card, American Express or Discover Card) will be accepted.]

The documentation collections inventoried were: the National Register of Historic Places (NRHP), the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER), the List of Classified Structures (LCS) and the

Cultural Resources Management Bibliography (CRBIB).

National Register of Historic Places (NRHP)

The National Register of Historic Places is a listing of approved (or certified) buildings, structures, districts, sites and objects significant in American history, archeology, architecture, engineering and/or culture [See: The National Historic Preservation Act of 1966, as amended, Section 101 (16 U.S.C. 470A) (a) (1) (A)] which have been nominated for inclusion by State Historic Preservation Officers or federal agencies. Resources listed in the register must possess: historic integrity; be of local, state or national significance; and generally, be at least 50 years old in order to be entered in the Register. The specific criteria for inclusion can be found in 36 CFR Part 60—"Regulations of the National Register of Historic Places." The resources may be owned by private or public entities, or a combination of the two. National Historic Landmarks (NHL) and historic units of the National Park System properties are automatically included by mandate of Congress. All resources on the NRHP possess a unique 8-digit reference number which has been randomly generated by a computer. The first two digits of the number signify the year, beginning with 1966, in which the resource was approved for the register.



Spec. 4 Stephen J. Morey



Spec. 4 Stephen J. Morey



Spec. 4 Stephen J. Morey

*Spanish Cannon "La Birgen D Barbaneda"
at the Presidio of San Francisco.*

The primary documentation for listed resources consists of a nomination form, a USGS map marked with Universal Transverse Mercator (UTM) coordinates (formerly with latitude and longitude coordinates), and at least one black and white photograph. The files may contain sketch maps, brochures, newsclippings, correspondence, special reports and other material as well. The documentation files for NFL's are kept by the History Division of the National Park Service, currently located at 1100 L Street, NW, Room 4209, Washington, D.C. All other NRHP documentation files are administered by the National Register of Historic Places, located at 1100 L Street, NW, Room 6111, Washington, D.C. Data base extracts for all NRHP files can be requested by reference number from John Byrne, Data Base Manager, Tel.: (202) 343-2276.

Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER)

The Historic American Buildings Survey, which began in 1933 as a project of the Works Project Administration, and the Historic American Engineering Record, which began in 1969, document the Nation's significant prehistoric and historic structures and sites. HABS/HAER is a division of the National Park Service, with offices located at

1100 L Street, NW, Room 6101, Washington, D.C.

The documentation consists of measured drawings; large format photographs; written historical, architectural and technological data; and field reports. Most of these documents are created by summer teams of architects and historians who conduct field projects each year. Mitigative (drawings of structures to be intentionally destroyed—where required by law) and donated documentation form the remainder of the collections. As projects are completed, the documentation is transferred by the National Park Service to the archival collections in the Prints and Photographs Division (PPD), Library of Congress, Washington, D.C. 20540.

Computer-generated abstracts of the documentation in the collections, and information on documents not yet transferred by the National Park Service to the Library of Congress, are available from Fred Engle, Tel.: (202) 343-9598.

List of Classified Structures (LCS)

The List of Classified Structures (LCS) is an evaluated inventory of prehistoric and historic structures (including buildings), which have archeological, historical, architectural/engineering or cultural significance, in which the National Park Service has or will acquire any legal interest. It is evaluated by National Register

criteria. The LCS was computerized in 1975 and now contains data on more than 12,000 structures servicewide. The LCS database has 59 data elements, and functions as a tool for cultural resource managers as well as an information source for the general public. It assists park planners and maintenance personnel in planning and performing appropriate treatment of the resources, and documenting these decisions and actions. Resource inventory forms are maintained at the park unit and at 1100 L Street, NW, Room 4141, Washington, D.C.

The data elements from the LCS used in this inventory were: Structure Name; Organization Code; Park; Region; UTM; LCS Identification Number; Historic Structure Number; NPS Legal Interest; Management Category; Structure Type; and National Register Status.

For further information or an appointment to view inventory forms, please contact Alicia Weber, Database Manager, Park Historic Architecture Division, (202) 343-8149.

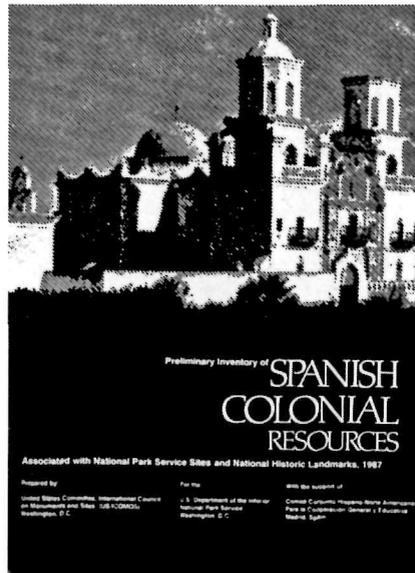
Cultural Resources Management Bibliography (CRBIB)

The Cultural Resources Management Bibliography (CRBIB) is a computerized inventory of reports that document cultural resources within the National Park Service. The bibliography catalogues re-

ports available at the parks, regional offices, Park Service Research centers, and/or in the CRBIB repository, located at 1100 L Street, NW, Room 4141, Washington, D.C. The CRBIB is used to inform cultural resource managers and park administrators of the status of required planning and management studies, and as a resource for scholars. The CRBIB documents more than 8,000 reports.

The 18 data elements in the CRBIB provide the same type of information available from the card catalogue at any library. However, the CRBIB also identifies ordering codes for various sources of duplicate copies of the listed items. A few of the codes highlight particular types of information that is to be found in the actual report. Each of the 18 data elements was referenced for this project.

The data elements of the CRBIB are: BIBNUM (Bibliography Identification Number); Title; Author; Date; Pages; Volumes; Study Type; NTIS Number; DSC/TIC Number; Government Printing Office Stock Number; Library of Congress Catalog Number; Organization Code; LCS Identification Number; Site Flag (a positive response indicates reference to an archeological site); Object Flag (a positive response indicates discussions of archeological or historical objects); Entry Date. Graphics which might be included with a report (there are ten types) include:



- Bibliographies
- Drawings of Artifacts/Museum objects
- HABS/HAER Drawings Report Location or Inventories
- Maps
- Measured Drawings
- Photocopies of primary sources
- Photographs
- Preliminary Drawings
- Tables

Report titles preceded by an "=" sign denote that a copy of the report is not currently available at the indicated repository. Some of the reports have been reproduced in hard copy or on microfiche, and may be available from:

- 1) The National Technical Information Service (NTIS), United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22151. (The ordering number is listed on appropriate records.)
- 2) The Technical Informa-

tion Center, Denver Service Center (DSC/TIS), Post Office Box 25287, Denver, Colorado 80225. (Copies of reports available from DSC/TIS would only be available on microfilm.)

Detailed explanations of the data elements are available from Alicia Weber, Database Manager, Park Historic Architecture Division, Washington Office, National Park Service.

The data base was compiled in Clipper (Nantucket software) but the data files can also be accessed through dBASE III PLUS (Ashton-Tate) software. The actual computing procedures for the SHCRI data base and the publication were programmed by Mr. Brooks Vaughn, computer programmer analyst with the National Park Service's Data Systems Division.

To obtain more detailed information regarding the SHCRI data base or to schedule an appointment for a demonstration, contact Mr. Russell Keune of US/ICOMOS, Decatur House, 1600 H St., N.W., Washington, DC 20006 or Mr. Roland Bowers, Deputy Associate Director for Cultural Resources, National Park Service, P.O. Box 37127, Washington, D.C. 20013-7127.

Richard R. Henderson was the principal researcher of the SHCRI and editor of the "Preliminary Inventory of Spanish Colonial Resources Associated with National Park Service Sites and National Historic Landmarks, 1987."

