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Michael Trotter and Beverley McCulloch, *Prehistoric Rock Art of New Zealand*

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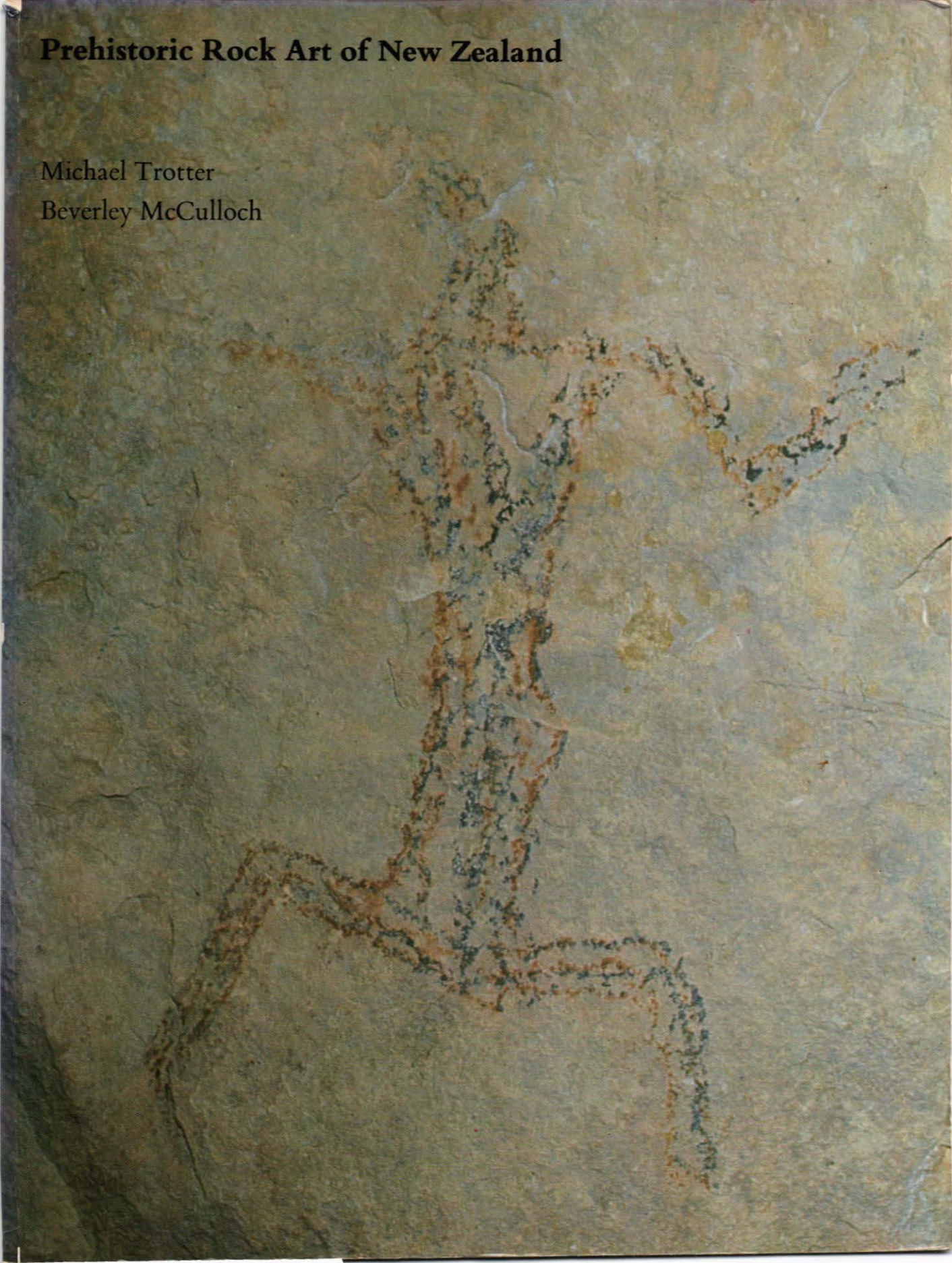
Michael Trotter
Beverley McCulloch



Prehistoric Rock Art of New Zealand

New Zealand Archaeological Association Monographs

1 *A Handbook to Fieldwork Recording in New Zealand*, by J. Golson and R.C. Green, NZAA, 1958.
2 *A Review of the Prehistoric Sequence in the Auckland Province*, by R.C. Green, NZAA, 1963. Second edition, 1970.
3 *Archaeology in North Taranaki*, by A.G. Buist, NZAA, 1964.
4 *New Zealand Archaeology: a site recording handbook*, by J.R.S. Daniels, NZAA, 1970.
5 *Archaeology and Legislation*, by J.R. McKinlay, NZAA, 1973.
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8 *Tiromoana pa, Te Awanga, Hawkes Bay Excavations 1974–75*, by Aileen Fox, NZAA, 1978.
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10 *New Zealand Archaeology: a site recording handbook*, by J.R.S. Daniels, NZAA. Second edition, 1979.
11 *Birds of a Feather, Osteological & Archaeological Papers in honour of R.J. Scarlett*, ed. by Atholl Anderson, NZAA, 1980.
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The front cover depicts a black human figure outlined in red, from Craigmore, South Canterbury.

Foreword

For the successful practice of graphic art, suitable smooth surfaces are essential. From early times, human technology has provided such smooth surfaces in steadily increasing variety. Dressed timber, dressed stone, vellum, canvas and its textile allies, and composite materials of which the most familiar is paper, are the best known of them. To the neolithic craftsman in New Zealand, none except dressed timber had been available. At its best, Maori sculpture in wood achieved high excellence, but if strict definition is insisted upon, wood carving falls outside the definition of graphic art. Rock art, which forms one major division of graphic art, is the subject of this book, although brief reference is made to another very successful type of graphic art—the painted red and black 'rafter patterns' found in big communal houses and the pataka, as well as on door and window surfaces and paddle blades. Together, this group of patterns constitutes a highly successful New Zealand exploitation of designs brought here by the Polynesian ancestors from eastern Indonesia and south-east coastal Asia. In the thinly-populated South Island, this group of attractive, brightly-coloured designs was largely unexploited, but this absence is amply balanced by the South Island's pre-eminence in the field of rock art, especially in the limestone areas.

In both North and South Islands there are considerable exposed areas of limestone. In the south, much of it is of fine texture and good colour and is admirably suited to display patterns in red or black. The exposed limestone surfaces that I have seen at the Chathams are not suited in either colour or texture as backgrounds for patterns in red or black. The same is probably true of most North Island exposed limestone.

To the Polynesian artist, the sheltered limestone faces of the south proved irresistible. On them he exercised his skill with crude haematite or charcoal, sometimes with the sophisticated addition of oily substances. Occasionally, a graving tool was substituted. There was, however, a risk, and that risk, history has shown, could be deadly. On all exposed surfaces flaking and fading have operated continuously. In the centuries since the first Polynesian looked at them, all exposed limestone surfaces have been profoundly affected by the weather. What we see now is only a remnant of the thousands of drawings once present. Backgrounds unaffected by frost or water soakage, by driving rain, or by direct sunlight, are extraordinarily rare. One of these is the under-surface of a huge limestone slab near the Opihi River in South Canterbury. Its under-surface lies about a metre clear of the ground, parallel with the valley floor. Lying on his back on the gravelly floor, the artist has wielded with skill his charcoal crayon, to produce a pair of taniwha (Fig. 4), tails interlocking in a double spiral, the stumpy limbs bending to produce the curves familiar in the best known rafter patterns.

To the authors, the reading public is heavily indebted. They have produced an exhaustive study of a field hitherto only sketchily touched on. They have provided an historical study of previous investigations in the field, and a corpus of such drawings as are still sufficiently preserved to be of value to the student of rock art motifs. No longer are we in the dark as to the evidence that is available. As an example of the problems here posed, we have the entity from Frenchmans Gully in South Canterbury (Fig. 18). He stands with outstretched wings on which five fledglings are poised. Is he, as has been suggested, Tane-mahuta, guardian or god

of the birds? Or is he, more humbly, a human guardian? Is he a bird-headed man, allied to the undoubtedly bird-headed men of Easter Island? Or is he, as the authors seem inclined to suggest, an embodiment of bird life, rather humanly rendered? From the text and the figures a score of similar problems arises. We thank the authors for raising them, and we look forward to the solutions of many problems now at last clearly set out and available.

H.D. Skinner
Dunedin

Preface

Because certain rock drawing designs appeal to current aesthetic tastes, decorative motifs based on them appear on a profusion of commercially-produced greeting cards, ceramic ware, stamps, trinkets and souvenirs. Unfortunately these abstracted reproductions tend to create an entirely false impression of rock art in New Zealand, and most people are surprised and disappointed on seeing authentic works for the first time (Fig. 1). The often faint traces of pigment, sometimes indecipherable, the degree of simplification and the stylisation are hardly what is expected by those who hope to see local versions of Lascaux or Altamira. With few exceptions, articles that have appeared in newspapers, magazines, art journals and scientific publications only add to the confusion. Many were written at a time when little was known about rock drawings and serve only to expound what can be regarded as fanciful hypotheses. Others are subjective interpretations of selected works, or deal only with particular aspects of rock art.

Numerous theories have been propounded to explain the origin of New Zealand rock drawings. They have been variously attributed to certain Maori tribes, European farmworkers, shipwrecked Tamil mariners, Buddhist missionaries and paleolithic autochthones.

It is well over a hundred years since the first discovery of prehistoric rock art in New Zealand. In 1852, the surveyor Walter Mantell found what he referred to as 'rude figures' painted on a smooth overhanging limestone cliff face at Takiroa in North Otago. Since then, many more examples have been found throughout the country, and several investigators have spent considerable time examining and studying them.

It is, however, only in recent years that they have attracted widespread interest, and today their archaeological value is widely recognised by both prehistorians and laymen alike.

Despite the length of time that their existence has been known, this book is the first attempt that has been made to present a comprehensive study of New Zealand rock drawings. We hope it will prove to be of value to both the general public and the student of Maori history. Our aim is not only to give a truer picture of the rock art that occurs throughout the country, but also to provide an up to date account of the research that has been carried out in this field. While this book may serve to some extent as a picture guide of rock shelter sites or as a souvenir of a visit to them, we hope it will also give the reader some understanding of rock drawings and the artists who produced them, and of the problems encountered and the results obtained from our investigations.

Except where otherwise acknowledged, all illustrations are from our own field photographs and tracings, and descriptions have been based on direct field observations. We wish to extend our grateful thanks to all those who have helped us in our research and in the preparation of this book. Principally our thanks must go to the landowners who allowed us to roam over their properties, and also in many instances provided us with transport and cups of tea; they helped us with our investigations, and offered to erect fences around shelters to prevent damage to the drawings by farm stock. Access to shelters was also facilitated by transport provided by the New Zealand Forest Service. The assistance of many people, particularly members of the North Otago Scientific and Historical Society, the Otago Anthropological Society, and the Canterbury Museum Archaeological Society, in locating and recording sites, has resulted, since

1965, in a tenfold increase in the number of rock shelters registered with the New Zealand Archaeological Association's site-recording scheme.

We are indebted to the late Dr H.D. Skinner (Director Emeritus of the Otago Museum) for his interest and encouragement. Special thanks are due to our university and museum colleagues: Professor S.M. Mead, Mr P. Bellwood, Miss J. Davidson, Mr. D. Simmons, Mr S. Park, Mrs B. McFadgen and Mr W. Ambrose; to Mr G. Law, Mr R.I.M. Burnett and Mr Quentin MacFarlane, all of whom contributed information and illustrations; and to the Hocken Library, the Alexander Turnbull Library, the New Zealand Archaeological Association, the Department of Internal Affairs and the Canterbury Museum, for permission to use material held in their archives.

Michael M. Trotter
Beverley McCulloch
Canterbury Museum,
Christchurch, New Zealand

Chapter one
Introduction to rock art

Knowledge of any aspect of how people lived in the past is gained mainly by studying the records they have left behind them. Where written records exist there is no great problem, although as they may not always contain as much detail as we would wish, and are often rather subjective, it is generally helpful to get more direct information when it is available. Standing on the site of an historic event enables us to picture what took place far better than a written description alone ever could. Tools and implements that were used from day to day by people who died centuries ago help us to recreate more vividly their daily life.

When we consider the whole history of mankind, only a minute fraction of it is documented by contemporarily written accounts. The greater portion has to be learned indirectly from the evidence that man—usually unwittingly—has left behind him. This undocumented history is often called 'prehistory'. In some countries the prehistoric era ended thousands of years ago; in other places, such as inland New Guinea, it extended until very recently. In New Zealand, human prehistory began with the arrival of man from Polynesia over a thousand years ago and ended with organised settlement by Europeans. The Polynesians left a considerable amount of evidence of their occupation, which was ten times as long as that of the Europeans. Today, archaeologists look for this evidence in the form of modifications to natural ground surfaces, artificially induced ecological changes such as the disappearance of bush or the extinction of bird species, occupational evidence that has been buried in the ground and so preserved, man-made objects (artifacts), and drawings on rock surfaces. Archaeology involves many different branches of science and can be likened to highly sophisticated detective work aimed at finding out what happened in the past, who was involved, why and when. The answers can never be complete; only some of man's activities leave any material evidence, and only some of this survives. Furthermore, there is some archaeological evidence that we have not yet been able to interpret (there are, for instance, objects for which we know no use) and other evidence is by its very nature not amenable to interpretation.

Rock art is one form of prehistoric evidence the interpretation or even the assessment of the value of which has caused considerable controversy in the past. Some investigators insisted that rock drawings *must* have a *meaning*; some suggested that they were a primitive form of writing, mnemonics, maps, or that they illustrated certain legends. Others have seen a ritualistic or magical purpose for them. They were described by Theo Schoon in the *New Zealand Listener* (12 September 1947) as great works of art, as 'frozen poetry in which the very soul of the mythopoetic Polynesian has been crystallised', and as idle doodlings. For some reason many people seem loath to accept them simply as a form of art.

There is no great mystery about the prehistoric rock art of New Zealand. The reasons for its occurrence need be no different from the reasons which lead people to draw and paint today, whether an artistic masterpiece that is admired or criticised by the populace or merely a scribbling on a telephone jotter pad. Without doubt psychological reasons could be put forward to explain why we draw, and cultural reasons doubtless influence what we draw; similar explanations can surely be applied to prehistoric rock art.

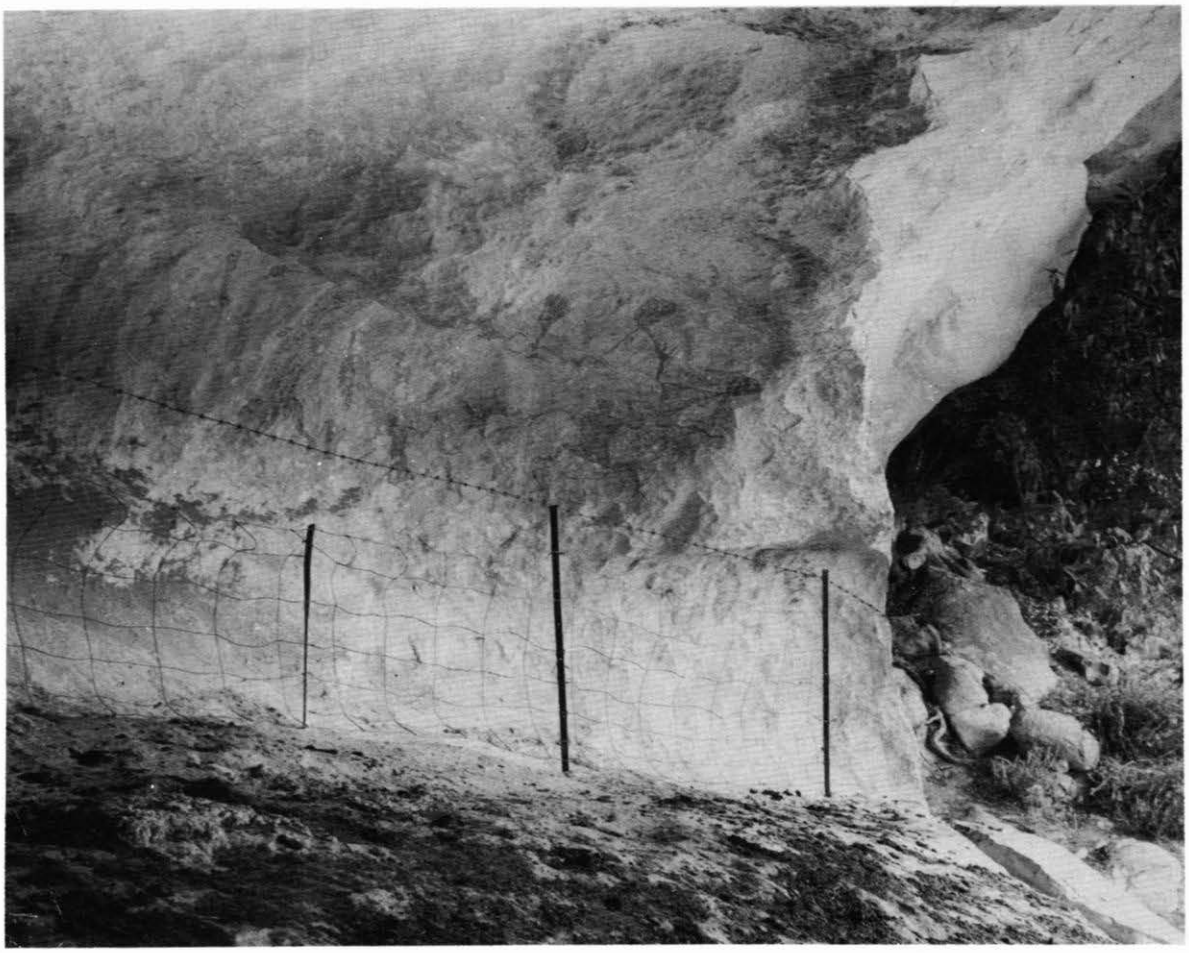
Rock art may be described as ornamental or

1 A typical rock drawing, executed in charcoal, South Canterbury

non-utilitarian markings on a natural rock surface (Fig. 1). Generally the term is applied only to work done on large immovable rocks; it was done in position and was not meant to be shifted anywhere else. Because it is most commonly found on the walls of rock shelters it is sometimes called parietal art, and this term has in everyday use been extended to cover also that on shelter roofs and floors, on cliff faces or other solid rock formations. In New Zealand, rock art has not been found in deep caves as it has in some parts of western Europe. It occurs mainly in shelters where overhanging cliffs would have provided protection for the artists. Some of these shelters might almost be described as caves, but are generally not more than a few metres deep and have a sufficiently large opening to admit plenty of daylight. Possibly the artists preferred to have daylight, either while they were working or so that their work could be seen easily by others. Many deeper caves were used for habitation and contain quantities of occupational material. At Moa-bone Point cave near Christchurch it was necessary to carry out much of the archaeological investigation by artificial light, yet there was a depth of over sixty centimetres of shells, bones, charcoal and other refuse from the Maori occupation at the dark end of the cave. There are no drawings, but neither have any been found in the shallow shelters in this area. At the time of writing no parietal rock art is known in the whole of Banks Peninsula, although there are many caves and shelters in the area that contain evidence of Maori occupation. A probable reason is that the rock is a hard basalt of dark colour and often with a rough surface—not a very suitable canvas for art work. In the limestone areas, however, where rock shelters containing drawings are most numerous, there are few deep dark caves.

Shelters that were used for occupation vary greatly in size and in sheltering properties. Typically they comprise a hollow or concavity in a rock face sufficiently deep to ward off wind and rain from at least one direction. Most face towards the north, thus catching a maximum of sunlight and warmth, besides being effective in sheltering the occupants from prevailing cold wet southerlies (Fig. 2). Some are large enough to accommodate over a hundred people in comfort, while others would provide cramped quarters for one.

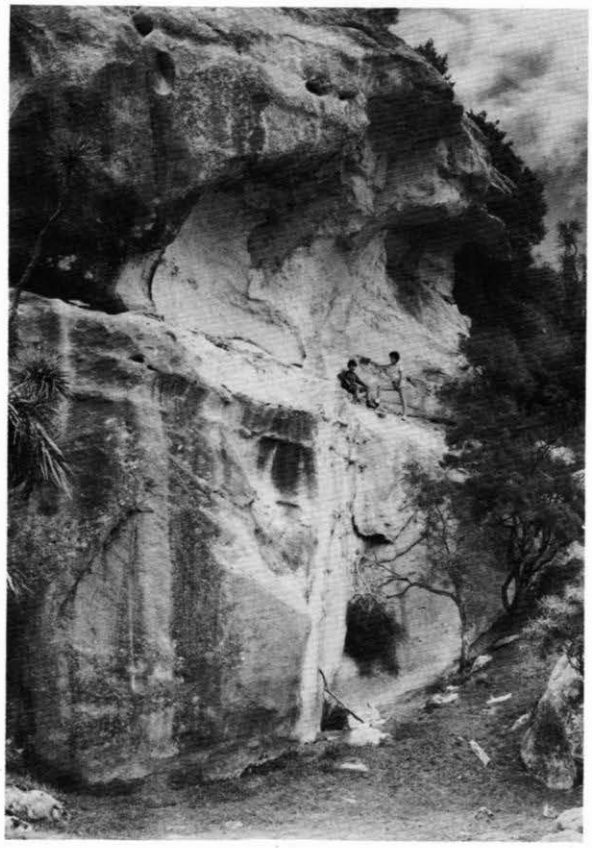
Rock art is also found in crevices too small for anyone to enter, on boulders and on cliffs that would not be suitable for shelter. Occasionally examples are found well above the height that anyone could normally reach from the ground. Some of the most inaccessible are found in South Canterbury, where nine metres up a rock face are a number of black drawings (Fig. 3). It is not too difficult to climb up the cliffs to them, but it does indicate the extent to which the artists would go to make drawings in a position that appealed to them. Perhaps this can be likened to the present day name-scratcher who leaves his mark in a barely-accessible spot high up a cliff. Some shelters containing art works, while large enough for habitation, are made uninhabitable by steeply sloping floors; one like this is in the Maerewhenua River valley in North Otago. It is a large, warm, almost cave-like shelter, but the floor slopes outwards so steeply that one can only stand or squat on it and it would not provide very comfortable quarters for a lengthy stay.



