

PASSERINES AS ZOO ANIMALS

Josef Lindholm
Curator of Birds
Tulsa Zoo

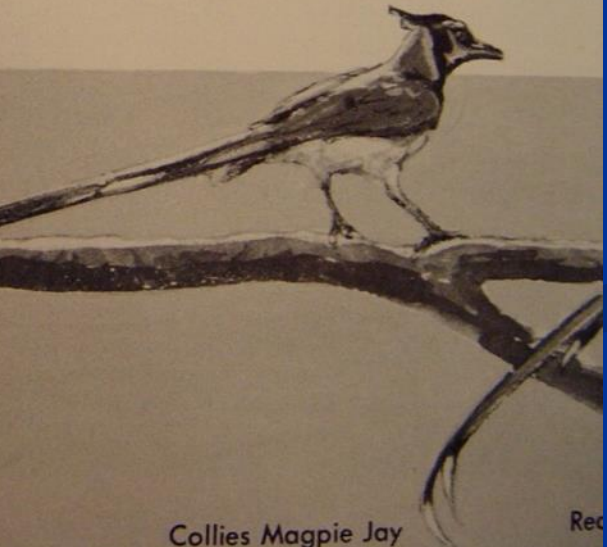
has light pink-tinged plumage.
BLUE HERON, largest species
North America, is bluish gray.



Bleeding Heart Dove



Montezuma Oropendula

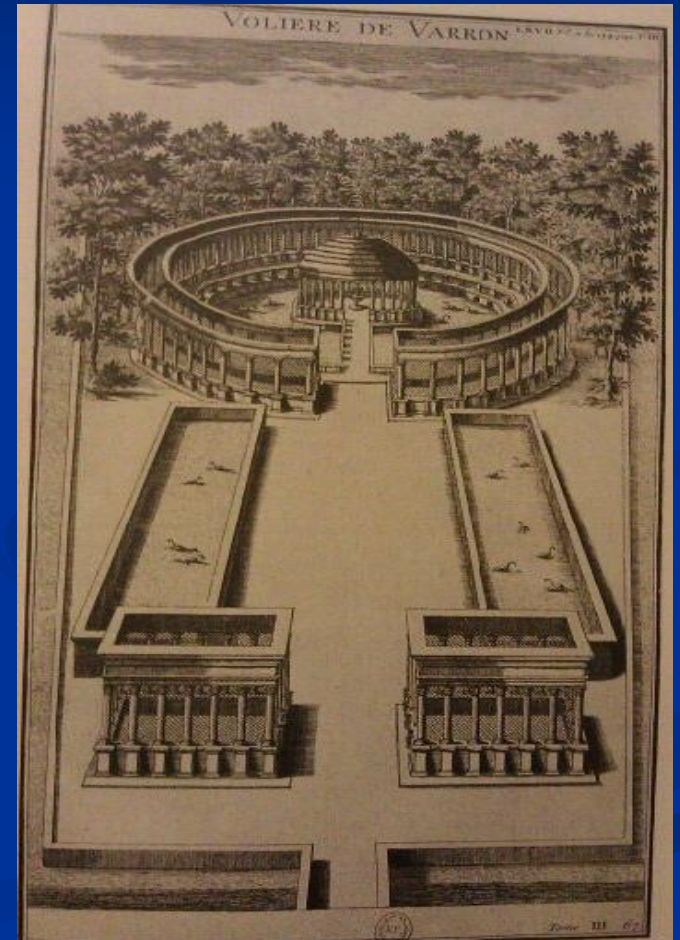


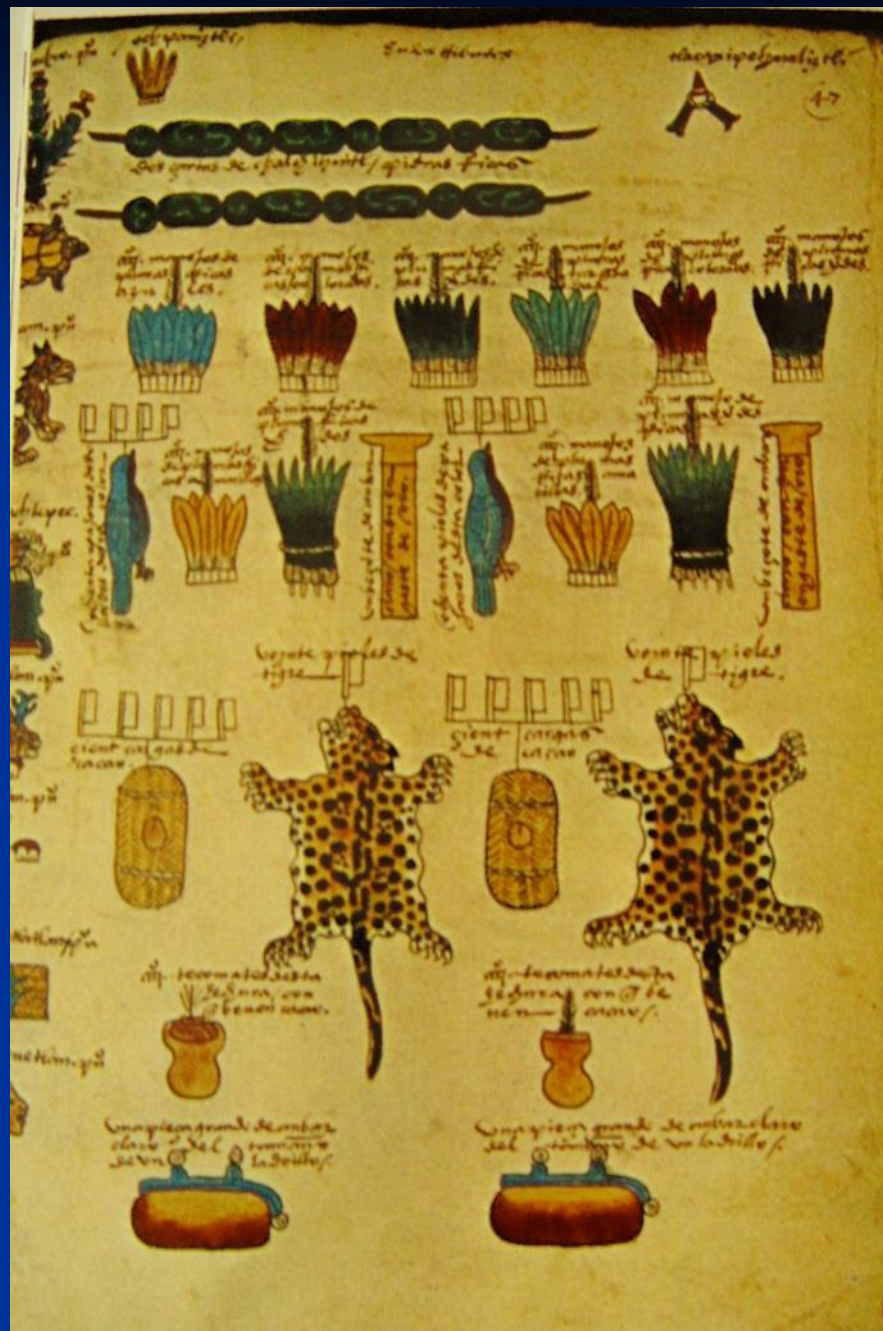
Collared Magpie

Rec

MARCVS TERENTIUS VARRO

116-27 BC





noyach tepec.



uacotlam xpñ



huiztlan xpñ



acapehualtlan xpñ



huehuetlan xpñ



ay. mmojos
de pluma mas
as de monillas



un beote de ambar
eloro con en
gaste de oro.



ay. mmojos
de pluma mas
plumas
zillas.



un beote de ambar
eloro con en
engaste de oro

veinte pieles de
tigre



cient cargas
de cacao



veinte pieles
de tigre.



ay. tecomates de ma
de goma con 7 be
nen cacao.



un beote de ambar eloro

Versailles 1665-1794



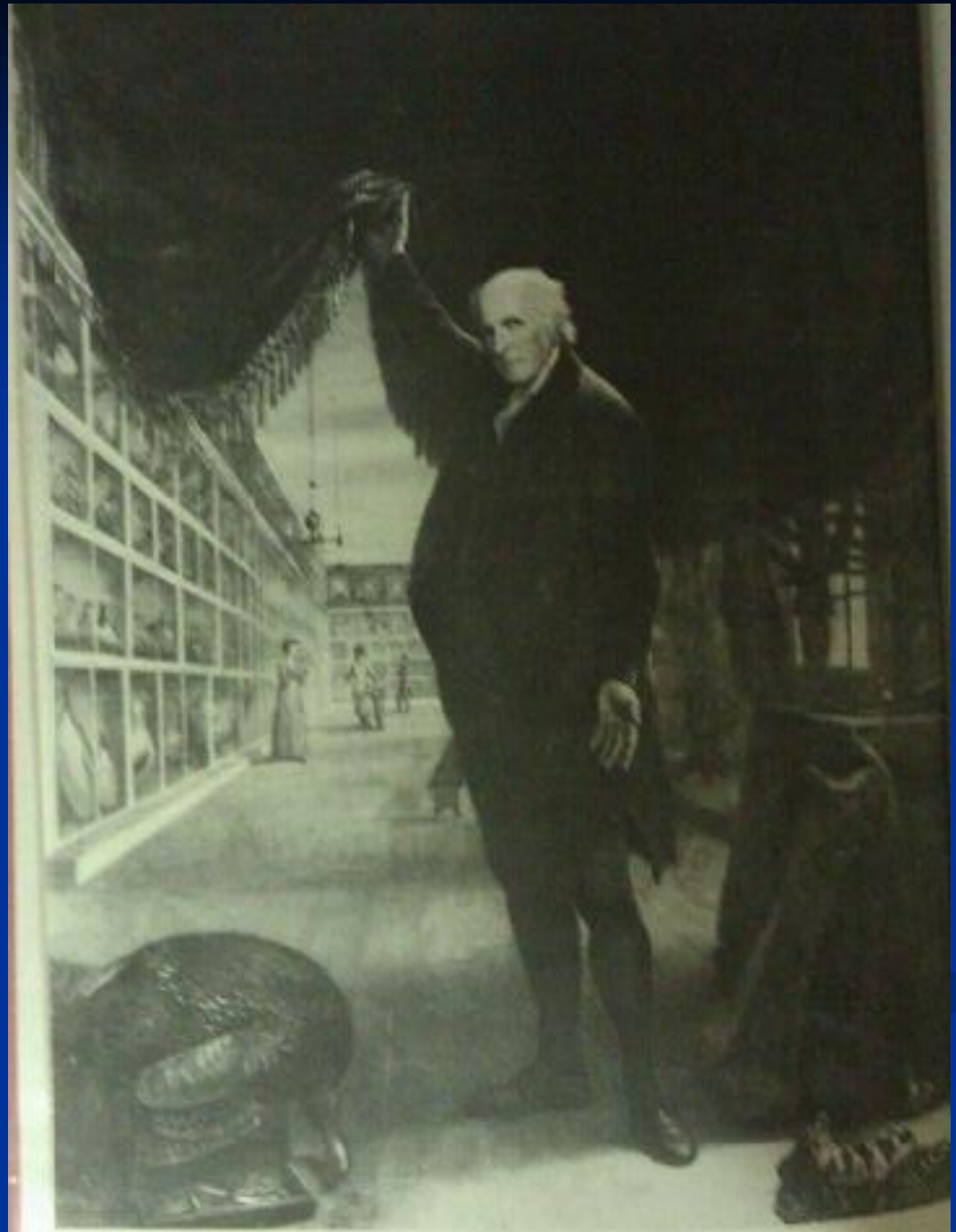
Versailles 1665-1794



Schoenbrunn 1751



Philadelphia
1786-1854



London 1828



THE
GARDENS AND MENAGERIE

OF THE
Zoological Society
DELINEATED.

PUBLISHED, WITH THE SANCTION OF THE COUNCIL,
UNDER THE SUPERINTENDENCE OF THE
SECRETARY AND VICE-SECRETARY OF THE SOCIETY.

VOL. II.
BIRDS.



CHISWICK:
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WODKILL.

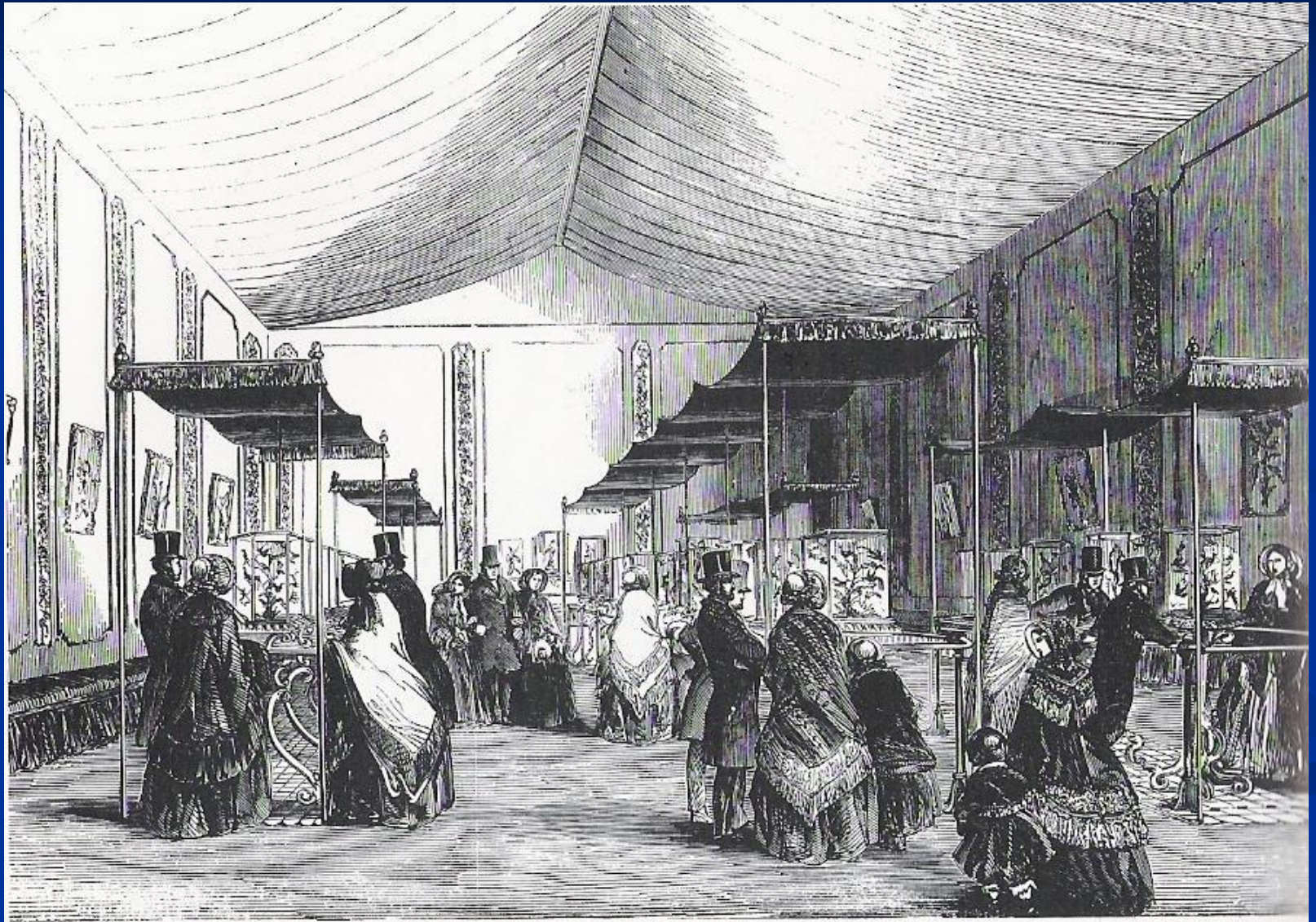


THE JAMBOO PIGEON.

COLUMBA JAMBOS. LATH.

AMONG the numerous birds of this group which are remarkable for the brilliancy and variety of their colours, the Jamboe Pigeon deserves to be ranked as one of the most beautiful. There is, however, considerable difference between the sexes, the colours of the male being much more vivid than those of the female. The former has the upper part and sides of the head of a deep and brilliant red; and the whole upper surface of the body, the wings, and the tail, of a bright green. The throat is of a deep maroon approaching to black; and the rest of the under surface, with the exception of a large oval pink or rose-coloured spot upon the breast, white, with a tinge of drab on the abdomen and legs. The under tail-coverts are brown; and the quill-feathers of the tail of a dusky black beneath, with a patch of white at the tips. The naked part of the legs has the reddish hue which is common to almost the whole genus. The skin

London Zoo, 1851



474. *Pyrrhoroceps alpinus*, Vieill. Alpine Chough.
Hab. Mountains of Europe and Asia.

(See vol. 8, p. 203.)

a. Purchased, Dec. 15, 1892.

b. c. Purchased, April 29, 1893.

Genus *Coscorops*.

475. *Coscorops melanochlamys* (Vieill.). White-winged Chough.
Hab. Australia.

(See vol. 8, p. 204.)

Genus *Heteractes*.

476. *Heteractes gouldi*, Gray. Hia Bird. (Fig. 47.)
Hab. New Zealand.

(See vol. 8, p. 204.)

a. ♀. Deposited, April 22, 1895, and presented by Mr.
Walter Baker, B.C.M.G., C.M.Z.S., March 2, 1897.

Fig. 47.



Heteractes gouldi. — From "Noddy," p. 146.

Genus *Streptopelia*.

477. *Streptopelia gamma* (White). Red Cross-Statia.
Hab. Australia.