Spanish Heritage Cultural Resources Inventory Properties

| Caribbean | State | | State |
|--|--------------|---|--------------|
| San Juan National Historic Site | PR | Las Trampas Historic District National Historic | |
| La Fortaleza National Historic Landmark..... | PR | Landmark..... | NM |
| Columbus Landing Site National Historic | | San José de Gracia Church National Historic | |
| Landmark..... | VI | Landmark..... | NM |
| Southeast United States | | Palace of the Governors National Historic | |
| Apalachicola Fort National Historic Landmark ... | AL | Landmark..... | NM |
| Biscayne National Park | FL | Pecos National Monument | NM |
| St. Augustine Town Plan Historic District | FL | Salinas National Monument | NM |
| Castillo de San Marcos National Monument | FL | Includes Abó and Quarai National Historic | |
| Gonzalez-Alvarez House National Historic | | Landmarks and San Francisco de Assisi Mission | |
| Landmark..... | FL | Church National | |
| Llambias House National Historic Landmark ... | FL | Historic Landmark | NM |
| Cathedral of St. Augustine National Historic | | San Gabriel de Yungue-Ouinge National Historic | |
| Landmark..... | FL | Landmark..... | NM |
| Fort Matanzas National Monument | FL | Santa Fe Plaza National Historic Landmark | NM |
| De Soto National Memorial | FL | Taos Pueblo National Historic Landmark..... | NM |
| Fort Caroline National Memorial | FL | Padre Island National Seashore..... | TX |
| Fort Jefferson National Monument | FL | Presidio de Nuestra Señora de Loreto de la Bahía | |
| Fort San Marcos de Apalache National Historic | | National Historic Landmark | TX |
| Landmark..... | FL | San Antonio Missions National Historical Park.... | TX |
| Plaza Ferdinand VII National Historic Landmark . | FL | Includes San José Mission National Historic Site | |
| San Luis de Apalache National Historic | | Spanish Governors' Palace National Historic | |
| Landmark..... | FL | Landmark.. .. | TX |
| Gulf Islands National Seashore | FL | | |
| Includes Bateria de San Antonio National | | West | |
| Historical Landmark | | Channel Islands National Park..... | CA |
| Cumberland Island National Seashore | GA | Golden Gate National Recreation Area..... | CA |
| Fort Frederica National Monument..... | GA | Alcatraz National Historic Landmark | CA |
| St. Catherine's Island National Historic | | Angel Island State Park | CA |
| Landmark..... | GA | Presidio of San Francisco National Historic | |
| Southwest United States | | Landmark..... | CA |
| Arkansas Post (N.H.L.) National Memorial..... | AR | San Francisco Bay Discovery Site National His- | |
| Awátowi Ruins National Historic Landmark | AZ | toric Landmark..... | CA |
| San Xavier del Bac National Historic Landmark.. | AZ | Point Reyes National Seashore..... | CA |
| Tumacácori National Monument | AZ | Carmel Mission National Historic Landmark..... | CA |
| Cabildo National Historic Landmark..... | LA | La Purisima Mission National Historic | |
| The Presbytère National Historic Landmark..... | LA | Landmark..... | CA |
| Presidio de Nuestra Señora de los Adaes | LA | Old Mission Dam National Historic Landmark... | CA |
| Ácoma Ruins National Historic Landmark | NM | Royal Presidio Chapel National Historic | |
| San Estévan del Rey Mission Church National | | Landmark..... | CA |
| Historic Landmark | NM | San Diego Mission Church National Historic | |
| Barrio de Anasco National Historic Landmark ... | NM | Landmark..... | CA |
| El Morro National Monument..... | NM | San Diego Presidio National Historic Landmark . | CA |
| El Santuario de Chimayó National Historic | | San Luis Rey Mission Church National | |
| Landmark..... | NM | Historic Landmark | CA |
| Hawikuh National Historic Landmark..... | NM | Santa Bárbara Mission National Historic | |
| | | Landmark..... | CA |

International Training in Cultural Resource Preservation

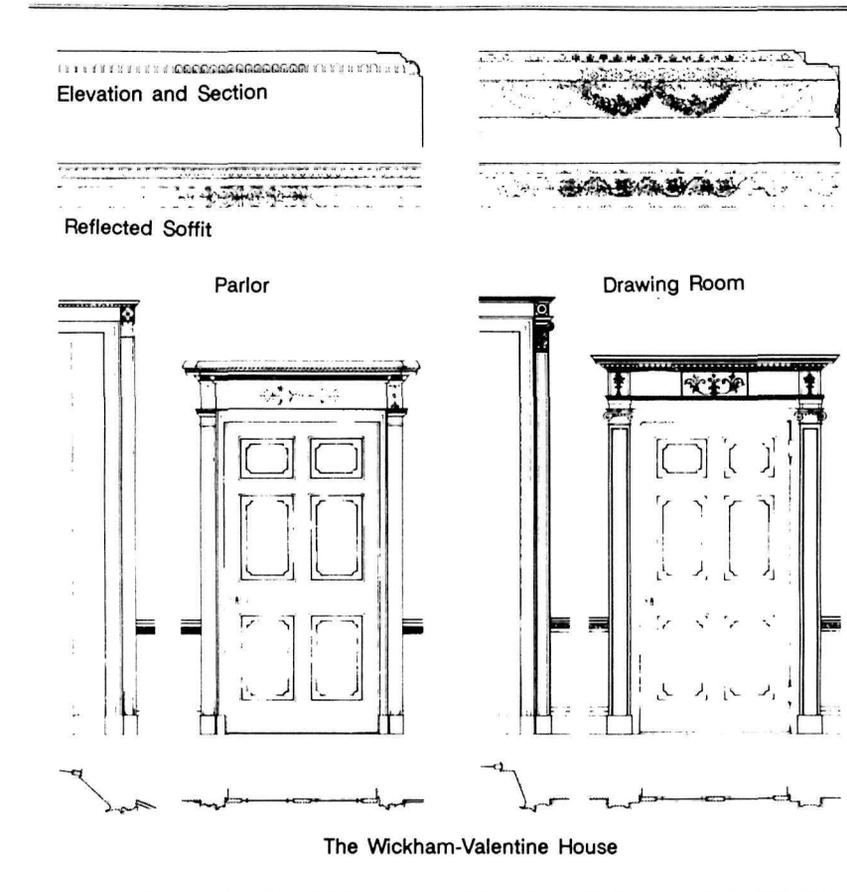
by Terry B. Morton

In the summer of 1989, the United States/International Council on Monuments and Sites (US/ICOMOS), in cooperation with the National Park Service, will launch a new program in historic preservation and cultural resource management—a bilateral exchange for graduate students and young professionals in the United States and the Soviet Union. This will be the first such program with the Soviet Union conducted by US/ICOMOS and one of a few international internship programs in the field of historic preservation.

ICOMOS is an international, non-governmental organization of professionals in the preservation and conservation of historic buildings, districts and sites, composed of 56 national committees worldwide. US/ICOMOS is ICOMOS in the United States, with a membership of more than 500 individuals and institutions concerned with the preservation of the built heritage.

Many of the particular concerns of ICOMOS are reflected in its international committees of experts in a given field. There are now 12 international committees on subjects ranging from the conservation of mud-brick (adobe) to the preservation of historic towns and historic gardens and the practice of architectural photogrammetry.

US/ICOMOS sponsors the International Committee on Cultural Tourism. There is also a committee on training. In the



Susanne Hutzler for HABS, 1985.

United States, US/ICOMOS is working to expand cross-cultural training in partnership with the National Park Service.

The internship programs developed by US/ICOMOS are unique educational opportunities for graduate students and young professionals to increase their own knowledge of the world's cultural heritage by working abroad for the summer. These internships are the only professional level, international educational exchange programs in historic preservation and the only ones that offer participants

practical working experience in another country. The internships are designed to supplement formal graduate level curriculum and to extend the network of exchange and understanding to the next generation of preservation professionals.

In 1984, US/ICOMOS began the Summer Intern Program under a cooperative agreement with the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) of the U.S. National Park Service. A small number of foreign students were selected to join the HABS/

HAER summertime architectural documentation teams. Over the past four years, the program was greatly expanded and developed into two parallel segments: one as an inbound program, the other an in- and outbound exchange.

The US/ICOMOS Summer Documentation Program places graduate students and young professionals from other ICOMOS countries with HABS/HAER teams, both as architectural draftsmen and as historians. The US/ICOMOS Summer Intern Program has become a bilateral exchange with Great Britain. American participants are offered three-month internships with British public and private organizations in historic preservation. Work assignments are varied and include rural vernacular buildings surveys, measured drawings of Scottish castles as well as research and reports on town planning and preservation legislation. An equal number of British participants undertake internships with the National Park Service on HABS/HAER teams and with regional offices or specific parks. To date, 19 Americans and 38 foreign students have completed internships under these two programs.

In addition to the internships, valuable training and international exposure is available in courses offered abroad to an international field of participants. The International Centre for the Study of the Preservation and the Restoration of Cultural Property

(ICCROM), an intergovernmental organization located in Rome, Italy, was founded to train specialists in the conservation of historical monuments, sites, buildings and works of art by raising the standards of restoration work. ICCROM offers courses at its headquarters in Rome, from one week to five months in length, on subjects including architectural conservation, conservation of mural paintings, scientific principles of conservation, preventive conservation in museums, conservation of paper objects and teaching skills and materials.

In addition to its regular courses, ICCROM develops special programs in response to regional needs, such as a new course for African museum technicians. ICCROM also conducts special courses every two years for UNESCO and other sponsors on wood conservation in Norway, and stone conservation in Venice.

In the United States, applications to ICCROM courses are submitted to the Advisory Council on Historic Preservation, the official U.S. government representative to ICCROM. U.S. applications are screened by a jury, which makes recommendations on which candidates' files should be forwarded to Rome for final selection. Admission to ICCROM courses is based on a geographical distribution of available places. Most courses are aimed at beginning to mid-level professionals who have completed graduate level studies.

Selection criteria favor those in a position to pass on the specialized training acquired in Rome: instructors, federal and state civil servants and employees of institutions charged with the preservation and maintenance of historic resources.

