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PARLIAMENT OF NEW SOUTH WALES

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REPORT OF THE TRUSTEES  
OF THE  
AUSTRALIAN MUSEUM  
FOR THE  
Year ended 30th June, 1957

BY COMMAND

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# ANNUAL REPORT

## OF THE TRUSTEES OF THE AUSTRALIAN MUSEUM

### FOR THE YEAR ENDED 30th JUNE, 1957

TO HIS EXCELLENCY THE GOVERNOR—

The Trustees of the Australian Museum have the honour to submit to Your Excellency their 103rd Annual Report, for the year ending 30th June, 1957.

No changes in membership of the Board of Trustees have occurred during the year.

As stated above this Report is the 103rd, nevertheless the Museum celebrated its centenary as long ago as 1927, as is recorded in a commemorative tablet on the front of the building. This tablet was unveiled by the then Premier, the Hon. T. R. Bavin, who in his speech made on the occasion said "that funds for building extensions deserved the support of the Government and the public". The Museum is a scientific and educational institution and in the past thirty years there has taken place throughout Australia a vast building programme catering for the needs of science and education, but support of this nature for the Museum has not been forthcoming. Because of this fact, and because it is appropriate for a public institution periodically to review its progress and the services it performs for the community, this Annual Report differs in form of presentation from those submitted in recent years. It aims to show that the Museum though old is vital; that its activities are important and that its need for expansion is desperate.

#### GROWTH AND DEVELOPMENT OF THE MUSEUM

The Australian Museum may well be the oldest existing scientific institution in Australia. It is not proposed to outline its early history but only to draw attention to significant steps in its development, commencing with the year 1860.

In that year the Trustees, in their 7th Annual Report, wrote as follows: "The urgent requirements for additional buildings and space for the rapidly increasing and valuable collections of the Museum have been brought under the notice of the Government in the years 1857, 1858 and 1859. We have now only to state that the experience of the past year has rendered these requirements painfully evident".

In their Report for the following year, the Trustees "had pleasure to report that additions to the Museum were in progress". Further additions soon followed, as in 1868 it was recorded that "the new wing has been opened to the public since January".

In 1879 when, for the first time the Museum was opened on Sundays, and the attendance figures were 164,604, the Trustees "regretted exceedingly that no commencement has been made by the Government in enlarging the Museum".

In the eighties the Museum was in an active and flourishing condition since collecting and scientific expeditions were the order of the day and considerable sums were spent on purchases, not only of specimens, but also of books. Building activities likewise progressed and in 1886 the Trustees were able to report that "a great improvement and desirable addition to our buildings has been made by the completion of our new hall". Five years later they noted that "the proposed much needed enlargement of the Museum has been commenced", and in 1893 that these particular building operations had been completed.

In 1894 it was reported that "the Government retrenchment scheme has caused the Museum to suffer severely"; nevertheless in 1896, £6,000 was voted by Parliament for further building extensions. In spite of this appropriation the Museum was not at that time receiving adequate financial support and in a review of the Annual Report in the *Surveyor* for 7th November, 1896, it was stated that the Report was "sad reading". "For in a new country rapidly becoming settled," commented the writer, "and where the many species of mammals, reptiles, fish, insects, etc., are necessarily being either changed by the introduction of foreign species or entirely exterminated in the altered conditions of their habitat, collecting should form one of the largest items in the Annual Report of a Museum". The review continued: "The same note runs through the entire Report. The insect collections can only be made an index instead of a complete series, not from want of specimens, but from want of space".

The new spirit house (for storage of specimens preserved in spirit) was completed in 1897, and in 1901 it was stated that the erection of half of the new South Wing had made satisfactory progress.

Gallery lectures were instituted in 1906 for the benefit of teachers and students and mention was made in the Report for that year of the need for a properly equipped lecture theatre. By 1909 the South Wing had been completed and in the Report is mentioned the "new lecture theatre". It is of interest to note that the Annual Report for this and for a few subsequent years was illustrated.

In 1911, the year in which the whale was suspended from the roof of the entrance hall and in which leaks in the roof became troublesome, plans were prepared for a further extension of the Museum building, the proposal being "to continue the main building to provide enlarged and much needed accommodation for a library, scientific work-rooms and offices".

The Report for 1912 mentions the need for a "Children's Room, such as is to be found in Museums elsewhere", and the attendance for the year was 169,970 visitors. In 1914, the financial position of the Museum was recorded as "desperate". Not only were purchases of books and specimens discontinued but the issue of publications ceased.



The following statement appeared in the Annual Reports for 1917, 1918 and 1919: "*Every portion of the building is now occupied, either for exhibition, administration, bibliographical or storage purposes and as a result of this the affairs of the Institution are hampered and its activities in some respects brought to a standstill. No degree of re-arrangement can alter this state of affairs. The only relief possible is to considerably extend the building*".

In 1921 a commencement was made with the installation of electric lighting, collecting expeditions were resumed and the Museum Magazine started. Some 290,000 visitors came in 1929 and the Trustees in their Report for the year regretted that the Australian Museum had not been the recipient of monetary bequests "as are so freely made to similar institutions in other parts of the world".

### MARKING TIME

As the preceding paragraphs have shown, the Museum, like all things based on human endeavour, has had both its ups and downs. However, so far as building developments are concerned, while progress continued spasmodically up till 1910, since then *for a period of no less than forty-seven years, no major additions have been made to the buildings*. A little additional storage space has been made available by the provision of mezzanine floors in several rooms, but this has given only a temporary relief to the problems of overcrowding. In 1957, as in 1896, the insect collections are restricted, not from want of specimens, but from want of space. During this period there have been two world wars and a financial depression but these cannot be the reasons for neglect of the Museum, since as already mentioned, during the same period there has been achieved within Australia a vast building programme of scientific laboratories. The explanation consequently must be sought elsewhere.

The Museum has three principal functions: the assembling, care and classification of collections; education and research. Are the collections now complete or have they lost their usefulness? Have the exhibition galleries no place in modern education? Is research of the nature undertaken in natural history museums no longer regarded as worthwhile? These matters will be considered in later sections of the Report but first it is relevant to examine the position in countries overseas.

### PROGRESS OVERSEAS

Most of the nations of Europe have fine, active natural history museums, but it is more appropriate to examine the position in the New World. Visitors to the United States who have been to New York or Chicago and seen their magnificent natural history museums will be aware that interest in these museums on the part of the general public is as alive today in America as it has ever been in the past. As these museums are situated in cities with considerably greater populations than the whole of New South Wales they are unsuitable for purposes of comparison. There are, however, to be found throughout America numerous smaller foundations which all testify to the same fact and which show that museums can become places of great educational value and popular appeal. They can, moreover, become places for pride for citizens in a community. This, for example, is the position in Denver, Colorado, where in the Annual Report of the Natural History Museum for 1956 it is reported that attendance for the year totalled 650,601 visitors, which amounts to approximately one visitor for every resident of Denver. It may be mentioned that this museum, which has an Australian Hall and has sent more than one collecting expedition to this country, came into existence only in the early years of the present century.

### CHILDREN AND THE MUSEUM

The Museum is part of the New South Wales Department of Education, hence it is appropriate that it should cater especially for children as they almost certainly comprise the greater number of visitors.

#### School Classes

Classes come to the Museum from all parts of Sydney; some come regularly once a month throughout the year, some once a term, and others only once a year. About half of the regular classes are Opportunity C. Children.

An example of a typical class is that of Berala Primary School, coming to the Museum to study the Australian Aborigines. First of all the children are taken to the Lecture Theatre for a short discussion of the topic. Here they are able to handle the boomerangs, clubs, axes and baskets which the Aborigines use, while the methods of using these objects and the way of life of these people is illustrated with slides and a film. Important points are discussed and items to watch for in the gallery are noted. The class is then taken to the Aboriginal Gallery and each child is given a "questions sheet". This is a foolscap sheet of questions which can be answered only by looking at the exhibits and reading the labels.

This sheet serves two purposes, first it directs attention to the most important and relevant features of the exhibits and secondly it provides a "Cook's Tour" of the gallery. When the question sheet is completed, it is taken to the Education Officer for correction and the pupil receives a printed leaflet on the Aborigines. The child then returns to the exhibits which particularly interested him on the first round and proceeds to make further drawings and notes. These, and the question sheets, form the basis of the "follow-up" programme when the class is back at school.



### Other Visits

Although some 10,000 children visit the Museum each year in school classes (and the provision of a second Education Officer would enable much larger numbers to be handled) this is but a small proportion of those who come at week-ends and during school holidays. In order that full benefit may be derived from such visits to the Museum it is essential that gallery displays should be simple, attractive and informative. An extensive programme of gallery re-organisation is being undertaken and all new exhibits are being planned with these requirements in mind. The fact that the exhibits are being made to interest children does not mean that they will lack appeal for adults and it is anticipated that all visitors to the Museum will benefit from the changes.

### Children's Room

Forty-five years ago the Trustees in their Annual Report mentioned the need for a Children's Room. This is a room which could be used as a class room in term-time and as a natural history club-room during school holidays. In it would be kept specimens for handling, reference books for children to use themselves, and such materials as drawing boards and paints. In holiday times children would be encouraged to bring in for identification specimens which they had collected themselves and by this means an interest in natural history would be encouraged. Plans for such a room have been prepared; these involve the partitioning of a small part of a gallery and the provision of the necessary equipment.

## GALLERY PLANS AND PROGRESS

### Design and Display

Since the Museum has been in existence changes have taken place in display techniques, but examples of even the earliest methods are still to be seen in the galleries. In these latter exhibits quantity was the main criterion. Not only were the floors very largely occupied by exhibition cases, but every case was crammed to capacity. Next came Habitat Groups, in which a few selected animals are shown against a background of their natural environment. Habitat Groups are attractive to look at, but they are time-taking in preparation and expensive, and once built tend to achieve a permanence which is undesirable. When it comes to learning about animals a visit to a zoo or a library has as much, or more, to commend it than a visit to a Museum equipped only with exhibits such as are described above.