(See vol. 8, p. 205.)

a. Received in exchange, May 10, 1897.

478. *Streptopelia fuliginosa*, Gould. Rusty Cross-Statia.
Hab. Australia.

(See vol. 8, p. 205.)

479. *Streptopelia erytha*, Gould. Red Cross-Statia.
Hab. Tasmania.

(See vol. 8, p. 205.)

480. *Streptopelia risoria* (Linn.). Grey Cross-Statia.
Hab. Australia.

(See vol. 8, p. 205.)

Genus *Graculix*.

481. *Graculix leucotis*, Gould. White-throated Pigeon.
Hab. South America.

(See vol. 8, p. 205.)

a. Purchased, April 11, 1893.

b. c. Deposited, July 23, 1894.

d. Presented by Charles Clifton, Esq., F.R.S., Aug. 2, 1894.

e. Presented by F. Langworthy, Esq., Oct. 8, 1894.

f. Presented by F. A. Cuning, Esq., Sept. 2, 1895.

g. Deposited, Dec. 28, 1895.

h. i. Deposited, June 19, 1896.

j. k. Deposited, Nov. 11, 1896.

l. m. Presented by C. Butler, Esq., Nov. 21, 1896.

n. Presented by Miss Alice Rutherford, Aug. 5, 1897.

o. Deposited, Aug. 25, 1897.

p. Presented by A. Hall, Esq., Sept. 13, 1897.

q. Presented by R. H. Edmund, Esq., Nov. 10, 1897.

r. Deposited, Nov. 12, 1897.

s. Presented by Miss Vincent, Oct. 11, 1898.

t. Deposited, Nov. 5, 1895.

u. Presented by Percy A. Gore, Esq., Nov. 25, 1895.

Genus *TURNAGUS*.

95. *Turnagra cinnamomea* (Gris.). South Island Thrush.
Hab. South Island, New Zealand.
—*♀*. Deposited, Nov. 30, 1894.

Genus *Sitta*.

97. *Sitta capensis* (Vig.). Black-headed Sitta.
Hab. Himalayas.
(See vol. 8, p. 229.)

Genus *LEUCODIPTERUS*.

98. *Leucodipterus caeruleus* (Linn.). Meladina Jay-Thrush.
Hab. China.
(See vol. 8, p. 228.)
a. Presented by H. H. Jones, Esq., F.Z.S., Sept. 7, 1892.
♀. First shot, Jan. 11, 1893.
c. Deposited, Aug. 26, 1893.

Genus *CHALCOPHAPS*.

99. *Chalcophaps indica* (Gris.). Golden-eyed Babbler.
Hab. India.
(See vol. 8, p. 224.)

Genus *GRAMMOPHILA*.

100. *Grammophila asiatica* (Vig.). Striped Jay-Thrush.
Hab. Himalayas.
(See vol. 8, p. 229.)
c. Received in exchange, June 10, 1892.

Genus *STREPTOPHAPS*.

101. *Streptopaps cinnæa*, Gould. Grey Streptopaps.
Hab. Australia.
(See vol. 8, p. 229.)

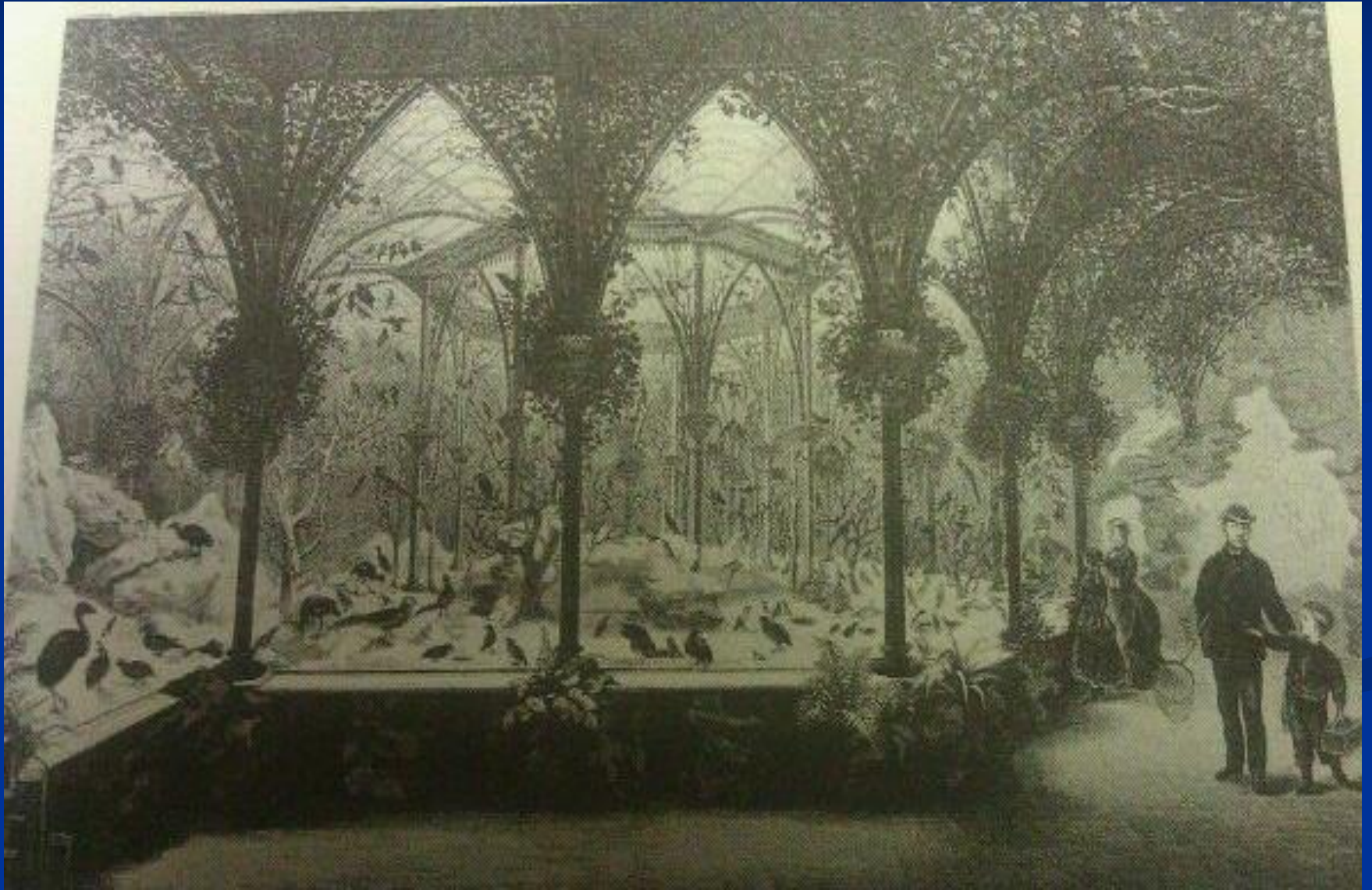
Genus *HYPOCERUS*.

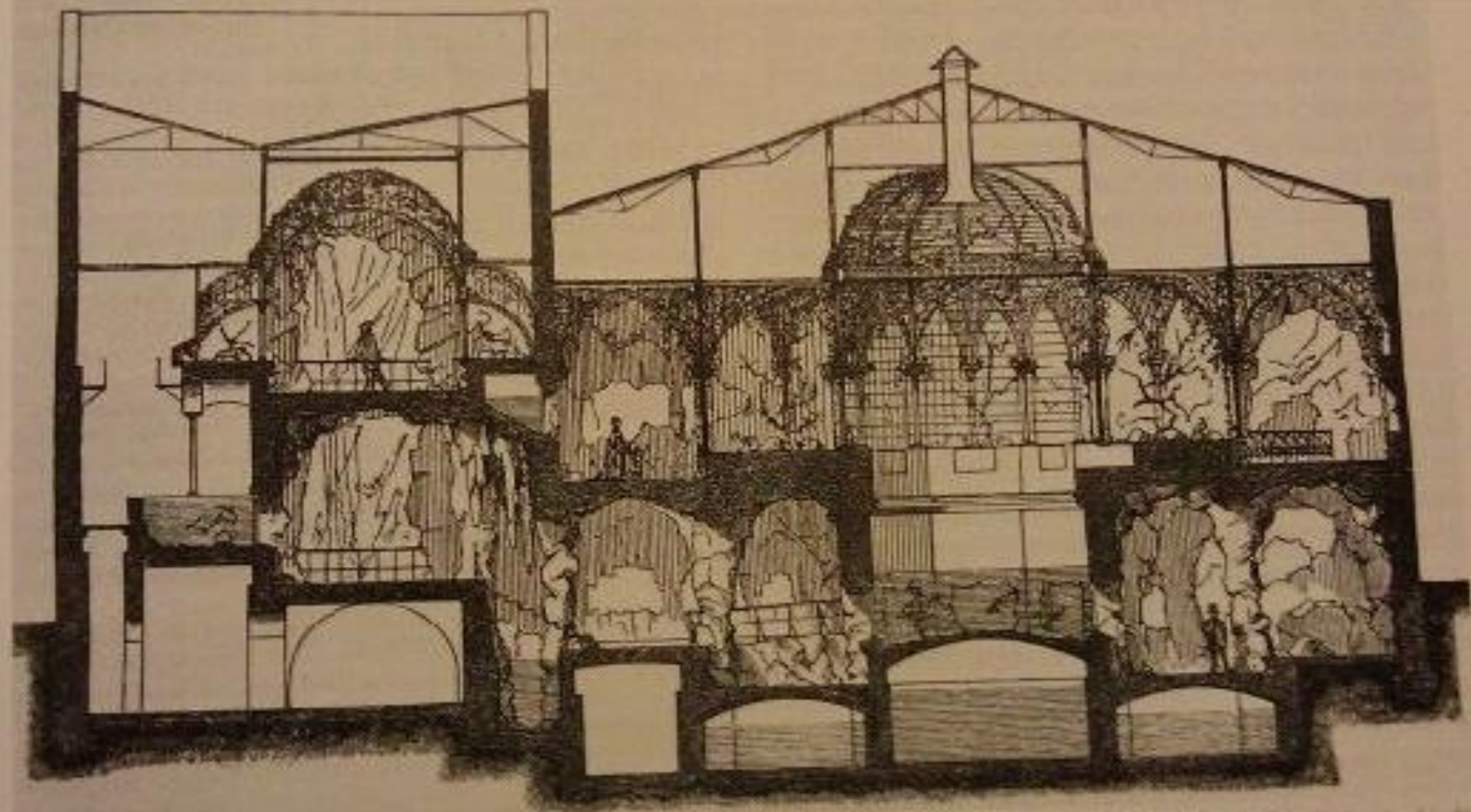
102. *Hypocercus amabilis*, Esq. Grey Hypocercus. (Fig. 95.)
Hab. Straits.
a. *♂*. Presented by W. D. Cressing, Esq., March 2, 1891.
See P. Z. N., 1891, p. 147, pl. 45.
b. *♂*. *♀*. Presented by W. D. Cressing, Esq., May 6,
1892. From Pen, Permat-Galt. See P. Z. N. 1892,
p. 474.

Fig. 95.

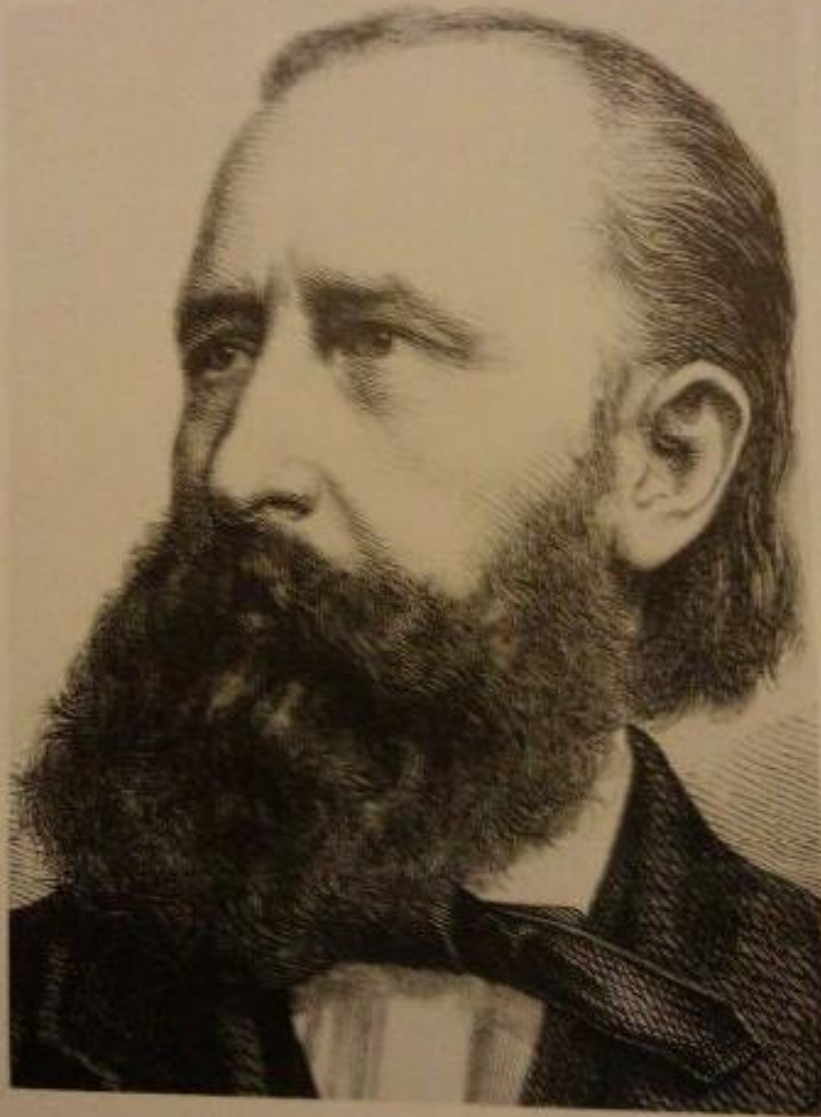
*Hypocercus amabilis*, *♂* et *♀*. (P. Z. N. 1892, p. 474.)

Berlin 1869-1910





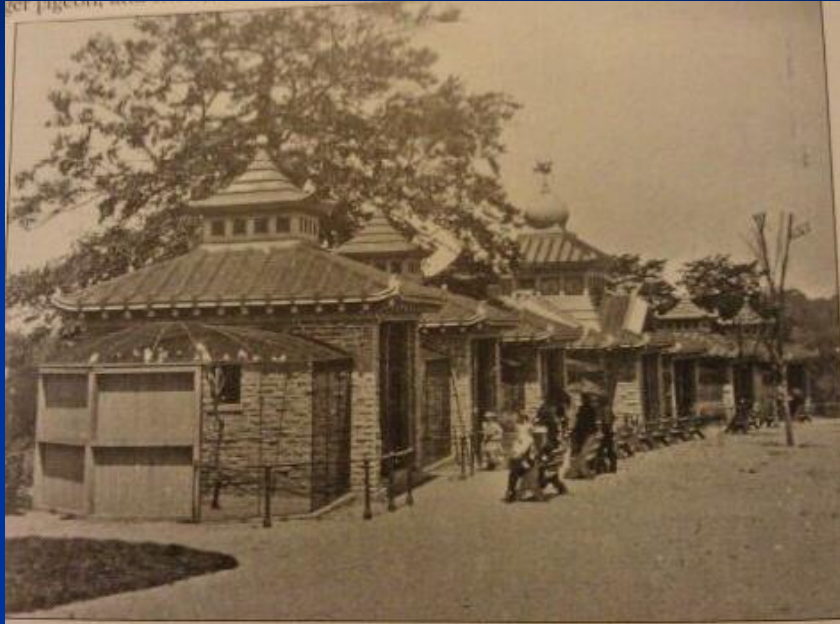
Längsschnitte durch das Berliner Aquarium Unter den Linden