Many other institutions around the world offer advanced training to architects, archaeologists and craftsmen. ICCROM publishes the *International Index on Training in Conservation of Cultural Property*, with course listing arranged by country. (The *Index* is available from J. Paul Getty Trust Publications, Book Warehouse, The J. Paul Getty Museum, P.O. Box 2112, Santa Monica, CA 90406, for \$10.00 plus \$2.00 shipping and handling. California residents add 6.5% sales tax.)

For more information on US/ICOMOS, write to US/ICOMOS, 1600 H Street, N.W., Washington, D.C. 20006, Telephone: (202) 842-1866.

Terry M. Morton, Hon. AIA, was the Chairman of US/ICOMOS from 1980 to 1987. She was elected President in 1988. Formerly she was a Vice President of the U.S. National Trust for Historic Preservation and the publisher and editor of its Preservation Press.

Photogrammetry and Related Documentary Techniques for the National Park Service

by Perry E. Borchers

Many years ago in a series of articles reporting the daily life of an orchestral conductor, the most memorable remark was of him relaxing in a pullman compartment traveling from one performance to another, reading a symphonic score and mentally enjoying the sound of every instrument and the phrasing of every musical passage in that score.

Ideally, this is the level of experience and understanding that should exist in every profession in which composers and designers must create in one medium for realization and performance in another; and architecture is one profession in which such experience and skill are needed.

There can be critical disparities in appearance between designs on paper and completed architectural structure in space. Such surprises in design are caused in part because, in contrast to the distinctly symbolic relation between written musical notation and musical sounds, the *images* in architectural drawings and photographs are uncritically imagined to be true to three-dimensional perceptions and appearances in space. Experience teaches otherwise.

Design in the theatre is so like architectural design that the following comment from the autobiography, *Part of a Lifetime*, by stage designer Lee Simonson, is appropriate to both professions:

When Norman Bel Geddes and I were both at the beginning of our



Stereophotography from Main Concourse of the Terminal Tower, Cleveland, Ohio.

careers, I told him that not one of his productions was quite as good as the drawings he made for it, and he replied that my productions were never as good as the photographs Francis Brugiere took of them. Being artists both of us exaggerated in the direction of truth . . .

Now these judgments relating drawings, photographs and reality touch on National Park Service responsibilities for (1) preserving and maintaining historic structures and sites, and (2) documenting these and other structures and sites under the programs of the Historic American Buildings Survey and the Historic American Engineering Record.

Documentation reverses the design sequence and proceeds from completed buildings to measured architectural drawings of them, but it results in like comparisons between architec-

tural structures in space and the representations and geometrical projections of them on paper. This is essential professional training to anticipate the differences between what *is* and what *appears to be* in architecture and the environment.

The documentation of existing structures is a major contribution of the National Park Service to the understanding and practice of architecture; and some comments about this documentation are in order.

The truth, rather than the attractiveness of the documentation, is the value in it. A handsome measured drawing of a not-so-handsome building is probable evidence of the original draftsman's misplaced satisfaction with the design on paper and his or her inability to visualize the design in space. Documentation should not collude in perpetuating an old

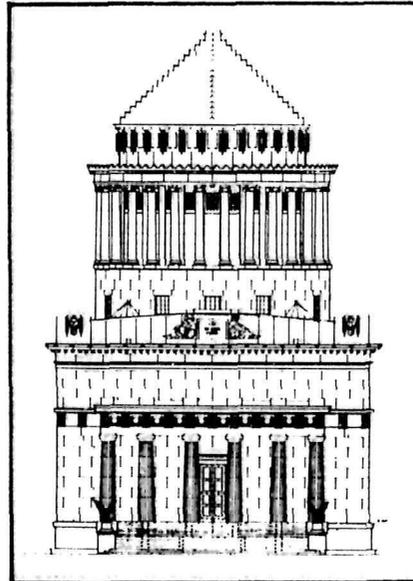
error or fraud of this nature.

General Grant's Tomb along the Hudson River in Manhattan, designed with a circular drum and cone upon a square base, has attractive proportions in all the facade drawings of it and is awkward in all the diagonal views from which we usually see it. Such an architect as Louis Sullivan was criticized by his former draftsman Frank Lloyd Wright for designing building facades separately, with insufficient concern for the corners at which they met.

It is preferable to discover that a seeming awkwardness in the drawing appears actually handsome in the structure, or that a strangeness of proportion—such as the crushing bulk of the dome of St. Paul's in London in orthographic facade drawings and even more so in bird's-eye perspective—appears in good proportion from normal viewpoint near ground level.

There are changes in the perceived size of objects at increased height and distance, i.e., consider that traffic lights lowered to street level stand nearly to the armpit of a man, which negate the confident use of bird's-eye perspective even in computer-aided design.

The same concern with truth rather than attractiveness is important in documentary architectural photography. Professional architectural photographers are usually expected to make buildings look better in photographs than they



Grant's Tomb, New York City.

do in reality, as is illustrated in two views of a single house taken a generation ago by a noted firm of architectural photographers. The house does not appear the same size in the two views; and it should be evident in the right photograph that the house and patio are effectively enlarged and enhanced by a change of camera lens and by the changed and indeterminate location of the car in the driveway. This is two-dimensional enhancement in the photographic image at the cost of architectural truth.

In contrast to this uncertain two-dimensional documentation, there has been during and ever since World War II, military, scientific and professional use of stereophotography and stereovision in the fields of (1) photo interpretation, which involves recognition of the qualities and the nature of terrain and objects

recorded in photographs, and in (2) photogrammetry, which involves determination of the geometry and dimensions of such terrain and objects.

The three-dimensional advantages of photogrammetric recording and documentation are many:

On the site there is the advantage of safety in that photogrammetry is a form of "remote sensing" not requiring immediate contact with weathered, deteriorated and unsafe structures: though the camera positions themselves have sometimes been at cliff edges or in the midst of demolition.

In photogrammetric plotting instruments in the laboratory, two images are converted into one "optical model"—a fully three-dimensional form of the original structure—that the operator can move across and touch with his measuring mark on all its visible surfaces. At the same time the coordinate system of the instrument provides geometric organization of the most irregular optical models and allows the operator, as in the case of the drawings for Antelope House Ruin in Canyon de Chelly National Monument, Arizona, to move vertically from the walls in plan to discover grooves in the overhanging cliff above, in exact position to brace walls almost twice as high above the canyon floor as they are now. These grooves had not been noted prior to photogrammetric recording.

HABS

The ability to plot in a topographic mode as well as in architectural planimetry allows the three-dimensional expression of sculptural form, such as the Greek Kouros which illustrates a thesis of Dr. Ilse Kleemann of West Germany that the *first* movement from Egyptian rigidity to the fluid naturalness of Greek classical sculpture occurred, in these otherwise frontally-symmetrical torsos, in the thrust of one breast forward and one shoulder and the opposite buttock back. The additional contours in these areas support her thesis.

There is a general theory of error in photogrammetry; and one can employ a general theory of binocular error of depth perception in space. This is founded on a limit of angular visual acuity in the eye—or of resolution in photographic emulsions—which in binocular vision becomes an error of depth perception growing as the square of the distance of viewing. This is the instinctive basis for skilled sculptors, such as Carl Milles and Henry Moore, never creating large final versions of their sculptors from simple mechanical enlargement of small highly-finished models, always altering the proportions somewhat, if only to make them appear the same. This is the rational basis of choice between painting or constructing scenery for a stage setting. This determines the calculated stereoscopic base in stereophotography intended to accurately record the success of

intended optical illusion, or trompe l'oeil, in Baroque and Rococo architecture.

Stereophotography is of the greatest value when the recorded structure is not expected to survive or is to be significantly altered from its original form, because this stereophotography is then the only record of the structure *as it was perceived*, providing comparison with the photogrammetric drawings which record the structure *as it was*.

In 1987, more than 80 color stereopairs were taken, composed and organized for future publication, as part of the recording of the Terminal Tower in Cleveland, Ohio, with its platform, concourses, shops and connections to the old Main Post Office in Cleveland as they were prior to remodeling in 1988. These stereopairs are now in the Tower City Archives and will go into the museum planned to occupy part of the remodeled space.

These stereopairs have been taken, trimmed and composed for undistorted viewing through pocket stereoscopes which closely reproduce the original camera angles of photography. In this publication, they can be viewed with a card held vertically between the two photographs so that each eye sees only one of the photographs. This will approximate the ideal viewing of the optical models through pocket stereoscopes.

In northwestern New Mexico,

the recording of the small irregular pueblitos—the Refugee Sites of the Dinetah on Bureau of Land Management land—is a most appropriate subject for stereophotography, made particularly urgent by the fragility of the remaining walls and roofs of the structures. Later restoration could best be accomplished by draftspersons studying three-dimensional form in stereopairs, matching the technique of the original builders in choosing stones and slapping mud, without the confusion of interpreting intermediate drawings. It would be incredible that these structures would now be considered for hand measurement by HABS teams. Stereophotography is the most immediately usable documentation for the record and for restoration.