The present-day method of display relies on colour, good design and simplicity and enables scientific information to be presented in an interesting way. By combining scientific facts, specimens, models, photographs (and, if need be, coloured illustrations,) in a single display, a museum exhibit can become vastly superior to any other means of imparting information. These techniques, in fact, enable museums to justify their claims to be educational institutions in keeping with the times.

### Planning

Changes in a museum take much planning and preparation and cannot come about, as it were, overnight. They require the co-operation of scientists, designers, artists, taxidermists, modellers, ticket writers and artificers. They also need to be co-ordinated so that the result shall not be a series of unrelated displays but a unified whole with a single theme. The overall theme most appropriate to a natural history museum is to tell of the long history of life on earth, how it is lived, its interest, and how all animals are inter-related and inter-dependent. A natural history museum, as well, needs to provide information about animals in the country where it is situated, and to enable their identification, and in this respect museums in Australia are in a fortunate position because of the extreme interest of our fauna.

### Plans

Plans and designs for new displays have been prepared for the Aboriginal Gallery, Bird Gallery, Fish Gallery, Invertebrate Gallery, Insect Gallery, Mineral Gallery, Mammal Gallery, Fossil Gallery and the Skeleton Gallery. Particulars of those where change is in actual progress are given in the next section of the Report, and brief mention need only be made of a few of the rest and of an exhibit which is to be installed in the entrance hall.

In the planned re-organisation of the mammal display it will be explained how mammals are derived from reptiles, in what manner they differ from them, and the interest of the Platypus and Echidna (Spiny Anteater) will be stressed. It will be shown that while most Australian mammals are marsupials, some are not; that while Australian marsupials differ from those found elsewhere, Australia is not the only country inhabited by them and that so far as is known marsupials originated in North America. The principal of adaptive radiation will be explained, whereby animals in time come to make use of the various types of environment and food available to them. It is in this way that marsupials have come to parallel in appearance and habits animals found elsewhere to which they are not closely related (for instance the marsupial mole of the Nullarbor Plains superficially resembles the European Mole).

So far as foreign mammals are concerned a few specially chosen representatives from each of the major zoogeographical areas of the world, arranged according to the region they inhabit, will be displayed along one side of the present skeleton gallery. In this way it will be possible to stress the special interest and unique features of mammals from such places as tropical South America and Madagascar, and to show and explain the relationships and differences between those of Asia and Africa.



Then, in order to show the place of mammals in the procession of life, a "tree" indicating the inter-relationship of back-boned animals will be installed at the top of the stairs, immediately facing the entrance to the Museum.

A similar "tree" showing the relationships with each other of animals without backbones (and these comprise by far the greater part of the animal kingdom) is planned for the Invertebrate Gallery. This has already been designed, as have other displays which will show animals that live in the depths of the sea; invertebrates of medical importance, adaptations of invertebrates for special ways of life; the organisms that cause fouling in the Port of Sydney; the story of mollusc fisheries and other interesting aspects of these animals and their lives.

### Progress

Progress can best be appreciated if seen, and a visit to the Museum will convey more of what has been and is being done, than a few lines of print. The Aboriginal Gallery has received first priority in the planned programme of additions and changes. For a long time this has been a fine gallery and has the benefit of lighting in the wall cases. In the past year two large new display cases have been installed to house, and show the use of, the smaller objects which form part of the culture of these people. Most of the panels are now complete and are an excellent example of present-day display technique.

One end of the adjoining Bird Gallery has been adapted for new bird exhibits and these are now being installed. They will explain such topics as the migration of birds, how birds fly, the derivation of birds from reptiles and the way birds live. For those who wish to be able to name birds they have seen, an identification series will be installed later in the present Fish Gallery.

The cases at the other end of the Bird Gallery have been rebuilt for the display of large fishes and the whole of the adjacent section of the Museum will be devoted to fishes, again arranged in such a way as to look attractive and provide interesting information.

Between the Bird Gallery and the future Fish Gallery is a hall where reptiles and amphibians are shown. One side of this will be used for insect and spider exhibits and a new display case has been installed in this part for venomous spiders and related creatures.

The Invertebrate Gallery has already received mention and reference has been made to a plan to prepare a "tree" indicating relationships. The case for this has been constructed during the year, hence both ends of this gallery now have an up-to-date appearance.

### THE AUSTRALIAN FAUNA

Everyone knows that Australian mammals are of particular interest, since egg-laying mammals now live nowhere else in the world and our rich marsupial fauna is unique. It is also well known that our birds include many of special importance. However, it is not generally appreciated that the same degree of interest relates to Australian animals in nearly every group, whether, for instance, they are insects or such lowly forms as worms.

It is the responsibility of museums to assemble comprehensive collections representative of the fauna, to care for them, arrange them in a systematic fashion and to classify them so far as is possible. While formerly scientists working in museums were content to confine their studies largely to dead animals, this is not the position today and good systematic studies call for a knowledge of animals as living creatures and of their place in the environment they occupy.

At one time the Museum was responsible for numerous collecting expeditions, but even though the need for these is as great as ever, few, for reasons of finance, have been possible in recent years. Much of the Australian fauna is still unknown, or if the creatures are known and even named, very little is known about them. The animals living in this continent are, as well as our heritage, also our trust and our responsibility, and we have a duty to international as well as to local science, to assemble representative collections while there is still time, to encourage research with them and all efforts for their conservation.

It might be thought that as the Australian Museum is a State institution its interests and responsibilities are limited to the confines of New South Wales. Such a narrow outlook is not accepted as scientific inquiry recognises no political boundaries.

Although Australia is responsible for the administration of a large part of New Guinea, neither the Federal nor any State Government has yet sponsored a faunal survey of this important area. Instead it has been left to museums in Europe and the United States to take the initiative and it is to these continents that collections and consequently Type material is going and not to Australia where it more properly belongs.

### STUDY COLLECTIONS AND THEIR PURPOSE

Probably most visitors to the Museum suppose that the exhibits they see in the public galleries comprise the greater part of the national collections. That this opinion is widely held is evident from the numerous occasions when, after a gift has been made to the Museum, donors express disappointment at not seeing the specimen they have presented on display. In actual fact, by far the greater part of the collections are inaccessible to the casual visitor though always available for examination and study by the serious student.

For well over a century the collections have been increasing and treasures have poured in from all parts of the world and are housed in their thousands. There are, for instance, certainly more than half a million shells and thousands of birds, and rock and mineral specimens and fossils from all geological ages fill row after row of cabinets. Store rooms are filled with fishes, reptiles, and marine animals of all sorts



and with specimens depicting the life of the fast disappearing Aborigines and of other peoples of the Pacific region. Mention has been made earlier in this Report of lack of space for the insect collections. While probably there are at least a quarter of a million insects in the Museum by far the greater number of the various sorts of Australian insects is not represented. As a result of the inadequacy of the collections of this important group, research institutions, other than museums, which need reference collections of insects have been forced to assemble their own. No one would question the importance of collections of insects and the need for their increase and proper study. It might be thought, however, that in groups such as birds and mammals the position was different, as surely all Australian birds and mammals are now known and named and representative collections available?

The best collection of Australian birds is housed, not in Australia, but in the American Museum of Natural History and for the clarification of many systematic problems relating to Australian birds a visit to New York is essential. The greater part of the bird collections in the Australian Museum consists of specimens lacking the data essential to present-day research workers and will in time have to be replaced. Then, there are many areas in the continent where collecting is particularly needed. These include, for example, the rain forests of the Clarke Range in Queensland, the Rawlinson Ranges in central Australia, and the Gulf of Carpentaria.

It is not proposed to review the position in regard to the collections in all the several Departments of the Museum and mention will be made of the position of only one more, but much the same state of affairs is to be found in the others. The Ethnological Collections of the Museum are very fine, but far from completely representative. As in other Departments the greater part is held in store and not on exhibition, and because of their intrinsic and scientific value have recently been removed from a timber shed, where the fire risk was great, to the New Guinea Gallery, which as a result has had to be closed to the public. The opportunity still exists for filling gaps but this will not remain the position for much longer and the need for collecting expeditions is just as urgent as is the need for storage space.

While the collections serve for permanent reference purposes and are made use of by scientists and scholars from all over the world, in most departments they are, as well, of great importance for practical purposes. It would be tedious to give particulars of the significance of the collections in each Department and those in one only, the Fossil Department, will be mentioned. Fossils have been chosen as their usefulness is not generally appreciated. They are the remains of animals and plants which have lived on the earth in former times. Though the Museum is not concerned with living plants it does have collections of fossil ones. From the study of fossils it is possible to learn what sorts of animals and plants lived in Australia at different geological epochs, of past geography and of past climates. They also help to explain the relationships of groups of living creatures to each other and the way in which evolution has taken place. The fossil record is far from complete but new material is constantly coming to light. We know for instance that in very recent geological times marsupials larger than any now in existence (Diprotodons) lived in Australia; but remains of this group of animals from earlier times have not yet been found.

The use of fossils for practical purposes is as great as is their scientific importance. With their aid it is possible to determine the geological sequence of beds and to correlate strata in different localities, and this knowledge is essential for mining purposes and when search is being made for oil.

### THE LIBRARY

The Museum library is the finest "natural history" library in Australia. This is because of its age and the long sequence it holds of many of the older scientific periodicals. It has been assembled largely as a result of gifts and exchanges, though in the past considerable sums were spent on purchases. Of recent years purchases have been severely restricted, hence the library is failing to keep pace with those of better endowed institutions. It is not used solely by members of the Museum staff, or even by residents of Sydney, but by scientific workers in every part of Australia, books being lent through the inter-library loan system.

As with the scientific collections, so with books, the space position in the library is desperate.