2 North-facing limestone shelter, South Canterbury, having good sheltering properties and containing black drawings

Rock art is found only in positions where it has been protected from weathering or water seepage and where other conditions, such as the quality of the rock surface, have been conducive to its survival. Overhanging shelter formations often provide suitable conditions, but in many cases the rock itself erodes by powdering or flaking, or if it is kept damp by seepage it may crumble or sustain lichen or mossy growths, all of which can destroy the art work. In the South Island in particular it appears that wherever there are suitable rock formations for utilisation in suitable environmental areas we find rock art or other evidence of occupation. Where an apparently suitable shelter contains no indication of such use, the absence can often be attributed to erosion or some similar cause. It seems probable, too, that many drawings were made on more exposed surfaces where they no longer exist today, as it is unlikely that the artists took pains to choose only places that were protected from weathering. In some instances, drawings extend from a sheltered area on a cliff face to the edge of a weathered portion, giving the impression that they once were more extensive but have since been eroded or obscured by wind and water.

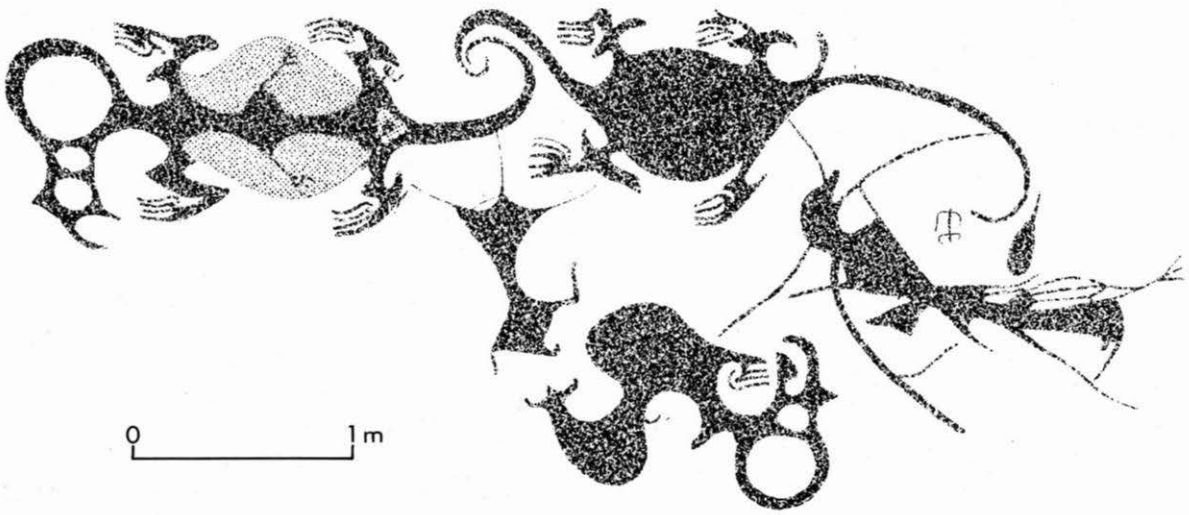
There are some compositions that are too large to be seen from one position. The well-known Opihi 'taniwha', familiar to most New Zealanders from its depiction on postage stamps and souvenirs, is one; it was drawn in



3 Though not visible in the photograph, a number of drawings were found at this point nine metres above the ground, South Canterbury

black on the ceiling of a shelter little over a metre high. The whole composition (Fig. 4) is nearly five metres long, so that even if the observer lies on his back on the floor of the shelter it is not possible to really appreciate the drawing, especially as the floor nowadays is covered liberally with fresh sheep droppings.

Nearly all the prehistoric rock art in New Zealand is in the form of drawings. In fact, if we use the Oxford Dictionary definition, that a drawing is the product of the 'art of representing by line, delineation without colour or with single colour', then there are very few examples that cannot be so described. Most have been made by marking the chosen smooth light-coloured rock surface with natural materials used as crayons. In some drawings, the pigment has the appearance of having been applied as a paint or paste. Pigment applied dry tends to adhere to the outer or raised parts of the grains of the rock surface while a paint would flow into the hollows as well. However, if the crayon is soft enough and is applied heavily enough it too will produce much the same effect as paint. To confuse the matter further, some pigments applied dry can be carried in suspension or solution into the hollows between the raised grains of the rock structure by natural surface water or dampness.



4 The well-known Opihi 'taniwha' (a photo-mechanical copy made from tracings and photographs). Scale: one metre

Where surface water has flowed down the rock face it is not unusual to find staining below a drawing caused by pigment being carried down and redeposited in a new position.

More common in the North Island than in the South are rock carvings or 'petroglyphs'. These are incised lines or engravings cut into soft rock. In style most are more akin to the wood carvings of the European contact period than to the bulk of the earlier rock drawings. They were made by engraving a shallow groove in the rock with a sharp, pointed piece of hard stone. Sometimes merely a scratch was produced; sometimes the groove was a centimetre or more in depth. In the North Island, some petroglyphs have been produced in relief by pecking away the surrounding rock.

Incised pebbles and small stone artifacts with incised designs on them are perhaps a form of portable rock art. The most common are egg-shaped pebbles, usually of soft rock such as limestone, with stylised human faces or spiral designs scratched into the surface (Fig. 5). It is unlikely that the reason or motivation for making these was the same as that for producing rock art, and for this reason they do not come within the scope of this book.

5 Incised limestone pebble. Collection of J. Scott, Woodend. Height: 47 mm

Maori rock art, then, may be defined as drawings, paintings, or engravings that are found on naturally positioned rocks or outcrops throughout the country, that were executed by the native inhabitants of New Zealand at a time before European occupation. Detailed descriptions of drawings, the pigments used, the specific areas where rock art is found, and its probable place in the prehistoric sequence, will be dealt with more fully in subsequent chapters, but in general terms Maori rock art can be described as something exclusive to New Zealand, and as such is a priceless relic of the prehistory of this country. It must always be remembered that rock art is only one aspect of the lives of real people, and in order that we may see it in its true perspective we must ensure that it is correlated with all other aspects of their way of life. It is unprofitable to attempt to analyse Maori rock art out of its natural context and without reference to what is known of New Zealand's prehistory.

Any rock drawing, no matter what its merit or appeal by present-day standards, was the work of a living human being. Only by acquiring some understanding of his way of life can a start be made on understanding his art.

Chapter two
History of investigations

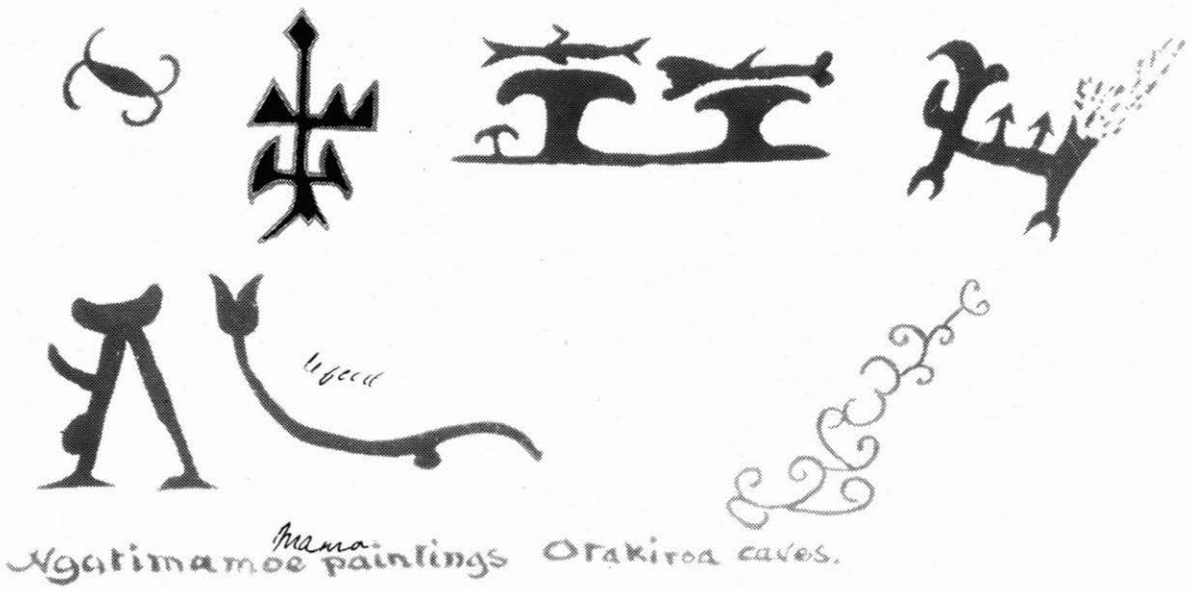
The South Island

The existence of prehistoric rock drawings in New Zealand has been known since very early in the era of European contact and settlement. It is quite possible that even before the first recorded note of their presence by the surveyor Walter Mantell in 1852 they were seen by earlier visitors to our shores, whalers, sealers, traders and the like. If so, they were not sufficiently interested to leave any written record of such observations.

The history of investigations, therefore, must begin with Mantell, who referred to drawings at Takiroa in North Otago in his presidential address to the New Zealand Institute in 1868, almost sixteen years after seeing them. Mantell's comments and an illustration of the drawings were published in the Institute's *Transactions* for that year (Fig. 6). It was probably as a result of Mantell's address that by the late 1870s some interest was being taken in this aspect of Maori culture by the foremost authorities of the day.

The seeds of disagreement as to the origins and purposes of rock art were sown a hundred years ago, and the same disagreements survive to this day. All we can do is record the results of the work of these investigations so that they may be compared with the research that is being carried out at the present time.

The Rev. J.W. Stack, an authority on Maori traditional history, had for some years known of



6 Extract from W. Mantell's sketchbook, December 1852. Figures from the Takiroa shelter, North Otago, in red and black

the existence of rock drawings in South Canterbury, but it was not until 1875 that he had the opportunity of examining any. Accompanied by a friend, and with a local guide (whom he considered incompetent for not taking them to where the 'best specimens' could be seen), he visited the long 'Noah's Ark' shelter on the north bank of the Opihi River. He described the entire surface of the rock as being covered with drawings which he considered were so defaced with the charcoal scrawls of modern Maori eeling parties that, with one exception, it was impossible to distinguish the original forms. It is likely that most if not all of the 'charcoal scrawls' were in fact prehistoric work. Towards the eastern end of the shelter, at a height of over four metres above the ground, Stack found a carefully-drawn composition about 1.5 metres long. The black pigment used by the artist was well preserved, and in fact appeared to be of help in preventing the crumbling of the rock surface. Stack claimed that the Ngatimamoe tribe, weakened by successive defeats at the hands of the Ngaitahu, took refuge in caves, where traces of their occupation were shown in the drawings overlying those of more ancient date, possibly drawn by the somewhat mythical Rapuwai or Ngapuhi tribes. It is doubtful, however, if the Maoris he questioned had any real traditional knowledge of the drawings. This particular site, which is at Hanging Rock bridge, has since been partially destroyed by roadworks, and the drawings have now been mostly obliterated by European names and scribbling, though some original drawings are still clearly visible.

As early as 1862, Julius von Haast, the great German scientist and explorer, had seen Maori rock drawings in South Canterbury, but mistook them for the work of some shepherd idling away his time with sheep-branding fluid. In 1876, however, Haast, now Director of the Canterbury Museum, was told of the existence of the main Weka Pass shelter in North Canterbury, and on examining the examples of rock art it contained was convinced of their great age by their character and poor state of preservation. He believed that the figures, which he considered were done with powdered charcoal and haematite mixed with a fatty substance, were painted at three different periods: the earliest red paintings were overlaid by later red paintings, around and over which were a mass of others in black of still later origin. He was unable to distinguish the outlines of any of the earliest red figures, but considered that those in black were of a more primitive nature and seemed to have been done by a different race of men than the second or principal red works. Haast had scale copies of the more conspicuous figures made by the artist T.S. Cousins (the originals of these were for some years exhibited in the Canterbury Museum), and a member of the museum staff, W. Sparks, carried out excavations in the shelter floor. Although there was an occupational deposit more than thirty centimetres thick, very few diagnostic artifacts or identifiable faunal remains were recovered, but he did consider that there was evidence that moa-hunters had camped there, and suggested that some of the paintings had been made by them.

Haast interpreted the figures as representing, among other things, whales, a snake, a possible fishhook, a moa, [illegible]niwha, some dogs, stick insects, lizards and human beings, including one carrying a stick and another with two calabashes. Besides these, however, he considered that some figures resembled characters of an oriental script, a theory that received some confirmation from authorities he consulted. A central hat-like figure was compared to those used in Malayan countries, and the snake and crocodile-like monsters suggested to Haast that the artists had some connection with the tropics. This, plus the evidence of an antique bronze bell with a Tamil inscription (similar to some of the Weka Pass figures) found in the North Island a few years earlier, led him to suggest that one or more ships of Indian origin had been wrecked on the New Zealand coast in the distant past, and some of the Weka Pass work was either executed by the shipwrecked mariners or copied from their relics. One of the authorities whom Haast consulted was Mackenzie Cameron, an historian and Asiatic traveller, who believed that the main Weka Pass figures were divisible into two classes, those of Indian origin brought to our shores by Buddhist missionaries, and those of later New Zealand native design. In a postcript to Mackenzie Cameron's communication

published in 1878, Haast wrote that the main paintings had all been done at the same time and therefore could not represent the work of different periods or even different races, but he did accept Mackenzie Cameron's testimony as further evidence of 'the great antiquity of the paintings in question'.

Julius von Haast had a somewhat exaggerated idea of the antiquity of man in New Zealand. He believed that as the moa had been a contemporary of the extinct giant animals of the Old World such as the mammoth, that therefore the men who hunted them (whom he called 'moa-hunters'), also lived thousands of years ago. At first he was convinced that they had a paleolithic culture; that is, that their tools were of chipped stone as opposed to the ground or polished stone of the later 'Maoris'. This mistake was perhaps understandable as he had noted the numerous chipped and flaked stone knives associated with moa bone in ancient kitchen middens, and thought that polished stone implements found nearby were of later origin, in some cases cached in the moa-hunter sites. He was forced to abandon his paleolithic theory when adzes with smooth ground surfaces were found in undisturbed association with moa bones near Sumner in the early 1870s.

Some of Haast's contemporaries were quite outspoken in their disagreement with his theories. W.M. Maskell, in a published report on a visit he made to the main Weka Pass shelter in 1882, was critical of both Haast's and Mackenzie Cameron's interpretations of the drawings. He also dismissed the theory that they had been drawn by idle European shepherds and shearers. Observing that the shelter (like others nearby) was not on a likely route through the hills, and that the concave surface of the rock reflected sound to the opposite side of the valley in the manner of a sound-shell, he suggested that the Maoris may have used it as a natural amphitheatre. (This effect of reflecting and amplifying sound is noticeable today.) Maskell's own opinion of the Weka Pass drawings was that they were the work of some Maori artists, not necessarily all done at the same time, and certainly not of the great antiquity suggested by Haast. He considered that they did not have any particular collective meaning but were 'the work of ordinary Native draughtsmen, scrawled as children scrawl on walls and desks, and entirely destitute of any symbolic meaning . . .'.

His report precipitated lively discussion, particularly between Haast and F.W. Hutton, much of which was published in the scientific journals of the day. There were many opposing views on the age, the significance, and the origin of the drawings, and at one stage the arguments got round to whether or not there was a layer of stalactite either under or over the pigment. Haast maintained there was not (though acceptance of a layer on top of the pigment may have supported his contention of great age) and both men exhibited samples and drew on chemical analyses to support their rival claims. The reports of meetings of the Philosophical Institute of Canterbury make delightful reading as the great men of science of that day made intense verbal attacks on each others' ideas. Personal elements became involved more than scientific investigation, and they even quibbled over the meanings of certain words.

By the 1890s the controversy had lessened (doubtless because of the advancing age of some of the original participants), but had by no means died when F. Huddleston described South Canterbury rock drawings to the Wellington Philosophical Institute. Maskell, who was in the audience, referred to the Weka Pass shelter and said that some thought the 'paintings' to be very old, others thought them to be done by present-day natives, and others thought them to be done by shearers. An editorial in the *Press*, Christchurch, in 1897 summed up the current attitudes among the scientific fraternity, most of those who had studied the matter apparently agreeing broadly with Maskell's 1882 views, an opinion not shared by all the paper's readers. More than one letter to the editor asserted that the drawings had been done by Europeans, and indeed some people claimed that they knew the artists (Fig. 7).

During the 1880s and 1890s, W.W. Smith investigated shelters in South Canterbury and recorded that the country between the Opuha and Tengawai Rivers below Mackenzie Pass abounded with caves that had formed 'comfortable dwellings for the Maoris'. He made sketches of the rapidly disappearing 'grotesque figures' that adorned the walls and ceilings of several shelters. In the floors of some shelters

THE ROCK PAINTINGS.

THE ARTISTS STILL LIVING.

TO THE EDITOR OF THE PRESS.

SIR,—Your sub-leader of 27th ult. and the letters that have lately appeared in your paper touching the rock paintings in Weka Pass have amused me a good deal, as I know two of the party who, in the early days of the West Coast diggings, executed these paintings. They were travelling with sheep and cattle, and were rained up at the Pass for some days, and amused themselves by making the rough sketches which have since so deeply interested the savants of New Zealand and of Europe. About eighteen years ago one of these gentlemen told me all about it, and explained the real significance of some of the designs. The "serpent" was simply a stockwhip, the helmet was a pith helmet hat worn by one of the party, and the plume was a store of flax crackers, twisted by the owner, and stuck into a hole in the hat for convenience. The origin of the drawings is as simple as that of the stone bought by Mr Pickwick, and which so delighted that gentleman and his friends until they found that the inscription, "Bill Stumps his mark," was only a few years old.

The gentlemen I have mentioned still reside in Nelson, and I shall be glad to give their address to any one who wishes to follow up the subject.—Yours, &c.,

G. L. GREENWOOD.

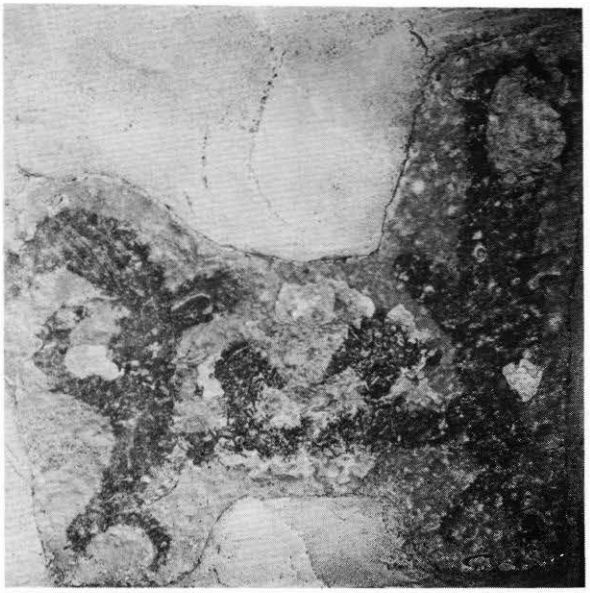
Christchurch, 20th December, 1897.

7 Photocopy of a letter to the Editor of the *Press*, Christchurch, 21 December 1897

were layers of ash with pieces of charred moa bone, burnt moa egg shell, and shells of pipi and paua.

Smith accompanied Augustus Hamilton on his investigations of a number of South Canterbury shelters in 1897, the latter sketching and photographing the clearer figures, many of which he later published in an article in the *Transactions of the New Zealand Institute*. Natural deterioration and disfigurement by vandals in many shelters had largely obliterated much art work, although Hamilton noted that figures could often still be distinguished when the sun was in a certain position. He recorded that one shelter that had contained paintings had been destroyed by man removing lime. The 'Noah's Ark' shelter seen by Stack more than twenty years earlier was located and found to be in much the same condition. Hamilton considered that the designs were similar to some from Easter Island, Flinders Island (off Australia), and Alaska.

Previous to this investigation, Hamilton had inspected and published a description of the Takiroa shelter which had first been described by Mantell. He made a photographic record of the rock art therein, and found that the figures could be divided into three classes. First were those painted on the rock with an animal fat-based medium of black or red (the black appeared to be earlier); second were those drawn with a charred stick or piece of charcoal; and



8 Block of limestone with red drawing cut from the Takiroa shelter by J. Elmore about 1917. Pellets of lead shot are embedded in the top right-hand portion of the figure

third were the initials, names and marks cut or painted by 'modern vandals or travelling swaggers'. Hamilton said that he was interested to find that a dotted extension on one of Mantell's reproductions was in fact a charge of lead shot that had been fired into the rock at close quarters, but in his own illustration he continued the extension, filled in, even farther than Mantell's! Mantell's original drawing makes it clear that he did not mistake a charge of shot for an example of ancient Maori art, and indeed it seems unlikely that the shot was there as early as 1852. This particular drawing was later cut out of the rock face and is now in the Otago Museum, lead shot and all (Fig. 8).

Hamilton also referred to Haast's 1877 publication in which 'he described elaborately the different figures from Weka Pass, and laboured earnestly to invest them with mystic meanings' and stated that the figures that he, Hamilton, saw at Takiroa did 'not strike me as requiring to be interpreted by the imagination of the observer'. He then quoted a passage from a recent publication by the American Bureau of Ethnology which emphasised, in reference to pictographs in general, that 'no attempt should be made at symbolical interpretation unless the symbolical nature of the particular character under examination is known, or can be logically inferred from independent facts'. Hamilton stressed that even if rock drawings were made without special purpose, they were still important as scribbles, and their character and mode of execution told something of their makers, an opinion that we endorse today.

Excavating in the Takiroa shelter floor, Hamilton found several Maori artifacts, bones and shells. He also visited the Maerewhenua

9 Photograph taken by A. Hamilton about 1890, of drawings in the Maerewhenua shelter, North Otago

shelters some four kilometres eastwards, and made sketches of some of the drawings. The main shelter here had for many years been used for the storage of farm machinery and for stabling horses.