Known internationally for his work with photogrammetry and stereophotography, Perry E. Borchers is an Emeritus Professor of Architecture, The Ohio State University, where he continues to teach in the Spring. For many years he and his students produced photogrammetric drawings for the Historic American Buildings Survey (HABS) collection at the Library of Congress. These valuable records are primarily, though not exclusively, of Pueblo Indian sites in the Southwest. Prof. Borchers has recently completed work on a book on Arts of Space and Time: Architecture and Environment Seen in the Third and Fourth Dimensions.

The Arneri Palace: An American/Yugoslavian Preservation Project

by Russell V. Keune

The planned and fortified town of Korčula, on the island of Korčula off the Dalmatian coast, is one of the most important and unique urban and historic complexes on the Yugoslavian Adriatic coast. The entire old town is designated with the highest historic classification, "0," within the national government system. At the center of this urban composition is the Arneri Palace. It is designated at the second highest level of national classification, "1."

Begun by the Arneri family in the 16th century when the Adriatic and much of the eastern Mediterranean was under the hegemony of Venice, the complex was expanded through the 18th century to eventually encompass ten buildings and a courtyard. The structure, prominently situated on the old town square facing St. Mark's Cathedral, is the largest and was the most refined of these large residences. The elevations of the complex and its architectural details evidence the craft and skill of Korčula stone masons working in the Venetian Gothic, Renaissance and Baroque styles.

Although a small portion of the palace is occupied by descendants of the Arneri family, four of the major buildings fell into disuse several centuries ago and lost their roofs and floors. It is this national monument that is the largest international preservation project of the U.S. Committee of the International Council on Monuments and Sites



Arneri Palace Courtyard.

Viennese Photographic Firm

(US/ICOMOS) with the support of The Brown Foundation, Inc. of Houston, Texas.

In the 1970s a group of Korčula's native sons returned to the island after the completion of their university studies and foreign tours of duty with national tourist offices. They joined together to form the Hotel Company of Korčula to improve the local economy through the increase of foreign tourism to the island.

Their first project was the renovation/adaptation of an old hotel built outside the city walls immediately below the Arneri Palace. This was followed by other contemporary hotel and

camping complexes on the outskirts of the town center. It is a successful and growing enterprise. They collectively recognized, together with the support of the local elected officials, that the island's greatest architectural and historic resource was the ancient fortified city, its buildings and setting.

A local architect, raised in a building adjoining the Arneri Palace, took a special interest in the palace complex and led the effort in 1977 to prepare a proposal to have the city acquire and reconstruct it for use as a public art museum, library, archives and civic reception center. The joining together of an architect's idea with the hotel corporation and government's recognition that the historic city represented a base for future tourism development, set the stage for what was to follow.

The visit of an American to Korčula, as part of a Smithsonian tour of the Adriatic, introduced her to the then-vacant complex and the local plans for its reuse. Due to her past commitment to both the arts and historic preservation in the United States, she became interested in this project and saw its potential to serve as a prototype project for this community. Sometime after her return to the United States, as a member of US/ICOMOS, she contacted the Chairman to inquire whether US/ICOMOS might become involved in such a project through the development of a foundation proposal and the administration of a project grant.

US/ICOMOS is one of 57 ICOMOS national committees forming a worldwide international preservation alliance. The organization, formed in 1965, strives for environmental quality through the study and conservation of historic monuments, buildings, sites and districts.

In 1985 the proposed project was presented to, and endorsed by, the US/ICOMOS Executive Committee with the understanding that it would be done to meet accepted international preservation standards, that our involvement would meet with the acceptance of the Yugoslavian National Committee of ICOMOS, and that all of the expenses of US/ICOMOS in administering the project would be covered. The Arneri Palace Restoration Committee was established within US/ICOMOS to provide oversight and direction to the project; it consists of Elliott Carroll, FAIA, M. Hamilton Morton, Jr., AIA and Terry B. Morton, Hon. AIA, in addition to the Committee Chairman.

An initial site visit was made in late 1985 to gather the information necessary to complete the Brown Foundation application. It was submitted in early 1986 and a \$1 million grant was awarded and accepted in March, to be provided in equal installments over a five-year period. Annual written progress reports are provided to the foundation. This grant was intended to support the stabilization and restoration of all surviving walls, the

reconstruction of the missing floors and roofs, the introduction of a new interior circulation system, the restoration of interior finishes and the installation of all new mechanical and plumbing systems. The interior furnishings were not a part of this grant.

With the receipt of the first grant installment, The Committee set about to make the project operative. The Yugoslavian National Committee of ICOMOS welcomed the project and US/ICOMOS involvement. The Cultural Attaché of the Yugoslavian Embassy provided invaluable support and advice in setting up communications with our counterparts in Korčula. The U.S. Department of State provided guidance and assistance through both the U.S. Embassy in Belgrade and the Yugoslav Desk in Washington, D.C.

The first objective was to draft a formal "Letter of Agreement" between US/ICOMOS and the City of Korčula. Major assistance in accomplishing this task came from the *pro bono* services of the Washington law firm of Patton, Boggs and Blow who had experience in international contract law. This document was negotiated and initialed in Korčula in May with the newly appointed Korčula Arneri Palace Committee headed by the Mayor. In its final form it was signed by both parties in July 1986. The project was announced to the public in a ceremony in Korčula the following November attended by local and regional dignitaries, the Chairman of US/ICOMOS

and featured an address by the American Cultural Attaché to Yugoslavia.

The City of Korčula contracted with the Yugoslavian Regional Institute for the Protection of Monuments in Split to complete the historical research on the palace and to document the existing structures. The Institute sent in a field team of architects and an architectural historian to prepare a full set of measured drawings and photographs of the existing complex. This process, together with research and physical analysis of the building fabric, was combined into a series of historic structure reports on the palace's individual components. The Institute staff subsequently published a scholarly article on the design and construction of the most architecturally significant portion of the palace.

The Yugoslavian Regional Architectural Institute in Zagreb was retained by the City of Korčula to prepare all of the architectural working drawings, specifications and construction documents in order to prepare the project to be approved by the appropriate authorities and to have it be placed out for public bid.

The project site has been visited twice each year by two representatives of the US/ICOMOS Committee to review the work, meet with local and regional project representatives and transact the business necessary to keep the project moving forward.

With four major players in the project—the City, the Institute for the Protection of Monuments, the Architectural Institute and US/ICOMOS—there were differences of opinions over what was to represent an acceptable final project design. It was the negotiation and compromising of various institutional positions that added more time to this project phase. The City owned the building, had conceived the project and wanted it done expeditiously. The Monuments Institute had now done enough research to know a great deal more about the building and stressed a more purely historical approach to reconstructing and restoring the palace.

Their staff exercised official control over the project because it was they who had to issue formal final approval to the project. The Architectural Institute found itself in the middle; it had to produce a set of construction documents that satisfied the three other parties and met all applicable building requirements. US/ICOMOS was financing the project, had the right of project approval in the Letter of Agreement and wished the project to meet accepted international preservation standards.

US/ICOMOS quickly found itself as the major negotiator/broker between the often-differing views between the other three parties. We were experiencing the Yugoslavian version of a Section 106 process! We were

a little more than surprised to find at one point a Yugoslavian architect citing the U.S. Secretary of the Interior's Standards for Rehabilitation to us in defending a proposed design solution linking two portions of the palace. Since our Letter of Agreement gave US/ICOMOS the final right to approve the project plans before beginning to release the construction funds, we were in a position to influence the ultimate design compromises. By April 1988 we were able to grant our conditional approval to the project's architectural drawings.

With the formal approval stamping of all the drawings by the Monuments Institute, the project was submitted by the City to competitive bidding. Three bids were received and the contract for the first phase of the work was awarded to a construction company based in Korčula. Work commenced in June 1988. US/ICOMOS is to receive monthly documented progress reports which serve as the basis for advancing funds for the project costs.

Local and regional newspapers, radio and television have given coverage to the project. A Zagreb television station is producing a documentary film on the reconstruction and restoration of the palace.

This project has introduced us to the realities of the rapidly changing international finance scene. The unexpected high annual inflation rate of the Yugoslavian economy (recently as high as 150%), the devaluation of

the dinar (in 1986 when the Letter of Agreement was signed the exchange rate was 420 dinars to the dollar and two years later when construction began it was over 2,000 dinars to the dollar), and the decline in the value of the American dollar, has had the effect of reducing the scope of work to be supported under the original grant. It has been advantageous to retain the project funds as long as possible in American banks in high-interest accounts in order to earn additional funds for the project. We have also had to learn the methodologies of transferring, as expeditiously as possible, funds from Washington, to New York City, to Zagreb and finally to a branch bank in Korčula. A separate account has been created in Korčula (for which we receive regular reports and which we monitor) to receive and disburse project funds.

The project has been and will continue to be a learning experience for all involved. Of paramount importance to us has been the overall project conditions and reference points set forth in the 1986 Letter of Agreement. Except for a minor amendment to reflect a change in the Mayor of Korčula, it has not yet been necessary for either party to propose amendments to the basic agreement. Even with a series of differences in philosophical and architectural issues between the parties involved, we have been pleased with the prevailing spirit of mutual cooperation and interests.