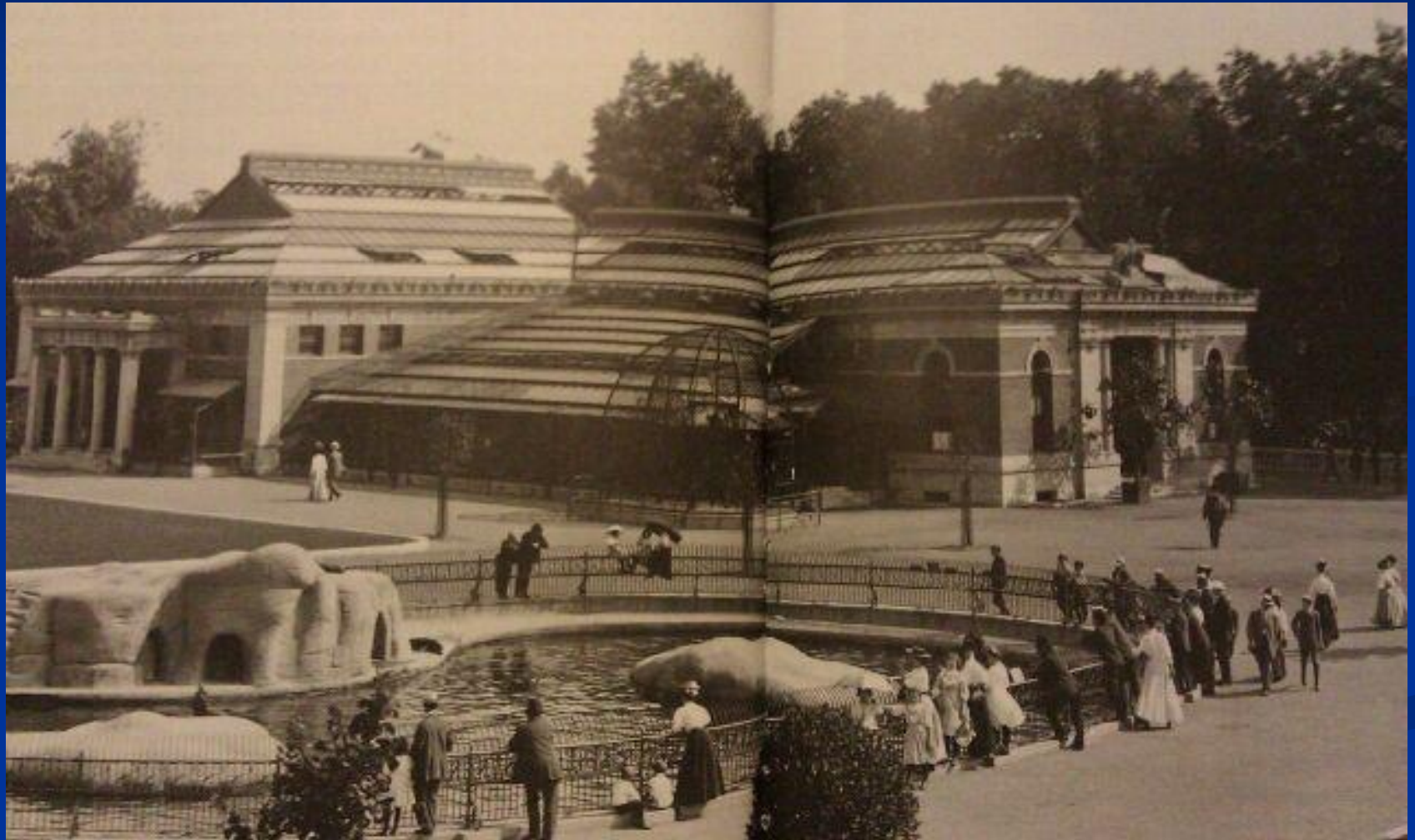
Dr. Alfred Edmund Brehm (1829–1884)



Cincinnati 1875

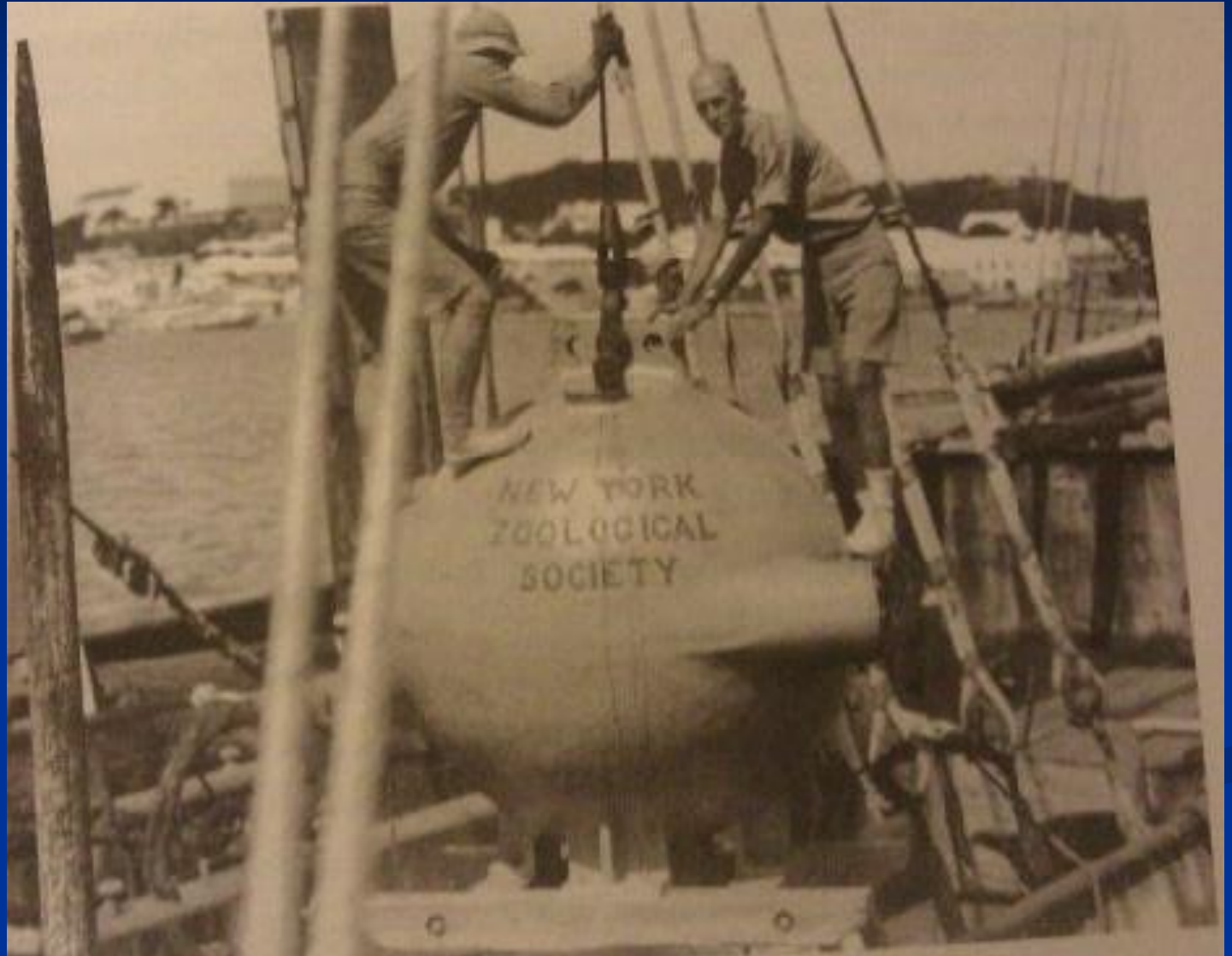


New York 1899



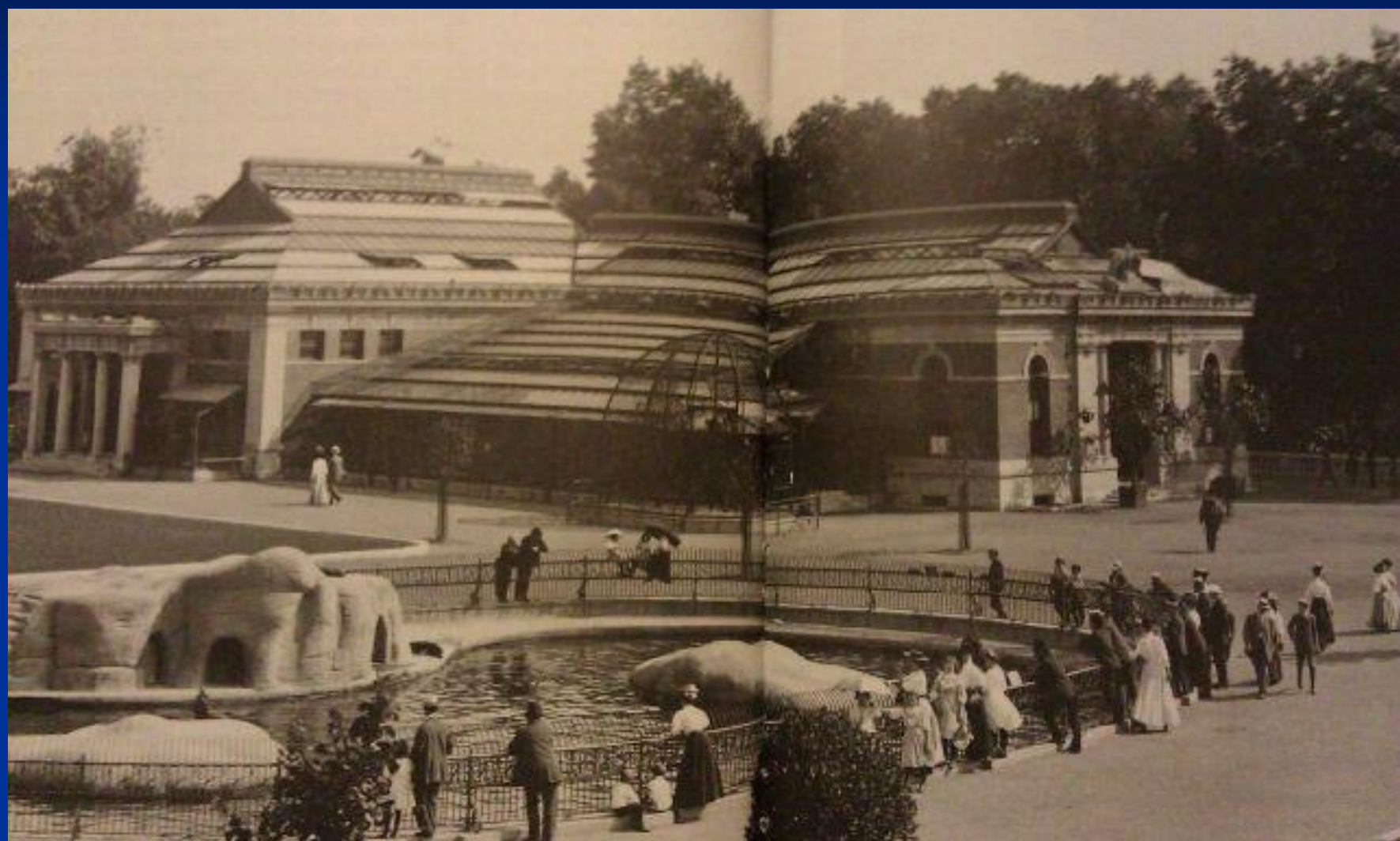
William Beebe

1877-1962



Lee S. Crandall
1887-1969





keepers in charge.

The capacity of this installation as a whole may be judged from the following memorandum of cages:

APPROXIMATE SIZES OF CAGES OF THE LARGE BIRD-HOUSE

INDOORS

Main Hall....	Central Flying Cage	15x36x20 feet high	1
	Side Cages	5x5x9	35
	End Cages	5x12x9	2
Parrot Hall..	Large Cages	6x8x9	21
	Small Cages		38
Glass Court..	West Cages	8x9x9	6
	East & North Cages	5x6x8	16

OUTDOORS

Northeast Cages	7x12x10	2
East Cages	6x8x10	10
Southeast Circular Flight Cage	20x20x20	1
South Cages	6x8x10	3
Large Western Cages	15x15x15	3
Smaller Western Cages	6x9x10	14

Total number of cages.....152

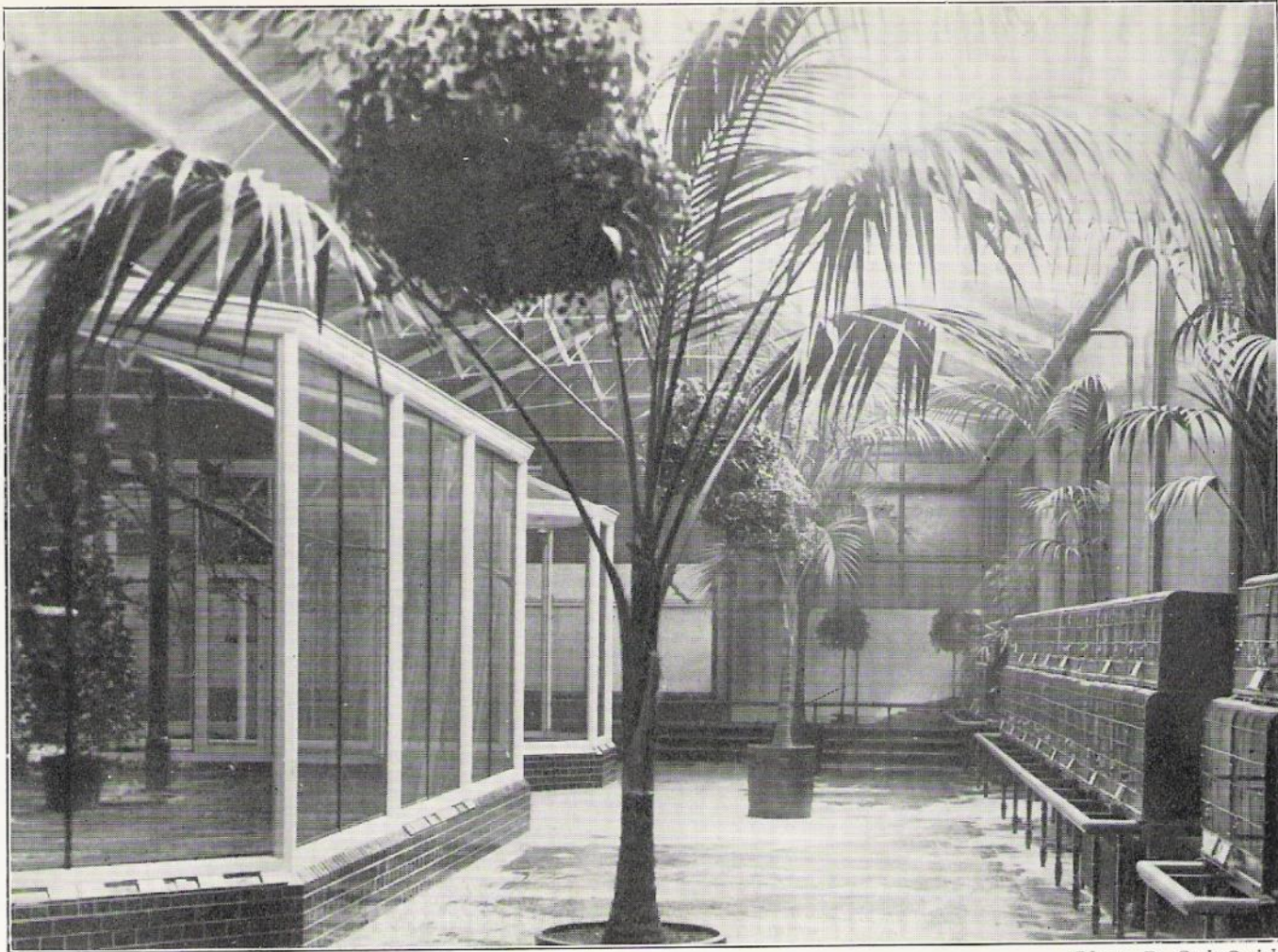
In view of the great number of avian species inhabiting the Large Bird-House, it is a practical impossibility to give more than a general outline of the groups and leading features of

15 X 36 X 20 feet high



London Zoo 1928

AVIC. MAG. 1928



[Photo. D. Seth-Smith.]

The new Bird House at the Zoological Gardens.

South side facing east.

To face p. 103.]

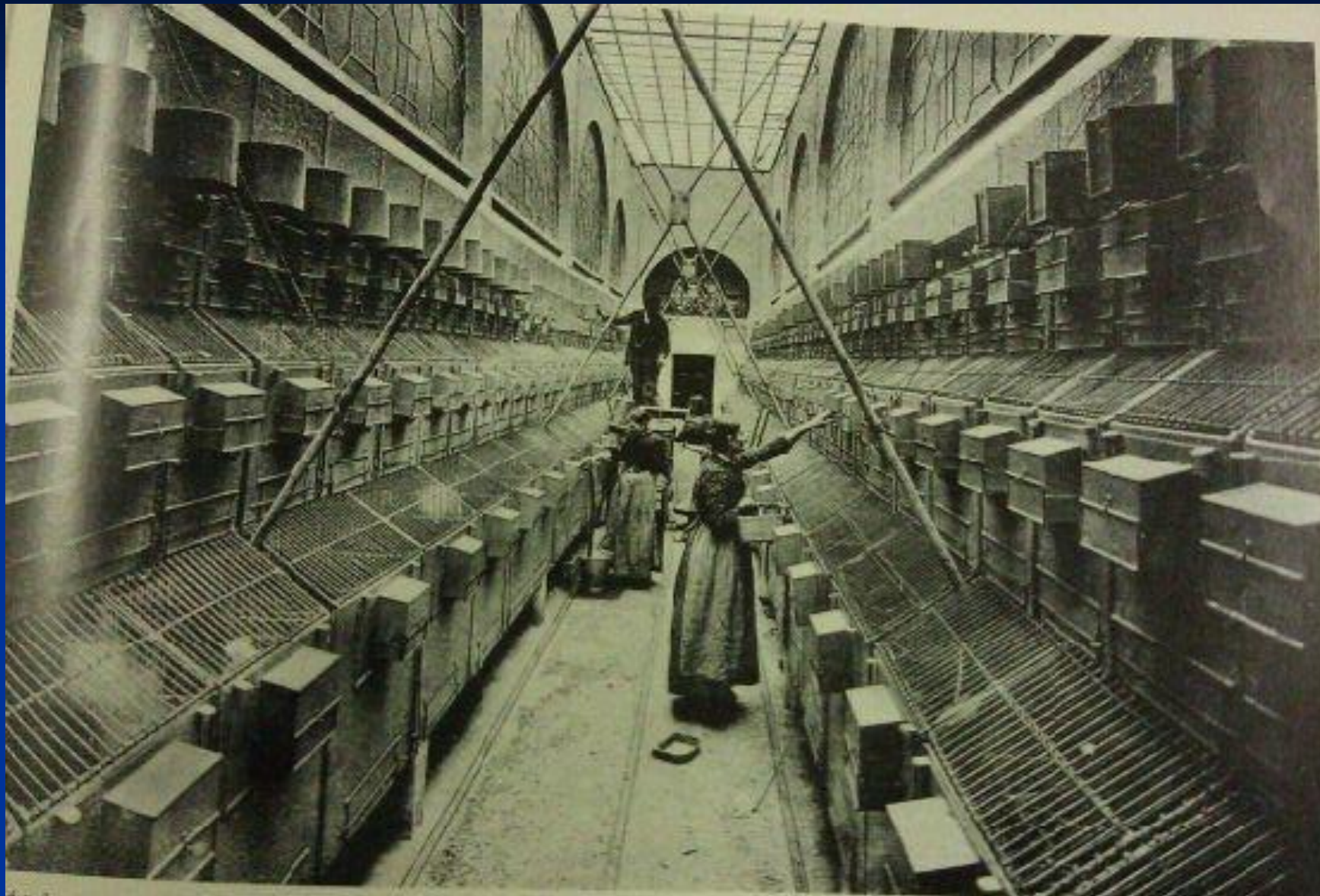
Fig. 104 The ambition to collect as many species as possible is out of place in a zoo. The exhibition of a number of solitary animals is not in accordance with biological principles and suggests a museum. A zoo should exhibit a limited selection of species in natural breeding groups.