### THE PLACE OF THE MUSEUM IN THE MODERN WORLD

On page 6 brief particulars were given of the principal functions of the Museum. These were, as stated, the assembling and care of collections, education and research, and queries were raised as to whether neglect of the Museum could be ascribed to the fact that the days of the Museum's usefulness to the community were passed. In the intervening paragraphs the use and importance of the collections has been explained and also the part that the Museum is playing in the educational field. In the sphere of research the role of the Museum is today as important as it has ever been in the past, even although methods and techniques have changed. Formerly many Museum workers lacked academic qualifications, nevertheless several made important contributions to knowledge. Today good degrees are as essential for museum workers as they are for scientists in other fields. Thus, in all its three principal fields the Museum is abreast with the times and is of great importance from both the point of view of education and research.

### BUILDING PLANS AND PROGRESS

Forty years have passed since the Trustees made an impassioned appeal (see page 6) for additions to the Museum building and in those forty years specimens and books have continued to pour in. As can be imagined the need for additional space has become greater than ever. The mezzanine floors which have been installed are now fully occupied; an important gallery (the New Guinea Gallery) is being used as a store and is hence closed to the public, and every available corner in the Museum is filled to capacity.



For close on fifty years there has been talk of a new wing. Committees met to discuss plans but these were drawn up only to be neglected and abandoned until it seemed as if there settled over the Museum an acceptance of the state of affairs, and the "new wing" joined the company of those projects, such as the Channel Tunnel, which are excellent ideas improbable of realisation.

Of recent years, forced by the realisation that the Museum must expand or stagnate, and conscious of the importance of their trust, the Trustees have adopted a policy of sober optimism and have moved accordingly by taking such essential preparatory steps as have been possible of realisation.

A new wing can be situated on only one possible site and will form a continuation of the northern frontage of the Museum. The site is at present occupied by a collection of wood and iron sheds and before it can be got ready for building operations it is necessary for the sheds to be demolished. Approval for the demolition of the sheds has been given and it is hoped that soon the work will be undertaken. Meanwhile, as mentioned in the Annual Report for 1956, some 7,000 square feet of storage space has been acquired in a warehouse on the outskirts of the city and the transfer of much of the contents of the sheds to the warehouse has already taken place. At the rear of the Museum is a service road which gives access for delivery purposes. The road is so situated that it crosses part of the site of the new wing and it was evident that building operations could not be commenced until a "replacement" road was laid. This has now been done.

The wing as planned will be of six storeys and of simple modern design. Of these six floors, the two lowest will serve for storage of scientific collections and for office and laboratory accommodation for part of the scientific staff. The re-arrangement, as planned, will permit the logical expansion of the various departments and will mean that the collections of any one department can be housed in one place and not scattered in several, as at present. For example, shells are now stored in the basement and on the second floor and insects on the second floor. The transfer of the entomological department to the new wing will free space on the second floor and enable shells to take their place close to the rest of the shell collections. It will also enable expansion of the important insect collections and mean that collections offered to the Museum can be accepted and not refused, as has happened on more than one occasion in recent years.

The four upper storeys will be for public gallery exhibits. Though it is desirable for the public to be able to see many of the numerous treasures, especially those of ethnological interest, that are now held in store, so much needs to be done in the way of re-arrangement of existing galleries that at present there is no pressing need for these floors. This is especially so since the provision of the two lower floors will free for exhibition purposes the gallery now used as a store.

### PRESSING NEEDS

The Museum is the oldest and greatest natural history museum in Australia. Its collections in several departments (for instance in that of mineralogy) are the finest in the continent and of great scientific and intrinsic value. For close on half a century it has had no major additions to its buildings. Its greatest need is for storage space so that collections can be arranged in an easily accessible manner, for study purposes, and be enabled to expand. The provision of two floors of a new wing would provide the needed accommodation and enable the Museum to function in a satisfactory manner for a considerable period.

From the educational point of view, transformation of the gallery displays from their present outmoded appearance is of vital importance, as it is only by this means that the Museum can fill its role as a true educational institution in the present scientific age. Such transformation calls for the provision of up-to-date display cases and these are expensive, and beyond the means of the Museum to finance.

It is of interest to note that in New Zealand considerable building additions are now being made to the museums at Auckland and Christchurch; that the Dunedin Museum is shortly to commence building operations and that the Dominion Museum in Wellington has a magnificent new building which has been erected within recent years.

### AN APPEAL FOR FUNDS

In Australia nearly all museums depend on Governments for their upkeep. This is not the position in other countries, where museums are often financed by municipalities and receive much by way of private endowment.

In 1933 a Report was published on the Museums and Art Galleries of Australia, which had been prepared by a Committee financed by the Carnegie Corporation of New York. In this Report it was stated that probably in no other country in the world is there such an overwhelming proportion of government museums as in Australia, and probably nowhere else do cities do so little.

There is no need to look further than New Zealand to learn of practices in other countries. In New Zealand, three of the large museums, those in Auckland, Christchurch and Dunedin, are supported from the rates of their respective towns and provinces, while the Dominion Museum in Wellington, which is a Government-financed institution, receives appreciable grants from local authorities. It is hoped that in time some financial assistance will be made available to the Museum from municipal sources.

In many countries patrons of museums finance alterations, ranging from the reconstruction of a whole gallery to the provision of a single exhibition unit. The Australian Museum has in the past received some help of this nature and is always anxious for future benefits. There can be few more fitting ways in which a public-spirited citizen who takes pride in our heritage can express his appreciation to his fellow citizens.



In order to encourage gifts and bequests arrangements have recently been made whereby the Museum has become recognised by the Federal Taxation authorities as an approved Research Institute under Section 73 A (6) of the Income Tax Assessment Act. Apart from payments to the Museum allowable under the abovementioned section, gifts to the Museum are also an allowable deduction under Section 78 (1) (a), (x) of the Act. The matter of tax exemption on bequests is receiving attention from the State Government.

## THE YEAR'S ACTIVITIES

### Collections

The collections are in good order and condition, and continue to increase. The importance of those in several groups has been improved as a result of critical studies made during the year by visiting and local scientists.

### Staff Matters

Mr. J. R. Kinghorn, who had spent nearly fifty years in the service of the Museum, retired in October, 1956. At the time of his retirement he held the positions of Assistant to the Director and Curator of Birds, Reptiles and Amphibians. Mr. Kinghorn is well known as an authority on snakes and the second edition of his book "The Snakes of Australia" was published shortly after the date of his retirement.

Mr. Kinghorn was succeeded by Mr. H. O. Fletcher as Assistant to the Director. During the year Mr. Fletcher, who was awarded an M.Sc. degree by the University of Technology in March, 1957, was promoted to the new position of Deputy Director of the Museum.

In March, 1957, Dr. A. Keast became Curator of Birds and Dr. D. McMichael, Curator of Molluscs. At the same time Miss E. Pope, formerly Assistant Curator in the Department of Invertebrates, became Curator of Worms and Echinoderms, the new Department having been created by the division of the former Department of Invertebrates. In September Miss P. McDonald was transferred to the permanent professional staff of the Museum. Formerly she was seconded to the Museum from the Education Department.

In 1951, the Danish Research Vessel *Galathea* visited Australia, and in recognition of the scientific services rendered by him at the time, Mr. G. P. Whitley was, during 1956, awarded a silver *Galathea* medal by the King of Denmark.

Miss E. Silveira, Technical Assistant in the Department of Mineralogy, resigned in March.

### Conferences

The meeting of the Australian and New Zealand Association for the Advancement of Science was held in Dunedin during January, 1957, and was attended by five members of the staff of the Museum. Two, the Director and Mr. McCarthy, were official delegates, while Mr. Troughton, Mr. Whitley and Dr. McMichael attended in their personal capacities. Mr. McCarthy was President of the Anthropological Section and his presidential address was entitled *The Habitat, Equipment and Economy of the Australian Aborigines*. A very successful symposium was held during the congress on *The Role of Museums in Science*. Speakers included the Director (at whose suggestion the symposium had been arranged) and Mr. McCarthy.

The symposium was attended by representatives of Sections C (Geology), D (Zoology), F (Anthropology), and M (Botany) and at the conclusion resolutions were unanimously passed affirming the importance of museums as centres of learning and education and as clearing houses for scientific information; the need for systematic and other forms of museum research to be increased as an obligation to international, and in the interests of local, science; the need for such studies to be undertaken by qualified scientific staff; that, because present terms of museum employment are resulting in making it difficult to obtain qualified staff, or if obtained to retain, that it be recommended to Governments that museum service be regarded as of comparable status with university employment and carry with it corresponding emoluments; that museums be furnished with funds for research comparable to those made available to other government-financed institutions of similar importance; that because museums are the guardians of collections which form a valuable and, in some departments, an irreplaceable part of the national heritage, the matter of the provision of adequate accommodation be regarded by Governments as an important and urgent need.

Immediately after the Congress, the Director and Mr. McCarthy visited museums in other centres in New Zealand.

The Annual Meeting of the Museums Committee of the National Advisory Committee for Unesco, was held in Adelaide during February. This is attended by Directors of all State museums in Australia. At this meeting arrangements were made to hold a Preparators' Conference later in the year. The initial reason for such a conference was to afford an opportunity whereby preparators from all museums could benefit by hearing of recent developments in their field in the U.S.A. from Mr. P. Lawson, Chief Preparator of the South Australian Museum, who had recently returned to Adelaide from a period overseas. The conference, which took place in May, was held in Sydney and proved an extremely successful venture attended by representatives of no less than eleven museums.

### Research

A museum is like a university in that the professional staff, as well as being concerned with educational matters, is also expected to engage in research. During the year the Director completed a study of a group of fossil insects of Australia and New Zealand. There are very few occurrences of fossil insects in the world as a whole and some of the most notable are in New South Wales (Permian at Belmont, and Triassic at Brook-



vale), and Queensland (Triassic at Ipswich and Mount Crosby). He is now engaged on the preparation of a monograph of the Leafhoppers and related insects (Jassoidea and Cercopoidea), of Australia and New Zealand. The need for comprehensive systematic studies such as these was stressed recently at a conference of applied entomologists held in Brisbane.

Mr. Fletcher has completed a study of the Permian gastropods of New South Wales in which he has assessed their value for horizon correlation purposes.