The US/ICOMOS representa-

tives have been graciously received on all of our visits. Each visit has been marked with an effort to introduce us to another aspect of the local customs and culture e.g., Adriatic seafood, unusual northern European tourist customs, local dance programs, a Roman stone quarry which will supply some of the restoration material, other regional historic resources and luncheons at private homes.

We have observed many of the similarities (inventory and documentation techniques) and differences (degree of government review and approval over interior work and emphasis on scholarly publication) of the two national preservation systems. Our international communication systems, with English as the agreed-upon joint project language, have tended to avoid the regular postal service because of the long time period required. We rely on an international facsimile transmission system, supplemented by international telephone communication and private commercial delivery services when necessary.

The project's public announcement resulted in overtures to US/ICOMOS from other preservation projects along the Dalmatian coast in Split and Dubrovnik. We have met with representatives of these projects and, to the best of our ability, have attempted to direct them to possible sources of American support.

While we began with one isolated building, each site visit and



Triforium Window of Arneri Palace.

Yugoslavian Reg. Restoration Inst.

the expanding circle of professional acquaintances have given our committee a greater understanding and appreciation of the role of this project within not only the city but the region. The project is a pilot effort in dealing with the number of abandoned buildings within the fortified town. Such buildings are the result of emigration and their use has been hindered by complex property titles.

New legislation is being developed to enable the local government to take title to abandoned properties, if no effort is made to improve them within a set time period, and resell them to new owners who will improve them.

The palace project is viewed by the Monuments Institute as a highly visible one which is to set a standard for other work to

follow. They are mindful of protecting not only individual buildings but the entire character of the townscape as seen from both the land and sea.

The town has likewise enacted legislation to create a tourist tax, a portion of which is used to support preservation projects, and laws to control the elevation at which new construction can take place on the surrounding hills in order to protect the view of the fortified town. A private citizen organization, The Society of the Friends of Korčula's Cultural Heritage, has been formed to raise funds to undertake the restoration of portions of the town wall. The tourist-related business leadership has taken initiatives to create projects which will protect this national historic resource.

If all goes according to schedule and budget, in 1991 there will be a grand celebration in the old town square in Korčula as the Arneri Palace once again resumes its historic presence in the heart of this special city. US/ICOMOS, through this international pilot effort, will have accumulated an important body of knowledge and experience in the financing and administration of an international preservation project.

Russell V. Keune, AIA, is the US/ICOMOS Chairman of the Arneri Palace Restoration Committee and the US/ICOMOS Vice President for Programs. He formerly was the Senior Vice President of the National Trust for Historic Preservation.

Diagnostic Methods for Evaluating Conditions and Managing Change in Historic Structures

by Hugh C. Miller

Diagnostics as an Idea

The evaluation of historic building performance is not unlike the practice of medicine and the science of pathology. It follows all the steps of the medical process—the diagnosis is based on the analysis of symptoms, the prognosis is based on testing and monitoring, and the prescription of a remedy is undertaken with controlled *observations of the treatment*. However, the understanding of a building is currently *more of an art than a science*. One can see how the building condition surveyors use diagnosis as a valuable tool. But unlike medicine, they have not spent centuries gathering and organizing information about building response to maladies. This knowledge is essential to diagnostics and, like medicine, should include the history of diseases, that is, how building problems are expected to behave.

Good diagnosis is based on good models of the condition studies. Normal states must be defined so that abnormal states can be recognized. The diagnostic evidence is separated into “symptoms” and “signs.” Symptoms are reported by the building user. Signs are objective physical evidences of abnormal conditions and include measurements made with instruments. Effective diagnosis is based on the ability to organize data into coherent relationships that might be called pattern recognition. In the near future we could expect that computer pro-

grammed “expert systems” or artificial intelligence systems could be developed for building diagnostics and treatments similar to those now used for medicine. For now, the building diagnostician must have such a diagnostic model in his memory. He must know the normal state or condition of a specific situation and he must be able to analyze abnormal conditions and their probable causes.

Diagnosis is not an end in itself but is linked to the prediction of future events. Time is an important dimension of building disease histories. The building surveyor must anticipate the series of events and form a prognosis based on his knowledge of the building disease measured in time. The quality, precision and application of this knowledge will determine the outcome of events for the building. The prognosis may be “good” or “poor,” or more likely “meets expectations,” “doesn’t meet expectations” or “exceeds expectations,” as for example, a column that can support additional loading. Prognosis is not an end in itself any more than diagnosis. The decision must be made—“is the future it predicts acceptable?” or “is it desirable to intervene?” This intervention is termed a “treatment.”

When doctors initiate treatment or therapy, they anticipate that with the passage of time, the patient who might have arrived at an undesirable state will instead be rejuvenated if therapy is successful. At this point the

analogy with the building ills and treatment of human disease is less direct since building ills have no internal rejuvenation to deflect the building diseases from their natural course.

But, as in medicine, treatment of building ills is not always undertaken. In some cases it is not available and in others the building’s problem can be allowed to run its course unimpeded because it’s self-limiting or very slow in progressing. If the disease and its risk are well known, the dangers of the intervention can be intelligently weighed. In some cases the treatment is more serious than the disease. Architectural conservators have learned that in treating some building ills “less is more” and sometimes doing nothing but watching the problem is the best solution.

Building Diagnostics as a Practice

In many European countries the diagnostic process is much more advanced than in the United States since materials and building sciences are taught to architects and engineers and are supported by government research. Also, the work of chartered surveyors is well understood since their evaluation of the condition of an existing building is the basic part of the leasing process. (Long-term leases—up to 99 years—is a common practice.) The development of building diagnostics in

the United States is just evolving from the lessons learned in managing historic structures, from the application of the home inspectors' service at the time houses are purchased or for condominium management, and from a growing awareness of maintenance as a preventive practice rather than a "fix-it-when-it-happens" event.

Building diagnostics are traditionally used for "trouble shooting" but may be performed for a variety of purposes. If a historic building is going to be restored to an earlier appearance the detective work to differentiate between original parts and later accretions is a sophisticated form of diagnosis. If the building is going to be restored or rehabilitated, there is an interest in the performance of the existing structure, envelope interior, infrastructure, landscape and site to determine if these elements are acceptable and will continue to function or if they need to be modified to meet the requirements of the new use.

If the structure is going to be preserved "as is," building diagnostics are an essential part of the initial repair and preventive maintenance program. Continual observations and monitoring for change and rates of change in materials and systems are important. For preservation or maintenance treatments there are opportunities to learn how the building really behaves since the diagnostic work is not distress oriented and monitoring can

occur over time.

The Old House Doctor Approach to Diagnostics

The process of building diagnosis is sensual. All six senses, with tools or instruments that are extensions of these facilities, are used. Sight is most important since the symptoms and process of decay are often evident even in casual observation. Smelling is useful e.g., musty odors indicate that moisture levels may be at or approaching dangerous levels. Feeling is important. The texture of surfaces can indicate gross distortions. The feel of frass (*Webster's (unabridged)—The refuse or excrement left by insect larvae*) can indicate something about the species of termites or wood-boring beetles.

Hearing can be useful. Sound can indicate the solidness of a member; with a stethoscope one can hear carpenter ants or carpenter bees chewing on a timber. Taste can also be useful in determining the presence of salts; however, considering that many toxic substances also can form crystals on the surface, one should not be tasting.

These five senses are then combined with the sixth sense of "intuition." This knowledge is the feature that makes building diagnostics more of an art than a science. The classification of symptoms into pre-existing signs with or without instrumented measurements is important to the art of diagnosis.

Understanding the forces of deterioration is essential to determining the real cause of the problem. These can be broken broadly into two categories—intrinsic factors and extrinsic forces. The intrinsic factors are environmental e.g., location, geology, soils and climate. They also include given structural conditions such as materials, design and workmanship. The extrinsic or external forces include natural processes—biological, chemical and physical—as well as human forces. Direct human forces include direct actions such as wear and tear and inappropriate maintenance or lack of maintenance. Indirect human actions include riots, war and adjacent construction or remote public works that affect the building.

Testing, Monitoring and the Need for More Data

In many cases the disease entity of building deterioration is well defined and the problem is obvious although the repair or the solution may not be simple or inexpensive. In other cases, the symptoms and signs are complex and it is necessary to select additional procedures to determine the actual cause of the problems.

The use of instruments is important to the diagnostic process. They extend the senses to places that are hard to see or to indicate movement or environmental conditions that are hard

to preserve or measure with human faculties. The desire to know what is inside a pipe or wall cavity (and to learn about their condition) has motivated the application of available technology to non-destructive testing. The use of magnets has long been a practice to locate studs or pipes in a wall. This technology has been expanded to the use of the magnetometer to locate ferrous reinforcement bars in concrete and other dense building parts and objects in the wall or ground.