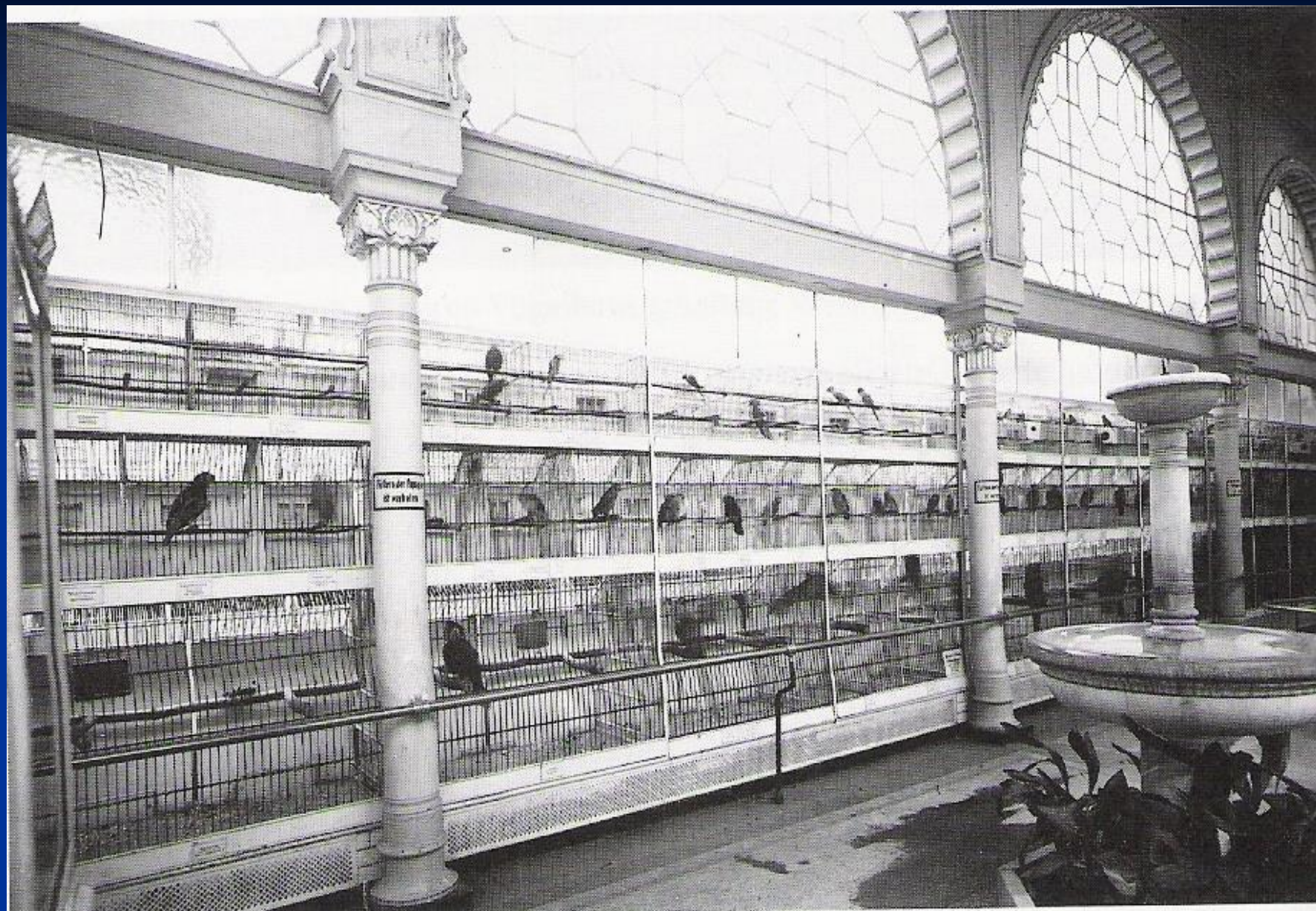


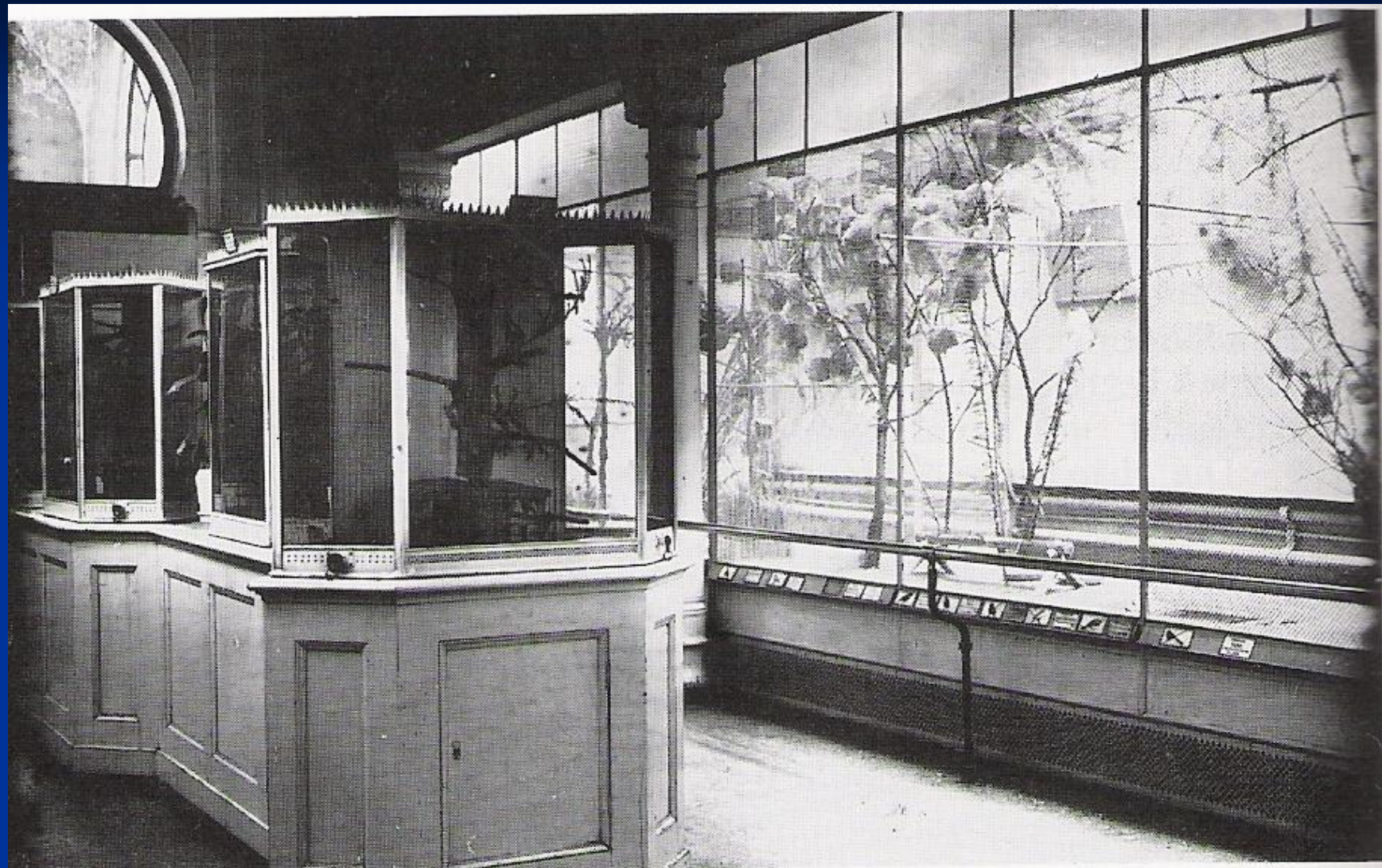
Berlin 1895

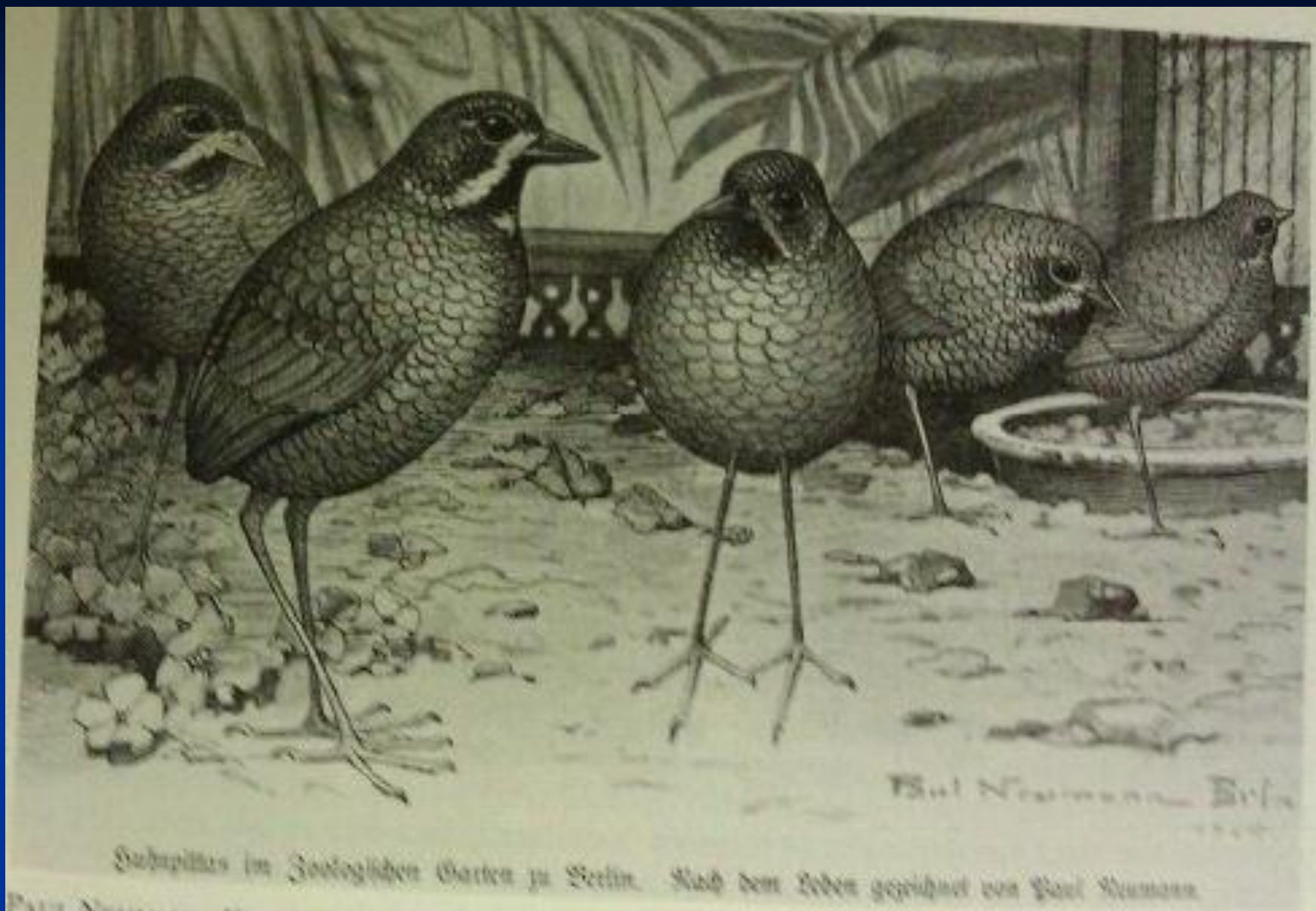






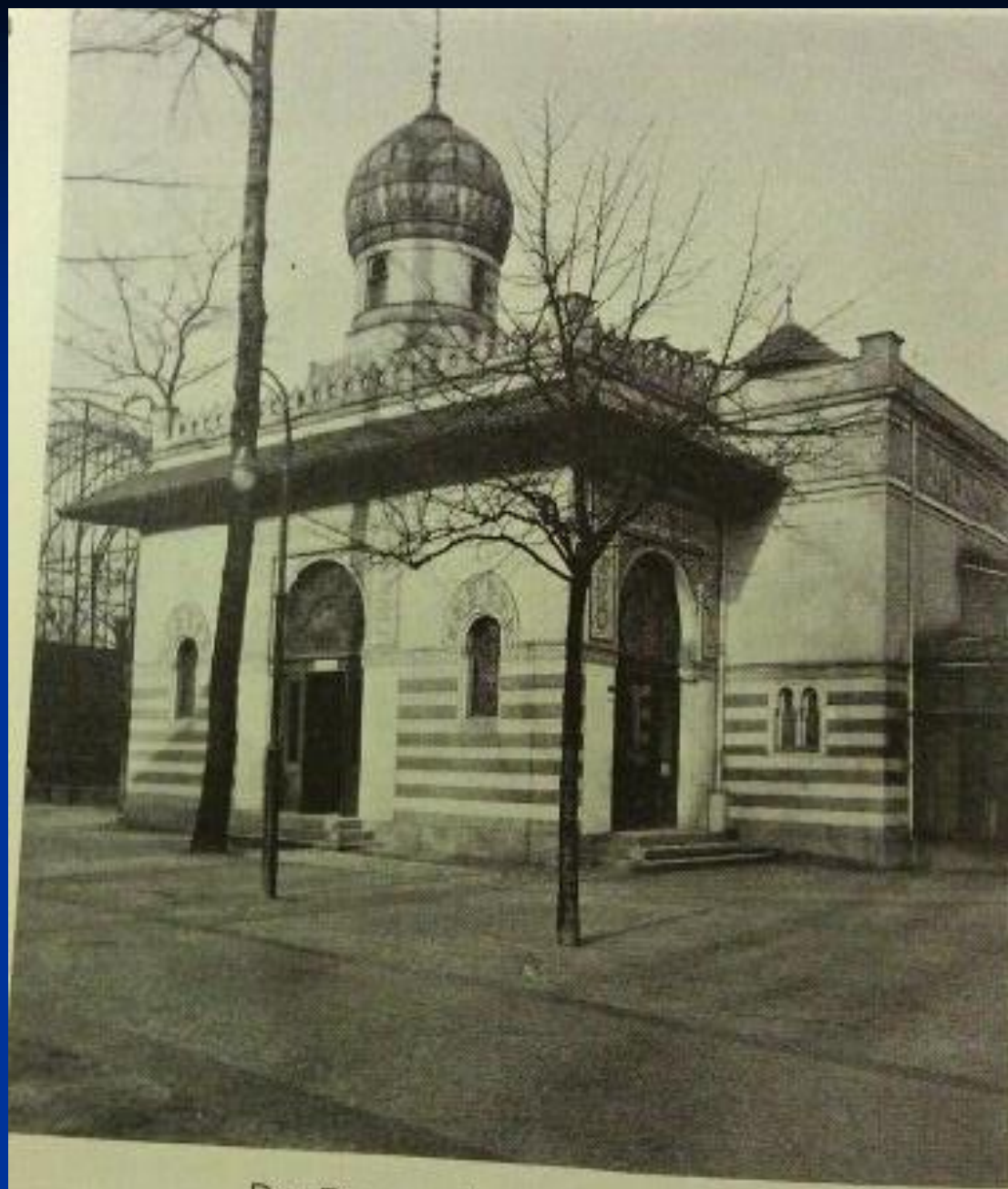






Quapillies im Zoologischen Garten zu Berlin. Nach dem Leben gezeichnet von Paul Neumann.





Der Eingang des Vogelhauses.