Hamilton later made another visit to the Takiroa and Maerewhenua shelters, bringing with him a set of enlarged prints of his Takiroa photographs in order to mark on them the colours of the drawings and any other details not recorded by the camera; his negatives are in the National Museum and copies of the drawings were published in the *Transactions of the New Zealand Institute* (Fig. 9). On both visits to the shelters he was accompanied by G.B. Stevenson, who many years later published descriptions of these and other North Otago shelters in the *Journal of the Polynesian Society* and in his book *Maori and Pakeha in North Otago*. While 'raking out' in the floor of the Takiroa shelter, Stevenson found a small piece of red haematite and a fragment of woven textile.

In a series of newspaper articles on Maori nomenclature (reprinted with slight alterations in book form in 1912), a local historian, W.H.S. Roberts, mentioned the occurrence of rock paintings at Takiroa, Maerewhenua, and in some of the 'caves' in the banks of the Waitaki River. He described the Takiroa shelter as containing twenty-seven paintings of a red colour, made from haematite mixed with oil, which were 'well preserved considering their antiquity and the destructive propensities of relict hunters'. A few years later this description could not apply.

The visit of an American antiquarian, J.L. Elmore, in 1916 aroused considerable interest in Maori rock art. He had been on a world tour making copies of rock shelter art in many countries, and while in New Zealand inspected most of the then known shelters in Canterbury and North Otago. In Christchurch and Dunedin he lectured and gave displays of his copies of Maori rock drawings, which although selective and interpretative, are mostly fairly accurate; copies are now held in the Otago Museum and Hocken Library, Dunedin. For reasons that are not now clear, although he definitely had the backing of some museum personnel and other men of science, Elmore chiselled out a number of blocks of stone that had drawings on them (Fig. 8).

The strongest opposition to his scheme came from property owners, resulting in a 'violent altercation at the Timaru railway station', according to one report. It has been variously said that his intention was to try to preserve the drawings, that he tried to smuggle the blocks out of the country, or that he obtained them on behalf of local provincial museums. Whatever the truth of the matter, most of the blocks of limestone did not go overseas (the Otago Museum has seven of them, the Auckland Museum received three, and there are several in the Wanganui Museum) and credit must be given him for his important records of rock shelter art. He made tracings and hand copies of the drawings in many Canterbury and North Otago localities, including some in the 'Noah's Ark' shelter which forty years before were considered to be obliterated.

One man who was considerably impressed with Elmore's Christchurch lecture was W.H. Skinner, then Commissioner of Crown Lands in Christchurch. Skinner inspected shelters in South Canterbury, and after conferring with the Curators of the Canterbury and Dominion Museums approached the Government with the object of obtaining protection for shelters and drawings. Though no legislation could be brought in at that time, a grant was made and steps taken by the Lands Department to protect those most exposed to possible damage. Recommendations for the protection of rock art shelters had been made in the *Press*, Christchurch, editorial twenty years earlier, and by individuals before that, but all to no avail.

Some traditional information was obtained from elderly Maori informants in the South Island by Herries Beattie. Writing in the *Journal of the Polynesian Society*, Beattie said he had been told that in general the black paintings were done by the Waitaha tribe and the red by the later Ngatimamoe. When the Waitaha came to the South Island they made a record of the men, birds, fish and reptiles they met on their voyages. Figures high up on cliffs were done with the aid of long poles or spears with feathers or flax attached, using a mixture of soot and weka oil. The Ngatimamoe used the shelters as sleeping places while travelling between the coast and their inland villages, and made red copies of the black figures to while away the

time. Following a museum article on cave paintings in the Dunedin *Evening Star*, Beattie stressed that it was incorrect to infer that all black work was Waitaha and all red was Ngatimamoe. While the Waitaha were said to use only black for rock art, reserving red for other purposes, the Ngatimamoe used both colours rather indiscriminately. He also said that both W.H.S. Roberts and he had been told that Europeans had interfered with some of the work, and men employed on sheep stations had amused themselves by painting crude figures in shelters with red and black sheep-marking materials, obliterating some of the original designs. Beattie reported that besides the Canterbury and North Otago shelters, he had been told of one at Rough Ridge in Central Otago which in 1853 contained many paintings. At present this remains one of the many unconfirmed reports of Maori art shelters; others are said to be near Takaka, in Marlborough, in South Canterbury, the West Coast and at various places in the North Island.

As a rule, legends are treated with not a little suspicion by present-day archaeologists, but an account from the North Island is of interest. It concerns the Takitimu canoe which sailed down the coast of the South Island some centuries ago (some writers go so far as to estimate the date of this event as exactly as AD 1350). On landing, the chief Tamatea made and decorated a cave with 'picture writing', at a place which may have been up either the Waitaki River or the Waiau River in Southland. One version of the story even gives meanings for six different symbols—which unfortunately occur only fortuitously in rock drawings.

Examining the main Weka Pass shelter in 1929, W.R.B. Oliver found that the paintings had been largely obliterated by farm stock rubbing against the wall of the shelter, and by visitors adding their names. Because of the 'historical interest' of the shelter, he suggested to the Government that it be fenced and the art work restored, a course that was approved by the New Zealand Institute. Accordingly, in 1930, as Director of the Dominion Museum, he returned with a member of the museum staff and repainted in black or red about fifty of the figures, leaving an estimated 100 in their natural state because they were too vague or confused to renovate (Fig. 10). He found that Cousins's plan (as published by Haast in 1877) did not agree in all details, but used it as a guide where the original pigment was broken away or obscure. Of the original drawings, he noted that they were evidently done with paints made by grinding red earth or charcoal in fish or bird oil, and suggested that because of the close similarity between the human figures and those cut into tree bark on the Chatham Islands, that the latter were made by the natives who migrated there from the South Island. Oliver photographed the paintings—after they were retouched—and also other rock shelter art in South Canterbury.

Recent attempts to penetrate the overpainting with infra-red and ultra-violet light have not

10 Overpainted drawing (*top centre*) in the Timpendean shelter, Weka Pass, with unretouched figures in the background and a large number of European scratchings. Height of top figure: 50 cm

been successful, so it seems unlikely that we will ever know exactly what the original prehistoric figures were like. Comparison of copies made of some of the clearer drawings in 1876 by Cousins, in 1917 by Elmore, and in 1947 by Schoon, with an accurate tracing made in 1968, shows significant differences. For example, in a small section of the drawings, a black human figure has 'grown' above the central figure which in 1877 was described by Haast as a ceremonial tree with fire issuing from the top.

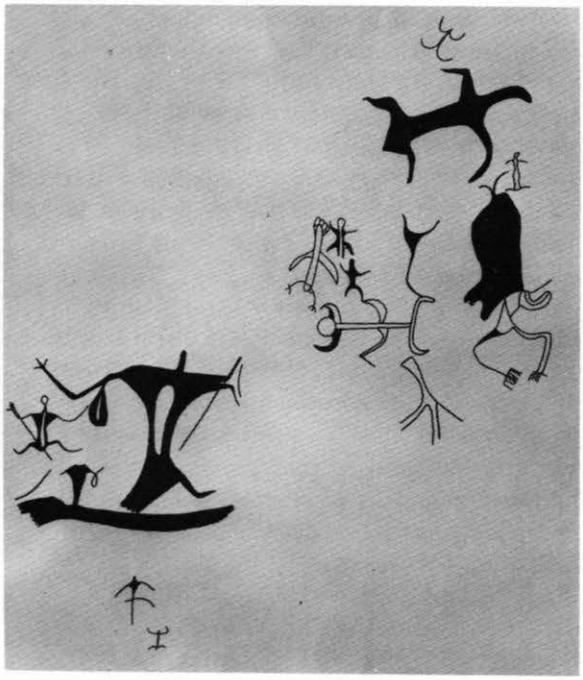
H.S. McCully, who was familiar with most of the known South Canterbury drawings at this time, regarded them as 'tradition rendered pictorially', and according to his interpretation some examples were comparable to designs from Borneo, to Easter Island script and to a Danger Island 'soul trap', while others illustrated various traditions such as the birth of gods from the armpits of greater gods, and a breed of dog superior to the Polynesian kuri. Like many others, McCully was concerned at the deterioration of some of the drawings, and in an attempt to preserve them, retouched some with black ink. Luckily the original pigment is still discernible in places, and our colleague A. Fomison, who has studied these drawings, considers the retouching to be reasonably accurate.

In 1931, David Teviotdale, who was closely associated with the Otago Museum, inspected several South Canterbury rock art shelters, being guided by McCully. In his report of the trip, he described a shelter (at Pareora) containing figures of three moas, which McCully believed were drawn with a dry substance; that is, not painted. They also visited three other shelters in the district and spent a few days digging at the moa-hunter site at the mouth of the Waitaki River. In a Polynesian Society paper, 'The Material Culture of the Moa-hunters in Murihiku', Teviotdale reproduced figures from three South Canterbury shelters, noting merely that though drawings of the moa were of great interest they did not indicate to what culture the artists belonged. Later, in 1938, he excavated some shelter floors, but found very little of interest.

Some investigators have noted that there are very few recognisable moas represented in the many hundreds of figures discovered, believing that if the artists had lived contemporaneously with moas more would have been figured. Of the published drawings, only the one group at Pareora is generally accepted as being undoubtedly of moas, but H.D. Skinner, as Director of the Otago Museum, had identified a small moa at the southern end of the main Weka Pass shelter in 1920 (Fig. 34). In his monograph, 'The Morioris of Chatham Islands', Skinner pointed out that the tendency for human figures to be shown without heads in Chatham Island tree carvings could also be seen in South Island rock art and in the decorative art of many Oceanic islands. In subsequent publications he described the 'taniwha' rock drawings as traditional memories of crocodiles, and interpreted some figures as being in the act of swallowing humans.

G.B. Stevenson, who had accompanied Hamilton on his visits to the known North Otago shelters in the 1890s, continued his interest in Maori history, and later wrote several newspaper articles, scientific papers and the book previously referred to. In 1938, Stevenson, accompanied by J.W. Murdoch, travelled into the Waitaki Gorge (now Lake Benmore) on the north side of the Waitaki River, to try to relocate a group of paintings discovered by the latter about 1889. At Gooseneck Bend they found some in three shallow bays of the greywacke rock, but Murdoch did not believe they were those he had seen fifty years before. In 1940, Stevenson recorded another shelter further upstream at Shepherds Creek, although it had been known to station shepherds for some years.

In order to make a more thorough survey and record, the Department of Internal Affairs, in 1947, engaged an artist, Theo Schoon, to make painted copies of rock art in Canterbury and North Otago. Initially, R.S. Duff, Director of the Canterbury Museum, accompanied Schoon, assisting in locating and copying rock art. Schoon produced painted copies on heavy cardboard with a varying degree of accuracy (Fig. 11). Until recently these were the standard reference copies used by investigators of Maori rock art. In order to assist his photography, Schoon is said to have retouched many figures by going over pigmented areas with crayon or by scraping the rock to freshen scratched



11 Photocopy of a painting by T. Schoon of black South Canterbury rock drawings

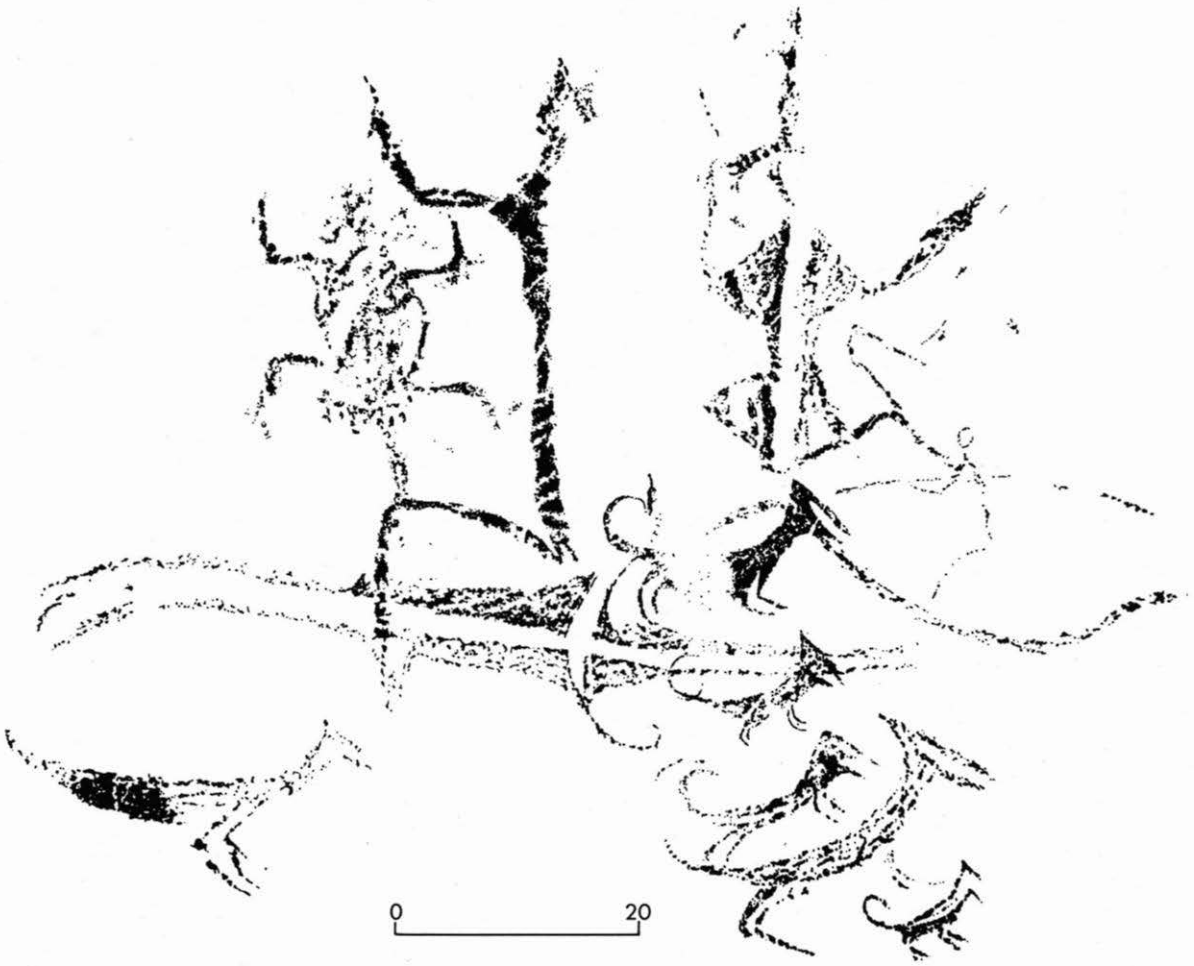
surfaces. He claimed that he restored only dot by dot what pigment could be seen while the surface was wet, and that no interpretation was attempted, but he is nevertheless better known for his unfortunate retouching than for the valuable work he did. Besides the known shelters he recorded in Canterbury and North Otago, Schoon also noted that others existed in Southland and inland Kaikoura (Monkeyface). He believed that Maori rock art was done for magical or ceremonial purposes, and described some creations as major artistic feats.

Duff on the other hand preferred to believe that although they were important documents of Polynesian culture, they probably represented the time-filling scribbles of stormbound travellers. He believed that the shelters were on inland communication routes, and reflected the nomadic economy of South Island Maoris 'roaming perpetually in search of fish and game and greenstone'. Duff agreed with earlier workers that at first sight the stylistic conventions of the South Island rock drawings appeared very different from those of Classic wood carvings, decorative rafter paintings or tattoo patterns, but took care to point out that there were certain rock drawing compositions where the bulbed volute and the double spiral of rafter designs appeared in disguised form. The rock drawings differed in that they appeared as the negative of the design.

Following the discovery of two utilised limestone shelters in Notornis Valley, west of Lake Te Anau, Duff and H.D. Skinner made a three-day investigation of them in 1950, and Duff returned later to complete the work. Both shelters contained occupational material, and one also had several black drawings on the wall. Material excavated from the floor included midden bones of a moa, *Megalapteryx*, one of which had cut-marks that appeared to have been made with a metal blade.

In 1958, at the invitation of the National (New Zealand) Historic Places Trust, W. Ambrose and F. Davis recorded sites that were to be flooded by the Benmore power development scheme in the Waitaki Gorge area. For the first few days of their visit they were accompanied by Duff, representing the Trust, and one of the present authors, Michael Trotter. While Ambrose and Davis made scale drawings and recorded the art work of the Shepherds Creek shelter, Duff and Trotter excavated the floor, finding sparse Maori occupational material which shed only little light on the occupation of the shelter. There were no midden bones, but a few pieces of charcoal, a core and seven percussion flakes of greywacke, and a shaped piece of red sandstone. On this and two subsequent visits to the Benmore area, Ambrose and Davis excavated other shelter floors, and recorded the rock drawings by tracing on transparent sheeting, and photographing with colour, black and white, and infra-red film, setting a very high standard in the accuracy and detail of their investigations (Fig. 12).

Ambrose believed that the poverty of archaeological remains suggested very infrequent and fleeting use of the area by Maoris. Three radiocarbon dates for sites in this area were all obtained from charcoal samples, which recent work suggests may generally be inclined to give ages that are earlier than the actual occupation, but these, together with the faunal and artifactual remains excavated from shelter floors, do establish some early occupation of the area,

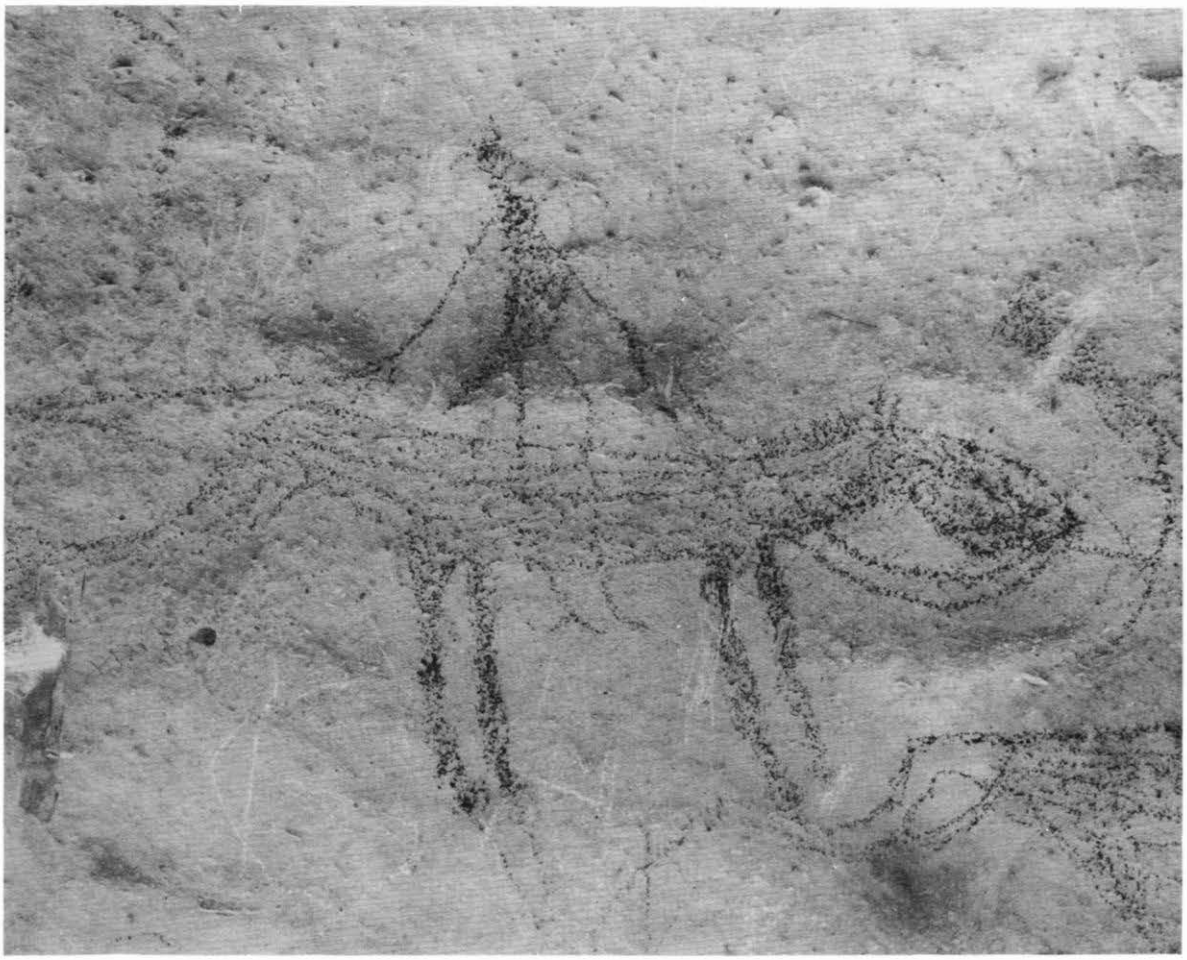


12 A dot-for-dot reproduction made by W. Ambrose from tracings and photographs of dog and human figures in the Benmore area. Scale: 20 cm

and therefore the probability that the drawings were done at least 500 years ago.

Another Historic Places Trust project was a survey of shelter sites of South Canterbury by A. Fomison in the early 1960s, to provide map locations, to list those sites that required protection, and to suggest any that might be signposted. He noted in South Canterbury that all the black and white work, and most of the red, appeared to have been applied by a drawing technique consistent with the application of dry colour in stick or lump form. Though there were instances of burnishing and an incised drawing technique, a phenomenon that had previously been interpreted as bruising of the limestone surface was considered by Fomison to be a deterioration of black pigment. This same effect had been noted on the greywacke rocks at Benmore by Ambrose and Davis.