Dr. Keast has been engaged in the preparation for publication of papers describing the research work on Australian birds which he undertook whilst in the United States. Some of these have been published already whilst others are in the press.

Dr. McMichael has continued his studies of New Guinea land and freshwater shells and commenced work on eastern Australian volutes.

Mr. Chalmers has undertaken an examination of prehnitepectolite clay mineral associations from Prospect.

Mr. McNeill has continued with his study of the Decapod Crustacea collected by the Great Barrier Reef Expedition.

Miss Pope has been engaged on the identification of invertebrates which she collected in Tasmania in connection with her studies of marine shore ecology. She has also been studying a collection of barnacles, of which she has specialised knowledge, lent by the Western Australian Museum.

Mr. McAlpine has continued to study Diptera-Acalyptrata (a group of two-winged flies), and has reared several from the larval to adult stage.

Mr. McCarthy has completed his work on Aboriginal Rock Art and this will shortly be published by the Museum. He has also, in collaboration with Miss M. McArthur of the Australian National University, described an archeological collection from the Kunimaipa Valley in Papua.

Mr. Musgrave has continued work on the preparation of a Bibliography of Australian Arachnida.

### Fieldwork

Dr. McMichael, as the recipient of a Yale-Bishop Museum Fellowship, spent two periods in the field in New Guinea collecting land and freshwater shells. He also visited Brisbane to study the shell collections at the museum and to discuss his research at the university.

Mr. McCarthy visited north-eastern Tasmania as one of a party investigating an occurrence of petroglyphs (markings on rocks).

Mr. Fletcher spent three weeks in the Ulladulla District with an officer of the Geological Survey, investigating the stratigraphy and fossil Fauna of the Ulladulla Mudstones. He also spent a fortnight in the Hermitdale-Cobar district investigating Silurian-Devonian strata in that area, and short periods in the Hunter River and Burragorang Valleys.

The Director and Mr. Fletcher visited Belmont in connection with the hoped-for reservation of an area of land in that district on which good outcrops of Permian insect fossil-bearing beds occur.

Mr. Chalmers paid two visits to the Prospect Quarry for the purpose of obtaining mineral specimens.

Miss Pope visited the Kyogle district to search for giant earth-worms and was successful in securing several specimens. Some measured as much as 5 ft. 5 ins. in length. She also spent some days during the year on field work on local sea shores.

Mr. McAlpine has made several insect collecting expeditions and visited the Blue Mountains, Hunter Valley and Barrington Tops. He also spent study periods at the Department of Entomology, University of Queensland, and at the C.S.I.R.O. Entomological Laboratories at Canberra.

The Director, in company with Mr. G. Johnson (Trustee), visited the northern part of the State during 1956, in order to become acquainted with the general environment and to make personal contacts with the Lismore Museum and the New England University. He also spent five days in the Kosciusko area as a member of a Committee set up by the Australian Academy of Science to inquire into erosion problems.

Although not exactly "field work" mention may be made here of the visit to New Zealand in June of Miss P. McDonald. Her purpose was to study the progressive Education Service of New Zealand Museums, and to report on such aspects as might be applied to the Australian Museum.

### Publications

During the year Volume XXIV, Nos. 2-6 of *Records of the Australian Museum*, were published, also the Indices of Volumes XXII and XXIII. Nos. 3-6 of Volume XII of the *Australian Museum Magazine* were issued, and leaflets on the following topics: The Beginnings of Civilization, Hints for Collectors (Fishes), The Indonesians, Weedy Sea Dragon, Australian Marine Crayfish, Gordian Worms, Mouse Spiders, The Brown Trap-Door Spider, Shells of a Tidal Flat, Australian Aborigines, The Australian Museum, Sharks, Wanderer Butterfly, Natives of New Guinea, The Shovel-Headed Garden Worm, Black House Spider, Spider Scares, The Polynesians.

Most members of the scientific staff have contributed articles to the *Museum Magazine* during the year, and the following papers have been published in scientific journals: Evans J. W., Palaeozoic and Mesozoic Hemiptera (Insecta), *Aust. J. Zool.* 4: 165, 1956. Keast A., Variation in Australian Whitefaces



(Aphelocephala), *Proc. Zool. Soc. N.S.W.* 1955-56 : 38, 1957; Variation in the Bristle Birds (Dasyornis), *Proc. Zool. Soc. N.S.W.* 1955-56 : 43, 1957; Variation in the Australian Emu-Wrens (Stipiturus), *Proc. Zool. Soc. N.S.W.* 1955-56 : 47, 1957. McCarthy F.D., Habitat, Economy and Equipment of the Australian Aborigines, *Aust. J. Sci.* 19 : 88, 1957. McMichael D. F., A Review of the Fossil and Freshwater Mussels of Australasia, *Proc. Linn. Soc. N.S.W.* 81 : 222, 1956; A Review of the New Guinea Freshwater Mussels, *Nautilus* 70 : 38, 1956; Problems of Family Nomenclature, *Systematic Zoology* 5 : 141, 1956. McMichael D. F. and Whitley G. P., The Published Writings of Tom Iredale, *Aust. Zool.* 12 : 211, 1956. Troughton E. le G., A New Native Dog from the Papuan Highlands, *Proc. Roy. Zool. Soc. N.S.W.* 1955-56 : 93, 1957. Whitley G.P., Ichthyological Notes, *Aust. Zool.* xii : 251, 1956; The Status of Algoa, *Aust. Zool.* xii : 293, 1956; An Interesting Leatherjacket, *Aust. Zool.* xii : 293, 1956; Fishes from Inland New Guinea, *Rec. Aust. Mus.* xxiv : 23, 1956; A New Angler Fish, *W. Aust. Nat.* 5 : 207, 1957; Ichthyological Illustrations, *Proc. Roy. Zool. N.S.W.* 1955-56 : 56, 1957; Freshwater Sunfish from New South Wales, *Aust. Nat.* 11 : 230, 1957.

### Magazine

In an endeavour to increase the interest of the *Museum Magazine* a small Planning Committee consisting of the Director, Dr. Keast and Miss Fraser (Editorial Assistant) has been set up. One of the decisions of the committee was to issue once a year a number of the *Magazine* which should deal with a special topic in an interesting and authoritative fashion. The subject of the first of such issues, which appeared in December, 1956, was *Australia* and it contained articles on the plants, mammals, birds, insects and geology of Australia. There was also an article on the Great Barrier Reef and on the Peopling of the Continent.

Formerly articles by others than members of the staff have been contributed only occasionally to the *Magazine*. During the year each issue has contained some articles by outside authors and this has contributed to the interest of the periodical. As a result of this, and also due to the activity of the Editorial Assistant, the demand for the *Magazine* has increased its circulation considerably, particularly to such groups as schools and municipal libraries, and recent issues have sold out within a few weeks of publication.

### Lectures

A list of the Museum Popular Science Lectures, which are a permanent feature of the Museum's activities, is given below. Members of the staff are called upon to deliver numerous lectures to various organisations on subjects of which they have specialist knowledge, and in doing so perform a useful service. During the year the Curator of Birds, Dr. A. Keast, gave a course of lectures at the University of Sydney, under the University Extension Board Scheme, on the Vertebrate Fauna of Australia. This was well attended by school teachers and others. At the request of Professor C. E. Marshall, Department of Geology of Sydney University, Mr. Chalmers lectured on Petrology for a term at the University.

### Popular Science Lectures

*July*, 1956 : Australian Reptiles (J. R. Kinghorn); The Purpose of a Natural History Museum (J. W. Evans). *August* : The Grand Canyon of Arizona (F. W. Booker). *September* : The World's Finest Cave Paintings (F. D. McCarthy); Deterioration and Preservation of Structures (R. A. Johnson). *October* : Insect Flight (D. K. McAlpine); Research among an Almost Untouched Population in the Western Highlands of New Guinea (N. W. G. McIntosh). *May*, 1957 : Minerals and Mining in the West Darling District (R. O. Chalmers); Animal Life in the Sydney District (J. A. Keast). *June* : The Simpson Desert (H. O. Fletcher); Frogs with a Family Tree (E. M. Stephenson).

### Staff Activities

Apart from their official Museum duties most members of the scientific staff play a prominent part in the scientific activities of the State as a whole. Thus the Director and Mr. Troughton are members of the State Fauna Protection Panel, and the Council of the Linnean Society of N.S.W., and Chairman and Honorary Secretary respectively of the A.N.Z.A.A.S. Fauna and Flora Protection Committee. The Director is a member of the Taxonomic Panel of the Editorial Board of the *Australian Journal of Zoology*, and Mr. Troughton a member of the Council of the Royal Zoological Society of N.S.W. During the year Mr. Fletcher, who is a member of the Committee of the Geological Society of Australia and Honorary Palaeontologist to the Geological Survey of N.S.W., served on the Council of the Royal Society of New South Wales. Mr. McCarthy was President of the Royal Society of N.S.W. and is Assistant Treasurer and Councillor of the Anthropological Society of Australia, Deputy-Chairman of the Hawkesbury River Scenic Reservation Society and Australian Councillor of the Far Eastern Pre-history Association. Dr. Keast is a member of the Council and Vice-President of the Royal Zoological Society of N.S.W., a member of the Council of the Gould League (a bird protection society) and a member of the Warrah Shire Trust. Mr. Whitley, as well as being a member of the Council of the Royal Zoological Society of N.S.W., acts as Honorary Editor of the Society's Publications. Miss Pope is a member of the Council of the Royal Zoological Society and of the Committee of the Warrah Sanctuary.

Abstracts of scientific literature in the fields of palaeontology, entomology and mineralogy, which have been published in the *Australian Journal of Science*, have been prepared by Mr. Fletcher, Mr. Musgrave and Mr. Chalmers respectively.

### Quarterly Exhibits

The four special Quarterly Exhibits for the year have been of a Fijian Food Hanger, Stick Insects, Rare and Beautiful Shells, and Man-made Minerals.