(Zoo-Archiv)

Ruine des Vogelhauses. 1943

9. 2. 44	1	Grünzügelpapagei	Mülhausen
9. 2. 44	1	Rotkappenspapagei	Mülhausen
9. 2. 44	1	Maximilian-Langflügel- papagei	Mülhausen
7. 1. 44	1	Weißstirnamazonen	Mülhausen
7. 1. 44	2	Blaustirnamazonen	Mülhausen
9. 2. 44	1	Blaustirnamazonen	Mülhausen
7. 1. 44	1	Taubenhals-Amazonen	Mülhausen
9. 2. 44	1	Blaubartamazonen	Mülhausen
26. 11. 43	1	Gr. Gelbkopf-Amazonen	Mansfeld
9. 2. 44	1	Gr. Gelbkopf-Amazonen	Mülhausen
26. 11. 43	1	Kl. Gelbkopf-Amazonen	Mansfeld
9. 2. 44	1	Kl. Gelbkopf-Amazonen	Mülhausen
7. 1. 44	1	Gelbrückenamazonen	Mülhausen
7. 1. 44	1	Ecuador-Amazonen	Mülhausen
9. 2. 44	1	Surinam-Amazonen	Mülhausen
7. 1. 44	1	Blaukronen-Amazonen	Mülhausen
7. 1. 44	1	Diadem-Amazonen	Mülhausen
25. 11. 43	1	Gebirgs-Ara	Dr. Grzimek
9. 2. 44	2	Leers-Aras	Mülhausen
9. 2. 44	2	Gelbflügel-Aras	Mülhausen
9. 2. 44	1	Grünflügel-Ara	Mülhausen
7. 1. 44	1	Gelbbirust-Ara	Mülhausen
9. 2. 44	2	Gelbbirust-Aras	Mülhausen
9. 2. 44	1	Gr. Soldaten-Ara	Mülhausen
7. 1. 44	1	Blaustirnsittich	Mülhausen
9. 2. 44	1	Jendaya-Sittich	Mülhausen
7. 1. 44	1	Nanday-Sittich	Mülhausen
9. 2. 44	2	Nanday-Sittiche	Mülhausen
9. 2. 44	1	Gelbsteißsittich	Mülhausen
17. 3. 43	1	schwarz-weißer Nashornvogel	Wien
17. 3. 43	1	Rhinozerosvogel	Wien
4. 3. 43	1	Kolkrabe	Jenkins
17. 3. 43	1	Schwarzkopfkitta	Wien
10. 2. 44	2	Blutschnabelweber	Mülhausen
4. 3. 44	2	Blutschnabelweber	Posen
10. 2. 44	2	Rußweber	Mülhausen
10. 2. 44	1	Goldrückensperling	Mülhausen
4. 3. 44	1	blauer Weber	Posen
4. 3. 44	1	dottergelber Weber	Posen
4. 3. 44	1	Textorweber	Posen
10. 2. 44	2	Bandfinken	Mülhausen
10. 2. 44	1	Rotkopflamadine	Mülhausen
10. 2. 44	2	Elsternchen	Mülhausen
10. 2. 44	2,2	Zebrafinken	Mülhausen
4. 3. 44	2	Zebrafinken	Posen
10. 2. 44	2	blaue Reisfinken	Mülhausen
10. 2. 44	2	Muskatfinken	Mülhausen
4. 3. 44	1	Muskatfink	Posen
4. 3. 44	2	Orangehäckchen	Posen
4. 3. 44	1	japan. Mövchen	Posen
10. 2. 44	2	japan. Mövchen	Mülhausen
4. 3. 44	3	Grausmilde	Posen
4. 3. 44	1	Spitzschwanzbronce- männchen	Posen

Am 22. und 23. November 1943 w
Spreng- und Brandbomben auf
fen. Binnen 15 Minuten fielen 30
bestandes dem Angriff zum Opfer
darüber im Januar 1944 an den Auf
logischen Gartens:

„An die Herren Mitglieder des Ant
Der Zoologische Garten Berlin w
vom 22. zum 23. 11. 43 von wei
und Phosphorbrandbomben, dar
Sprengbomben schwersten Kalib
in der darauffolgenden Nacht wu
durch schwere Sprengbomben in
weitgehend zerstört.

Die Verluste an Großtieren sind
und ein afrikanisches Nashorn, ei
Orang (beide über 20 Jahre alt),
tiere (drei Löwen, zwei Tiger,
Bastard), ein Paar Giraffen, die H
und Hirsche.

Doch die wertvollsten Tiere wie d
Pfund schwer), vier Schimpansen,
Elefant, sämtliche Robben, alle
Vögel, z. B. Abu-Markub, usw. ü
griffe. Außerhalb von Berlin wa
ca. 150 Großtiere, insbesondere
und wertvolle Zuchtgruppen.

Verschiedene Tier- und Wohl
gleichzeitig. Da die Wasserleitun
waren, konnte wenig gegen die F
tet werden, doch hatte die M
wurde aber später dadurch g
Schläuche durch Splitter zerschn
Besonders schwer beschädigt wu
haus (Sprengbomben). Das Ant
innen aus.

Vollständig niedergebrannt sind:
Zwei Hirschblockhäuser, Wohnh
(nicht Scheune usw.), Schafha
Altes Tierkrankenhaus.
Ferner entstand Totalechaden:
Hauptrestaurant, Verwaltungsge
pester Str., Unfallstation, Direk
auf den Keller niedergebrannt)
Werkstätten.

Es steht, außer Glas- und Dachh
haus, Nilpferdhaus, Fasanerie, H
für Alpentiere und der alte Lam
anlage, Schweinehaus, Kamelh
Bärenfreianlage, Biber- und Fisc
löwenanlage, Altes Rotbuckbe
kenhaus, Großes Vogelhaus, Aff
häuser, Stelzvogelhaus (halb), K
Schlachthaus, Geragen, Gärtnere
sonderer Wichtigkeit ist; sämtlich
Pumpenanlagen.

1890-1985



CAPTAIN JEAN DELACOUR
President O.P.S.



THE GREEN HOUSE — AVIARY AT CLÈRES



New York Zoological Society Photo
 Captain Delacour and Lee S. Crandall, General Curator of the New York
 Zoological Park, 1943

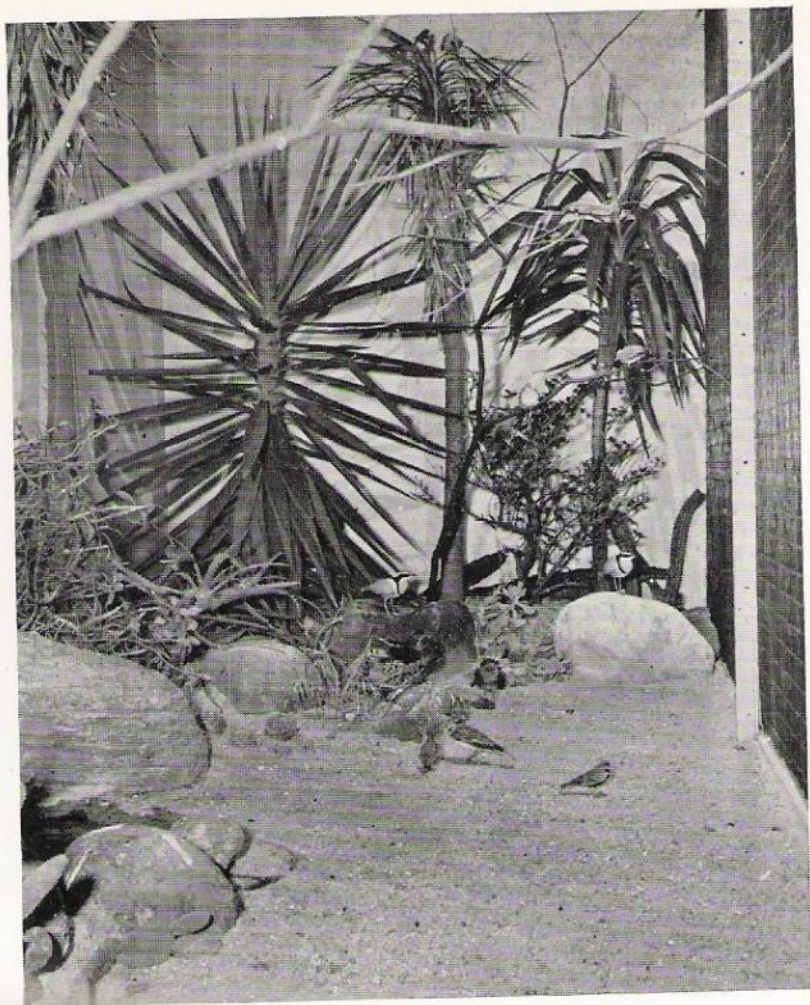


New York Zoological Society
 Dr. Jean Delacour - taken during his years at the Bronx Zoo in the 1940s



12. Tea party at the Bronx Zoo, 1941. From left to right: Laurance Rockefeller, Fairfield Osborn, Jean Delacour, Raymond Ditmars.

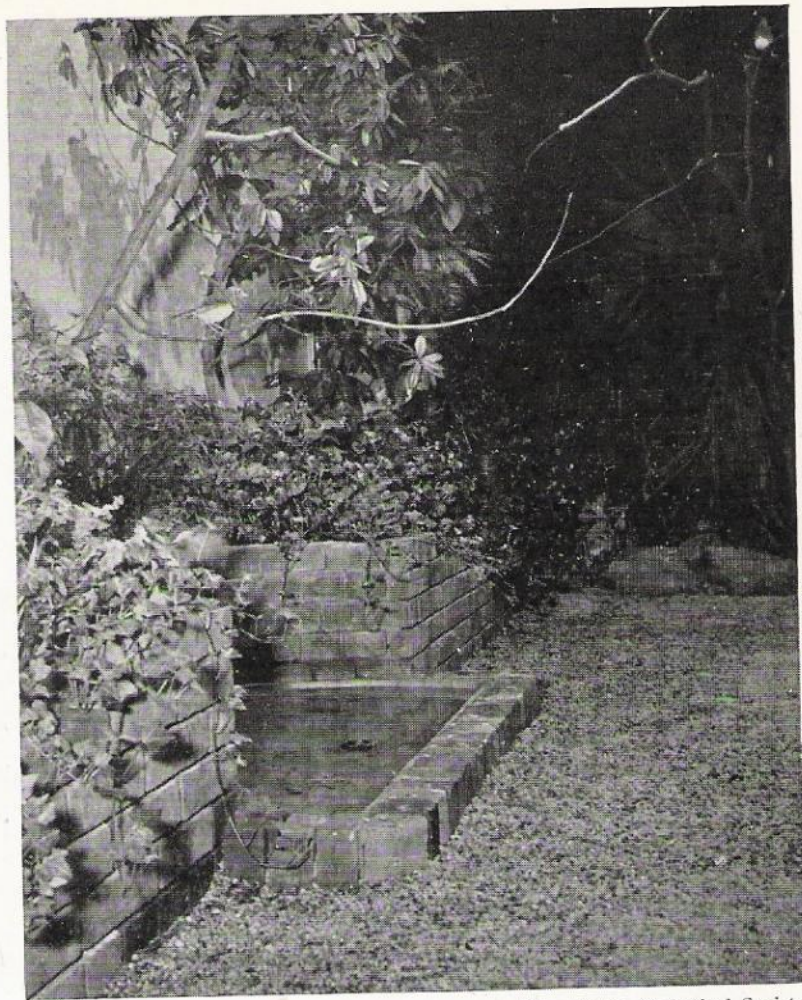




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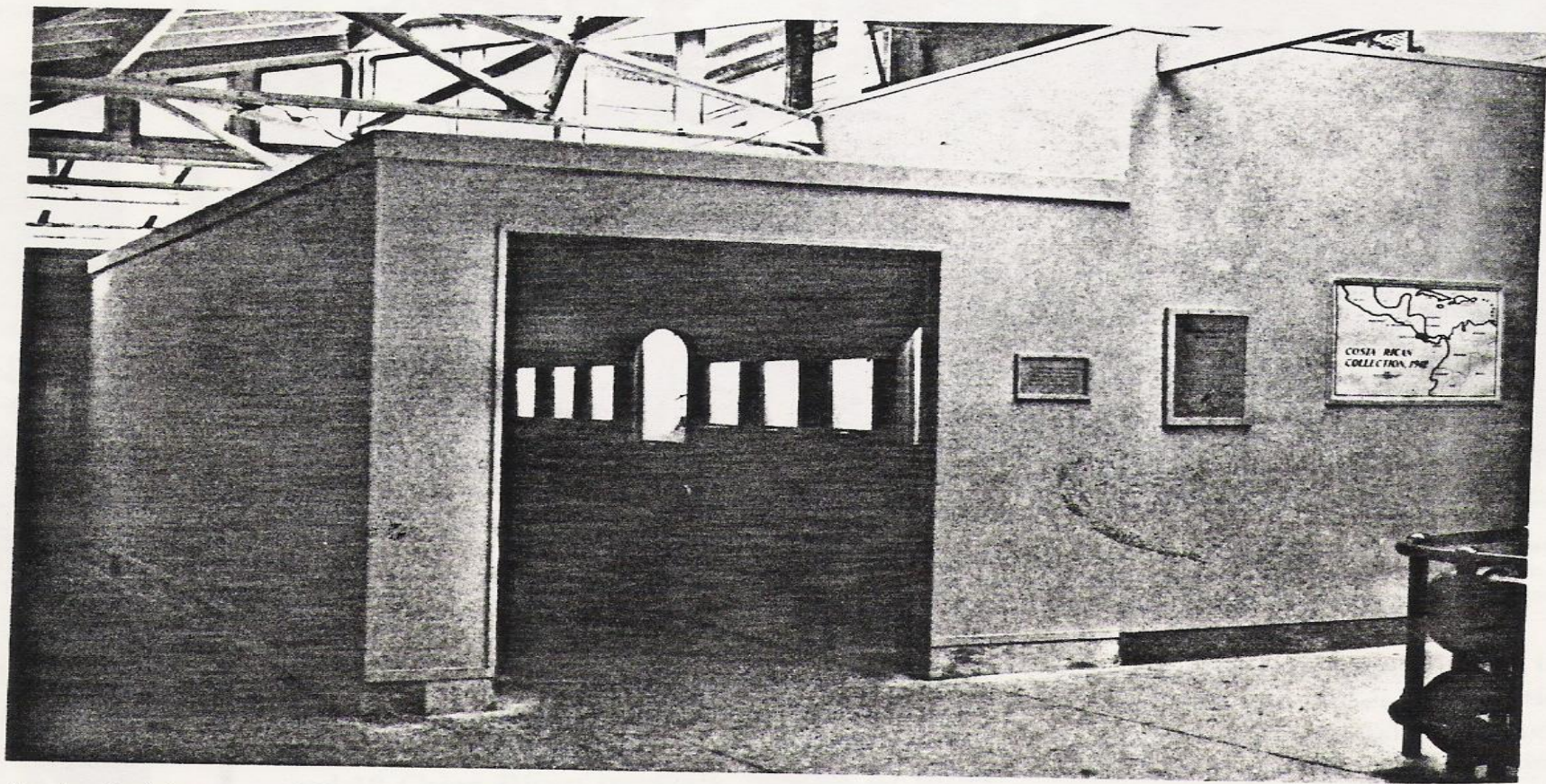
ARID PLAIN.

AVIARIES IN NEW YORK ZOO.

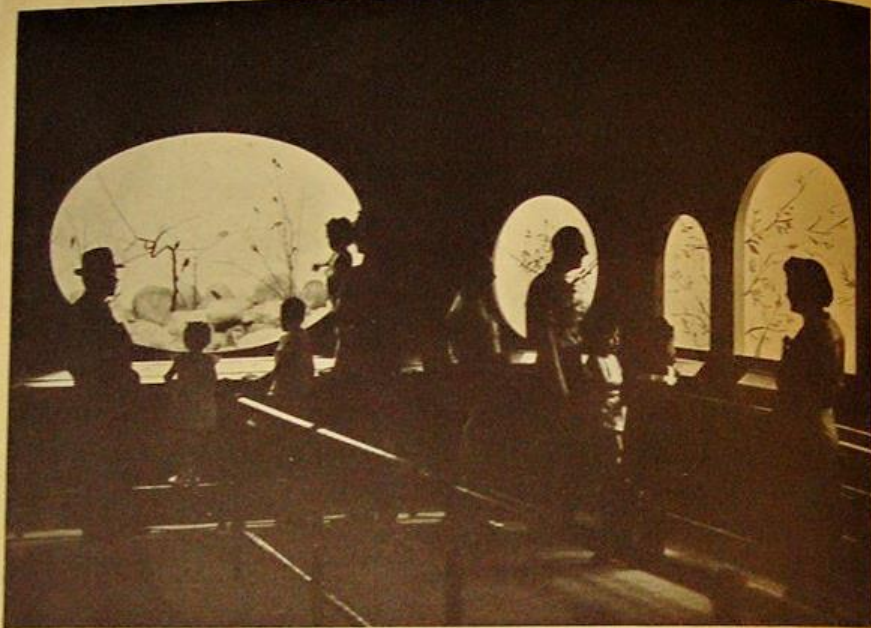


[New York Zoological Society

"NEW ENGLAND GARDEN" FOR NATIVE BIRDS.



In the dark interior of this room — the Jewel Room — that occupies a corner of one hall in the Main Bird House, our new collection of Costa Rican hummingbirds is magnificently displayed. Seven small and three larger compartments hold the birds, and each is planted with hardy green plants and freshly blooming flowers.



The JEWEL ROOM

Our jewels are tropical birds — the snippets of living light that actually glitter and glow with the fires of ruby and topaz, opal and aquamarine, sapphire and lapis lazuli until there is scarcely a precious stone that cannot be matched by some glinting color in these living jewels.

At last they have a setting, in the Bird House of the Zoological Park, that is worthy of their superlative beauty. Twenty brightly lighted compartments circle the darkened room in the southeast wing of the

building; visitors stand in the darkness and watch the flashing wings, the glittering throats, the glowing bodies of the birds among the tropical foliage and flowers that often match the colors of the birds themselves.

building; visitors stand in the darkness and watch the flashing wings, the glittering throats, the glowing bodies of the birds among the tropical foliage.

No small part of the beauty of the setting is lent by the artistry of Jean Delacour, who designed the rockwork and planting of the individual compartments.



▲ Rothschild's Myna is a slim and mostly snow-white bird that often displays in its leafy home.