The application of the portable X-ray system (used to look for bombs in police work) for building diagnostics grew out of the desire to be able to draw the exact size and location of wooden framing systems. Radiography, including portable nuclear source equipment, is now used to evaluate flaws in metal, like the Liberty Bell, to locate anchors in masonry or determine the extent of corrosion in hidden structural view. Other kinds of nuclear source equipment have been developed to locate wet areas of roof decks or to analyze the chemical elements of salts in masonry.

The recent interest in energy conservation has expanded the application of infra-red technology to portable thermography that can provide images to locate heat loss, wet insulation, overheating electrical motors and transformers and more. Such infra-red images have also been used to find wooden framing and steel lintels in masonry.

Current research is refining the use of sound and electrical currents to locate objects and determine flaws or density of materials. Eddy currents have long been used to locate flaws in metal and are now being studied for application to other materials. Ultrasonic analysis long used in concrete, ceramics and metal investigation is being refined to obtain better information about hidden flaws in these materials and this method is being applied to understand the condition of masonry and wooden buildings. Radio-frequency detection and ground penetrating radar (microwave analysis) can be used to locate objects underground and define voids in massive masonry or adobe walls.

Moisture in materials can be measured by an electrical resistance or electrical capacitance meters that can accurately determine the moisture content of wood and will provide information on the relative wetness of other porous materials in direct read-out portable instruments. Other portable electronic instruments can measure temperature and relative humidity with instant precision. Similar instruments will indicate if a surface condition is at or near dew point and if condensation has or can occur.

More traditional diagnostic methods involve intrusive testing or exploratory examination. The use of fiber optics devices inserted in a small hole to look inside a wall cavity or duct is a diagnostic possibility. Miniatur-

ized remote control television cameras can record the inside of pipes or hard to reach spaces. The taking of small, or not so small samples of paint, mortar, metal, concrete, wood, etc. for laboratory analysis of their composition is commonplace. However the analytical methods are becoming more sophisticated and can be expected to give more information about more complex materials. It is now even possible to do a surface-scan chemical analysis of stone.

There is a whole range of tests and sampling methods that can be done on building equipment and the quality of indoor environments. The development of objective methods of learning how building environments work and how people react to them is an essential part of diagnosing the whole building performance. Much more work is needed to apply the building conservation ethos and credo that it is better to preserve than to reconstruct.

Gross intrusion into the fabric of the building or the gutting of major elements along with load test or other destructive testing is contrary to good conservation practice. Usually these methods are very expensive; often the results are not more conclusive than other tests, and the tests may not focus on the real problem. (There is the case of a late 19th century Court House that passed a load test but the floors failed three years after the test was approved.) There are, however, always opportunities to learn from building failures and

testing and analysis when a building is changed or demolished.

Monitoring conditions over a period of time with systematic recording of change is an important part of the diagnostic system. Many building owners are unwilling to take the additional time and expense to study a situation, although in most cases the answers that result from a monitoring program save money in the direct application of a solution. Structural monitoring can involve simple glass tell-tales or plastic calibrated plates that break or slide as a crack opens (or closes). Plunger-type micrometers fixed across a crack can measure every movement of the building and also indicate a trend if the crack is getting larger. Survey techniques—using precision theodolite, laser systems or photogrammetric methods—can be used to measure distortion or movement in a structural member of a system. In all cases the information must be plotted on a chart—manually or automatically.

The monitoring of change or loss of surface is important knowledge for long term conservation. New important developments of measuring surface loss of masonry or metals with transfer tapes for microscope study of the surface or laser micro-measurement are being developed in acid rain research now underway. Besides learning about the behavior of building materials in a polluted environment, monitoring tools and monitoring systems are being

developed and used in this research.

While better tools or techniques will make building diagnostics easier or more reliable, it is not technology that holds us back. The use of diagnostics for “trouble shooting” is an old art. It has been used to solve specific building problems for years. Many of the practices that appear as alchemy are in fact based on scientific principles—spoken or unspoken. (An old roofer showed me how to look for frost spots on a flat roof to find wet insulation.)

The lack of concerns for building performance or condition is the result of the way building professionals and building owners think about them. Materials and systems are *not* considered as a time-line of deterioration that can be mitigated. They are considered as problems.

Roof problems, foundation problems, energy problems are all typical conditions when building owners take action. This concern for economic loss has resulted in diagnostic services and the development of related instrumentation for non-destructive testing and monitoring of these problems. On the other hand, the transfer of available information about the performance of wall joints, whether they be made of mortar or sealants, is in the realm of mythology with lots of opportunities for the snake oil salesmen to recommend sure-fire cures. The whole arena of leaking

masonry walls in general, and stone and brick spalling in particular, are building ills that are like the common cold . . . they have symptoms that are well defined and causes that are generally understood but for which there is no effective cure.

What I’m proposing is a comprehensive approach to building performance analysis that in terms of human health maintenance might be called a “well building physical.” While building owners will buy a maintenance contract on typewriters or office copiers, they generally will not talk about inspection or preventive maintenance programs on whole buildings. The current maintenance management program has made National Park Service managers realize that a comprehensive inspection of their building is cost-effective—making a small repair rather than correcting a costly failure. Such a report of the building’s condition may also recommend doing nothing but watching a situation. This would be possible under work managed by a Maintenance Management System (MMS).

The other side of this chicken-egg situation is that aside from home inspectors there are few professionals offering comprehensive inspection services. Herein lies the opportunity for institutions and individuals who own historic property. There is an opportunity for them to use the available information and techniques to provide comprehensive information about

The National Park Service's List of Classified Structures and Cultural Resources Management Bibliography

by Alicia Weber

the condition of their building—what's working, what's limiting, what's changing (and how fast), what went wrong and what's the repair. There is the opportunity to join with private sector architects, engineers and materials scientists in an international effort to adopt "space age" instruments for more effective measurements or non-destructive tests of building materials or systems. We now can talk, read together and learn how to keep buildings "living" as well as "create" better new buildings in the future. The historic structures of the National Park Service and state and local parks can be laboratories in the learning process.

The National Park Service's List of Classified Structures (LCS) is an automated evaluated inventory of historic and prehistoric structures that have archeological, historical and/or architectural/engineering significance in which the National Park Service has, or will acquire, any legal interest. It is evaluated by National Register criteria. The LCS was created in 1960, based upon recommendations made at a meeting of the NPS Regional Directors and the Chiefs of the Eastern and Western Offices of Design and Construction, to assist park managers in planning and programming appropriate treatment and in recording decisions regarding listed structures.

Since that time the LCS has grown in both size and function, recording 14,682 structures and used on park, region and Washington levels for plotting structures on maps produced by the Geographic Information System (GIS) Division in Denver, for listing contributing structures in National Register Multiple Resources documentation, for compliance review, for completing management studies and for general reference information.

The NPS Cultural Resources Management Bibliography (CRBIB) is an automated inventory of reports that addresses park cultural resources. The CRBIB was developed from the "Preliminary Bibliography Inventory of Park Historical and Architectural Studies" which was issued in March 1972, and contained all historical and

architectural research reports in the files of the Washington office. This bibliography was expanded to include reports in national parks, NPS regional offices and service centers, as well as archeological and ethnographic reports, and was updated and computerized in 1975-1977. Later, curatorial reports were added. Thus, all four cultural resources disciplines are represented.

Today, over 10,000 reports are recorded and the CRBIB is used for tracking required planning documents, for special research publications (on landscapes, lighthouses, etc.) and as a general reference source. In September 1988, microfiche on 5,644 of these reports dating from the 1930s through 1985 was released for sale to the public through Chadwyck-Healey, Inc., a private publishing firm. A second phase of the project, reports entered on the CRBIB from 1986-1987, is underway.

We are pleased to announce the release of these databases on microcomputer software. Their completeness and accuracy is necessary for effective cultural resources management. Now with the availability of these databases on microcomputer software in each region the input and correction of data will be easy. This easily retrieved and manipulated information about historic structures and cultural resources documentation now provides a new tool for NPS regional and park management, and could provide a model

Hugh C. Miller, a Fellow of the American Institute of Architects (AIA), is the former Chief Historical Architect of the National Park Service.



Burnside Bridge, Antietam National Battlefield, Md.

National Park Service



32nd Indiana Infantry Monument, Shiloh National Military Park, Tenn.

National Park Service

for state and local parks management.

Following NPS Standards for automated data processing (ADP), the LCS and CRBIB are programmed in dBASE III Plus software ((c) Ashton-Tate, 1986) and compiled in the Clipper program compiler ((c) Nantucket Corporation, 1986). The use of the Clipper compiler eliminates the need to own a copy of dBASE III Plus to run the systems, and allows unlimited distribution of the software. The LCS and CRBIB software will be distributed to the NPS Cultural Resources Division in each region. The software contains "user friendly" menus, screens for data entry and editing, and five standard reports in addition to appropriate data. Parks and centers may apply for their specific software through the NPS Cultural Resources

Division of their regional office.

The LCS and CRBIB micro-computer software reflects three years of testing, revision and enhancement by each region and selected parks. Data received from each region will be incorporated into the servicewide LCS and CRBIB databases maintained in WASO on a regular and continuing basis. Servicewide reports and dial-up access to the LCS and CRBIB will be available through the NPS COMMON database maintained on the NPS-owned Hewlett-Packard in 1989.