### Museum Shop

Most large museums maintain a shop as a service to visitors and in order to return a profit for gallery improvements. For many years coloured prints of Birds of Paradise and a few Museum publications have been on sale at the front entrance, and in order to determine the nature of the demand additional items have been offered for sale during the year. These were mostly articles manufactured by aborigines on Mission Stations. The venture proved profitable but after a nine months test, was abandoned, except for the sale of a few items, since the Attendants found it difficult during busy periods to attend to purchasers as well as carrying out their routine duties.

It is hoped that in time it will be possible to develop a proper sales counter staffed by someone who can act also as information officer and deal with inquiries from the public.

### Inquiries

Particulars of some of the inquiries dealt with by the Museum staff are given in the various Departmental Reports. These cover a very wide field indeed and consist of queries, varying from requests for simple information from members of the general public, to scientific information sought by scientific workers elsewhere. The volume of inquiries will be appreciated when it is mentioned that during the year over 2,000 were dealt with by the Entomological Department alone, while every scientific department has been concerned with some hundreds each. Since the post of Public Relations Officer has been created, those queries which have been addressed to the Museum and not to particular curators, have been dealt with on a better organised basis than formerly.

### Publicity

The Museum has received good publicity during the year from Press, Radio and Television sources and as a result is becoming increasingly known as a live and active institution. Some of this publicity has come about on the initiative of journalists and radio and television staff, and some as a result of helpful co-operation which has been afforded by them when sought. Free advertising facilities in buses, trams and trains have been made available by the Minister for Transport and striking advertisements have been prepared for use in these public conveyances.

### Visitors and Attendance

During the year 295,629 people visited the Museum. Apart from visitors to the public galleries many scientists from overseas and elsewhere as usual came for study purposes. During the year these have included Dr. F. S. Bodenheimer (University of Jerusalem), Mr. Peter Scott, C.B.E., Dr. R. Mertens (Senckenberg Museum), Professor E. S. Hills (University of Melbourne), Dr. A. B. Edwards (C.S.I.R.O. Mineragraphic Section), Professor W. Stephenson (University of Queensland), Miss J. Crane (Assistant Director of the New York Zoological Society), Dr. L. Gressitt (Bishop Museum, Hawaii), Dr. W. Wirth (U.S. National Museum), Professor E. Hardy (University of Hawaii), Mr. H. T. Coolidge (U.S. National Research Council), Dr. H. Felten (Natural History Museum, Frankfurt-on-Main), Mr. Derrick (Fiji Museum), Dr. C. Schmitz (Cologne).

Visitors of special, as apart from scientific, interest have been His Excellency the Minister for Thailand, and the Wives' Group of the New South Wales University of Technology.

### The Museum Building and Grounds

Improved lighting has been installed in the Bird of Paradise Group and approval given for the new cases in the Aboriginal Gallery, the murals in the same gallery and the reconstructed bird gallery, to be lit in the near future.

Many of the Museum galleries are still without artificial lighting in the cases and it is hoped that as each is adapted for modern display it will at the same time be lit.

After every heavy rain-storm, water continues to enter the Museum and the Public Works Department has to be called in to effect repairs. A gateway has been built for the new road and a new timber stack erected next to the Spirit House.

### Finance

Expenditure from Consolidated Revenue for the year (excluding Statutory Endowment of £1,000 was £60,009 5s. 7d., compared with £55,472 11s. 0d., last year. Net expenditure from Trustees' Account Funds (including Statutory Endowment) was £7,254 11s. 7d., compared with £2,200 4s. 6d. for 1955-56.

The cash balance in the Trustees' Account at 30th June, 1957, was £1,806 15s. 4d. Trustees' Invested Funds at 30th June, 1957, were Commonwealth Invested Stock £2,250; Sydney County Council £1,000; Metropolitan Water, Sewerage and Drainage Board Inscribed Stock £2,500; Commonwealth Savings Bank £340 18s. 4d.

A statement of Receipts and Expenditure for the year is contained in Appendix A.



## DEPARTMENTAL REPORTS

**Mammals and Skeletons** (E. le G. Troughton, Curator).

Important acquisitions have included ten specimens of bandicoots and indigenous rodents from New Guinea, presented by the Queensland Institute of Medical Research as part of a series of fifty identified by the Curator at the request of Mr. R. Domrow in connection with his parasitological research; a long-beaked anteater (*Zaglossus*), the second complete specimen in the collection, received from Dr. D. F. McMichael, from the Hollandia region of Dutch New Guinea, and a series of a Horseshoe-faced bat (*Rhinolophus*) from the Telefomin district of Papua; indigenous rodents and a bat presented by Mr. K. J. Coaldrake, Forrest River Mission, and two marsupial-mice from Mr. F. King, Tarraleah, Tasmania. An interesting selection of gifts from the Taronga Zoological Park Trust included three tree kangaroos (*Dendrolagus*) from New Guinea, a Tasmanian Devil, two wombats, and a Weddell's Seal.

Considerable attention has been given the mammal-room collections, with special regard to the New Guinea material. A stack of wooden shelving has been built in the mammal-room to provide extra storage space for the spirit collections. Inquiries and assistance to other departments have included advice on information and illustrations for inclusion in a booklet for native schools in New Guinea and adjacent islands, being prepared by the South Pacific Commission; advice to the Department of Agriculture, and other inquiries regarding the control of bandicoots, and the elimination of possums and bats from dwellings; the identification for the Health Department of bones and animal matter taken from a restaurant; information and advice for the Department of Interior on the text for a film of monotremes and marsupials; identification of a number of bats collected by members of a Speleological Society; information on marsupials for Dr. B. E. Douglas of the Mayo Clinic, U.S.A., and on monotremes for Dr. Engels of the Royal College of Surgeons.

*Skeletons*—Acquisitions have included the skull of a fur-seal from Macquarie Island, received for identification from the Australian National Antarctic Research Council; the skull of a panther from Taronga Park Trust; the skull of an aboriginal, unearthed near Lake Illawarra, from the Police Department. At the request of Professor Arnott, Dean of the Faculty of Dentistry, a series of crania has been made available for the dental museum in the Dental Hospital. Information and measurements regarding Museum crania of the Pigmy Whale (*Neobalaena*) were supplied to Dr. E. R. Guiler, University of Tasmania, and advice concerning the systematic treatment of mammal collections was given the Director of the Queen Victoria Museum, Launceston.

**Birds, Reptiles and Amphibians** (J. A. Keast, M.A., Ph.D., Curator).

On the retirement in October, 1956, of Mr. J. R. Kinghorn, Dr. Keast took over this Department as Acting Curator and later became Curator, in April, 1957. Mr. Harold Cogger, Science Trainee, worked in the Department during the months of March and May, 1957. Acquisitions received have included 147 reptile and 48 bird specimens.

Loans have been made to several workers, including Dr. E. Williams, Harvard University (turtles); Dr. R. Mertens, Senckenberg Museum, Frankfurt (goannas); Mr. W. Brazenor, National Museum (brown snakes); Mr. W. Hitchcock, National Museum (terns). A gift collection of old bird material lacking data was sent to the University of Wisconsin for teaching purposes.

The question of the seizure by the Customs Department of live reptiles forwarded to the Museum by air-freight from New Guinea, was discussed with Animal Quarantine authorities.

**Fishes** (G. P. Whitley, Curator).

Apart from a collection of Queensland fishes from Mr. R. Slack-Smith, which has not yet been sorted or registered, 936 specimens were registered, identified and catalogued during the year from New South Wales, Queensland, the Northern Territory, Victoria, New Zealand, New Guinea, the New Hebrides, New Caledonia, Africa, Andaman Islands, U.S.A., Mexico and the West Indies. Some of these constituted new locality records and the Museum has acquired the Types of new species of *Chaetodon* and *Sphaeroides*, from New South Wales. Uncommon sharks and rays were received by exchange from the Museum of Comparative Zoology, Cambridge, U.S.A. Noteworthy donors included the Fisheries Branch, Chief Secretary's Department, Sydney; the University of Sydney; Brisbane Aquarium Society; and Mr. J. C. Moore, Mr. K. de Witte and Mr. E. Worrell. A list of Types of fishes in the Museum collection has been completed.

Some 1,500 inquiries have been dealt with. Information has been supplied to various scientific bodies and individuals in Australia and overseas. Assistance has been given to the following who are preparing books on fishes: Dr. V. M. Coppleson, Mr. T. C. Marshall and Mr. I. S. R. Munro.

The Curator has been commissioned by the Trustees to prepare a history of the Museum as a part-time activity and in this connection attended the special Archives School at the University of Sydney in March.

**Molluscs** (D. F. McMichael, B.Sc., M.A., Ph.D., Curator).

Further Types and figured specimens have been presented by Mr. C. F. Laceron. A collection of Brazilian freshwater and marine shells was received from Dr. H. de Sousa Lopez, of the Instituto Oswaldo Cruz, Rio de Janeiro. Some land and freshwater shells were received from the Museum of Zoology, Harvard, and several lots of New Hebridean land shells, including Type material, from Dr. A. Solem, Chicago Natural History Museum.



With the assistance of Mrs. L. Woolcott, work has continued on the classification and revision of the bivalve collections.

Mr. T. Iredale has assisted with work on the Strombidae and Mr. P. Coleman with the Scaphopoda.

The projected erection of new cabinets on the mezzanine floor involved it being cleared, and necessitated drawers of shells being stacked in corridors as a temporary arrangement.

A large collection of the local species of the genus *Aplysia* was dispatched to Dr. N. B. Eales, University of Reading, for study purposes. Specimens of *Haliotis* have been sent to Dr. T. Ino, of Tokyo. Material lent, many years ago, to Dr. R. S. Allen of Christchurch, New Zealand, has been returned.

As usual numerous inquiries have been received and dealt with and in this connection considerable help has been rendered the Department by Miss J. Allan and Mr. T. Iredale.

#### **Crustacea and Other Invertebrate Groups** (F. McNeill, Curator, Elizabeth Pope, M.Sc., Curator)

As this Department was not separated into two sections until towards the end of the year under review, a report is submitted for a single Department.