In a green corner of jungle foliage, the Eastern Cock-of-the-Rock flaunts his beauty ▼

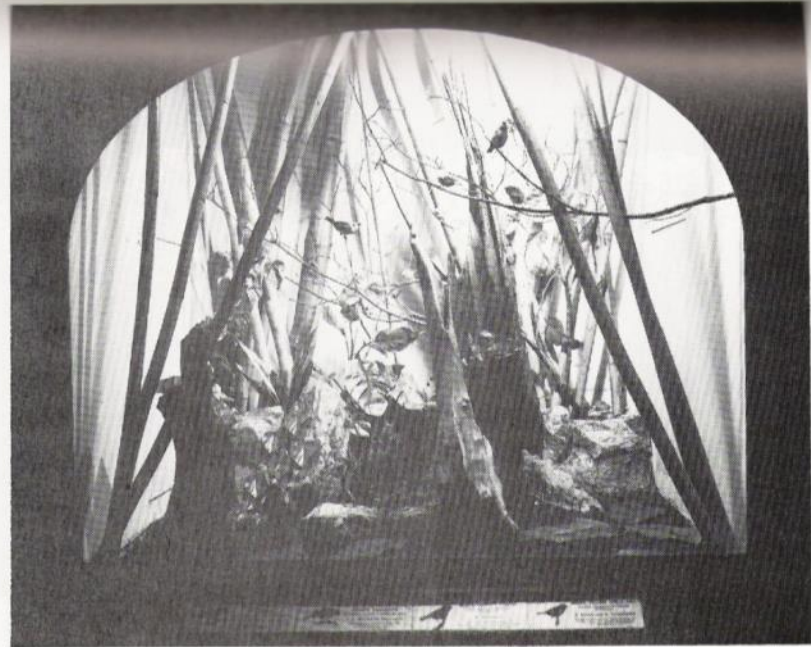




LINDHOLM - JEAN DELACOUR AT THE BRONX

45

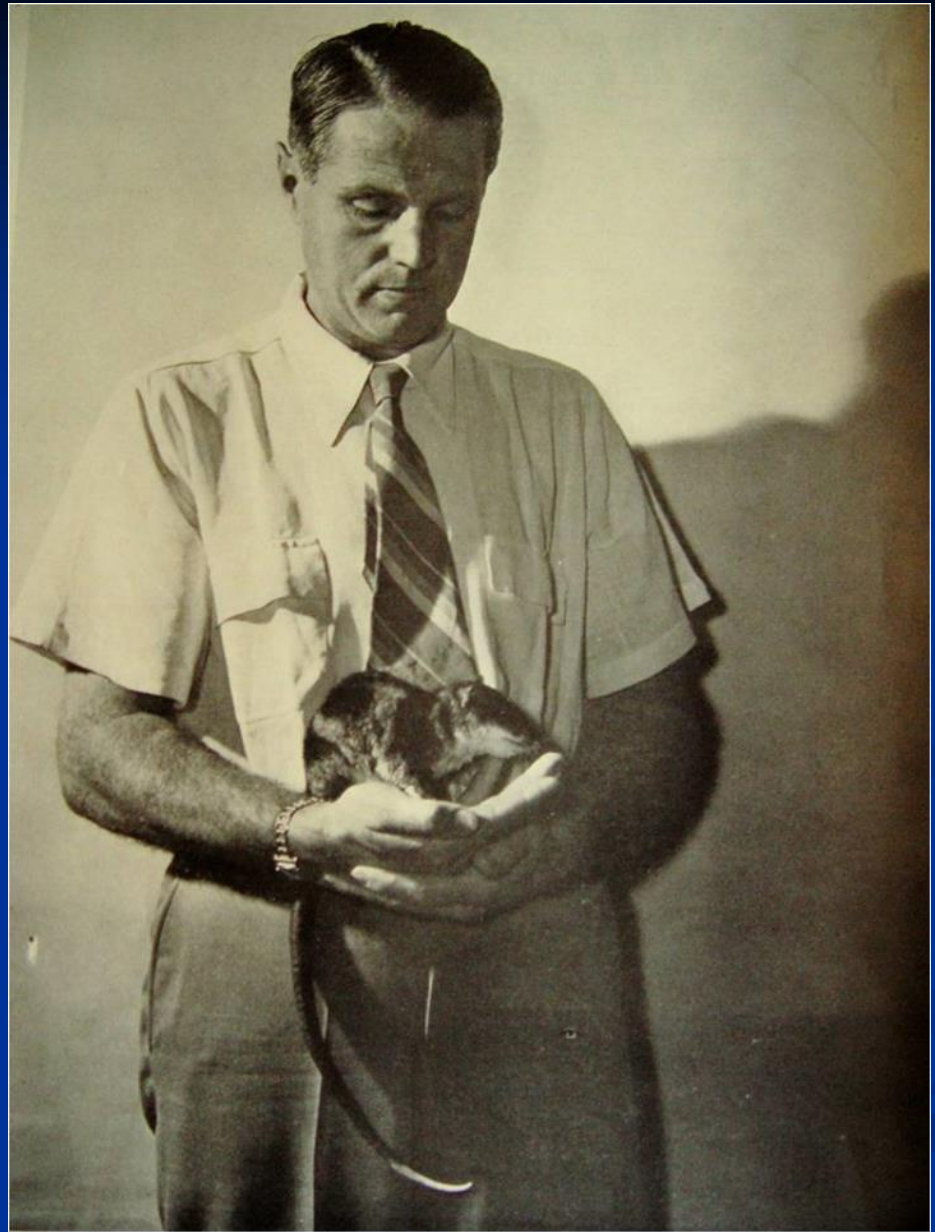
New York Zoological Society
Hummingbird Aviaries in the 'Jewel Room', including the one (centre) in which a pair of
Tacazze Sunbirds *Nectarina tacazze* hatched three chicks in 1960



A 'Jewel Room' Aviary, 1960

New York Zoological Society

Charles Cordier
1897-1994





Copyright]

SCARLET COCK-OF-THE-ROCK
(*Rupicola peruviana sanguinolenta*)

[Bronx Zoo

Collected on the western slopes of the Andes in south-western Colombia and exhibited in the Bronx Zoo for the first time in any Zoo in the world.

AVICULTURAL MAGAZINE

THE JOURNAL OF THE
AVICULTURAL SOCIETY

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MAR.—APR., 1942

A COLLECTION OF SCARLET COCKS-OF-THE-ROCK & OTHER RARE COLOMBIAN BIRDS

By PHYLLIS BARCLAY-SMITH

I am indebted to Captain Jean Delacour for information concerning the greatest collection of Colombian birds ever exhibited at one time in a zoological garden and many never before exhibited anywhere.

Virtually no large-scale collecting of birds has ever been carried out in the almost inaccessible western side of the Andes of Colombia, though a somewhat similar collection was made in Western Ecuador by Walter Goodfellow in 1915 (*Avic. Mag.*, 3rd Series, Vol. VI., p. 373). During 1941 Captain Jean Delacour, technical consultant of the Bronx Zoological Park, received a letter from Venezuela from Charles Cordier, the Swiss bird collector who is considered one of the three or four best in the world. Cordier has collected many birds for the collection at Clères, but he was stranded in South America by the war and Captain Delacour had lost touch with him until the arrival of his letter from Venezuela.

Cordier was immediately commissioned to make a collecting trip through the Cock-of-the-Rock country and at the end of September he reached the village of Ricaurte in South-Western Colombia. On his first day in the village he had the extraordinary good luck to find two hand-reared Cocks-of-the-Rock in the possession of a villager, and was able to buy them for a few cents.

Hummingbirds were plentiful all around Ricaurte and Cordier caught many of them within half a mile of the village. They were captured with a sticky gum on the tip of a 30-foot bamboo pole, the gum being tipped on to their wings as they hovered over low-growing flowers.



PLATE 26 BIRD The cock of the rock family. The cock of the rock is found in densely forested places along the headwaters of small streams in South America. It is mainly a fruit-eating bird. (1) The white-throated bellbird of Brazil is about 11 inches long. The sound it makes is more like the clanging of a hammer on an anvil than the sound of a bell. (2) The eastern cock of the rock, which is about 11 inches long, lives in northeastern South America. (3) The Peruvian cock of the rock, of northwestern South America, is about 13 inches long. (4) The scarlet cock of the rock is one of the rarest of this family of birds. It is about 13 inches in length, and differs from the Peruvian cock of the rock mainly in its deeper color. It is found in western Colombia and Ecuador.



Cleveland ZOO

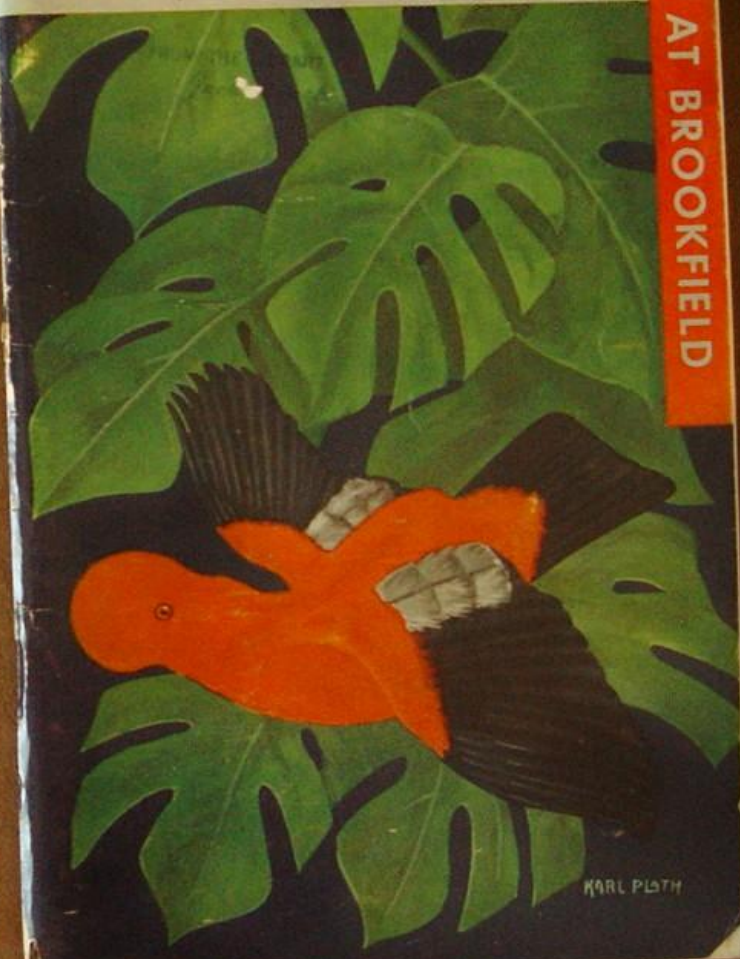
FROM THE LIBRARY OF
Jack Lynch



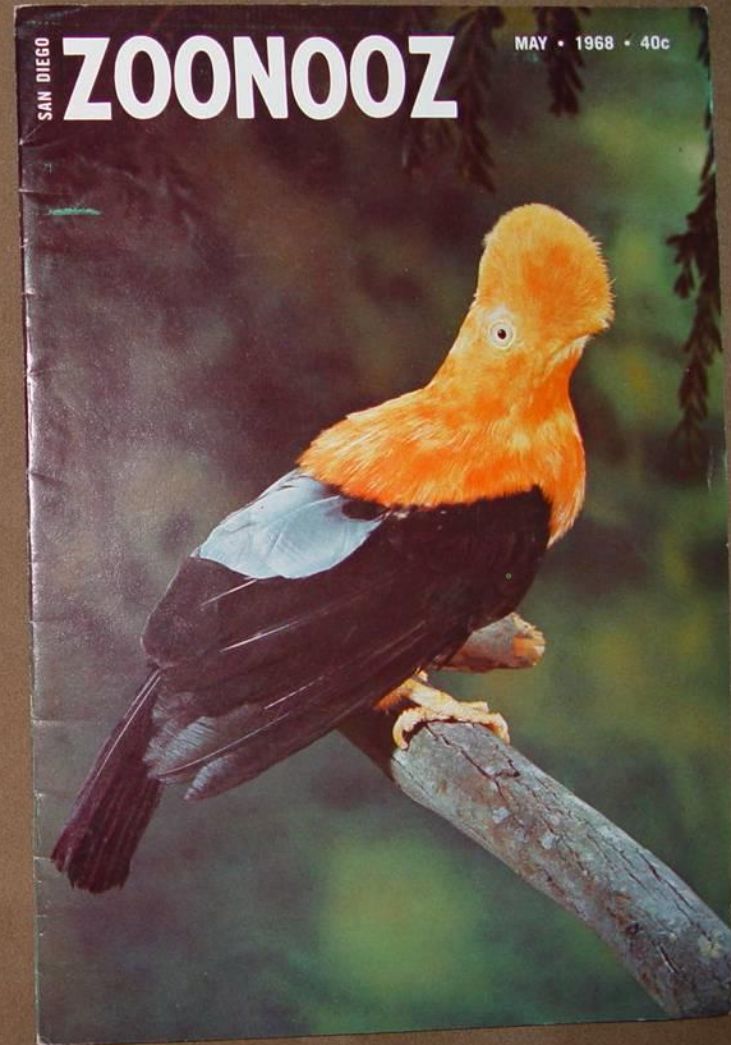
William E. Schuch

Guide Book

ZOO AT BROOKFIELD



KARL PLATH







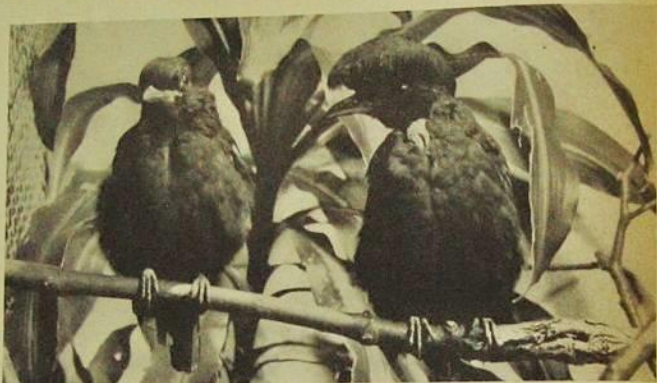








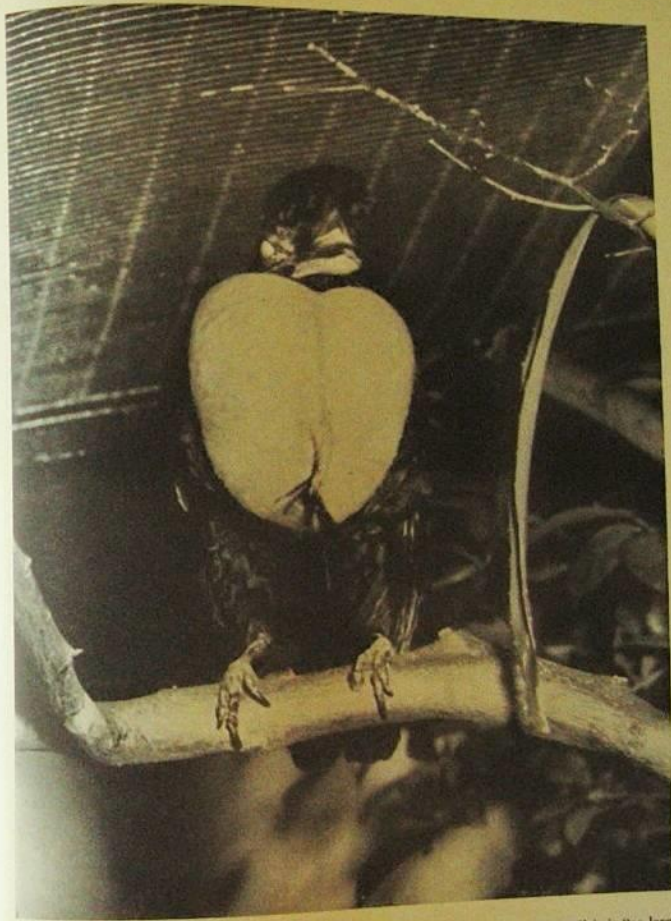




When the male Umbrella Bird (at right) is out of breeding condition, the bare, red throat area is greatly contracted and gives little promise of the enormous proportions it will bear later when inflated. This is the pair of Umbrella Birds, shortly after arrival and before they had really settled down.



The contrast with the photograph at the top of this page is apparent in this picture, made this spring when the Umbrella Bird was at the height of its display. Even the tiny, feather-tipped "pig tail" at the bottom of the throat area can be seen. The far less spectacular female Umbrella Bird is at the left.



At the peak of display. Here the male Umbrella Bird has inflated his air sac fully until it is "as large as a tomato," as Charles Cordier described it after seeing the display in the forests of Costa Rica. Even as a tomato, the fleshy tassel near the lower part of the sac distended in this way, the bare skin remains bright red. The fleshy tassel near the lower part of the sac has grown from a three-quarter-inch spike of skin to a length of almost three inches, and when the bird moves his head from side to side rapidly, the tassel will gyrate like the pendulum of a runaway clock.

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SEPTEMBER-OCTOBER, 1950

ANIMAL KINGDOM



THE MAGAZINE OF THE NEW YORK ZOOLOGICAL SOCIETY



LEFT—The Long-wattled Umbrella Bird from the western slope of the Andes is one of the great prizes of the Society's expedition. This is the first time it has ever been exhibited alive.

Equally rare is the Eastern Umbrella Bird, from the east slope of the Andes—another "first timer." It has a short wattle that is generally held close against the body, and is scarcely seen.



forested islands continued. It was on March 2 that the first Eastern Umbrella Bird—a female—fell into the nets. In a letter from Providencia, dated March 5, Charles related his experience with this bird:

"There is quite a tale to this capture. Some days ago I received the linen thread from August you sent to Emy and I made up one fine large net, working like mad. The day it was ready I went over to the island to hang it up where everything had been left in readiness near the one and only fruit tree. Imagine my pleasure upon noticing that all the lines had been stolen. . . . We took the poles down, put up new lines—a matter of four men and one day—and set up the net. Then I went over to the oil camp a good mile downstream. Going and coming we had outboard motor trouble and it was 8 P.M.