Fomison found damage and deterioration of the drawings to be widespread. There was much evidence of vandalism, although even greater damage had been caused by 'the efforts of various devotees to record and preserve'. The worst danger was the natural flaking of the rock surface, often accelerated by farm stock, and trial applications of a siliconate preparation were made by the South Canterbury Regional Committee of the National Historic Places Trust. Fomison recognised three artistic styles in the South Canterbury rock drawings. The first was comparatively naturalistic, and was



13 A contact period drawing from Takiroa, North Otago, showing a man seated on a horse. Because of the obviously European-influenced style, the authors do not recognise this as coming into the category of Maori rock art. Total length of horse: 81 cm

followed by one giving a more generalised treatment of the subject, commonly executed in red. The third style was again naturalistic, usually depicting European horses, ships and buildings (Fig. 13). The present authors do not include these post-European drawings in this study of Maori rock art. Not only is the subject matter of European importation, but the artistic technique shows strong European influence.

Fomison's survey showed that many drawings occurred in uninhabitable places, and he believed that the main factor in their location was a good drawing surface rather than any advantage as a camping shelter. He assumed, therefore, that the Maoris went to these shelters with the intention of drawing. Recently, Fomison returned to his rock drawing investigations, concentrating on the artistic aspects of the study.

In 1963–64, members of the North Otago Scientific and Historical Society carried out excavations under the direction of Michael Trotter at a shelter site at Ototara, North Otago. There were no drawings on the walls, but an occupational deposit was found to be of late Moa-hunter origin. Several other shelters containing drawings, in this area and further north near Enfield and Ngapara, were also reported, and later recorded over a period of

several years—indeed new discoveries are still being made by members of the Society who are working in close association with the present authors.

In 1967, Trotter made an intensive survey of the Awamoko Valley in North Otago with a team from the Otago Anthropological Society, with the aim of investigating all the available archaeological and ecological evidence in the chosen area. About this time, Beverley McCulloch began a similar survey at Weka Pass in North Canterbury. Prior to this, investigators had tended to concentrate on art works and in most cases only the more spectacular of these. This had resulted in various theories regarding rock art being formulated on incorrect data or at the best on biased sampling. At Weka Pass only one rock art site had been recorded since the investigations by Haast and his contemporaries last century. Beverley McCulloch's field work resulted in a further fifty utilised shelters being discovered in the area, all but one of which contain some rock art, and several others in which there are traces of pigment, probably of Maori origin. She found that contrary to the observations of others, the art work is basically similar to that in other parts of the South Island, and that those few drawings that appear to be dissimilar are in fact also atypical of most of those at Weka Pass. As these are the figures that were overpainted in 1930 we are unable to say for sure if the differences are real, but they appear in any case to be merely a minor stylistic variation localised to one shelter.

The authors have also surveyed other areas in the South Island where there are suitable formations for rock art shelters; in some cases drawings had been rumoured to be present, but in others new discoveries were made. They were found from Clifden in Southland, through Lakes Pukaki and Tekapo, Mount Somers, Castle Hill and Motunau, to Monkeyface, inland from Kaikoura. Recent discoveries have been made at Herbert, Broken River and Waiau, and there can be little doubt that more rock art sites will be found in other areas.

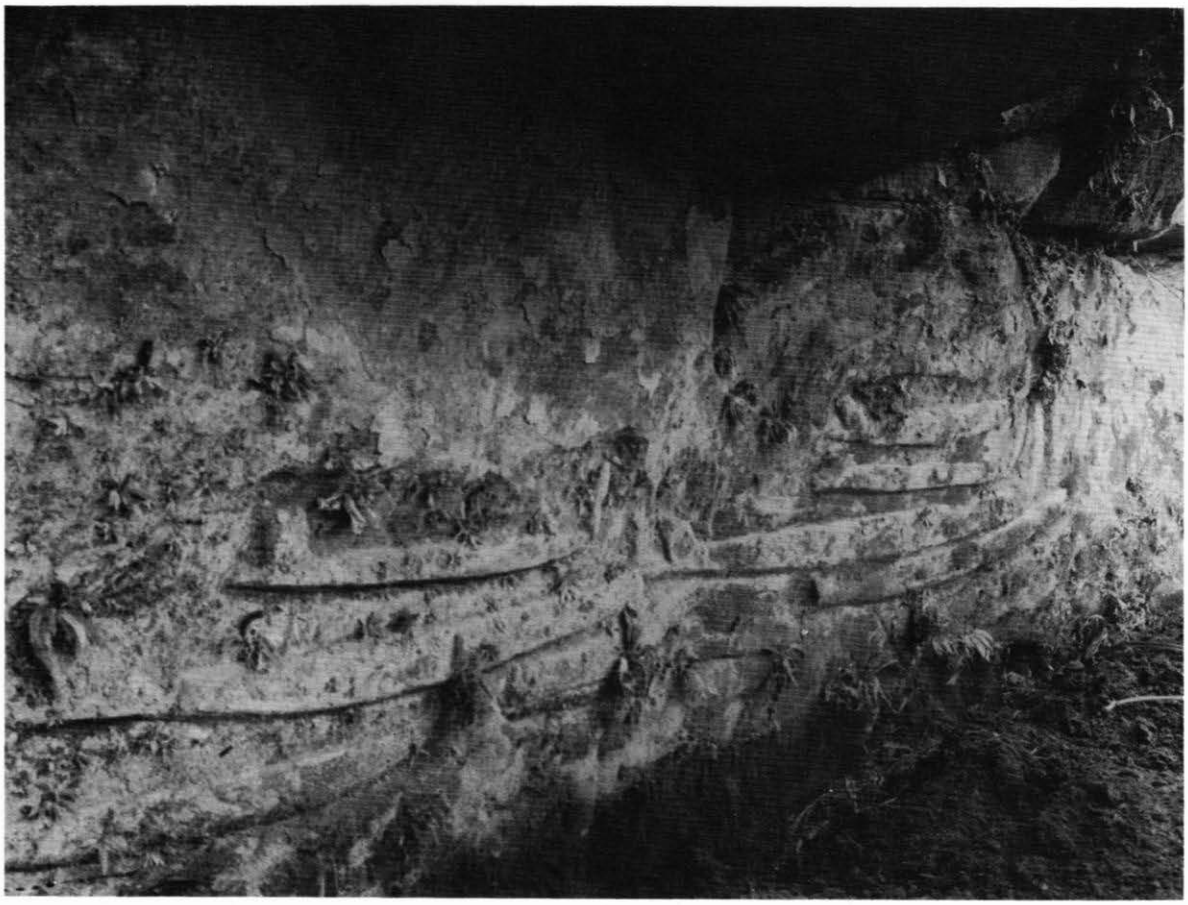
The North Island

As early as 1838, mention was made of Maori rock art by J.S. Polack in his two-volume book, *New Zealand*. He referred to a shelter known as Tupaea's Cave, at Tolaga Bay where Captain James Cook had landed in 1769. At the time of Polack's visit it was used by Maoris for overnight shelter. Because of its historic interest we quote his description: 'Around the surface of the cavern are many native delineations, executed with charcoal of ships, canoes sailing, men and women, dogs and pigs, and some obscenities drawn with tolerable accuracy. Above our reach, and evidently faded by time, was representation of a ship and some boats, which were unanimously pointed out to me, by all present, as the productions of the faithful Taheitian follower of Cook (Tupia). This also had evidently been done by similar materials.'

From this we can only conclude that the drawings were of post-European origin. Forty years later, a friend of William Colenso visited the site for him; he was more interested in a specimen of a *Sapota costata* tree that grew there than in the 'native delineations', but he did note that they were then scarcely discernible.

The first record of prehistoric rock art in the North Island was published in 1910; it was of carvings in soft sandstone in a pa at Otakanini, on the South Kaipara harbour. There is no doubt that other examples had been discovered before this time (in fact H.D. Skinner examined a site at Tongaporutu in 1906 but considered the engravings therein to be of post-European origin), but it was not until the 1920s that several more became widely known. T.W. Downes described a shelter near Waverley that contained engravings (Fig. 43) and quoted a colleague who considered them to be the work of a 'negrito race which preceded the Maori to this island'. H.D. Skinner was shown a photograph of the 'sculpture' and noted it was markedly different from the southern rock drawings. A more detailed description of the carvings was given by W.J. Phillipps of the Dominion Museum in 1950.

During the clearing of land at Kaingaroa for afforestation in 1925, a large shelter was discovered containing numerous conventionalised canoes and other marks carved



14 A section of the Kaingaroa shelter showing canoes executed in raised relief

on the walls. Those of one group were in raised relief while others were incised (see Chapter four). Canoes also predominated in other North Island shelters, and have been the basis of a somewhat unusual hypothesis by Martin Wilson, who suggested that the engravings represented a 'Great Fleet' of canoes in which the Maoris came to New Zealand (Fig. 14).

At Rua Hoata on the Waikato River, W.J. Phillipps recorded approximately fifty-four engraved canoe shapes, and at Arapuni, further downstream, another shelter first described by Gilbert Archey (Auckland Museum), containing canoes drawn in charcoal on the rock face.

Much of the work of recording North Island rock shelter art has been carried out under the auspices of the New Zealand Historic Places Trust (as it has in the South Island). Support has been given especially to the making of accurate records of art works endangered by public works, particularly hydro-electric power schemes which involve the flooding of river valleys to form artificial storage lakes. The Trust has also been responsible for the erection of protective fencing around some sites, those selected generally containing the more spectacular art works.

More North Island rock drawings were reported in the 1950s. D.R. Gregg investigated one of the shelters at Lake Tarawera: it contained canoe and 'ladder' forms executed in two shades of red, one overlying the other in one instance. F. Davis and W. Ambrose made an accurate record of an important shelter at Waipapa on the Waikato River which contained both red and black drawings of canoes, a dog, spirals, and other objects. They experienced difficulty in recording the drawings because of

their faintness, and adopted the somewhat novel method of painting over them with very thin porridge to keep the drawings wet and thus provide a greater contrast with the plain rock background while they photographed them.

Two groups of rock carvings were found at Ongare near Tauranga and investigated by Ambrose, who made moulds of them using a chalk-latex mixture, from which casts could be taken in plaster-of-paris or other moulding material. Moulds were also made of the Kaingaroa engravings by P.J. O'Brien of the Auckland Museum, using a latex compound reinforced with muslin, and similar techniques were used elsewhere.

In recent years a number of small sites have been located in the North Island, with useful recording work being undertaken by R.G. Law in the northern half of the island and by Kelvin Day in the Taranaki area.

The Chatham Islands

Several investigators have described the engravings that occur in limestone shelters on Chatham Island, but in general more interest has been taken in the dendroglyphs—carvings, commonly of human figures, that have been made in the bark of karaka trees (Fig. 15). Although there are a few human and other forms, most of the rock engravings are of seal-like figures (Fig. 16). As might be expected, comparisons were made in the early 1900s of these with art in other parts of Oceania, and particularly with symbols in the carved 'script' of Easter Island, but no convincing similarities were found. Skinner considered that the seal-like figures were birds, an opinion based largely on a small group of the figures with more pronounced bird-like characteristics which occurred on a cliff face near the Te Ana-a-Nunuku site. He considered that a greater number of the figures could be recognised as the same kind of birds that occur in certain Chatham Island wood carvings, such as those on some house planks.

D.R. Simmons, who led an archaeological expedition to Chatham Island in the summer of 1963–64, recorded five rock art sites with the incised seal-like motifs and some other designs on the western side of the central lagoon. He found that these fell into two main series: an angular form of the seal-bird shape, and a flowing curvilinear representation of the same type of design. The flowing designs at Te Ana-a-Nunuku shelter had been executed after the floor level had been raised by a rock fall. Some of the angular designs were covered by the curvilinear form, some partly obscured by the rock fall, or in other sites were on the roof and sides of caves filled with debris. This suggested an evolution from angular to flowing, with the flowing form dating to the last period of prehistory.

15 Chatham Island dendroglyph, carved in the bark of a karaka tree at Makaroa. Figure is 80 cm tall

16 Rock engravings of seal- or bird-like figures, Te-Ana-a-Nunuku, Chatham Islands

This brings the history of investigations up to the present and leads us to the next chapters, in which the rock art of the North and South Islands is discussed in detail as is the modern approach to rock art investigation.

Chapter three
Rock drawings in the South Island

The majority of rock drawings so far discovered in New Zealand are located in the South Island. Extensive investigations over a period of years have shown that such drawings occur in almost every area where suitable outcropping rock is present.

With the exception of a few sites where greywacke and schist form the background rock, all have been found on limestone or sandstone, both of which are of similar texture, providing a light-coloured smooth surface ideal for the pigments used.

So frequent is the combination of limestone and rock drawings that in areas containing suitable limestone formations on which no drawings have been previously reported, deliberate investigation invariably reveals their presence, although all too often as weathered and featureless traces.

Despite the fact that South Island rock art has such a wide distribution, it is concentrated in definite areas, many of which are separated by considerable distances, a fact which led many early investigators to examine the drawings in one area only, rather than consider South Island drawings as a whole.

However, in the light of recent investigations it has become apparent that with few exceptions the chief characteristic of South Island rock drawing, no matter where found, is a basic similarity of both subject and style. Their frequency of occurrence, some hundreds of sites comprising thousands of drawings, obviously makes their description and analysis a task of some magnitude. It would be impossible to deal with all known sites, let alone individual drawings, in this book. The best way, therefore, in which to cover all aspects, is to describe South Island rock art under three general headings:

1 Distribution (geographical)
2 Drawing techniques (including pigments used and methods of application)
3 Subject matter.

Distribution

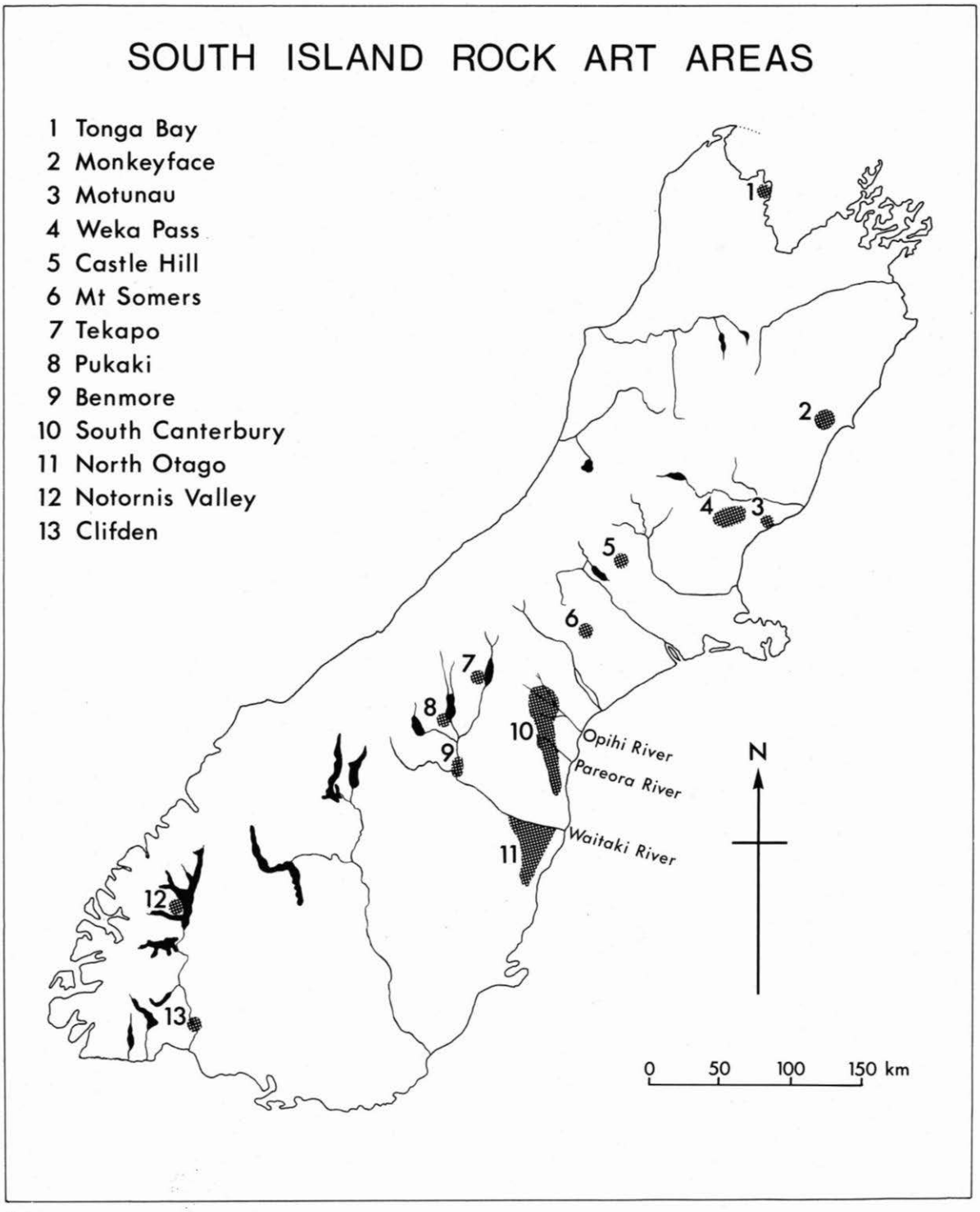
A map (Fig. 17) is included for easy reference.

The most southerly sites known at the time of writing are at Clifden in Southland, where black drawings have been found in several limestone shelters. Though of great archaeological interest, they are not at all spectacular, and because of their isolation have remained comparatively unknown. Although their existence had been rumoured, they were first officially reported by Michael Trotter in 1967, during a trip to examine the well-known Maori burial cave on Mary Island, Lake Hauroko. The drawings are about forty kilometres from the lake.

Moving north from Clifden, one shelter containing art work can be found in the Notornis Valley adjacent to Lake Te Anau. Although this is an apparently solitary site, it is possible that other examples of rock art will be found in the area. The discovery of this one known site was in fact fortuitous, occurring during the examination of shelters in the valley for evidence of occupation by the notornis.

The next area where rock art occurs contains the second-largest concentration of sites in the South Island, those of North Otago. These extend from Waianakarua to the Waitaki River, and from the coast inland to the Waitaki Gorge—now Lake Benmore. Although strictly speaking some of the now drowned Benmore sites were across the river (which forms the provincial boundary) and therefore in South Canterbury, physiographically they must be

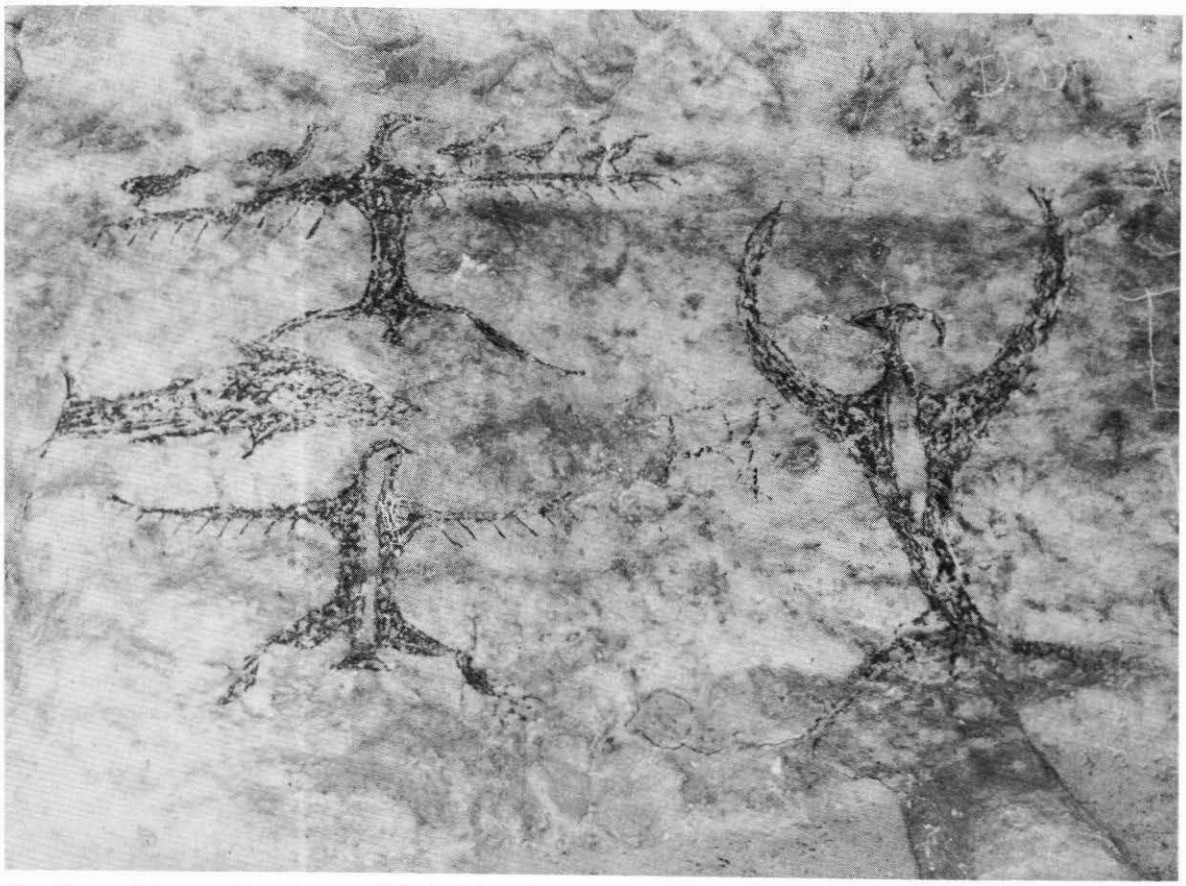
SOUTH ISLAND ROCK ART AREAS



included with the drawings collectively referred to as the North Otago group. Over one hundred sites have so far been recorded in this area, and new discoveries are being reported all the time. Until the 1960s, intensive surveys of North Otago had not been made, although some of the best-known examples of New Zealand rock art, such as those at Takiroa and Maerewhenua, can be seen there. Besides the drawings made by applying pigments to the rock surface, several petroglyphs or carvings also occur in this area.

By far the greatest concentration of rock art sites is found in South Canterbury. Apart from a few drawings near Waimate, the great bulk are in the vicinity of the Pareora and Opihi Rivers. Here, over two hundred sites have been recorded, mostly by A. Fomison. Best known are the Frenchmans Gully 'birdmen' (Fig. 18), the Craigmore 'moa' group (both protected as historic reserves), and the previously-mentioned 'taniwha' (Fig. 4). Also, in South Canterbury a few drawings have been found on large boulders around Lakes Pukaki and Tekapo, and a number more on limestone in the Mount Somers area.