Particulars of nearly 1,200 specimens have been entered in the Department's registers; all have been incorporated in the stored reference study collections.

Among the acquisitions received during the year the following are of outstanding interest: A collection of local Polychaeta from Miss B. Dew, Division of Fisheries, C.S.I.R.O.; a large number of named species of prawns (Caridea) from various Australian localities, from Dr. A. A. Racek, State Fisheries Department, Sydney; a named series of Decapoda collected along the banks of the Brisbane River, Queensland, from Miss B. Lawes, University of Queensland; four species of barnacles (Cirripedia) from Netherland waters, from Dr. L. B. Holthuis of the Leyden Museum.

Extensive revision carried out on the reference study collection of Skeleton Shrimps (Caprellidae) by Miss J. Steinberg, visiting Californian Fulbright Scholar, has entailed much re-adjustment of the department's records in both specimen registers and card catalogues. Similar routine work has been done on two other collections returned to the Museum after being on loan to specialists for study and elaboration. These were Peanut and related worms (Sipunculoidea), studied by Mr. S. Edmonds, University of Adelaide, and Swimming Crabs (Portunidae), dealt with by Professor W. Stephenson, University of Queensland. A thorough periodic check has been made of the reference study collections of sponges, worms, zoophytes, sea anemones, sea mats and sea mosses, sea squirts and salps, sea-stars and sea urchins, preserved in alcohol.

Installation of additional and improved lighting in the Department's special spirit-house store has helped greatly in the work constantly being carried out on the collections.

A number of uncommon species of barnacles was named for the Department of Zoology, University of Queensland. This aided an ecological survey of the coastal marine fauna of Queensland. Identification of a number of barnacles was also made for the C.S.I.R.O. Division of Fisheries, Cronulla, in connection with that organisation's research work on fouling organisms. Further aid was given to Miss B. Lawes, Department of Zoology, University of Queensland, in the naming of a number of obscure species of crabs on which a research project on the ecology of the Brisbane River is to be based.

At the special request of Dr. L. Hyman, U.S. National Museum, a representative series of local marine flat-worms (Turbellaria), together with Kodachrome positives of each type, has been assembled and despatched. The Museum will benefit later from this arrangement by receiving authentic names of the various species.

During periodic visits to the Department, Mr. J. MacIntyre, C.S.I.R.O. Division of Fisheries, was given help in the identification of Crustacea and other invertebrates concerned with his research work on the bottom fauna of Lake Macquarie.

A valuable collection of parasitic worms (Trematoda), from marsupials, has been returned to the Museum after being many years on loan to the Biology Department of the University of Adelaide. It has since been lent to Miss D. Sandars, Queensland Institute of Medical Research, for study purposes. Another loan collection dispatched for research purposes was a representative series of Australian amphipods of the family Talitridae, requested by Dr. E. L. Bousfield, National Museum of Canada. A short term loan of representative types of invertebrates for class demonstration purposes was made to the Zoology Department, University of Sydney.

Visitors to the Department have included Mr. W. Patten, Fulbright Scholar (University of Ohio) and Mr. L. Thomas, a Sydney student of the sea mats and sea mosses (Bryozoa), who has spent a full day during each week for most of the year revising identifications and naming unidentified specimens in the large reference collection. His work is of a voluntary nature, on a neglected group, and is much appreciated. Mrs. P. Mather came from Brisbane to make a critical inspection of the Department's reference study collection of Tunicata (sea squirts).

#### **Insects and Arachnids** (A. Musgrave, Curator; D. K. McAlpine, B.Sc., Assistant Curator; Patricia Goodwin, Assistant; P. Rawlings, Science Trainee).

One hundred and ninety-one specimens have been presented and some 4,000 collected by the Assistant Curator. The greater part of the Assistant Curator's time has been spent in sorting and identifying new acquisitions and old material which had been put away unidentified without being properly sorted. Much of the collection needs rearranging but this work is hampered by lack of cabinet space.



During the year there have been 1,330 inward 'phone calls, and 551 inquiries by letter. These have been dealt with mostly by the Curator, who has also interviewed nearly 700 visitors seeking information from the Department.

Mr. E. Riek, C.S.I.R.O. Canberra, spent several days studying Neuroptera, Hymenoptera and Coleoptera. Dr. W. Wirth, U.S. National Museum, borrowed Ephyridae (Diptera) for study and presented a large number of specimens which he had collected while in Australia.

Space for cabinets and books becomes more and more imperative each year. The small amount of floor space made available to the Department by the installation of a mezzanine floor was long ago filled and many groups are arranged haphazardly through various cabinets in several rooms instead of being stored in close association with one another.

**Fossils** (H. O. Fletcher, M.Sc., Curator).

Registrations for the year comprised 471 specimens. The following are of particular interest and importance:—

*Transferred*—Transferred from the Mining Museum or presented by the Geological Survey of New South Wales. Graptolites of Ordovician age from a number of horizons and zones. The material includes a rare species, *Lasiograptus margaritatus*. A series of fossil corals from Cowombat Flat, in the Snowy Mountains area. Additional material is to be collected to check the geological age of the limestone in which the corals occur. Although originally considered to be of Silurian age it is now thought it may possibly be Lower Devonian. A series of fossils from rocks of Upper Silurian age at Quidong, near Bombala. Species include *Conchidium knightii* Sowerby and *Molongia elegans* Mitchell. Type specimens of palaeozoic brachiopods, corals, ostracods and trilobites, of which most of the species were described in the *Records of the Geological Survey of New South Wales*.

*Gifts*—Tertiary fruits and seeds recovered from between two layers of basalt near Belatta, New South Wales, were presented by Mr. F. Najbar, Hydro Boring Pty. Ltd. These are possibly the oldest fruits found up to the present in Australian Tertiary rocks. A collection of Permian fossils from Wollongong was presented by Mr. Parkinson. This material includes an exceptionally good specimen of *Cleobis grandis* Dana. An interesting series of Devonian bivalves, from a new locality at Hermidale Plains, was presented by Mr. Marshall.

*Collected*—A large series of Permian fossils, from various localities on the South Coast, was collected between Ulladulla and Durras Lake. Duplicate material was collected for school collections. Fossils of Devonian age were collected from a number of known and previously unknown localities between Hermidale and Cobar. Other material collected in this area includes brachiopods and trilobites from Silurian rocks at Boomerang Tank, Canbelago, and Devonian fish remains from near Cobar.

During the year Miss Sachs, Museum Assistant, has continued with the cataloguing of the invertebrate fossils and has generally assisted in the routine work of the Department. The cataloguing and preliminary sorting of the large collection of brachiopods is nearing completion. The collection of microslides, transferred from the Mining Museum some time ago, was checked and information from the registers added to the catalogue cards.

Assistance given to other institutions has included the preparation of two casts of Type specimens of *Encrinurus duntroonensis* for Dr. Henningsmoen, Palaeontologisk Museum, Oslo. Two Triassic fish and a latex cast of a Devonian fish were presented to the New England University for teaching purposes. Plaster types of *Cordania gardneri* Mitchell, were prepared for Dr. Goldring, St. Andrews University, Scotland. Plaster casts of Type specimens of *Phillipsia proxima* Mitchell and *Phillipsia elongata* Mitchell, were prepared for Mr. A. Cvanara, New England University, Armidale. Collections for teaching purposes were presented to the Sydney Grammar School, Barker College, Hornsby, and St. George High School. Collections were sent on loan to Dr. D. Thomas, Government Geologist, Melbourne; Dr. M. F. Glaessner, University of Adelaide; Dr. Ellis Yochelson, U.S. Geological Survey, Washington; Dr. H. S. Ladd, U.S. National Museum; Mr. Waterhouse, Sedgwick Museum, Cambridge; and Professor W. Gross, Humboldt University, Berlin. A small series of *Eurydesma*, showing characteristic features of the genus, was presented to Dr. M. R. Sahni, Geological Survey, India. Inquiries on all phases of palaeontology, including the identification of specimens, numbered 180.

Visitors of particular interest were Dr. M. F. Glaessner, University of Adelaide (examination of Cretaceous material from Onepah Well); Dr. D. Thomas, Government Geologist, Geological Survey of Victoria (examination of graptolites); Mr. R. Tedford, University of California (inquiries regarding maps of the Menindee district).

**Minerals and Rocks** (R. O. Chalmers, A.S.T.C., Curator; Miss E. Silveira, Technical Assistant (part of the year only).

The number of mineral specimens is now 39,921, an increase of 147. Accessions include the following specimens presented: A large slab of Broken Hill fluorite (H. von Hansmann); earthy vivianite from Cobargo (L. E. Koch); a small collection, including Victorian turquoise, (C. B. Askew); a suite of Mount Morgan chalcopyrite (Miss Hazel King); a fine suite of granular olivine in scoriaceous basalt bombs (Miss Eryl Silveira); fulgurites from Port Kembla (Raymond Black); a polished jasper sphere (W. G. Decarteret); Mount Isa ribbon jasper (F. H. Kennedy); a concretion (Keith Austin); a lunogen from Kanangra Walls (D. Mayor); lead from the South Mine Broken Hill and austinite from Mexico (R. W. S. Doo); a rutile crystal (F. W. Booker). The remainder of the acquisitions consist principally of Prospect specimens collected by the Curator and collections of Malayan and American minerals obtained by exchange with the Malayan Geological Survey and with an American collector, J. J. Kuchar. Mrs. C. B. Segetin presented a collection of New Zealand kauri gum.



The number of rock specimens is now 7,635 an increase of 63. These consist principally of dolomites from Australian localities presented by the Curator; igneous rocks from remote areas in the Blue Mountains, presented by Mr. C. T. McElroy; drill cores examined for the Joint Coal Board, and scoriaceous basalt bombs from western Victoria, presented by Miss Eryl Silveira.

The school collection of minerals has been put in better order. A collection of gem minerals was lent to the Newcastle Tutorial Classes. Several small collections have been given to interested school children. School collections have been sent to the Farrer Agricultural High School, Cooranbong High School, Homebush West Home Science School, Sydney Grammar School and Barker College. Teaching collections were given to both of the universities in Sydney.