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before we managed to reach the nets again, thanks to bright moonlight. There was only an owl in one of the five. We were turning back when an Indian boy appeared to confide their neighbors had taken a *bogomero* (Umbrella Bird) from one of the nets. We hurried over and, sure enough, there was the female, mentioned above, in a basket. Expected to sell it to me later, no doubt."

On April 8, two males were added to the bag. The field mission completed, Charles took off down river to the military post at Tiputini, from which he expected to be flown back to Quito. Unfortunately, flooded conditions on the small airfield prohibited landing there and it was not until May 10 that, through the good offices of Mr. Werner Speck, Swiss Consul at Quito, in chartering a plane, Charles was safely returned to his base at Quito. His difficulties in keeping and feeding his precious birds and our own anxiety as to his safety during this trying period, will not soon be forgotten.



TOP—The Equatorial Cock-of-the-Rock, a form new to us, is colored tangerine, silvery and rich, velvety black.

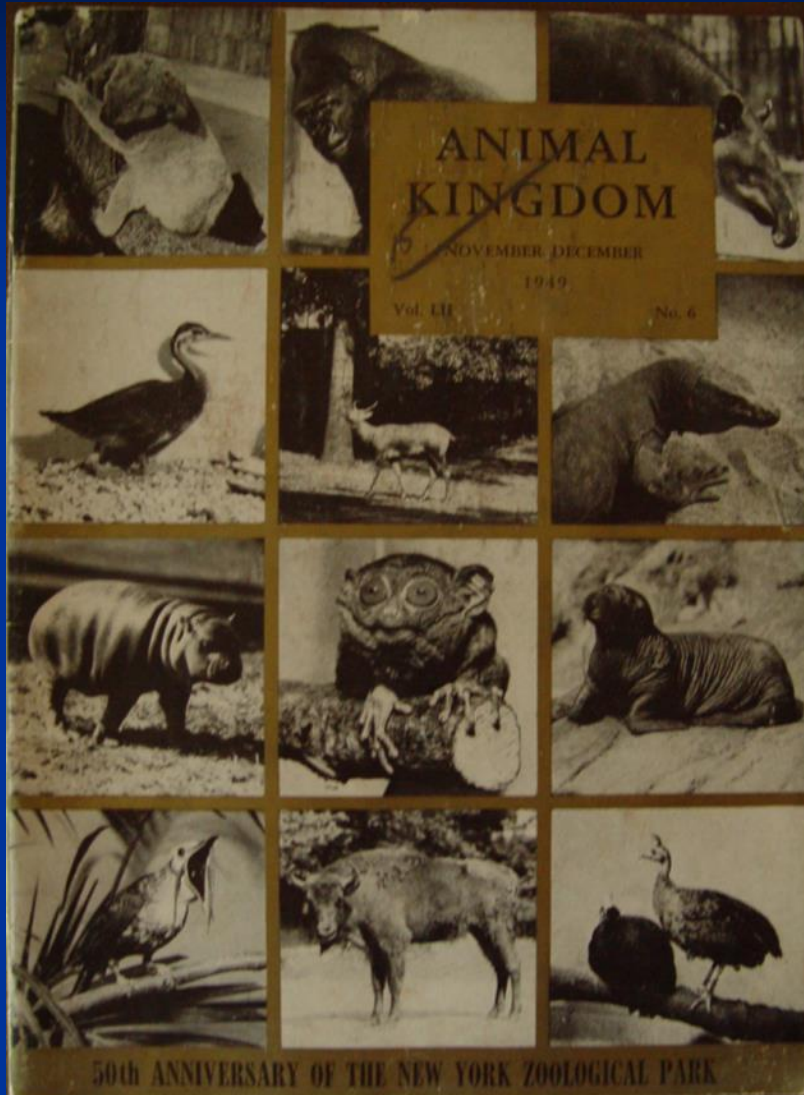


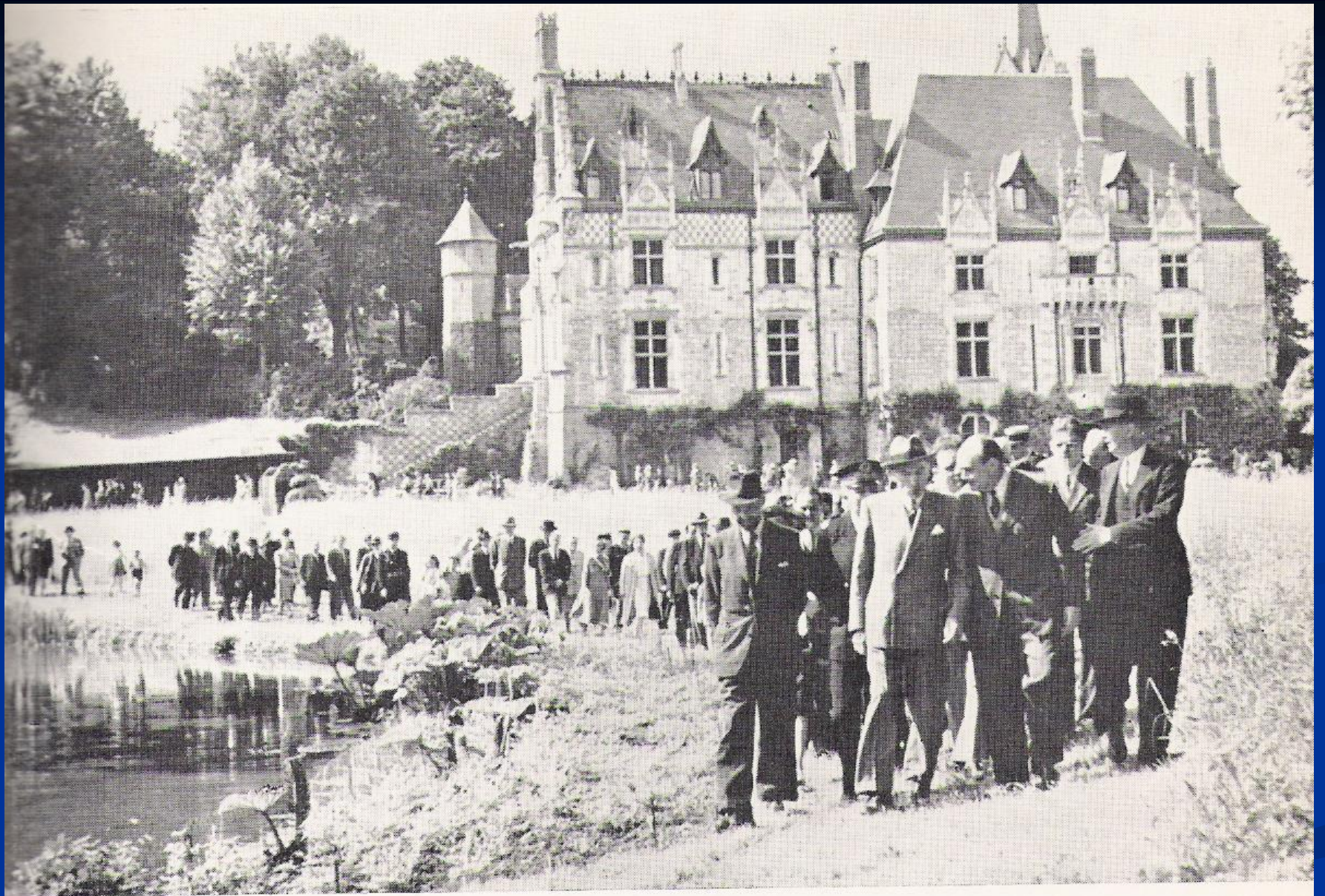
CENTER—The Hooded Mountain Tanager is one of the largest of the Tanagers, and is a rare and colorful bird.



BOTTOM—This Turquoise Jay is probably the first one ever to be exhibited. Its plumage is in varying shades of blue.







22. The re-opening of Clères, 1947. From left to right: The Mayor of Clères, M. A. Mauger, the Prime Minister, M. André Marie, Jean Delacour, the Director of the Paris Museum, Professeur A. Urbain.

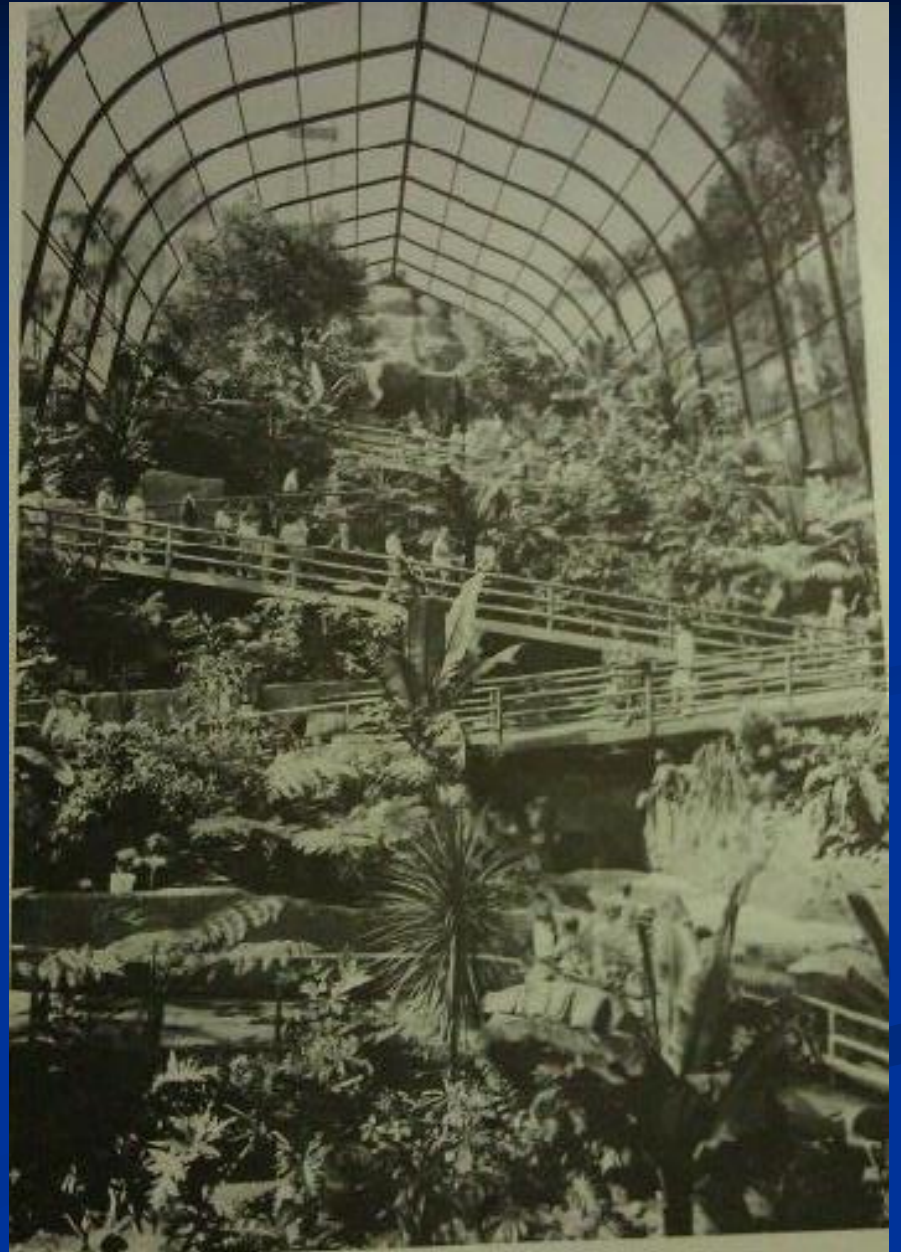
AROUND THE ZOO

Mayor Charles C. Del helped us dedicate our new walk-through flight cage on opening day. After a brief ceremony he became our first official visitor and we followed into the cage by Mrs. Belle Boushley, director emerita, Captain Jean Delacour, director of the Los Angeles County Museum (holding sword), and Howard L. Chernoff, secretary of the Zoological Society, also took part in the dedication.



Several hundred birds of 85 species fly within arms reach of visitors in the towering walk-through cage, only one of its kind in the world. A trail winds from top to bottom alongside a brook, pools, waterfalls and sub-tropical plantings.





Birds Exhibited in the Tropical Rain Forest

25 Java Rice Birds, 3 Orange Weavers, 2 Ribbon Finches, 2 Pine Siskins, 1 Fire Finch, 2 Non-pareil Pintail Buntings, 2 Painted Buntings, 2 Strawberry Finches, 6 Zebra Finches, 2 Red-backed Juncos, 2 White-headed Mannikins, 2 Nutmeg Finches, 2 Cherry Finches, 2 Golden-crowned Sparrows, 2 White-crowned Sparrows, 2 Song Sparrows, 2 Western Bluebirds, 1 Blue-winged Siva, 2 Evening Grosbeaks, 1 Black-headed Grosbeak, 1 Japanese Hawfinch, 1 European Hawfinch, 4 Pyrrhuloxias, 2 Virginian Cardinals, 2 Venezuelan Cardinals, 2 Crested Cardinals, 2 Pope Cardinals, 3 Bullock's Orioles, 1 Yellow-headed Blackbird, 4 Red-winged Blackbirds, 2 Song Thrushes, 2 Hermit Thrushes, 2 Dwarf Cowbirds, 1 Himalayan Blue Whistling Thrush, 1 Indo-Chinese Roller, 1 Regent Bower Bird, 3 Spotted Bower Birds, 1 Apostle Bird, 1 Black-headed Sugar Bird, 10 Yellow-winged Sugar Birds, 2 Violet Tanagers, 1 Black-throated Tanager, 5 Maroon Tanagers, 3 Silver-throated Tanagers, 10 Slate-blue Tanagers, 2 Emerald-spotted Tanagers, 2 Cedar Waxwings, 2 Bohemian Waxwings, 2 European Blackbirds, 1 Corn Bunting, 1 European Robin, 2 Bald-headed Mynahs, 1 Java Mynah, 2 Andaman Mynahs, 2 Indian Hill Mynahs, 1 Cuban Tragopan, 2 Quetzals, 1 Orange Cock-of-the-Rock, 1 Scarlet Cock-of-the-Rock, 1 Grey-winged Trumpeter, 1 White-winged Trumpeter, 2 Sun Bitterns, 1 Inca Green Jay, 2 Black Crakes, 2 Sora Rails, 1 Wilson's Rail, 3 Florida Gallinules, 2 Thick-knee Plovers, 2 Black-bellied Plovers, 1 Lapwing Plover, 1 Black-necked Stilt, 1 Killdeer Plover, 3 Sulphur-breasted Toucans, 1 Toco Toucan, 3 Chestnut-capped Aracaris, 1 Lettered Aracari, 3 Persian Nightingales, 4 Pekin Robins, 1 Buff-throated Saltator, 5 American Anhingas (Water Turkeys), 2 Kaysna Touracos, 1 Schlater's Motmot, 3 Russet-crowned Motmots, 2 Western Mockingbirds, 2 Californian Brown Towhees, 2 Mourning Doves, 1 Bleeding-heart Dove, 2 Peruvian Yellow-eyed Doves, 1 Black-fronted Amethyst Dove, 2 Peaceful Doves, 6 Diamond Doves, 4 Pearl-necked Doves, 2 Senegal Doves, 1 Tambourine Dove, 2 Blue Ground Doves, 2 Pigmy Doves, 1 Plumed Dove, 2 White-collared Ringneck Doves, 1 Crowned Pigeon, 1 Victorian Crowned Pigeon.

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NOVEMBER • 1962 • 20¢



WHITE BALI MYNAHS SELDOM LEAVE THEIR ISLAND

By Kenneth C. Linn

EDITOR OF BIRDS

A PAIR of Hutton's Grackles, or White Bali Myths, successfully nested and reared a youngster in the Zoological Garden of San Diego in 1962. This beautiful crested grackle is snow-white in color, except for the tail and wings which are tipped with black. The face is marked by a lovely soft blue.

The species is found only on Bali, an Indonesian island of some 2,000 square miles located a little more than one mile from the east coast of

Java. Bali, 93 miles long, is only a mile wide at its narrowest point, and has an extreme width of 30 miles. Its landscape is full of contrasts, very beautiful, with a profusion of vegetation and wonderful views from the northern mountain areas. Bali is composed of green rolling grain fields, and magnificent forests of teak, palm, casahuate, satorin, banyan and other productive tropical trees. Conditions are perfect for the growing of sugar cane, coffee, cacao, tobacco,

Fashions were still a bit raffish when the twenty-day-old White Bali Myths peeped for the first time. Only hours before it had emerged from the well-hidden nest among the rocks through a narrow passage.





The free-flight exhibit in the new tropical birdhouse has become one of the most popular attractions in the zoo.



EASTERN COCK-OF-THE-ROCK
(*Rupicola rupicola*)



GREAT BIRD OF PARADISE
(*Paradisea apoda*)

Aru Islands off New Guinea. This is the largest of the true birds of paradise. When displaying, the plumage is erected and radiates out like a fountain. There are over 100 different kinds of birds of paradise but changing ecology has great-



BIRDS



The members of the animal world with which the majority of us are most familiar, because we see some of them every day, are the wild birds. It may be just a robin on the front lawn, but the wonders of bird life are continually before us, inviting our exploration in a field of nature that holds both excitement and mystery.