Northwards again, the next district where drawings are known to occur is Castle Hill at Porters Pass on the Arthurs Pass route to the West Coast. Because of the rough nature of the terrain, this extensive area of limestone has not



18 The well known Frenchmans Gully 'birdmen' group, South Canterbury. The clarity of these drawings is due to their having been retouched with Indian ink on the rock. Height of figure on right: 33 cm

19 Part of the Timpendean shelter, Weka Pass. This historic reserve is often visited by groups such as the party seen in this photograph

yet been fully investigated, but the six sites so far reported indicate that there are probably many more awaiting discovery.

An intensive survey of the Weka Pass district in North Canterbury by Beverley McCulloch over a period of three years from 1966 resulted in the discovery of over fifty rock art sites, in addition to the two that had been previously known. One of the latter, at Timpendean (Fig. 19), was first discovered and investigated last century. The Weka Pass drawings occur in an area that lies between the Waikari and Waipara Rivers and extends about sixteen kilometres east to west.

Apart from one isolated site, in a sandstone cave seven kilometres from Motunau Beach, the next (and last major group of South Island drawings) is at Monkeyface inland from Kaikoura. Although very interesting, they are not well known owing to the difficulty of access.

Finally, at Tonga Bay in Abel Tasman National Park, a rock engraving, thought by the discoverer to be of Maori origin, was found some years ago, but neither of the writers has yet had an opportunity to examine it.

It is important to note at this stage that the distribution pattern of South Island rock art contains many sites where the past presence of drawings is indicated only by faint traces of pigment. These are sites that were too often ignored during early investigations, but they are obviously of equal importance to the very best and most spectacular sites in determining the over-all distribution of rock art.

Drawing techniques

With the exception of occasional incisings or scratchings, and white marks made by rubbing the weathered surface of the limestone, two basic pigments are known to have been utilised in the creation of South Island rock art. The most common, probably because of its easy availability, was charcoal, used in its natural state as a stick or lump. Charcoal has been used for over ninety per cent of all known South Island drawings. The second pigment used was haematite or red ochre, which is found less frequently, although red drawings occur in most areas.

A common error when referring to South Island rock art is to refer to *paintings* rather than *drawings*. While there is some evidence from its appearance that red pigment may have been applied as a paint on some occasions, the great proportion of drawings show quite clearly that the pigments were applied dry. To add to the confusion, it is not often realised by the casual visitor that in most of the better known and easily accessible sites the drawings have been retouched in European times with such materials as crayon, Indian ink, chalk and even housepaint. This has given the public a misleading impression of the true appearance of most Maori rock drawing.

Sometimes white markings were made on the rock by rubbing the greyish weathered surface of the limestone with a piece of stone. Such markings occur only rarely, and only in North Otago and South Canterbury (Fig. 20).

The charcoal and haematite drawings, with the occasional addition of white, comprise all but half-a-dozen of the known examples of South Island rock art. The remaining few, although falling under the heading of rock art, are not drawn with pigment, but are incised or carved patterns cut into the rock surface with

20 Two crescent-shaped black figures from South Canterbury with internal white markings, made by rubbing the weathered rock surface with a limestone pebble. Figure on right: 20 cm wide

some kind of scratching or gouging tool such as a sharp stone. Although frequently referred to as petroglyphs, this is rather too technical a term to apply to some of the more crude scratchings, suggestive as it is of high-quality rock carving.

Subject matter

The range of subjects depicted by the Maori artist in rock drawings in the South Island is not large, considering the extent of the sites both geographically and numerically. Most recognisable figures can be placed under one of the following subject headings:

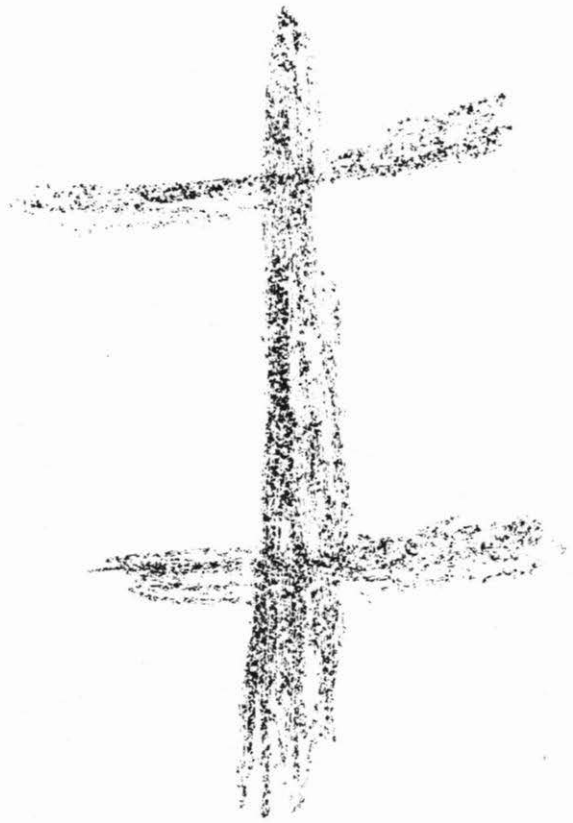
1 Human figures
2 Animal, fish and bird forms (including the so-called 'birdmen')
3 Creature forms that appear to be mythical in nature
4 Patterns and designs.

These are not arbitrary divisions for the sake of convenience, but those into which the subjects naturally fall. There are some figures, of course, that are difficult to place in a definite category as they appear to be on the borderline between one or another, and their placement would depend largely on the personal interpretation of the viewer.

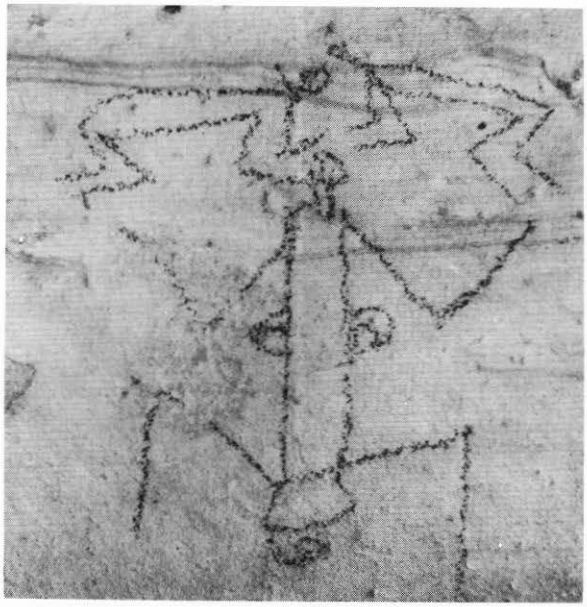
Rock drawing figures may be found singly or with other similar or different representations of the same subject. They are equally frequently found grouped with figures from other subject categories—the whole forming a single composition. We feel it is important to note that although we refer to a figure as a human, or a bird, or a dog, we cannot say with certainty that this is the subject that the original artist was intending to portray. Commonsense dictates that a drawing that shows an animal form that appears to be a dog is far more likely to be a stylised dog (with which the prehistoric Maori was familiar) than any other creature. All categorisation of subjects, however, is and must always be interpretative, and is based on our knowledge of the Maori people and the creatures that inhabited their world.

Human figures

By far the most commonly portrayed figure in South Island rock art is the human form, which is found in nearly every shelter where recognisable drawings are present. Representations of the human figure fall basically into two categories: the stick figure with body and limbs reduced to simple lines (Fig. 21), and two-dimensional figures whose body and limbs have been given width and height—though with no suggestion of depth or perspective. This second group may be purely linear, consisting of an outline only (Fig. 22), blocked in with the same pigment (Fig. 23) or, rarely, outlined in one colour and blocked in with another. Some figures show a combination of techniques, having for example a two-dimensional solid body, linear head and stick-like arms and legs. Other less common variations include bodies with a blank internal



21 Black stick figure human, Weka Pass, North Canterbury. Height of figure: 10 cm



22 Black outline drawing of three human figures, Awamoko, North Otago. The largest figure is 11 cm high

24 Human figure with body blank (*upper left*), and another completely filled in (*lower right*). Figures measure 13 and 18 cm in height respectively. South Canterbury

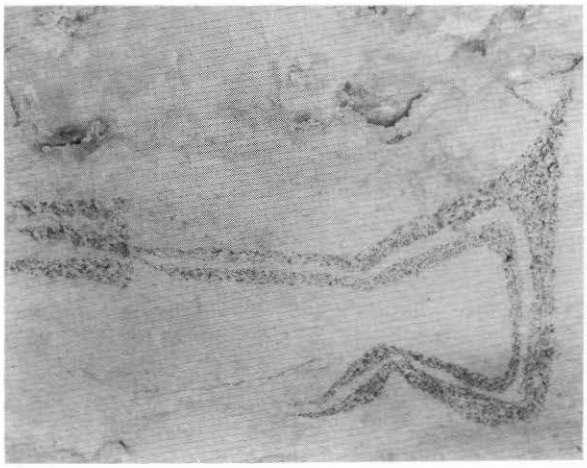
23 Blocked-in human figures, 56 cm high. The chalk outlines are a recent addition. Hazelburn, South Canterbury

25 Headless human figure with unusual limb disposition. Body length: 15 cm. South Canterbury

strip running the full length (Fig. 24) and body designs resembling tattooing or bone structure.

There is a complete absence of any indication of facial features such as can be seen on some North Island petroglyph and Chatham Island dendroglyph figures, and although it has been suggested that the tail-like appendages shown on some human figures represent sexual organs, such additions are rare. More often seen are headless figures or figures with heads from which antennae-like projections extend (Fig. 25). Fingers and toes have been added in some cases, and range from two to seven in number (Fig. 26).

With the exception of some very simplified stick figures, humans are drawn in only two attitudes: full-faced and profile—the arms and legs being almost invariably in a flexed position. This gives many of them a squat frog-like appearance, as the legs seldom extend much below the trunk. Even where the figures are



26 Profile human with body blank and three disproportionately large fingers, North Otago. Figure is 90 cm high

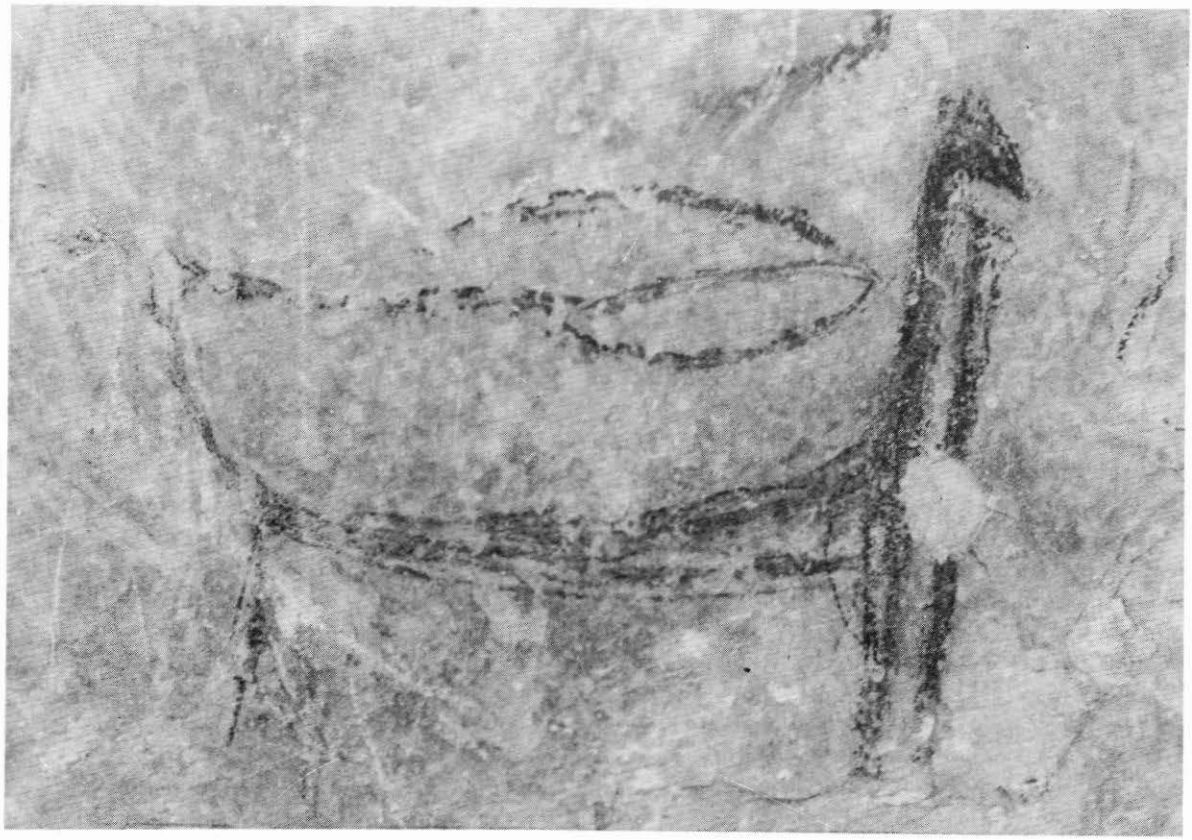
27 Black human holding a club(?), North Otago. The figure to its left is probably a stylised dog

upside down, as they sometimes are, these same conventions are maintained. Only very rarely do they appear to be performing some action such as wielding a club or pole, and in these cases the objects are merely appended to the extremities of the same conventionalised forms (Fig. 27). They may be executed in red, black or a combination of both, although the latter is somewhat unusual.

Animal, fish and bird forms

The only mammals known to the pre-European Maori were dogs, rats, bats and aquatic animals such as seals, whales, porpoises and dolphins. There are no known representations of what can be definitely identified as rats or bats, and although a small drawing at Weka Pass has been thought by some to be a spouting whale, there is some doubt as to its exact outlines. The Polynesian dog, which was brought to New Zealand by the earliest inhabitants, appears in a highly conventionalised form in the rock art of North Otago, South Canterbury and Weka Pass (Fig. 28).

Despite the degree of stylisation, there can be little doubt that figures with pointed ears and upturned tails, such as depicted in Figure 12, are dogs. It has been suggested that others lacking the ears and tails, and having down-curved hindquarters, are representations of seals (Fig. 27, *left*). There are, however, intermediate styles which combine the dog-like head and the more seal-like hindquarters, and some of the 'seals' have prominent penises, surely a more distinctive feature of a profile dog than a profile seal (Fig. 29). For these reasons we believe that the variations are, in fact, variations in style



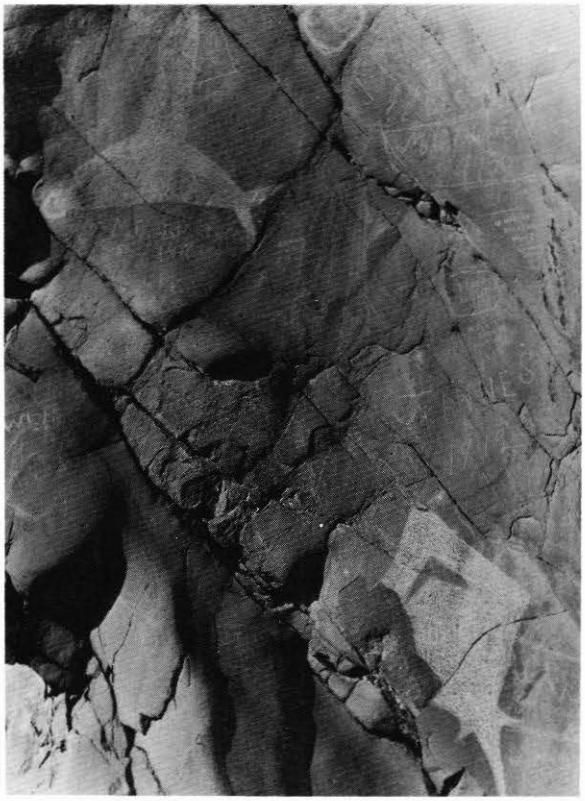
28 Conventionalised dog, South Canterbury. Note the commencement of flaking on the front of the figure. Height: 38 cm

29 Photocopy of a tracing of a black group at Ngapara, North Otago. Because of the prominent sexual organs on the two central figures, it seems likely that these represent dogs rather than seals, despite the down-curved hindquarters and absence of tails and ears. Scale: 20 cm

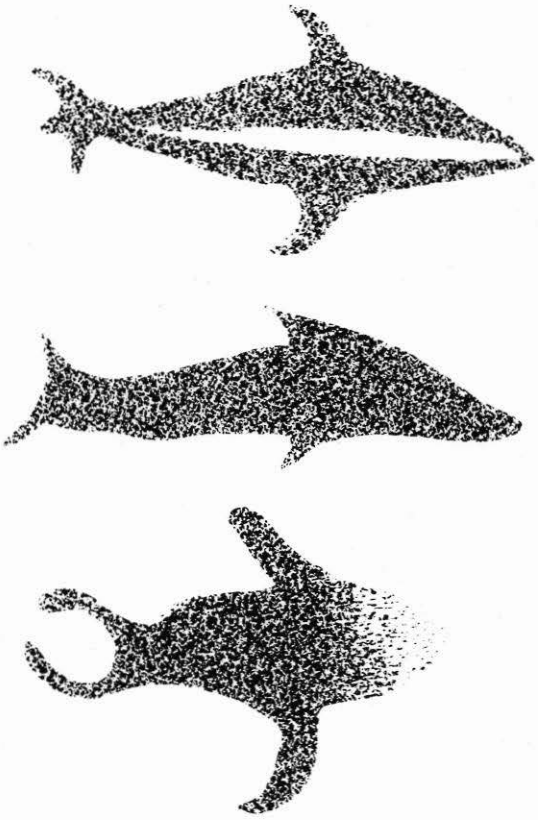
rather than of subject, and we consider all these figures to be dogs. Almost every drawing of a dog faces to the viewer's right, as do the heads of most frontally-depicted and flighted birds. While this may be merely a convention, it is interesting, because there is a tendency for the average right-handed person to draw an animal facing left.

There are very few depictions of possible porpoises or dolphins, and none can be identified as such with any certainty. One at Benmore (Fig. 30) certainly looks like a porpoise, but could easily be a stylised fish with an enlarged dorsal fin. This one is in white, but fish occur drawn in black or red, and occasionally in a combination of both. They are drawn in profile (Fig. 31), an exception being the underside of a skate which was near the porpoise mentioned above (this site is now beneath the waters of Lake Benmore), but unfortunately both of these had been retouched over twenty years ago and we cannot be entirely sure of their authenticity.

Birds were an important subject for the South Island Maori rock artist, and come second only to humans in frequency of occurrence of identifiable drawings (Fig. 33). Some, drawn in profile, appear to be naturalistic, and might even be identified as to apparent species. However, the obvious stylisation of certain features in some, and the lack of a comparable degree of naturalism in nearly all other subjects, strongly suggests that these too are conventionalised figures (Fig. 32). Approximately eighty per cent face the viewer's right. Two sites, in North and South Canterbury respectively, contain profile birds which can with reasonable certainty be identified as moas (Fig. 34), and there are several others containing birds that might be moas. Of particular interest are those figures commonly



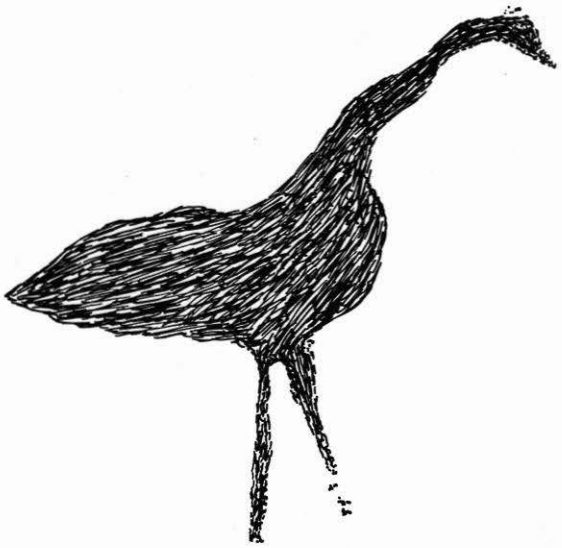
30 Two fish forms executed on greywacke at Benmore, North Otago. Recent retouching makes it impossible to determine the original pigment. Photograph by T. Schoon



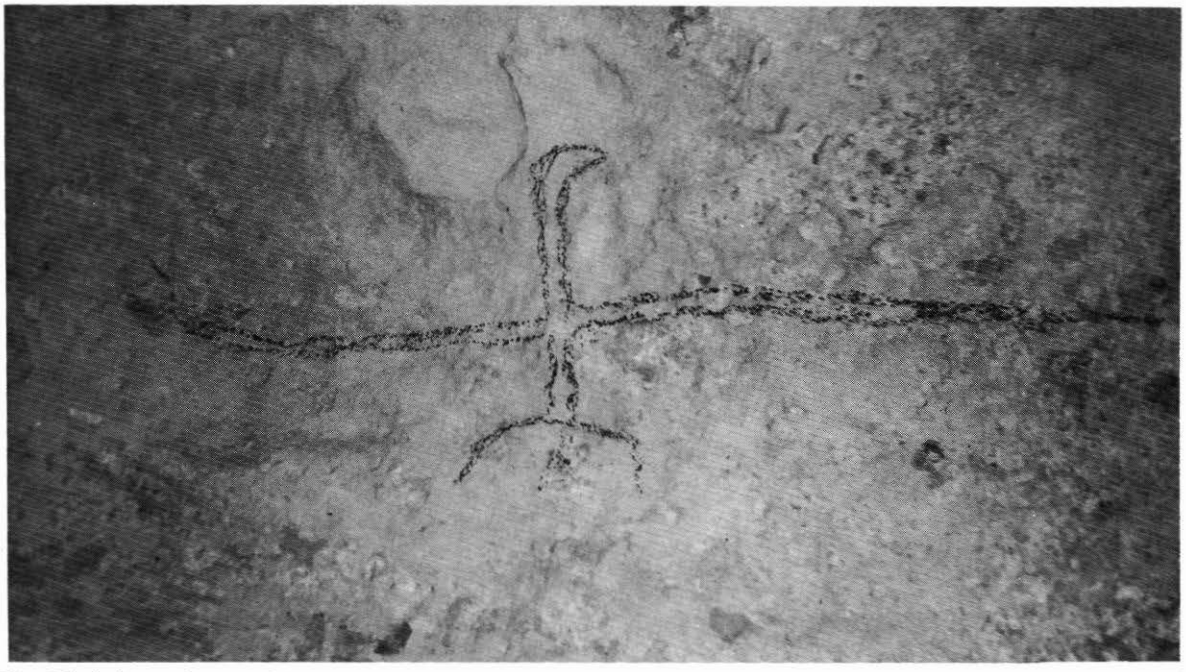
31 Photo-mechanical reproduction of fish forms from South Canterbury and Weka Pass