Slices of meteorites have been lent to Mr. E. Irving of the Australian National University. Supposed "moldavites" (one type of tektite) from North Queensland have been lent to Dr. J. F. Lovering, for study purposes. Two collections have been lent to Dr. L. E. Koch. These comprise a comprehensive collection of New South Wales monazites for infra-red spectroscopic studies and a collection of various minerals to illustrate temperature of formation. A number of small meteorite fragments have been given to Dr. K. Bigg, Radiophysics Division, C.S.I.R.O. for experimental work in rain-making. Small portions of various micas were given to Mr. G. See, University of Technology, for infra-red spectroscopic work, and a specimen of Tasmanian pyromorphite was lent to Mr. W. Baker for the same University. Small fragments of anatase, from various localities, were given to Mr. Manners, of the Defence Research Laboratories, for X-ray crystallographic work.

Two hundred and fifty-one inquiries have been dealt with. These included many on beach-sands, gemstones, building stones, identification of specimens for school children, popular books on mineralogy and geology.

Visitors have included Mr. Spencer Compton, formerly of the Kalgoorlie School of Mines, who brought with him some outstanding Kalgoorlie gold and gold telluride specimens which were left at the Museum for several days, and viewed by students and staff of the University of Technology; Mr. S. R. Mitchell, former honorary mineralogist and Trustee of the National Museum, Victoria; Mr. Francois Lampietti, research student in mining geology of the University of California; Mr. Marcel Aourousseau, formerly of the Royal Geographical Society, London, and former assistant mineralogist in this Museum.

Some forty thin sections of highly altered igneous rocks from various bores being put down by the Joint Coal Board have been examined. This work is of considerable economic importance. The drilling programme is being carried out in a search for extensions of coal seams south of Wollongong. It is necessary to estimate the size and shape of these intrusions and their effects on the quality of the coal and the petrological examination is a necessary adjunct to this investigation. Thin sections of igneous rocks from remote parts of the Blue Mountains were prepared and reported on for Mr. C. T. McElroy, New South Wales Geological Survey.

#### **Anthropology and Numismatics (F. D. McCarthy, Dip. Anthropol., Curator).**

A total of 1,245 specimens, in 55 acquisitions has been received. These included two outstanding collections. The first is of 240 old weapons, utensils, fish-nets and hooks, adzes, flutes, baskets, ornaments, carvings, canoe models and other articles from Fiji and New Guinea, from the estate of the late Mrs. G. Hewitt. The other collection comprised 52 Australian and New Guinea weapons (many from the Moree district of New South Wales), from the estate of the late Mrs. H. C. Fitzharding, from whose family, beginning with Mr. C. J. McMaster (sometime Commissioner for Western Lands) the Museum has been receiving similar gifts since 1905. Mrs. N. Jenkins presented 17 New Guinea and Solomon Island specimens.

New Guinea material presented includes a fine shield and four bark paintings, from Mr. C. Simpson; a human wood carving (over forty years old), Trobriand Island, from Miss N. Wiggins; club and abrading stone, from Mr. A. G. Shearman; cassowary feather hat, Wabag, from Professor A. P. Elkin; Sepik and Turama weapons from Mr. P. H. Dawson; a gourd sheath, Baliem Valley, from the Rev. N. Draper, and a small collection of weapons and ornaments obtained by Dr. D. McMichael.

Other interesting specimens presented comprise a finely plaited mat (over one hundred years old) from Fiji, given by Mrs. W. R. Rhodes; a head-hunter's trophy skull, Kenyah tribe, Borneo, from the Rev. S. Nightingale (courtesy of Department of Public Health, New South Wales), and some ornaments from Baluchistan received from Mrs. Hyslop.

The most important acquisition among the stone implements received is a collection of eighty-eight contemporary and prehistoric pieces from the Kunimaipa Valley in Papua, presented by Miss M. McArthur. Three prehistoric pieces were also presented by Mr. J. A. Costelloe. Other important series of Australian implements were presented, as follows: 60, Empire Vale site, from Mr. W. G. Abbott; 114, Mulyah Station, Darling River, from Mr. D. Mayor; 248, New South Wales, Tasmania, Java, and the Tandandjal cave excavation in the Northern Territory (together with several plaster busts of Aborigines), from the Department of Anatomy, University of Sydney; 45, El Sharana caves, Northern Territory, from Mr. C. Western; 82, northern end of Lake Torrens, and the Broken Hill District, from Mr. O. le M. Knight; 12 axes and sinkers, Bellambi, collected by A. G. Hamilton, from the Linnean Society of New South Wales.

Stone axes from various localities in New South Wales were received from Master Eather, the Rev. A. J. Barrett, Miss H. King and Messrs. W. Fletcher, W. Strang, G. T. Allen, P. Pallin, D. Scully, J. Boyde, J. Hogarth (south-west Queensland), and F. S. Curran. Mr. J. McNaught presented a fine millstone from Baradine, Mr. S. Mills a cylindro-conical stone from Girilambone, and Mr. A. D. G. Downer a small collection of Aboriginal weapons and stone implements. Five uniface pebble implements from the Garonne district in France, were received (in exchange) from Monsieur L. Gary. A rare tanged stone implement of Yodda-type was purchased (through the courtesy of Mr. J. A. Clift), and a series of ten fine Aboriginal weapons from the Gundagai district of New South Wales was purchased from Miss E. Hubbard.



The tremendous task of removing the Oceanic and foreign anthropological collection from the iron-shed stores to the New Guinea gallery, now transformed into a store-room, was completed. The collection is now housed in a relatively clean atmosphere from the point of view of dust, while the fire-hazard is considerably reduced. The deterioration of the collection in the iron-sheds has been alluded to many times in previous reports of this Department (because of the dust and fire danger in particular), and the situation is now immeasurably improved. A considerable portion of this collection is irreplaceable, and it is therefore of the utmost importance that precautions be taken to safeguard it.

The Finsch collection of face masks of Oceanic peoples was transferred to the base of the numismatic cabinets for storage, to make room for the expanding Australian collection.

Loans were made as follows: Aboriginal weapons for use by ATN Television Station, J. Arthur Rank Film Company for display, and as types of which replicas could be made, for use in the film *Robbery Under Arms*; the Watersiders' Federation Film Unit, and for display by the United Missions organisation. Four bark paintings were lent to the National Museum of Victoria, for the Olympic Games Exhibition of Aboriginal Art. A collection of aboriginal material culture was made available for display purposes to the Government Tourist Bureau of New South Wales. Photographs of Fijian and Solomon Islands shell trumpets were sent to Dr. K. E. Larsson at the Etnografiska Museum, Goteborg.

*Numismatics*—Donations comprise twenty-eight coins from Miss Allpress; fifty-nine from Miss H. King, from various countries; thirty-two Egyptian coins from Mr. J. Sakelie and a set of Burmese coins, with a note, from Mr. Tin Myint; a billon of Probus, issued in Alexandria in the year 281-82 A.D.; three Great War medals from Mr. G. Harraway; and a pewter plaque from Miss F. Cook.

Two important gifts were a gold solidus of Anastasius I, 491-518 A.D., from Mr. M. Manglis, and a set of the Melbourne Olympic Games medals and badges from K. G. Luke (A/sia) Ltd.

A total of 820 inquiries, including 266 on the Australian Aborigines, 90 on general anthropology, and 474 on numismatics, was dealt with during the year.

#### **Schools Service** (Miss P. McDonald, B.Sc., Dip.Ed., Education Officer).

The number of children attending the Museum in school classes during the year was 11,061 in 259 visits. These figures represent an increase of 10 per cent over those of last year and would have been higher but for the absence of the Education Officer for one month during the busiest period of the year. There are now thirty classes coming regularly once a month throughout the year, each following an individual course of Natural Science and Social Studies. Many classes have had to be refused Museum visits because of the already over-loaded teaching programme.

Three groups of first-year Zoology students from the University of Sydney studied the Museum displays under the guidance of their lecturers. Three groups of students from Newcastle Teachers' College, and two groups from Sydney Teachers' College, visited the Museum, each being taken round the galleries. A series of six lectures on Australian animals and plants was given to New South Wales Kindergarten Training College students. A group of Indonesian students also toured the galleries, their visit being arranged through the Commonwealth Office of Education. Art students from Sydney Technical College make regular visits to draw the exhibits. Attendance at School Vacation Films was 11,717.

Some eighty collections of photographs, specimens, film strips and charts have been lent to schools. Some of this material has been lent to hospital schools, such as the Margaret Reid Hospital for Crippled Children and the Camperdown Children's Hospital. It was hoped to start a regular loan service for these children; unfortunately pressure of other work has made this impossible.

Thirteen leaflets have been prepared on various topics relating to the school syllabuses. Nearly 800 letters of inquiry on matters relating to school projects have been dealt with. A special exhibit on *Museum Activities* was prepared for Education Week, 5th-11th August, 1956. Children were very interested in this display. With the aid of a grant from Trustees' funds, four teaching films were purchased for the Education Section. Another film was presented by Mr. O. G. Vickery, Museum Trustee. A film strip entitled *Can the Museum Help?* is being prepared with the co-operation of the Visual Education Centre, Burwood, on the education services provided at the Museum.

A month was spent by the Education Officer visiting the four principal museums in New Zealand. The visit was made possible by a grant from the New South Wales Department of Education.

#### **Library** (Mrs. J. Goodwin, B.A., Librarian).

During the year 243 volumes (161 presented or exchanged) were added to the Library. A hundred and sixteen were books and 127 were bound volumes of periodicals. Fourteen books were presented by members of the staff to commence the proposed Children's Library, and nine books were purchased as the nucleus of a library for the Art Department of the Museum. The binding of library volumes, formerly done by commercial firms, has been transferred to the Government Printer. The work of attempting to bring up-to-date the holdings of a number of periodicals which had lapsed, was completed.