For further information on accessing or using the LCS, CRBIB or Chadwyck-Healey microfiche, contact Alicia Weber, Park Historic Architecture Division, National Park Service (422), P.O. Box 37127, Washington, D.C. 20013-7127; Telephone: (202) 343-8149.

Alicia Weber is Program Manager for the List of Classified Structures and for the Cultural Resources Management Bibliography in the National Park Service's Washington Office.

Heritage Conservation and National Symbols

by Richard J. Cook

A remarkable example of international cooperation was announced in February 1988 by the Director of the National Park Service and the Secretary of Tourism of India. The two national agencies would cooperate in technical projects for the planning, development and conservation of major Indian cultural sites. The first two projects would involve the Indian sites connected with the life of Buddha and the cultural monuments of Agra, including the Taj Mahal. The proposal was fully endorsed by the U.S.-India Subcommission on Science and Technology. Special funding support was immediately confirmed from the U.S./India Endowment Fund for Scientific and Technological Cooperation. The announcement is regarded as a major achievement in relations between the two countries.

The intention of these projects is to merge the best professional expertise of the United States and India in planning the future presentation of these outstanding heritage sites to the millions of Indian and foreign tourists that visit them each year.

This new initiative is regarded as a dramatic development in the political as well as technological relationships between the United States and India. The Government of India has asked for our advice and guidance in a quite sensitive area, given the public visibility of the projects and the sites under study. The Taj Mahal itself is regarded by most of the world as a well-recognized

symbol of India. As noted by National Park Service Director William Penn Mott, Jr., ". . . this is an awesome responsibility and we look forward to a partnership of the best talents of both nations in this important undertaking."

The important natural and cultural heritage systems of all nations are intricately linked to powerful symbols of nationhood. National parks and historic monuments, therefore, reflect collective national values and beliefs, the identity of the people with the nation and its institutions, their ideology, past achievements, and their collective identification with the land and the legacies of nature.

In the United States, the appreciation of the national heritage as symbols of our national identity has a long history, and the strength of this appreciation is regularly demonstrated by the number of visitors to, and the amount of public support for, its National Park System.

The relatively lesser known corollary has been the adaptation of national heritage concepts throughout the world. Since the establishment of Yellowstone National Park in 1872, over 2400 national parks and protected natural and cultural reserves have been established in more than 140 nations. The concept has been adapted to different social and cultural settings, but remains true to the principle of national symbolism.

Since the National Park Service is charged with the stewardship

of the natural and cultural heritage of the American people, its experience and guidance are often requested by other governments. For over 30 years the Service has maintained a program to respond to these requests. The results have been of sufficient importance to national governments and/or other U.S. or international assistance agencies that the overwhelming majority of costs have been reimbursed to the Service.

As the demands on resource management and related resource threats increase, it has become clear that international cooperation is often an indispensable element in national heritage conservation efforts. We find it in our own self-interest to look to cross-border impacts on park resources. We seek professional assistance from countries that were formerly colonial powers in North America and the Caribbean to assist us with management of their historic settlement sites. We are concerned with migratory species on park lands, to assure the full integrity of protective efforts throughout the migratory cycle.

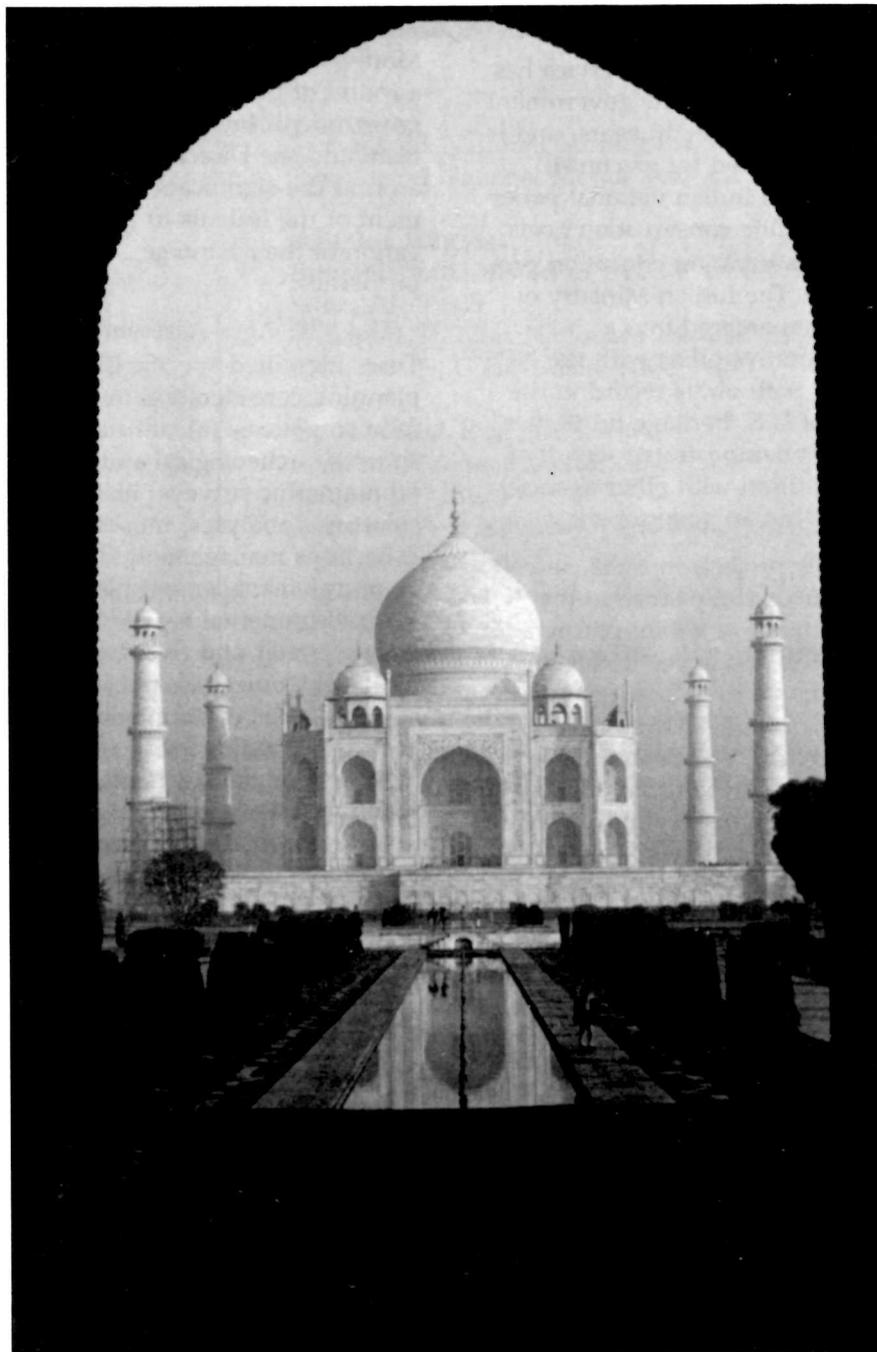
Whether from the standpoint of technical advances in conservation theory or practice, or the example of shared natural or cultural resource significance, it is clear that no nation can stand alone and at the same time assure the highest level of professional care for its heritage system.

Reacting to this awareness, the

community of nations adopted the World Heritage Convention in 1972; exactly 100 years after Yellowstone. This treaty, now ratified by 102 nations, recognizes the international responsibilities of its members to cooperate in conserving the cultural and natural heritage. It creates a mechanism for the official designation of properties whose symbolic importance transcends any one nation, and whose loss would represent "... an impoverishment to all the peoples of the world." It also creates a mechanism for international cooperation, coordination and action to safeguard heritage properties.

As of 1988, 288 sites in 54 nations, including Yellowstone and the Taj Mahal, have been recognized as being of "outstanding universal value to all mankind" and designated World Heritage Sites.

With the adoption of the World Heritage Convention, the concept of national heritage has taken a dramatic step forward. Symbols of nations have now also become symbols of our identity as co-inhabitants of planet Earth. The Taj Mahal is not only the symbol of India, it is a symbol of human achievement. Under Article 6 of the Convention, the United States and all member nations agree that the preservation of the Taj Mahal is in its own interest as well as that of India. The United States has agreed to cooperate with India, under specific treaty provisions, to safeguard this irreplaceable symbol of the



Taj Mahal, Agra, India.

world's heritage.

The National Park Service has cooperated with the government of India for over 10 years, and is well respected for its contributions to Indian national parks and wildlife conservation goals and conservation education programs. The Indian Ministry of Tourism entered into a collaborative effort with the NPS based both on its record in the care of U.S. heritage properties and its demonstrated record of cooperation with other agencies of the Indian government.

In its projects in India, the NPS has successfully stressed the importance of a joint partnership, with full and active involvement of Indian and U.S. specialists. The U.S. role is advisory in nature and, obviously, major decisions affecting site management and conservation are made by the Indian government. The benefit of this approach is to produce an Indian solution that is right for the social and cultural settings and to train, where necessary and appropriate, Indian specialists for future applications at other sites.