How does that robin manage to travel hundreds of miles in its yearly migrations and return to nest season after season in the same tree? Even the scientists cannot entirely answer that one. And the question of what guides birds in their migratory flight is truly something to wonder about.

Birds are of many kinds, and there are some that do not fly, but they are all warm-blooded vertebrates that are clothed in feathers



AT HOME IN THE NEW BIRD HOUSE, a habitat group at the left seems to have been lifted out of a secluded forest. The bird seen in the branches is a Quetzal from Central America. Pictured above is the Bird House at Cleveland Zoo—the most modern in the world.

Penciling Birds

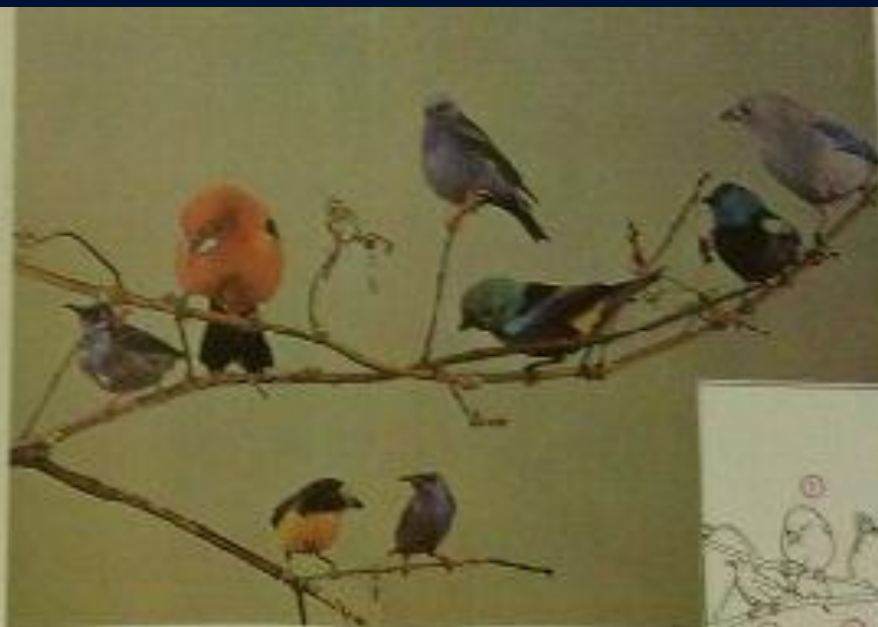
74. www.pearsoned.com

The earlier *Adaptation* of the same name is, according to the title, a study of the ways in which organisms have adapted to their environment. The book is a study of the ways in which organisms have adapted to their environment. The book is a study of the ways in which organisms have adapted to their environment.

The fact of these birds' not singing in captivity. There is the case of *Chrysomitris* in which, not only females, but also males in a pair, which remain in intimate contact for years after flight, when the first species is in pairs in nature, occasionally singing the love or the song. The birds singing a songing note in captivity is another odd fact about them.

Traditionally, writing was done on the parchment of the long book, a practice which is based on the fundamental character of the writing in that the word is developed, rather than on 12 other "document" qualities. Unfortunately, if the electronic message format is not carefully tailored to the purpose, the same basic, unaltered words in New World and old-world words would simply exist in the time in. Additionally, looking at the New World message, many words have been lost and many New World messages are the longest, of which there are more than 1000 words.

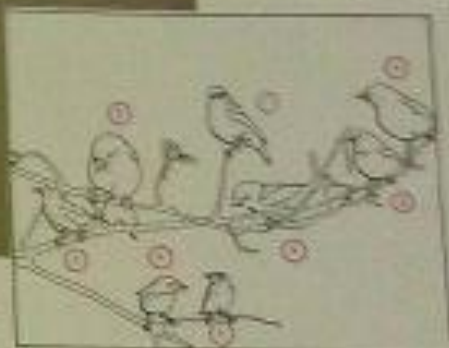
Representatives of the families of the other children usually are collected at the local hospitals and members of the New York and other of the Old Works.



STURGEON LITTER PLANT is common in the grassy meadows of species confined to some areas feeding. The meadows, above beds, are meadows of an enormous, that Field family, surrounding them.

ANSWERS: They belong to the genus, with many members worldwide and common. The yellow, elongated, and segmented in the wings are seen the larva to be semi-transparent wings.

- a. *Staphylococcus aureus*
Gram-positive
- b. *Streptococcus pneumoniae*
Gram-positive, lancet-shaped
- c. *Neisseria meningitidis*
Gram-negative
- d. *Escherichia coli*
Gram-negative
- e. *Salmonella typhimurium*
Gram-negative
- f. *Yersinia enterocolitica*
Gram-negative



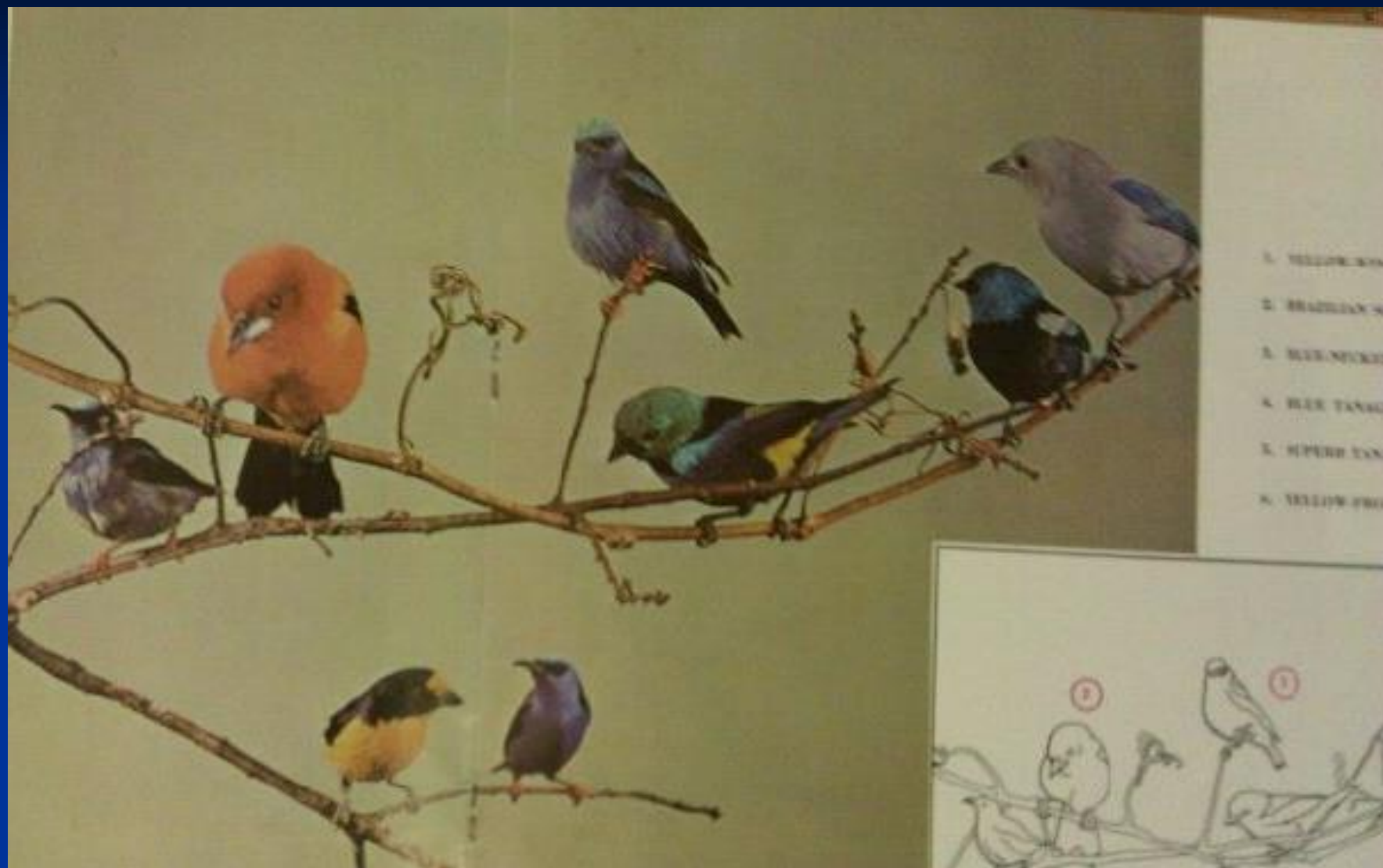
MYRTILLERA GEOPUNARIA (Cavanilles)
syn. *Blauvelaria*, Cavanilles. *Blauvelaria* is a
genus and family combination a parallelism
back, numerous species. This old tree lives in
Tenerife in volcanic, and in some of the areas
may be found in a single tree. The south of
the island, is higher than the north.



12.6.8.8 *Stylops* (Stylopsidae) is a small, parasitic wasp. It is found in the same habitats as the other species mentioned above. The female has a small head and a long, slender body. It is found in the same habitats as the other species mentioned above.

SHYING UP. Last November, during the election, this shaggy lioness in brown and grey coats often is found prominently in brown, grey and other food. It is often seen in dark, dark with orange and yellow and yellow.





has light pink-tinged plumage.
 BLUE HERON, largest species
 North America, is bluish gray.

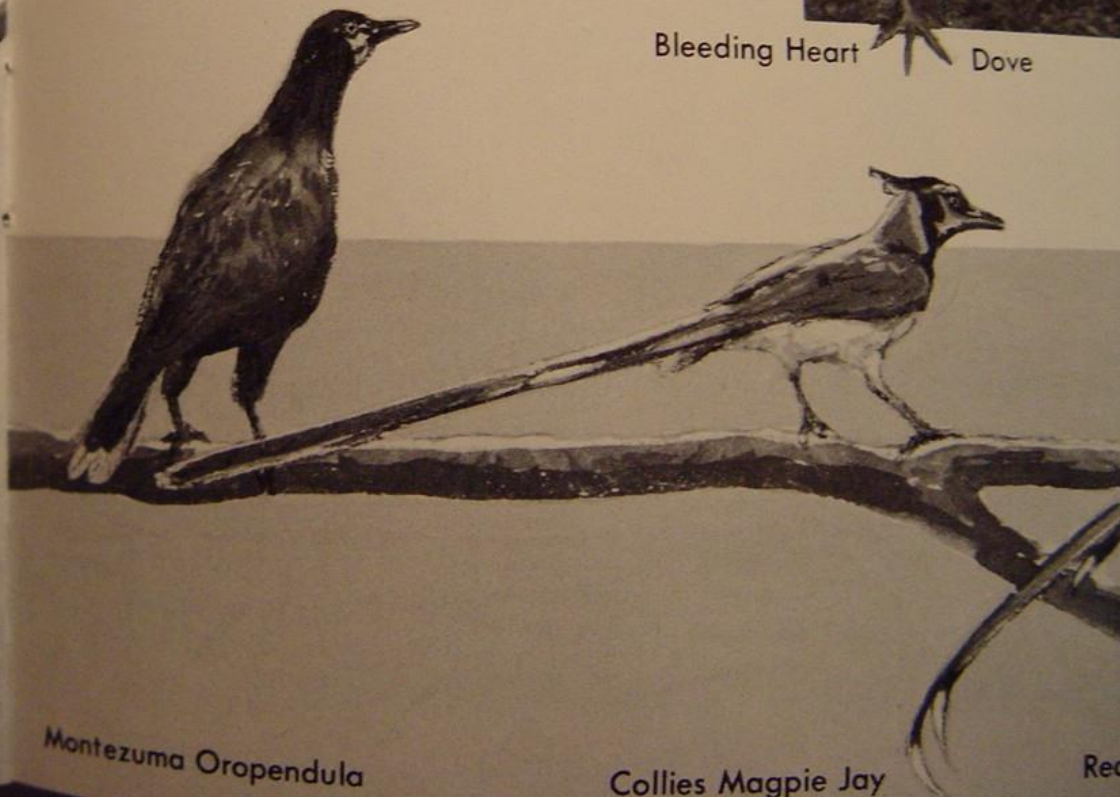


Montezuma Oropendula



Bleeding Heart

Dove



Colliers Magpie Jay

Rec



Plate 24. The "walk-through" aviary, including a tropical section, is one of the most popular features of the new Wood Buffalo Park Bird House. It is a large, open-air structure of glass, steel, and concrete, with built-in paths and benches. The design allows enough light to reach the roof and main spaces in the ceiling, providing a sufficiently bright atmosphere, as well as a constant stream of air. The aviary contains many birds, including, among others, pelicans, swallows, and many other species.

Plate 25. The outdoor wing of the Wood Buffalo Park Bird House, showing the cages for the small birds. The "walk-through" aviary is a large, open-air structure of glass, steel, and concrete, with built-in paths and benches. The design allows enough light to reach the roof and main spaces in the ceiling, providing a sufficiently bright atmosphere, as well as a constant stream of air. The aviary contains many birds, including, among others, pelicans, swallows, and many other species.



Plate 26. The preparation of the new Wood Buffalo Park Bird House is shown from the side of the house by glass doors. The interior is a large, open-air structure of glass, steel, and concrete, with built-in paths and benches. The design allows enough light to reach the roof and main spaces in the ceiling, providing a sufficiently bright atmosphere, as well as a constant stream of air. The aviary contains many birds, including, among others, pelicans, swallows, and many other species.













84 The new Apollodorus House of New York Zoo is designed to look like a cave. The structure is made of large blocks of concrete and is designed to look like a cave. The structure is made of large blocks of concrete and is designed to look like a cave. The structure is made of large blocks of concrete and is designed to look like a cave.

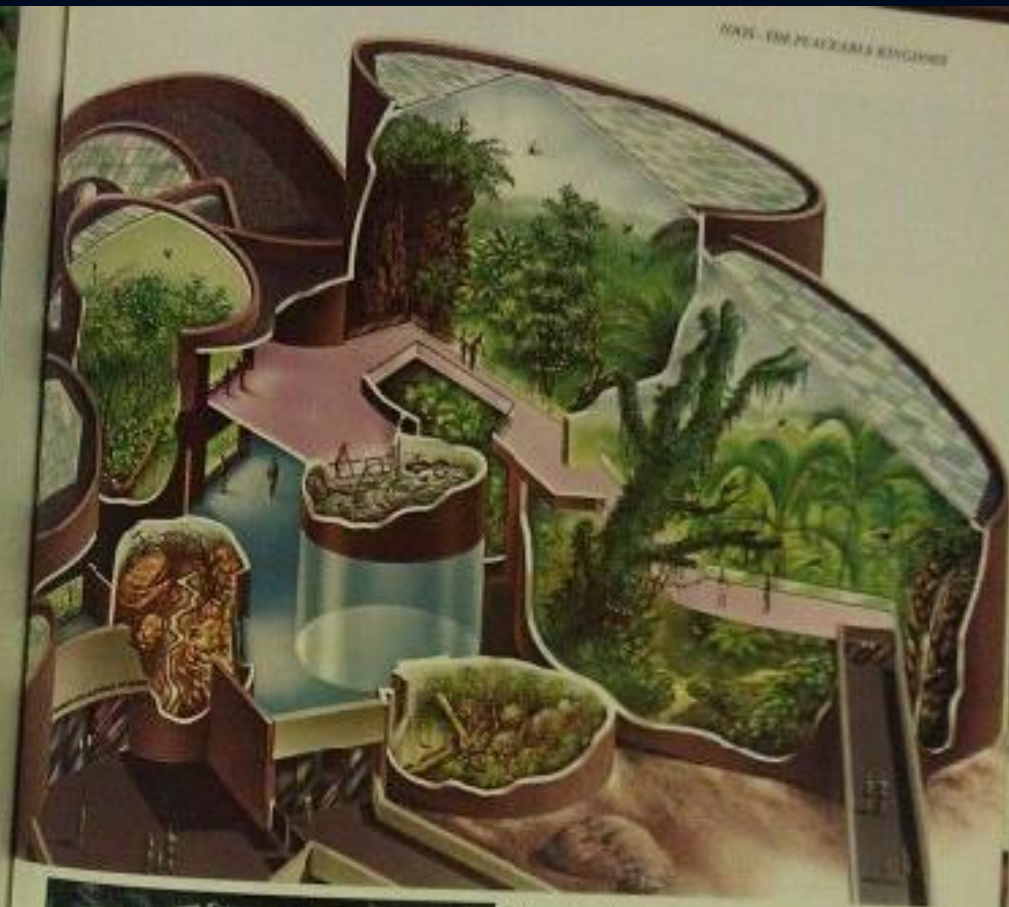
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The World of Birds Brings People and Birds Together

The World of Birds building, with its eye-catching skylight roofs, is a striking example of functional design. The photograph (left) highlights the portion of the building that is integrated and cut away in the painting (above). This section of the building contains a variety of bird flight exhibits, ranging from a rocky hillside to a wooded swamp, from the dry Australian scrub to the tropical rain forests of Africa and South America. While most exhibits feature habitat groupings, others explore such aspects of bird behavior as nesting and mating. Several water exhibits can be viewed both from ground and through birds. An impressive layout leads visitors past every exhibit without ever turning back; ramps eliminate the need to climb stairs.



AN ASIAN JUNGLE



28. 29. This view is from the top of the walkway, looking down at the enclosure. The enclosure is a large, open-air area, with a metal railing in the foreground. The enclosure is filled with various plants and trees, creating a sense of depth. The background shows more trees and foliage, creating a sense of depth.



30. This view is from the top of the walkway, looking down at the enclosure. The enclosure is a large, open-air area, with a metal railing in the foreground. The enclosure is filled with various plants and trees, creating a sense of depth. The background shows more trees and foliage, creating a sense of depth.