Over five hundred volumes were lent to the libraries of universities, museums, C.S.I.R.O. Divisions and other institutions in every State of the Commonwealth. An increasing number of requests for micro-films of publications in the Museum Library is being received from universities in New Zealand. The Library is usually visited by overseas scientists working on collections in other departments of the Museum, and research workers have travelled from Canberra and other States especially to consult volumes available nowhere else in Australia. Inquiries are also received from many members of the public.



**Editorial Assistant and Public Relations Officer (Miss M. Fraser).**

There has been a steady increase in the number of publications requiring editorial attention. Efforts made to increase the circulation of the *Museum Magazine* have given encouraging results and necessitated the printing order being increased.

Arrangements associated with the purchase and sale of goods for use in the Museum Shop have been undertaken by the Public Relations Officer who has also allocated to the appropriate curators specimens (445 in number) submitted by the public for identification. Replies were prepared for inquirers on the basis of information supplied by the scientific staff.

Publicity work has increased during the year. Special features have been published in daily newspapers and given over television channels. A special exhibit of Katchina Dolls received a full page in colour in the *Women's Weekly*, and the A.B.C. has instituted a programme entitled *What is new at the Museum*.

The P.R.O.'s Office has become a useful avenue for action on many matters falling somewhere between the province of the scientific staff and the office.

**Department of Preparation (H. D. Hughes, A.R.P.S., Officer-in-Charge).**

Work completed throughout the year is as follows :—

*Taxidermy*—Birds, 56 study skins, 14 mounts, 131 reconditioned; Mammals, 6 study skins and 3 mounts.

*Articulation*—50 skulls, 125 moulds, 79 casts, 21 coloration casts and 46 models.

*Photographs*—689 negatives, 2,105 prints, 90 negatives (slides), 76 slides, 248 35-mm. colour transparencies.

*Films*—projected 279.

Considerable progress has been made with exhibits for the new cases in the Australian Aboriginal Gallery, and in the Bird Gallery. A few have been prepared also for later installation in the new Fish Gallery. Of special interest were seventeen hands cast to illustrate the use of stone implements.

A new *Magazine* display case has been installed in the front hall which eliminates the necessity for the preparation of a new display with each issue of the *Magazine*. Experiments have been conducted in embedding in Polyester plastics. A Preparators' Conference was held at the Museum from 22nd-24th May, and was attended by twenty-six delegates representing eleven different museums. It was an extremely successful conference and proved helpful to all those who were present.

The usual attention to the collections, both study and exhibited ones, has been given during the year. An experimental application of Dioldren has been made in certain display cases and it is hoped that in future the time spent in placing insecticides in the galleries will be reduced.

Advanced techniques have been employed in modelling and casting, and materials used have included plastics, latex, plaster of Paris and artificial stone. Assistance has been provided to curators in the maintenance of collections, especially spirit collections. A 5-in. x 5-in. Graphic View Camera, complete with accessories, has been acquired by the Department.

**Department of Design and Art (J. Beeman, Officer-in-Charge).**

Priority during the year has been given to the preparation and installation of the twenty new exhibits in the Aboriginal Gallery. These have now been completed except for some minor details and labelling. Plans and designs have been prepared for the Bird Gallery, and some for the Invertebrate Gallery and the new Fish and Arachnid cases. The preparation of designs, illustrations and labels has been speeded up by the purchase of two more drafting machines, and a new air-brush.

Figures of work completed during the year include: 30 designs, 96 paintings and illustrations, 105 drawings, 32 construction drawings, 27 maps, 4 plans, 16 diagrams, 16 leaflets, 243 labels, 29 notices, 43 lettering on diagrams and 2 friezes.

The Common Seal of the Trustees of the Australian Museum was herewith affixed by Order of the Board this tenth day of September, 1957.

(Sgd.) H. B. MATHEWS, President.

(Sgd.) JOHN W. EVANS, Director.



## Appendix A

THE AUSTRALIAN MUSEUM—SUMMARISED STATEMENT OF RECEIPTS AND PAYMENTS FOR  
THE YEAR ENDED 30th JUNE, 1957

## RECEIPTS

	£	s.	d.	£	s.	d.
APPROPRIATION ACCOUNT—						
To Treasury Appropriations .....				60,009	5	7
TRUSTEES' ACCOUNT—						
To Statutory Endowment .....	1,000	0	0			
Subscriptions to Australian Museum Magazine .....	345	0	0			
Sales of Publications .....	887	4	4			
Museum Shop Sales .....	875	11	5			
Donations .....	228	1	8			
Interest .....	358	10	8			
Advertising .....	63	0	0			
Postage Receipts .....	97	6	11			
Lighting Receipts .....	2	15	0			
Proceeds, Sale of Sewing Machine .....	10	0	0			
Proceeds, Sale of Scrap Steel .....	2	10	0			
Refund of Freight .....	13	12	0			
Refund on Ethnological Objects .....	8	0	0			
Miscellaneous Receipts .....	14	0	2			
				3,905	12	2
BALANCES AS AT 1st JULY, 1956—						
Cash at Bank and in hand .....	1,800	5	6			
Investments .....	9,681	16	4			
				11,482	1	10
				£75,396	19	7

## PAYMENTS

	£	s.	d.	£	s.	d.
APPROPRIATION ACCOUNT—						
By Salaries, etc. ....	56,029	8	0			
Insurance on Buildings .....	57	3	2			
Travelling and Subsistence Expenses .....	221	6	2			
Freight, Cartage and Packing .....	131	6	4			
Books, Periodicals and Papers .....	890	2	9			
Fees, Commissions, etc. ....	71	18	0			
Laundry Expenses .....	33	12	9			
Postal and Telegraphic .....	182	17	2			
Other Insurances .....	494	14	8			
Stores, Plant and Equipment .....	1,896	5	7			
Minor Expenses .....	11	0				
				60,009	5	7
TRUSTEES' ACCOUNT—						
By Printing and Publishing Magazines .....	1,108	1	6			
Printing and Publishing other Publications .....	29	8	0			
Purchase of Films .....	127	14	5			
Travelling Expenses A.N.Z.A.A.S. Congress N.Z. ....	351	6	9			
Scientific Equipment .....	829	6	0			
Stock for Museum Shop .....	630	13	5			
Ethnological Objects .....	30	0	0			
Display Cases for Gallery .....	3,900	5	6			
Preparators' Conference Expenses .....	35	10	10			
Freight and Cartage .....	11	3	6			
Publications Sales Receipts paid to Treasury .....	73	8	4			
Freight and Cartage receipts paid to Treasury .....	6	10	0			
Postage receipts paid to Treasury .....	96	16	5			
Lighting receipts paid to Public Works Dept. ....	2	15	0			
Miscellaneous Expenditure .....	21	11	11			
				7,254	11	7
Loss on sale of Commonwealth Treasury Bonds .....	235	8	9	235	8	9
BALANCES AS AT 30th JUNE, 1957—						
Cash at Bank and in hand .....	1,806	15	4			
Investments .....	6,090	18	4			
				7,897	13	8
				£75,396	19	7

J. W. EVANS, Director.





The rear of the Museum Buildings showing the new road in course of construction and the site for a new wing

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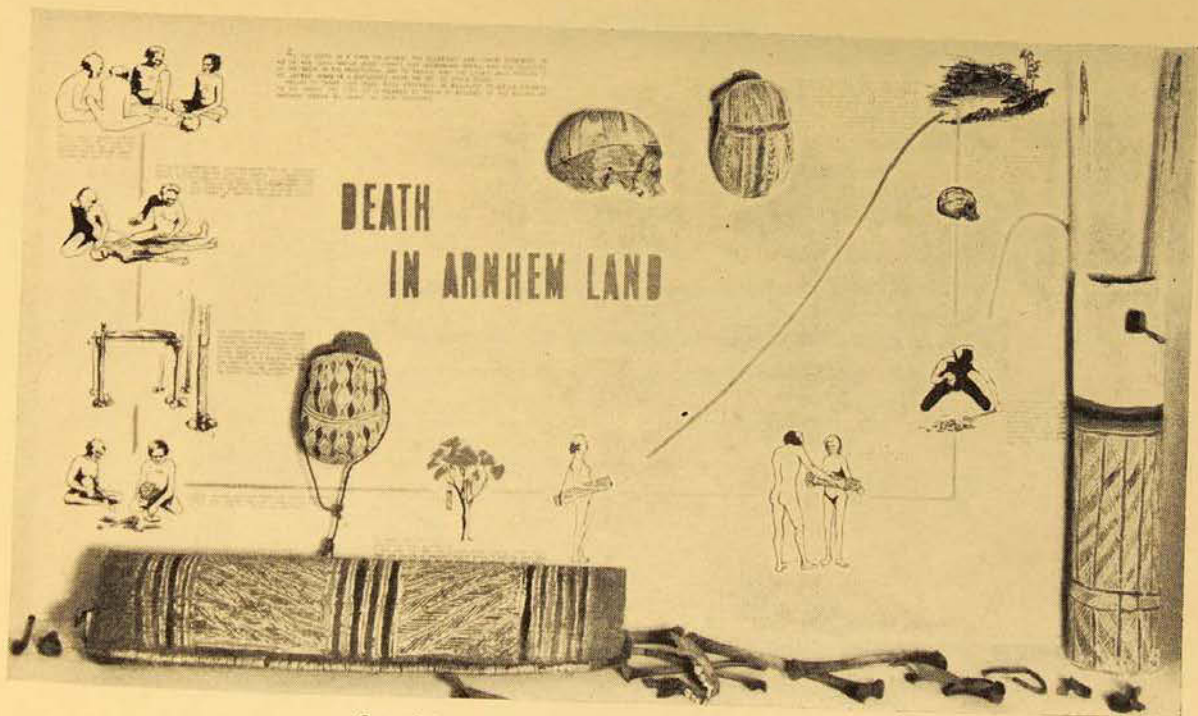
A section of the study collection of specimens stored in spirit





A school class in the Aboriginal Gallery

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One of the new displays in the Aboriginal Gallery