32 Photo-mechanical copy of a group of naturalistic birds at Awamoko, North Otago. Scale: 20 cm

33 Large flighted bird from South Canterbury, measuring 51 cm from beak to centre tail. Possibly either an albatross or extinct eagle



34 Photocopy of a tracing of a small moa at Timpendean, Weka Pass, 7 cm high

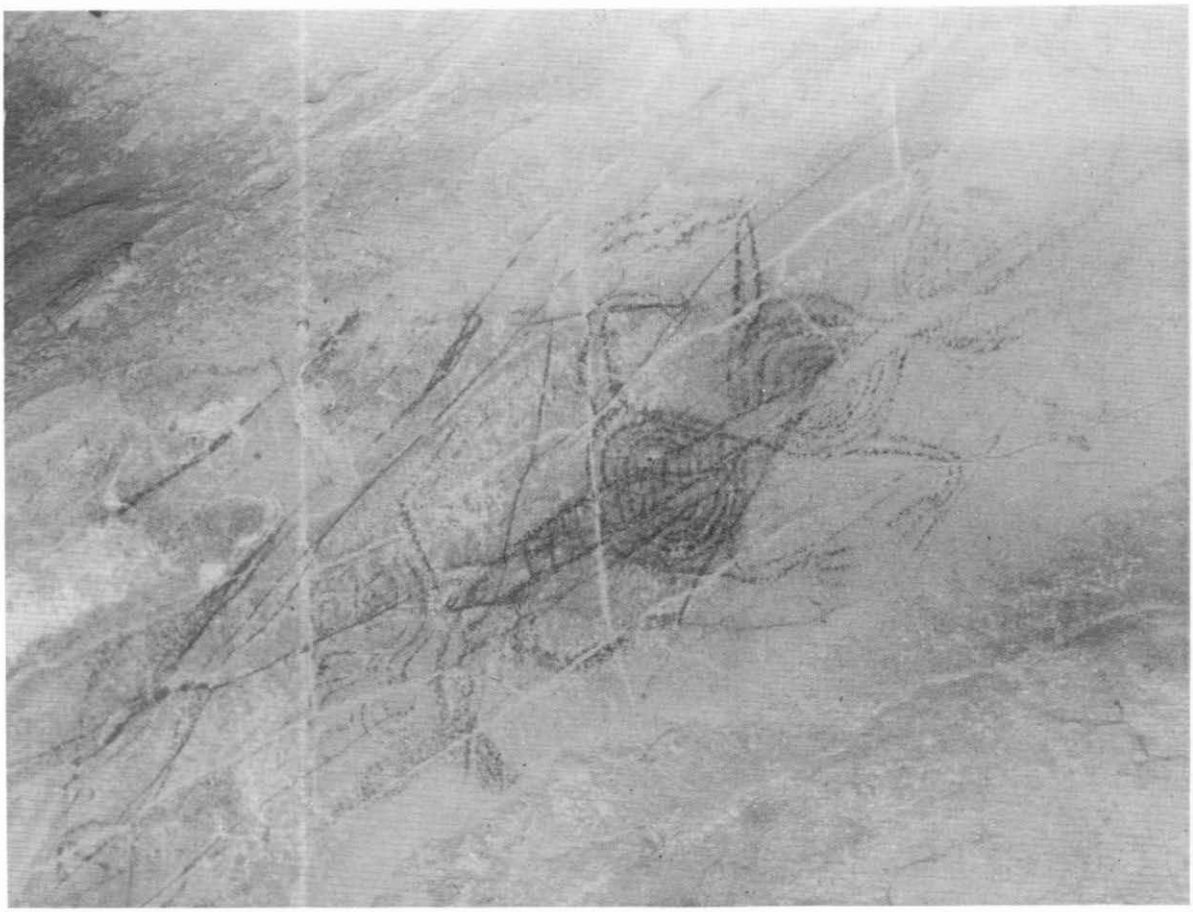


35 Black linear figure of the type often referred to as 'birdmen', measuring 89 cm from wing tip to wing tip, South Canterbury. This figure could just as easily be a stylised flighted bird

called 'birdmen' (Fig. 35). Several investigators have interpreted these as combining features of both humans and birds, and suggested that this is evidence of a prehistoric 'birdman' concept in New Zealand. However, these may be more logically considered as stylised frontally-depicted birds with the head turned to one side. Typically they have a bird's head, outstretched wings, a body, two legs and a tail, all of which are avian features. (Two examples in Fig. 18 even have feathers on the wings.) Only the body and legs are like the rock artists' versions of humans, and these are, of course, features that man and bird have in common anyway. Undoubted birds are depicted in a similar stance in the art of a number of Pacific islands. Two of these frontally-depicted birds in South Canterbury, and one in North Otago, have small birds drawn in profile along the wings (Fig. 18). The reason for this is not known, but two possibilities can be suggested, bearing in mind the degree of stylisation. They could represent young birds squatting on their parents' backs in the manner that ducklings often do, or alternatively, small birds attacking a larger bird of prey.

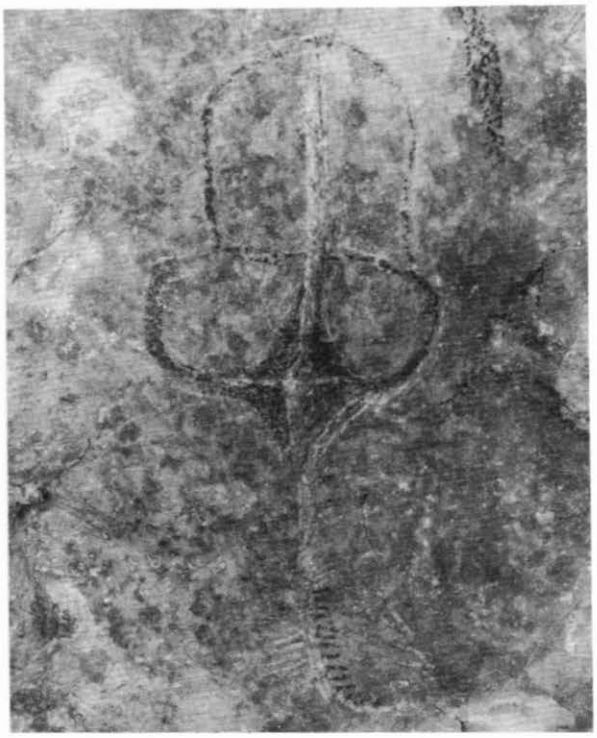
Creature forms

Besides the animal figures that we can place in the categories mentioned above, there are drawings of creatures quite unlike anything the artists could have ever seen. Some are largely abstract and incorporate geometric designs,

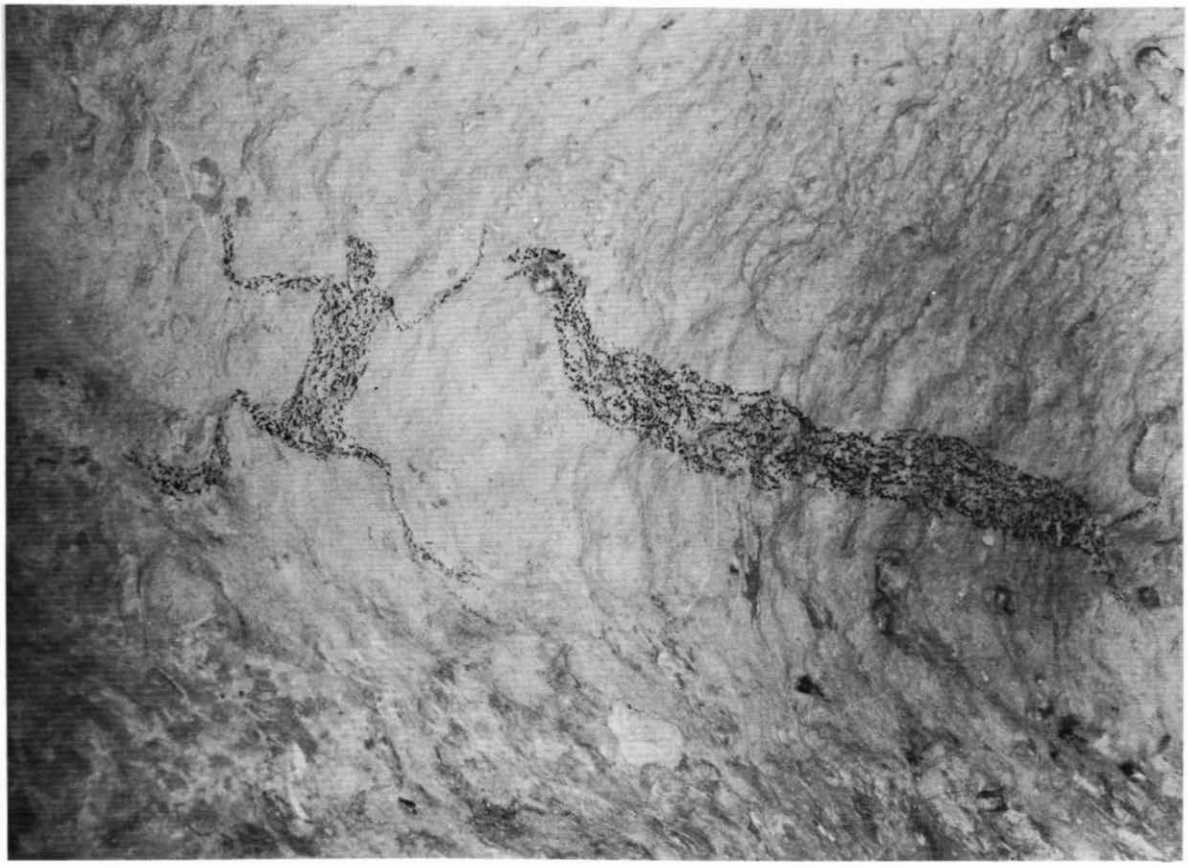


36 Multilegged creature, Monkeyface, Kaikoura. Note the unusual design-like pattern on the body segments. Total length of figure: 50 cm

37 'Taniwha'-like creature from South Canterbury, incorporating what may well be skeletal features. Total height of figure: 74 cm

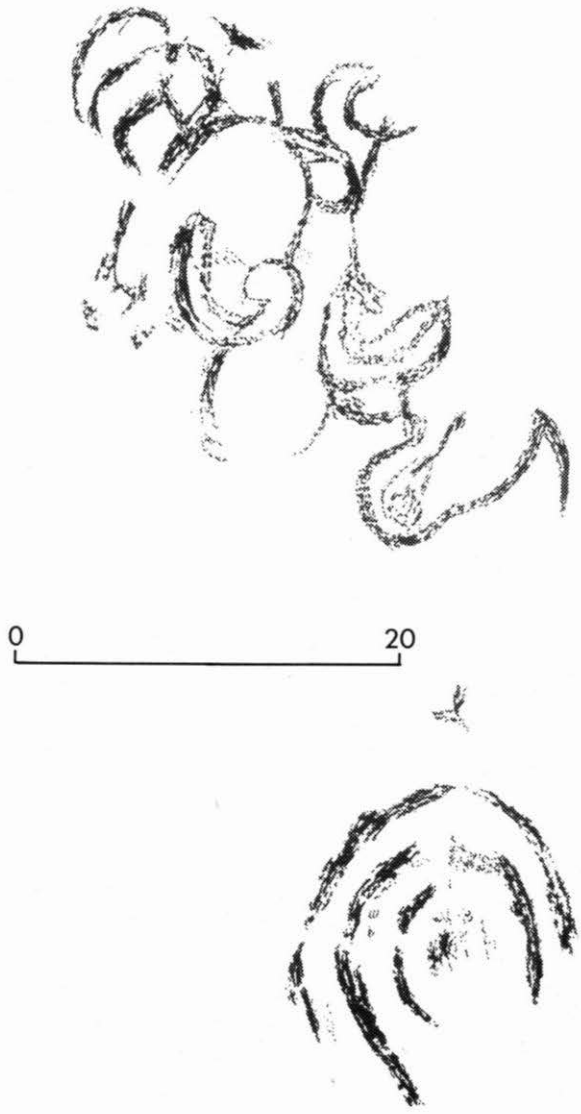


38 Snake-like figure that appears to be chasing a human. This drawing from South Canterbury has been retouched in greasy crayon. Snake figure is 90 cm long



others are like monstrous snakes, and a few appear to be elongated multilegged animals (Figs. 36 and 37). It has been suggested that they are derived from traditional memories of crocodiles, snakes and other fauna of a country once inhabited by the artists' remote ancestors, but it is just as likely that the artists were portraying inventions of their own imagination, particularly as they appear in such a variety of forms. Some may possibly be the taniwha of Maori legends, which were said to be man-eating monsters that inhabited certain caves and waterholes. Snake-like figures in North and South Canterbury appear to be chasing humans (Fig. 38).

On the other hand, there is equally little doubt that our inability to recognise the subject of some drawings is because of the degree of stylisation or abstraction. Many figures based on the human form bear little resemblance to humans, but we are able to trace the steps along which the particular style developed from a conventional human to what would appear to be a mythical creature.



39 Photo-mechanical copy of a remnant of a red design complex at Weka Pass, North Canterbury. Because of bad flaking of the rock surface it is difficult to determine the original extent of this most interesting pattern. Scale: 20 cm

Patterns and designs

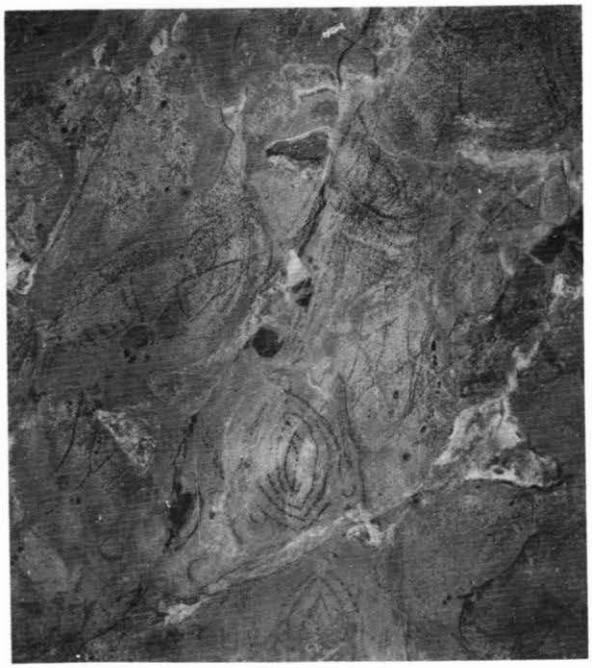
Patterns and designs occur in a number of shelters throughout the South Island. Some appear to be purely geometrical, some could be abstractions from natural forms, while others are random curvilinear designs often incorporating geometrical or abstract components (Fig. 39). It is very difficult to classify many of them, and the determination of their significance and origin must usually be speculative.

Chevrons are generally found in association with human figures where they are drawn in black and run in a vertical row on or alongside the body (Fig. 69). A few incised examples are also known from North Otago. Other angular patterns usually take the form of approximately parallel or intersecting straight lines, also in black. True concentric circles are rare; concentric sub-circular, roughly oval, or U-shaped lines are more common, though it is often difficult to differentiate between these and spirals because of the condition of drawings (Fig. 40). For the same reason, difficulty may be experienced in determining whether a spiral pattern is of a single spiral or double entwined spirals, but the latter form is certainly very rare, if present at all, in the South Island.

Long frieze-like designs in either black or red are found in a few shelters in North Otago and South Canterbury (Fig. 41). The best known is that from Takiroa in North Otago, executed in red, and approximately six metres in length.

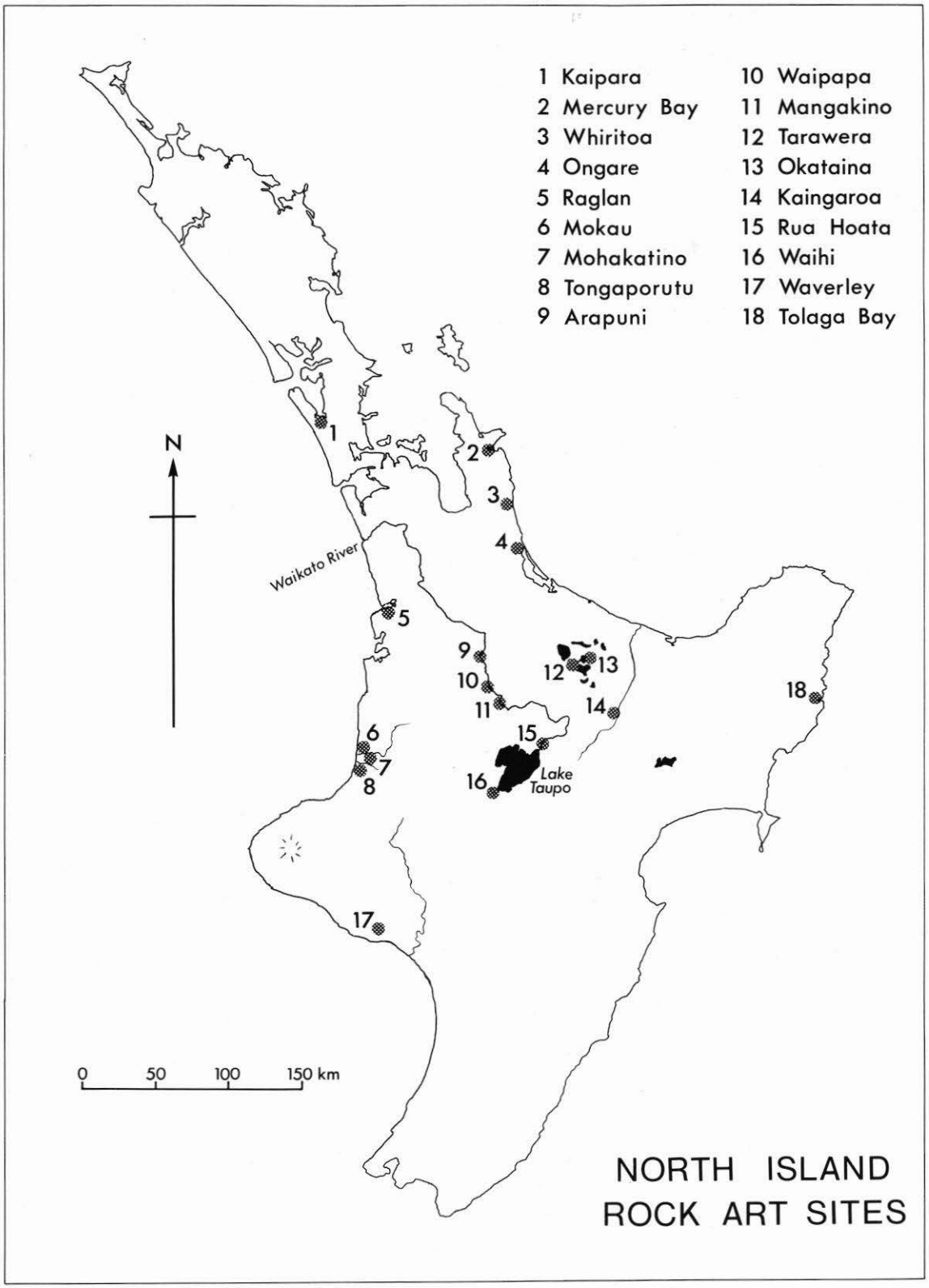
While a stylistic progression from naturalistic to abstract representation might be expected

40 Concentric sub-circular linear design in charcoal at Monkeyface, Kaikoura



41 Part of a frieze-like design, adjacent to a stylised human figure, South Canterbury. Outlined in chalk in European times

over a period of time with the development of artistic concepts, there is no definite proof that the patterns and designs that occur in South Island rock art are the result of such development. Although there is some evidence to suggest that such a change may have taken place, the condition of most drawings makes such an assumption purely speculative.


1 Kaipara
2 Mercury Bay
3 Whiritoa
4 Ongare
5 Raglan
6 Mokau
7 Mohakatino
8 Tongaporutu
9 Arapuni
10 Waipapa
11 Mangakino
12 Tarawera
13 Okataina
14 Kaingaroa
15 Rua Hoata
16 Waihi
17 Waverley
18 Tolaga Bay
N
Waikato River
Lake Taupo
0 50 100 150 km
NORTH ISLAND
ROCK ART SITES

Chapter four
Rock art in the North Island

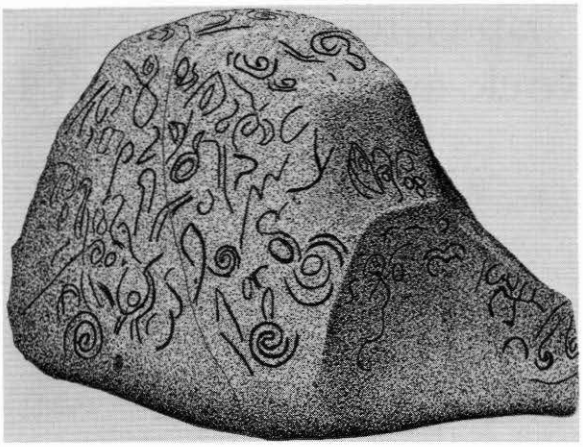
Although recorded North Island rock art sites comprise only about eight per cent of the total in New Zealand, comparatively they contain a greater variety, both of subjects depicted and of techniques used for marking the rock surface. Their known distribution is limited, and sites occur only singly or in twos and threes in each locality (Fig. 42). As was shown in Chapter two, very little research has been undertaken in the North Island, and until intensive searches are made for more sites it will not be possible to assess fully the significance of the marked differences between North Island and South Island rock art.