As a result of the joint announcement of the new projects in India, a nine-member interdisciplinary team was organized by the National Park Service. The team made an intensive assessment of the Agra project in March–April, 1988. A summary report was presented to the Indian government and a formal response is expected in the near future for identification of the next steps in the project.

In May 1988, NPS Director Mott visited India and conducted a round of meetings with the government. Impressions of the team and the Director centered around the significant commitment of the Indians to preservation of their heritage properties.

The NPS Agra Assessment Team identified specific issues for planning consideration in the following areas: (a) cultural resources (archeological and ethnographic surveys, historic structures analyses, museum collections management, resources management planning); (b) environmental issues (groundwater and river hydrology, soil studies, air and water quality, transportation and access); (c) visitor use (concessions management, fee schedules, interpretive planning and development, and economic feasibility studies for appropriate commercial developments).

The team identified various alternative development concepts, including the option of a national historical park to include the famous cultural monuments as a core, buffer zones to protect and interpret the historic city districts, green spaces to enhance the immediate environment and preserve visual quality, and delineated visitor services areas for licensed commercial operations.

The concept of a national cultural or historical park is new to India, and it is a source of some misunderstanding at this stage. The important point to

note, however, is that these issues are of recognized concern to the Indians. It is through their awareness and concern that the proposal for a U.S.-India cooperative approach was first made.

While we await the joint decision on the exact nature and extent of later stages of this project, the positive impressions of the activity have already been made. Indian and American public reaction has been attracted to the novel example of binational cooperation in preserving heritage symbols.

As in other international conservation activities, joint U.S.-India involvement with this project arises from a noble purpose and a selfless motivation. It has already achieved much that will be long remembered as a credit to the concern that both nations have for the long term future of one of India's, and the world's, most important symbols.

Richard J. Cook is an International Cooperation Specialist with the National Park Service's Office of International Affairs.

Commemorating the Christopher Columbus Quincentenary: Designated National Park Service Units

In late 1986 the National Park Service designated the following 35 National Park Service units associated with Spanish colonial history and Christopher Columbus as the focal points for the Service's commemoration of the Christopher Columbus Quincentenary. The celebration will be an ongoing series of activities during 1992 and 1993. Planning is already underway for special events, exhibits and cooperative efforts with other federal, state and local agencies as well as those foreign governments which had an important role in the exploration of the New World.

Southeast Region

Biscayne National Park, P.O. Box 1369, Homestead, FL 33090

Castillo de San Marcos National Monument, 1 Castillo Drive, St. Augustine, FL 32084

Christiansted National Historic Site, P.O. Box 160, Christiansted, St. Croix, VI 00820

Cumberland Island National Seashore, P.O. Box 806, St. Mary's, GA 31558

De Soto National Memorial, 75th Street, NW, Bradenton, FL 33529

Fort Caroline National Memorial, 12713 Fort Caroline Road, Jacksonville, FL 32225

Fort Frederica National Monument, Route 4, Box 286-C, St. Simons Island, GA 31522

Fort Jefferson National Monument, c/o Everglades National Park, P.O. Box 279, Homestead, FL 33030

Fort Matanzas National Monument, c/o Castillos de San Marcos National Monument, 1 Castillo Drive, St. Augustine, FL 32084

Gulf Islands National Seashore, P.O. Box 100, Gulf Breeze, FL 32561

Natchez Trace National Parkway, R.R. 1, NT-143, Tupelo, MS 38801

San Juan National Historic Site, P.O. Box 712, Old San Juan, PR 00902

Midwest Region

Cabrillo National Monument, P.O. Box 6670, San Diego, CA 92106

Channel Islands National Park, 1699 Anchors Way Drive, Ventura, CA 93003

Coronado National Memorial, Rural Route 1, Box 126, Hereford, AZ 85615

Fort Point National Historic Site, P.O. Box 29333, Presidio of San Francisco, CA 94129

Golden Gate National Recreation Area, Fort Mason, San Francisco, CA 94123 and **Point**

Reyes National Seashore, Point Reyes, CA 94956

Jefferson National Expansion Memorial, 11 North 4th Street, St. Louis, MO 63102

John Muir National Historic Site, 4202 Alhambra Avenue, Martinez, CA 94553

Tumacacori National Monument, P.O. Box 67, Tumacacori National Monument, AZ 85640

Alaska Region

Sitka National Historical Park, P.O. Box 738, Sitka, AK 99835

Wrangell-St. Elias National Park and Preserve, P.O. Box 29, Glenn Allen, AK 99588

Southwest Region

Amistad National Recreational Area, P.O. Box 420367, Del Rio, TX 78842

Arkansas Post National Memorial, Route 1, Box 16, Gillett, AR 72055

Big Bend National Park, Big Bend National Park, TX 79834

Chamizal National Memorial, P.O. Box 722, El Paso, TX 79944

Canyon de Chelly National Monument, P.O. Box 588, Chinle, AZ 86503

El Morro National Monument, Ramah, NM 87321

Jean Lafitte National Historical Park and Preserve, U.S. Customs House, 423 Canal Street, Room 206, New Orleans, LA 70130

Padre Island National Seashore, 9405 S. Padre Island Drive, Corpus Christi, TX 78418

Palo Alto Battlefield National Historic Site, P.O. Box 191, Brownsville, TX 78520

Pecos National Monument, P.O. Drawer 11, Pecos, NM 87552

Salinas National Monument, Box 496, Mountainair, NM 87036

San Antonio Missions National Historical Park, 727 E. Durango Boulevard, San Antonio, TX 78206

National Capital Region

Columbus Memorial Fountain, National Park Service, National Capital Region, 1100 Ohio Drive, SW, Washington, DC 20242

Who Can You Turn To?

American Society of Landscape Architects (ASLA)
1733 Connecticut Ave, NW
Washington, D.C. 20009
Telephone: (202) 466-7730

Fulbright Exchange Program
Council for International
Exchange of Scholars
Eleven Dupont Circle, NW
Washington, D.C. 20036-1257
Telephone: (202) 939-5400

HABS/HAER Summer Exchange Program
U.S. National Park Service
P.O. Box 37127
Washington, D.C. 20013-7127
Telephone: (202) 343-9606

International Centre for the Study of the Preservation and the Restoration of Cultural Properties (ICCROM)
13, via di San Michele
00153 Rome, Italy
Telephone: 5809021
Telex: 613114 ICCROM

International Council on Monuments and Sites (ICOMOS)
Hôtel Saint-Aignan
75, rue du Temple
75003 Paris, France
Telephone:
Telex: 240918 TRACE F Ref. 617

International Council on Museums (ICOM)
1, rue Miollis
75732 Paris, France
Telephone: 4568-28-52
Telex: UNESCO 270602 or
UNESCO 204461

International Federation of Landscape Architects (IFLA)
4, rue Hardy—R.P. n° 914

78009 Versailles—CEDEX,
France
Telephone: (1) 3021-13-15

International Monuments Fund
Ms. Bonnie Burnham,
Executive Director
174 E. 80th St.
New York, N.Y. 10021
Telephone: (212) 517-9367

J. Paul Getty Trust
The Getty Grant Program, Arts
Museums and Conservation:
John Sanday, Program Officer
Architecture Conservation
The Getty Grant Program
401 Wilshire Boulevard—Suite
1000
Santa Monica, California 90401-
1455
Telephone: (213) 393-4244

National Conference of State Historic Preservation Officers
Hall of the States—Suite 332
444 North Capitol St., NW
Washington, D.C. 20001
Telephone: (202) 624-5465

National Preservation Institute (NPI)
National Building Museum
Judiciary Square
Washington, D.C. 20001
Telephone: (202) 393-0038

National Technical Information Service (NTIS)
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22151
(The ordering number is listed
on appropriate records.)

Photogrammetry
Prof. Perry E. Borchers

303 Loma Arisco
Santa Fe, N.M. 87501
Telephone: (505) 988-7660

Technical Information Center
Denver Service Center (DSC/
TIS)
P.O. Box 25287
Denver, Colorado 80225
(Copies of reports available
from DSC/TIS would only be
available on microfilm.)

United Nations Educational, Scientific and Cultural Organization (UNESCO)
7, place de Fontenoy
75700 Paris, France
Telephone: 4568-10-00
Telex: 204461 Paris

U.S. Advisory Council on Historic Preservation
The Old Post Office Building
1100 Pennsylvania Ave., NW
Washington, D.C. 20004
Telephone: (202) 786-0503

U.S. Committee of the International Council on Monuments and Sites (US/ICOMOS)
Decatur House
1600 H St., NW
Washington, D.C. 20006
Telephone: (202) 842-1859

U.S. National Trust for Historic Preservation
1735 Massachusetts Ave., NW
Washington, D.C. 20036
Telephone: (202) 673-4061

Visitor Program Service of Meridien House International
1776 Massachusetts Ave., NW
Washington, D.C. 20036-1988
Telephone: (202) 822-8688