There are several reasons why less interest has been taken in the North Island. In 1957, Ambrose and Davis, in a report on their investigations of the drawings at Waipapa on the Waikato River, suggested, as some of the reasons why rock shelter art was found more

43 Sandstone rock carving (petroglyph) at Waverley, Taranaki. The spirals and stylised figures are more closely akin to wood carving styles than are the simpler South Island drawings

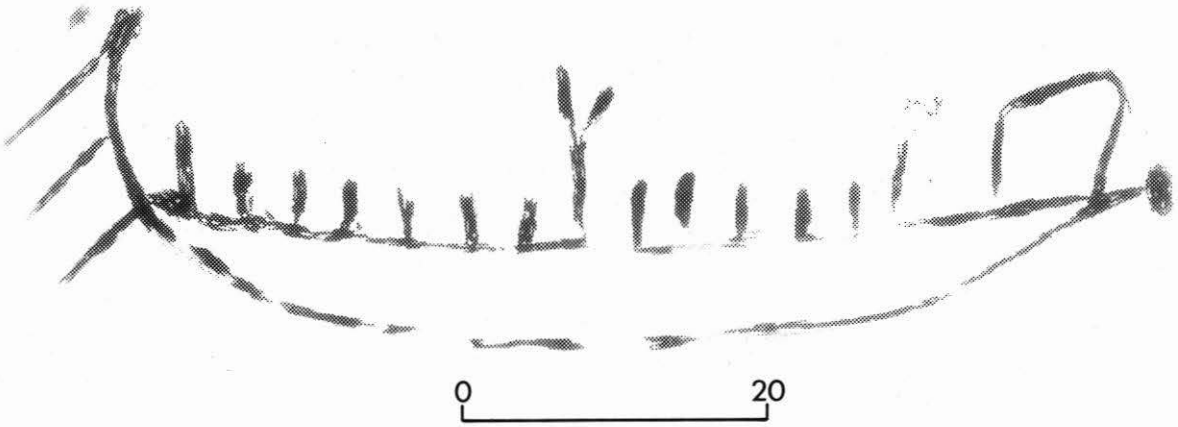
readily in the South Island, that the more open nature of the country made exploration and discovery easier, and that suitable working surfaces (particularly outcrops of limestone) had been more accessible not only to the investigators but also to the artists. We would add that until recently less interest has been taken in archaeology generally in the North Island, whereas the numerous well known Moa-hunter sites at the mouths of most major rivers of the South Island have stimulated South Island interest in many aspects of prehistory over the last hundred years.

As yet, no art sites have been found in the southern part of the North Island, the most southerly being at Waverley in Taranaki. This is a shelter about 7.3 by 2.5 metres in area. The floor deposit has been much fossicked, and apparently contained shells of freshwater mussels, burnt stones and artifacts. The art work, in the form of carvings on the sandstone walls, is of a lizard, figures that look like bird-human hybrids (quite unlike the southern 'birdmen'), spirals and other designs (Fig. 43). Only two other shelter sites are known on the west coast of the North Island (these are near the Tongaporutu River mouth), but there are half a dozen other sites where petroglyphs occur on artificial structures or exposed rocks between Cape Egmont and Kaipara (Fig. 44). A specialised art form prevalent in the Taranaki district was the sculpting of portable art works, particularly human figures, by hammer dressing andesitic lava and similar rock.



44 Petroglyphs on an isolated rock near Raglan, North Taranaki (after Phillipps 1962)

Four shelters have been reported on the banks of the Waikato River. Rua Hoata, not far from Lake Taupo, is an almost cave-like shelter, eight metres wide by seven metres deep, containing over fifty canoe engravings. Further downstream, sites at Waipapa and Arapuni (now flooded by a hydro-electric power dam) had drawings executed in charcoal and haematite. Both these shelters were nearly four metres wide, and a variety of subjects, including canoes and humans, were depicted in each. Although rare in the North Island, drawings produced by the application of pigment to the natural rock surface also occur in several sites a few

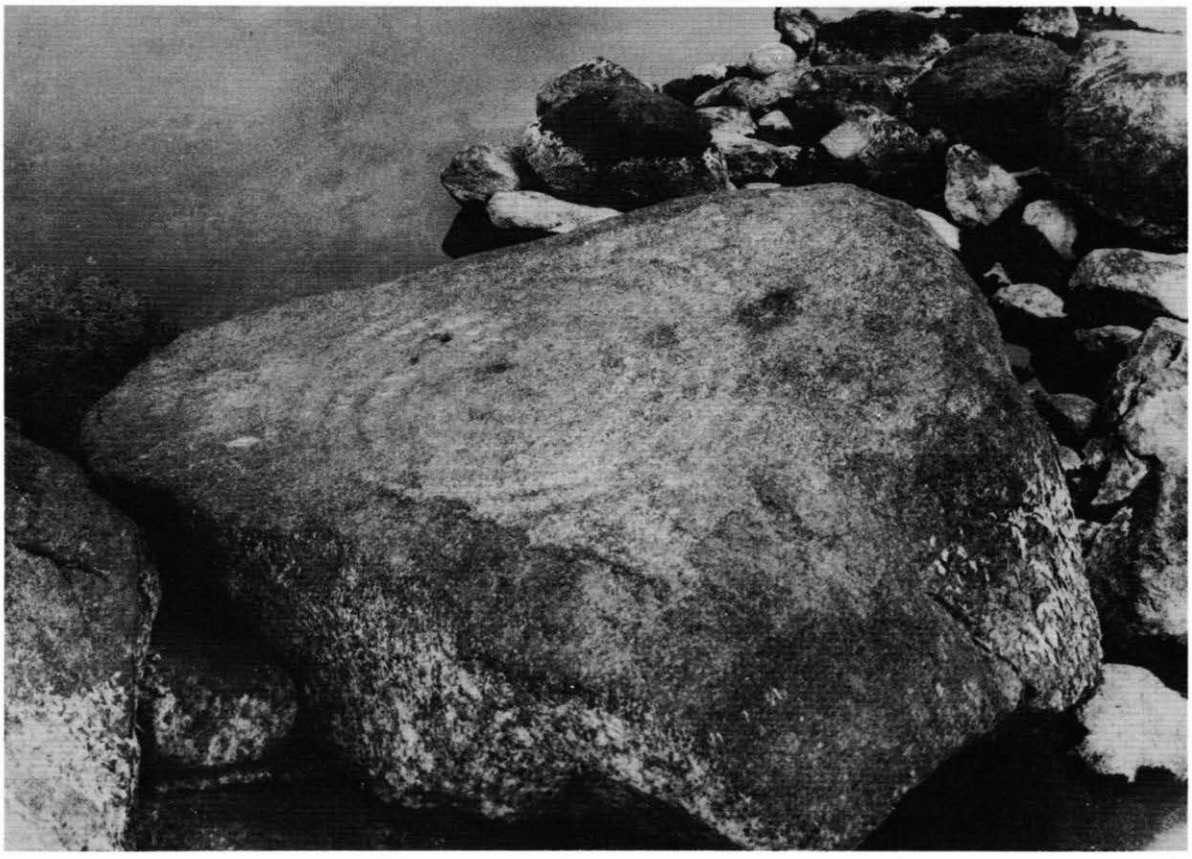


45 Red painting of a canoe containing humans, from a site on the shore of Lake Okataina. Scale: 20 cm

kilometres eastward near Rotorua, but in these the artistic styles and subject matter are generally quite different from those described in the last chapter (Fig. 45). At Taupo some designs occur on rock faces, but more common are small red 'daubs' which may have been intended as markers rather than as art works. South of Rotorua is a very well known shelter site at Kaingaroa where there are twenty-five engraved canoes and some spirals, zig-zags and other designs (Fig. 46). Going north again, shelter sites containing art works are known at Ongare (near Tauranga) and Whiritoa.

Recent rock art survey work has already increased the recorded number of North Island sites by one third, and there is little doubt that many more will be discovered in the future. At the time of writing, only thirty sites have been recorded, and only half of these comprise rock art in shelters. Some of the others are sites where decorative rock carving occurs on small boulders (Fig. 47) about fifty centimetres high which, it has been suggested, may have been boundary stones, altars, or even phallic symbols. In others, carvings occur on the sandstone walls of artificial pits, or on the stone walls of terraced pa. R.G. Law has reported a carved human face beside two rock pools which seem to have been used for some ritualistic purpose, at Mercury Bay on the Coromandel Peninsula. Rock art sites of this nature could be grouped in one or more categories separate from rock shelter sites, not only because of their physical differences, but also because the art work seems to have been done for different purposes. The objects decorated have been given a special significance, whereas shelter sites remain natural rock formations that were utilised for protection against inclement weather, or in some cases merely for drawing on. At our present stage of knowledge, however, they cannot be differentiated by any artistic criteria. In style, subject matter and technique they do not appear to be any more different from shelter rock art

46 Two of the twenty-five canoes in the Kaingaroa shelter; one is executed in raised relief with incised spirals (90 cm long), while the other, like the zigzag designs, is incised



47 Decorative spiral design pecked on a boulder at Waihi, Lake Taupo. The design is approximately 60 cm in diameter

than some of the North Island shelters are from each other. North Island rock art is also, in general, very different from that of the South Island, though there are a few individual forms of simplified character that appear to be similar in both islands.

This does not mean that they are the product of a common school of art. Drawn stick figure humans, for example, are found in both North and South Islands, but once a human shape has been reduced to three or four straight lines there is nothing very distinctive about it. The same can be said of spirals; and shapeless daubs or spots of red that do not appear to be part of any design also occur in both places. While we can accept a strong possibility that they were done for the same reasons, that can hardly be taken as evidence for the dissemination of any artistic convention. There is the occasional charcoal or haematite drawing that is comparable, at least stylistically, with some of those in the South Island; and a single petroglyph on a piece of sandstone found at Gisborne (Fig. 48) is more akin to southern drawings than to its North Island counterparts.

Whereas nearly all rock art in the South Island was done by drawing with dry pigments (exceptions being the few engravings and paintings), four distinct techniques have been used in the North. The commonest is incising, in which lines depicting the subject or design have been scratched or engraved into the rock face, which was usually sandstone or rhyolite. The incised lines vary in depth from about three to over twenty-five millimetres. Allied to this is a raised relief technique, sometimes referred to as linear or bas-relief, in which the surrounding rock has been pecked or cut away, leaving the

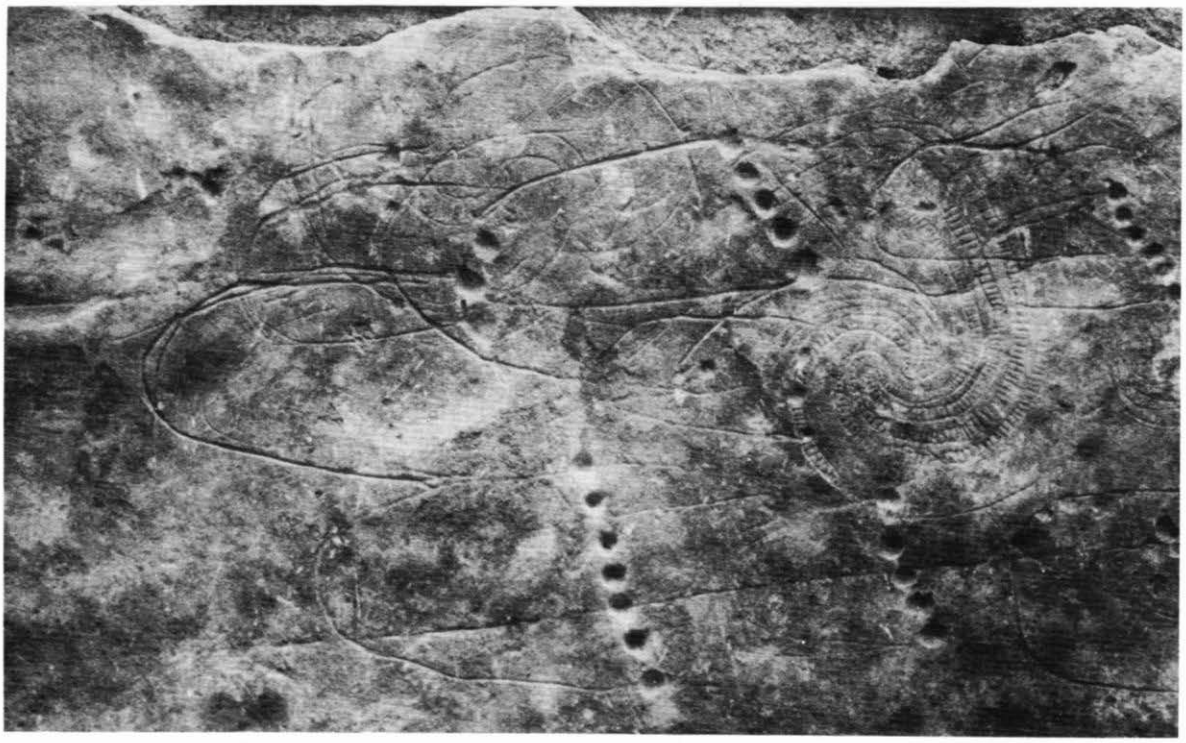
48 This human figure, incised on a piece of sandstone, is more similar in style to South Island rock drawings than to most North Island petroglyphs. The stone is 12 cm long

design projecting up to ten centimetres from the rest of the surface. Genuine painting, in which red pigment was applied in liquid or paste form, may have been done more often than drawing with a dry crayon of haematite, or even of charcoal. Thus the commonest type of rock art in the South Island is the rarest in the North.

Unlike the southern drawings, human facial features occur frequently in North Island rock art, either in depictions of complete humans, or more commonly, just as features alone. They are generally in the form of stylised eyes and mouth, sometimes with the nose included. The treatment of these, like that of the human body, is typically rounded, suggesting a relationship to late (or Classic) Maori art as exemplified in wood carving. Facial features are also present in the dendroglyphs on Chatham Island, but there the bodies are usually carved in straight lines. In one North Island rock art site, a fifteen-metre-long narrow cave at Whiritoa, sex organs have been indicated on rather dumpy rounded human figures; the genitals have in fact been emphasised, again suggesting a link with late wood carving fashions.

An unusual motif restricted to three sites in North Taranaki is what appears to be a stylised human foot. It is found engraved in soft stone and is of varying size, although most commonly between ten and thirty centimetres in length. The number of toes depicted also varies: at Tongaporutu there are thirteen feet having three toes, twenty-seven with four toes, thirty-five with five toes, and eight with six toes. A few kilometres away, at Mohakatino, a slab of sandstone with feet engravings included one with seven toes (Fig. 49). Although it is not impossible that these are true depictions of feet that had had toes cut off (either in battle or for some ritualistic reason), and of people who were born with more than the usual allotment, this is a barely credible explanation. More likely, we believe, is that the number of toes had little significance, particularly as the feet are by no means naturalistic. Indeed, we must remember that we do not know for sure that the artists were actually intending to portray human feet. L. Delph, who first reported these engravings in the *Journal of the Polynesian Society* in 1939, found by trial that he could produce a copy of a foot shape with a sharp-edged stone in a few minutes. The feet are associated with a few designs that also occur on other sites where there are no feet.

Although the artistic styles, techniques and subjects of North Island sites cover a wide range, many have small minor details that are comparable. Spirals, for example, are found in almost half the total number of sites, and thus have the widest distribution of any motif. Some comprise a single spiral line, while in others the spiral is formed by a double line: there is some evidence that the double spiral is a later development than the simpler single spiral. In some cases, spirals have been applied to canoe-hull shapes as ornamentation (Fig. 46), but in most sites they have no obvious connection with other designs. It will be recalled that engraved spirals also occur in several sites in



49 Part of a slab of incised sandstone from Mohakatino, now in the Auckland Museum. Length of top left foot: 14 cm

the South Island where they appear to be of later origin than most of the drawings.

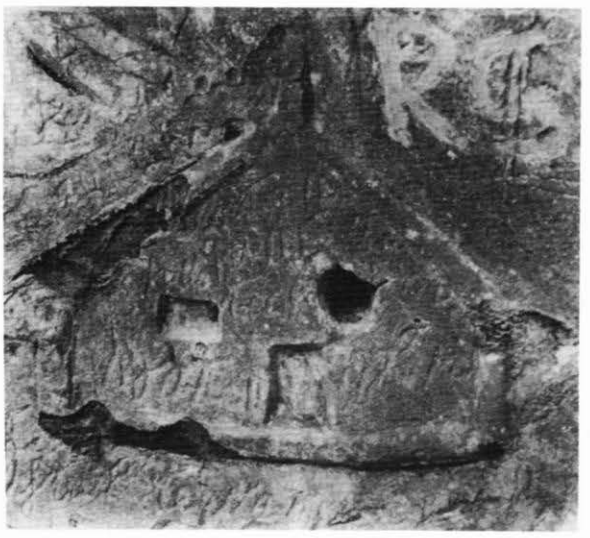
Apart from humans, depictions of living forms are not at all common, and do not appear to follow any particular styles or conventions. Lizard and dog shapes are definite, and others might be interpreted as insects or similar creatures.

The commonest subject in North Island rock art is, without doubt, the dugout canoe, and here again there is a strong contrast with the South Island, where it is totally absent. Canoes have been drawn in black, painted in red, incised and carved in relief. They have been stylised and they have been depicted naturalistically; some have sails, some contain people, some are heavily ornamented, some are a few centimetres long and others as much as 2.5 metres in length (Fig. 50). We can offer no logical explanation for the predominance of canoes, particularly those that occur a considerable distance from the coast or major waterway as at Kaingaroa. However, the canoe was important to the Polynesians, and

50 Part of a complex of red paintings, showing two canoes containing humans, Lake Tarawera. Photograph taken with red filter

probably more so to the late North Island Maoris than to the South Island rock artists. It is unlikely, if our hypothesis of a nomadic hunting existence for the latter is correct, that they would have encumbered themselves on overland trips with such a weighty object as a dugout canoe. The flax raft or mokihi which does occur in South Island drawings is known historically to have been used and would certainly have been more convenient.

Fairly detailed investigations have been made of the sites at Ongare Point. Carvings, both incised and of the relatively sophisticated linear relief technique, occur here, with examples of the latter restricted to front views of Maori houses (Fig. 51). Marks made by the tools used to chisel or pick away the surrounding rock are still visible, and an archaeological excavation made in one shelter by J. Schofield revealed that a stone platform, like a seat, had been hewn into the rock face below the carvings. There is evidence that an occupational layer containing burnt stones, obsidian flakes and charcoal (which has been radiocarbon dated as 180±50 years Before Present) was formed at the same time as the relief carvings were made. Schofield found that the floor level of the shelter was then probably ninety centimetres lower than it is today. The incised drawings of canoes, European sailing ships and lettering occur higher up the cliff face, and were presumably carved there after the floor level had been built up by natural deposition. Both relief and incise techniques had also been used at Kaingaroa, and investigators consider that here, too, the incisings are later than the relief carvings. Incised roman lettering of distinctive missionary-taught style is found in many North Island shelters, and often appears to have been done about the same time as the art work. Some contain such occupational material as pig bones, indicating post-European use, though possibly subsequent to the execution of the rock art.



51 Frontal view of a Maori house executed in linear relief, Ongare, near Tauranga

Looking at North Island rock art as a whole, the most striking features are its diversity in style from site to site, and its general lack of similarity to the relatively homogeneous rock art of the South Island. Instead of being a distinctive art form, it appears to be the result of local random inspirations. The obvious question arises: why the great dissimilarity between the rock art of the North and South Islands? Does the difference reflect separate cultures, different economies, different ways of life? The evidence in the North Island is essentially negative and comment can only be speculative. In the South, the presence of similar motifs over large areas indicates that the artists either travelled widely or at least shared their ideas and conventions with others in adjacent areas. And although we have evidence of connections between the islands, such as trade in obsidian, these do not seem to have extended to rock art.

Chapter five
Modern methods of approach

In Chapter two, the investigations and methods of the early workers in the field of Maori rock art were briefly outlined. We will now describe the methods of study currently in use, and note how the increasing knowledge of New Zealand's prehistory and the use of modern scientific techniques have changed both the initial approach to the subject and also the subsequent treatment of the information gained.

The principal aims of present-day investigators of rock shelters (that is, those who are interested in all aspects of the study) are:

1 Surveying and discovery
2 Recording
3 Excavation
4 Analysing and reporting on findings
5 Preservation of sites.

These are basic ideals—not all are applicable to every site—nor are they in order of importance. Preservation, for example, ranks high in the priorities but is probably the most difficult to achieve. It must be remembered, too, that the foremost aim of any worker in any scientific field must be the retention of an open mind. Trying to make all new discoveries fit into old theories, or worse still, ignoring those findings that do not conform to preconceived ideas, can lead only to confusion and distortion of the facts.

Any hypotheses formed as the result of investigation must include all the evidence that has been brought to light, remembering that negative evidence can be as informative as positive. Just as it is important for a teacher to ascertain the reasons for a pupil's absence when he might reasonably expect him to be at school, so too it is necessary for the archaeological investigator to try to find the reasons for an absence of evidence where he might logically expect to find it.

With these maxims always in mind, then, the investigator can take the field.

Surveying and discovery

Obviously, before any work on rock drawings can be attempted they must first be found (not always an easy task). Almost any area exhibiting suitable rock deserves thorough investigation. Areas abundant in limestone, weathered into natural shelters having a reasonably good surface, are always worth searching, even if no rock drawings have ever been reported from the particular district. Many fine drawings have been recorded from the properties of farmers who have been quite certain that there were none on their land.

Although several rock shelter surveys have been made over the past few years by teams from such bodies as the North Otago Scientific and Historical Society and the Otago Anthropological Society, most of the discovery and recording has been done by individual researchers working in one particular area; for example, Fomison in South Canterbury and McCulloch in Weka Pass.

Limestone areas can be located by reference to geological survey maps, from the reports of workers in other scientific fields, or merely by observation during holiday travelling. The limits of the area to be surveyed cannot always be decided immediately, but the extent and distribution of the outcropping rock can sometimes be ascertained by reference to aerial photographs of the region on which the white limestone usually shows up very clearly. The ideal, but, of course, much more expensive method, is an aerial survey by light plane.

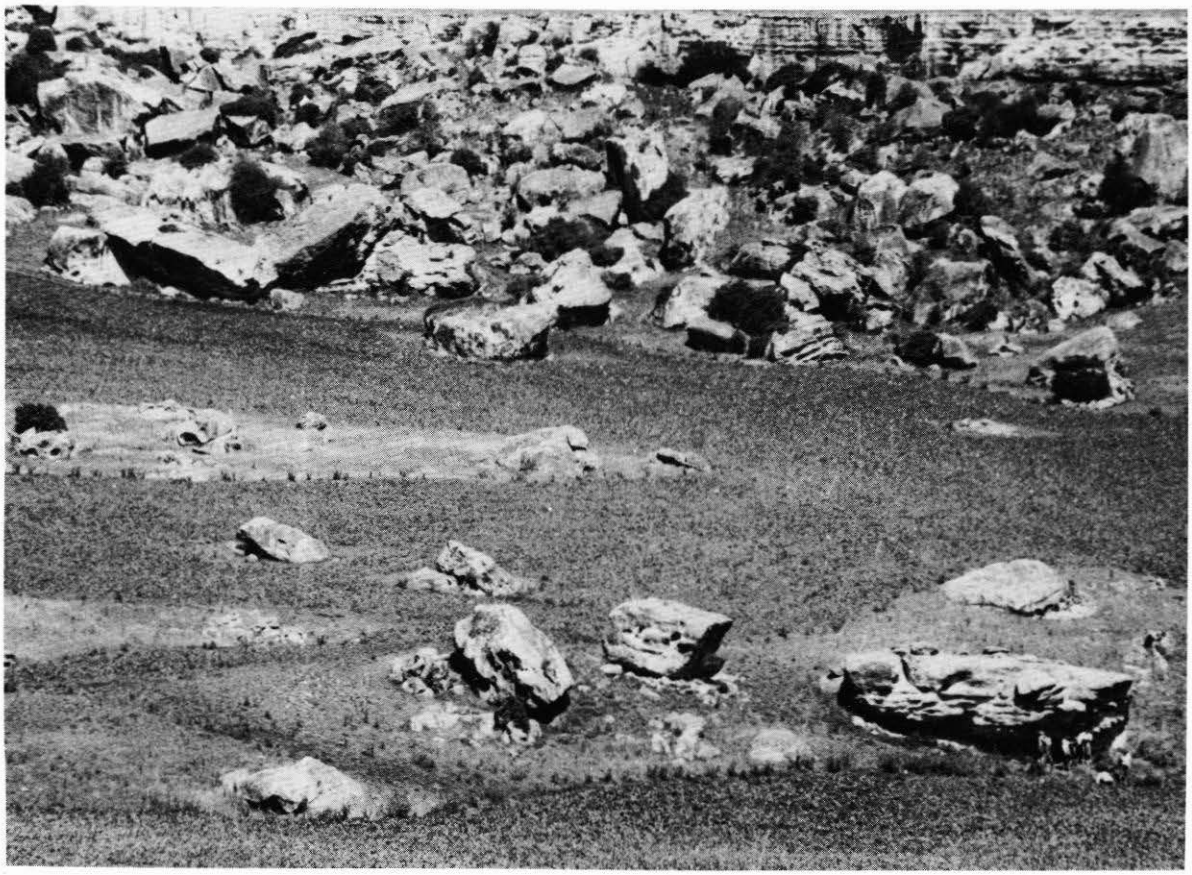
Having located a suitable area, the next step is

to search for and discover the drawings themselves, and this is of necessity a long and sometimes arduous process. If the results are to be of any value, every rock within the survey area must be closely examined (Fig. 52). Although some of the more accessible shelters can be reached by car or four-wheel-drive vehicles, many cannot. All the actual searching must be done on foot, often over considerable distances of rough terrain, with all the equipment that might be needed for recording purposes carried by pack.

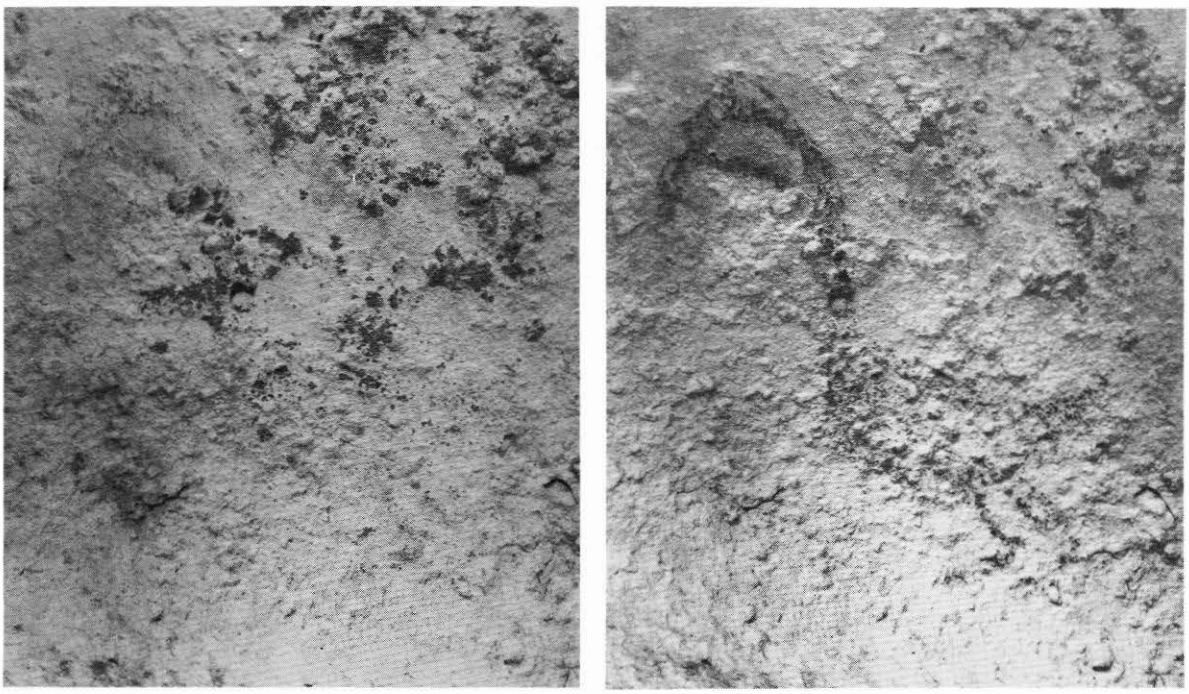
Because of fading or weathering, many drawings are barely discernible from their backgrounds, even to the eye of the experienced field worker. Likely surfaces need to be examined closely and carefully from every angle. Many drawings become completely invisible under certain conditions, as for example when the sun is shining strongly on the rock, so that sometimes a second visit is necessary in order to ensure that nothing has been overlooked. Rock drawings, particularly those executed in black, show up most clearly on an overcast and damp or even drizzly day.

In dry weather a fine mist of water will often have the effect of 'bringing up' drawings that were previously too faint to see, and most present-day workers carry a suitable spray into the field to use for this purpose (Figs 53a and b).

While earlier investigators tended to record only those drawings that seemed to them to have some artistic merit, and were still in good



52 'Every rock within the survey area must be closely examined.' People in front of the foreground rock shelter give some idea of the extent of such a task



53 Before and after spraying. Photograph on the *left* (a) shows the barely discernible traces of pigment that attracted the investigators, while that on the *right* (b) shows the bird form that was revealed by the application of a fine spray of water. The spray has also reduced the darkness of patches of lichen visible in the first photograph. Part of a complex at Ngapara, North Otago (see Fig. 29)

condition, it is now realised that in order to plot the distribution of rock art sites, the presence of all drawings must be noted, even though only the faintest traces may remain.

Not all the surveying and discovery in an area is completed before other aspects of the work are begun. Many surveys extend over a period of months or even years, depending on the time the worker can devote to the project. Much of the work is done by amateurs and volunteers, and is thus confined to weekends and holidays. In very large regions such as South Canterbury and North Otago, numerous surveys have been made during the last decade; and it is likely that in ten years' time there will still be sites undiscovered. Covering even a comparatively small area with clear geographical boundaries has entailed three years' work by one of the present authors, and there is still much to be done, as there is in all parts of New Zealand.

Recording

Once a new site has been found, the next step is to pinpoint its position as accurately as possible. This is not merely for the discoverer's own personal records, but also so that it may be relocated quickly and easily by future workers in the field. Accurate recording also avoids the confusion that may arise if the same site is found by another person—they can then check to see if it is in fact a new discovery or one previously reported.

The usual method of obtaining the exact position of a shelter (assuming that the worker knows approximately where he is) is by taking compass bearings of several prominent features that can be seen from the site. These points should be of a relatively permanent nature, such as high peaks, trig stations or power pylons, anything in fact that would be marked and easily

located on a map of the area. Such features as trees or farm buildings are sometimes noted as an aid to the relocation of a site, but they are not ideal as they may be removed over a period of time, or worse still, have their exact location altered. Obviously such directions as 'fifty metres along the fence from the big haystack in the corner of the lucerne paddock' are of little use unless followed within a day or two of being given.

Once compass bearings have been taken, they can be used to locate and mark the site on a map of the area. Maps of the NZMS 260 (metric) series are being produced by the Department of Lands and Survey to cover the whole of New Zealand, and these should be used where they are available, otherwise the earlier NZMS 1 maps must suffice; a grid reference can be obtained for the site from either series. Where sites are close together it is possible that several may have the same grid reference, so further aids to relocation are necessary.

A clear description of the size and shape of the shelter is made in a field notebook, including a sketch with measurements (made with a measuring tape, not guessed). Other factors usually noted are the position of the site in relation to local features and other sites in the area (if any), the direction in which the shelter faces (obtained by compass), the proximity of fresh water, or what may have been fresh water at the time of Maori occupation, and also an estimate of the number of people who could have utilised the shelter at one time.

Many drawings are found on flat faces or under low overhangs that could not have been used for habitation, and this is noted if it is the case. In some sites it can be seen that the floor beneath an overhang has built up considerably as a result of European land utilisation and that the shelter may in fact have been habitable during prehistoric times.

Where drawings and shelters occur extensively within a small area, it is sometimes necessary, for accurate recording, to make a larger-scale map, either from aerial photographs or by a ground survey. The North Otago Scientific and Historial Society, for example, has found this a very useful aid to field recording.

The New Zealand Archaeological Association maintains a site-recording scheme in which archaeological sites throughout the country are recorded and numbered for easy reference. This includes most known rock shelter sites and provides invaluable information for students of rock art.

The final step in the recording of the site is to photograph both the shelter and the general area in which it occurs. Colour slides are extremely useful, but a good black and white print showing clearly the shape and position of the site is invaluable for quick reference. The next step in the recording process deals with the art work itself, the process differing slightly depending on whether the work is in the form of drawings or engravings.

Drawings

A good clear description of these is first made in the fieldbook, the important points to note being colour (that is, red, black or white), probable pigment used and also the method of application. This is not always easy to determine, especially if the rock surface has been exposed to damp. The condition of drawings, and whether or not they are subject to weathering, flaking, fading or damage from farm stock or human agency, is also assessed.

A plan showing the placement of the drawings within the shelter, and also their positioning in relation to each other, is highly desirable. This need not necessarily be to scale, but must include accurate measurements. If at all possible, the subjects of the drawings are identified, sketched and measured, and then listed in relation to the sketch-plan (Fig. 54). Where the art work is so badly damaged that only faint traces remain, its position is still noted.

The second stage in the recording of drawings is to make a full-size copy of all figures and marks within the shelter. The most common method in use nowadays is to trace the drawings on to thin polythene or acetate sheeting, using chinagraph pencils of appropriate colours. The advantages of this method over the older hand sketches is that by careful tracing a highly detailed and completely accurate copy can be made (Fig. 55). Some drawings were traced in the early days using greaseproof lunchpaper or cellophane, but these have a

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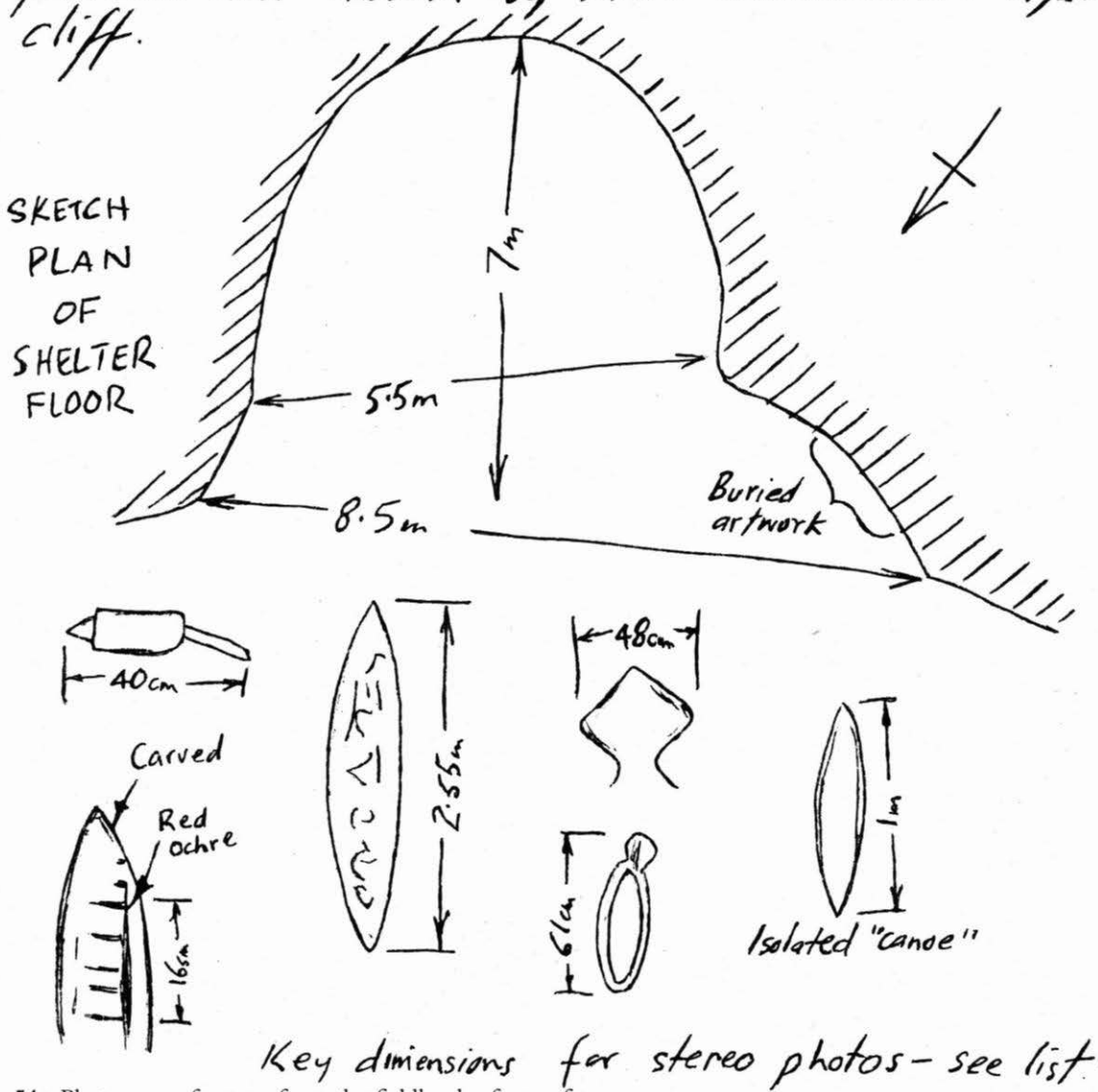
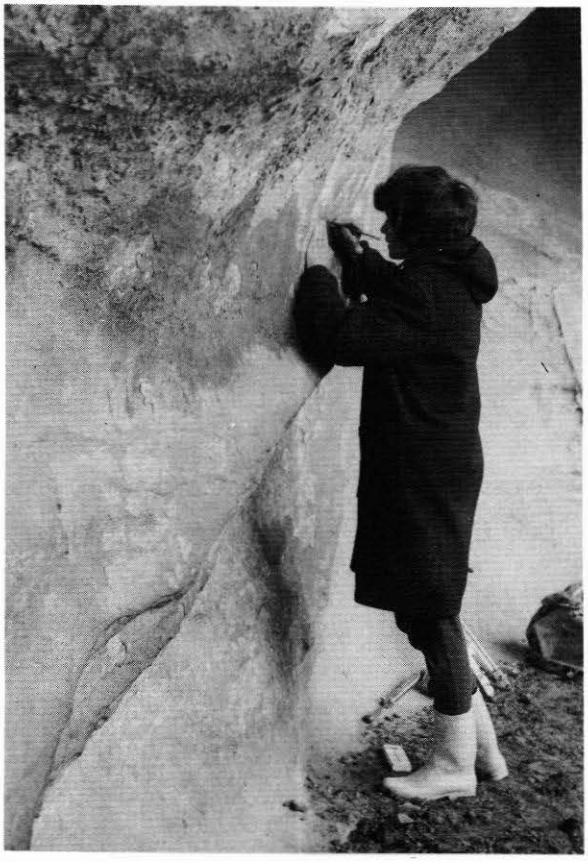
Cave-like shelter in river bank of tuff or pumice, about 3m above water level. Domed ceiling covered with hollowed out lanceolate (of top view of canoes) and other shapes; some engraved writing. Several "canoe" shapes with red ochre applied have been preserved and hidden by talus accumulation against cliff.



Key dimensions for stereo photos - see list

54 Photocopy of a page from the fieldbook of one of the authors. Individual methods of recording do of course vary



55 One of the authors making a tracing of a rock drawing near Motunau, North Canterbury

tendency to tear when placed on the uneven rock surface, and are not so durable when stored. Where possible, all drawings from one site are traced on to a single sheet of plastic. This is sometimes difficult, owing to the size of the area to be covered and the curvature or irregularities of the rock face. Where two or more plastic sheets are used they are fastened together by long strips of tape while still in position, so that their relationship to each other is retained after the completion of the tracing.

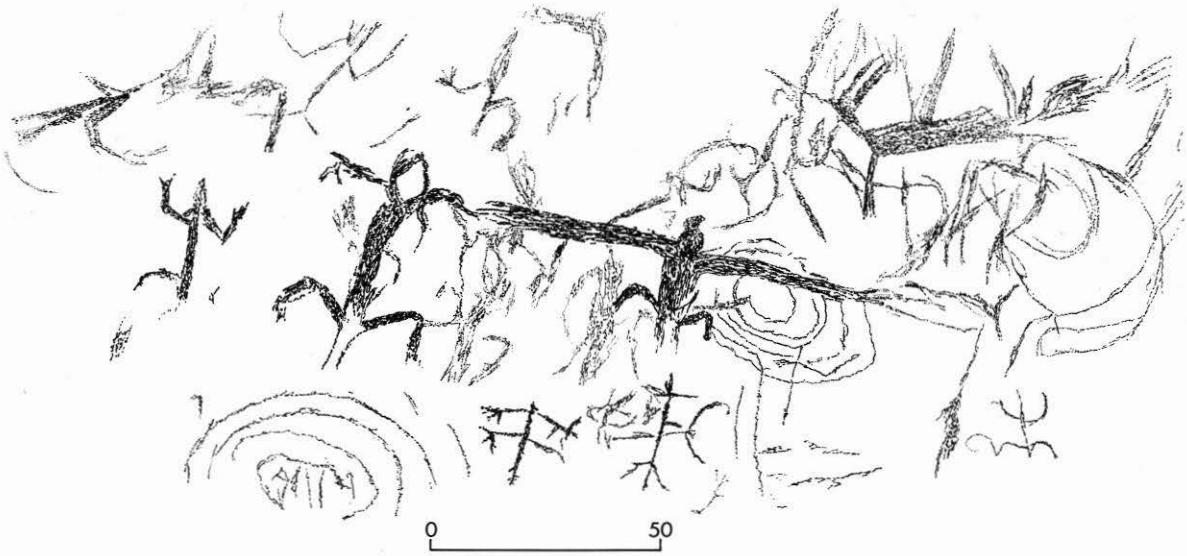
The method of tracing that has been found most convenient by lone field workers is to fasten the polythene to the rock with strips of cellulose or masking tape, though difficulties can arise with large pieces of plastic when the weight tends to pull the tape loose. Also, a powdery or wet surface can reduce its adhering qualities. For very large areas of drawing, a number of people are necessary, some to hold the plastic in position while others make the tracing.

Probably the largest tracing that has been attempted in New Zealand was made at the Timpendean shelter, North Canterbury, where the polythene used was 25 metres long and 1.8 metres wide. Even then, it was found necessary to add pieces to the sides in some places. The project took forty members of the Canterbury Museum Archaeological Society and a Workers' Educational Association group nearly three hours to complete, and only the major features were recorded.

Obviously, when dealing with pieces of plastic of this size, absolutely calm conditions are necessary. Yachtsmen who have faced a sudden squall with all canvas set, or housewives who have fought a sheet in high wind, will have some idea of the difficulties encountered by one of the present authors who tried to fold a twelve-metre length of plastic in a howling Canterbury nor'wester. Most drawings, however, cover a much smaller area than these, and tracing presents little difficulty.

When making these copies, it is important that only the pigment present on the rock at the time of tracing is recorded. Where large areas of flaking obtrude into drawings, no attempt is made to guess where the original lines occurred. The flake may be outlined on the tracing and labelled as such in a contrasting colour, and faded or barely distinguishable markings treated similarly. Accuracy is of the utmost importance if subsequent studies and reports on the rock art so traced are to be of any value. Copies so made are stored at local museums where they are available for research by other workers.

For quick reference, photographically-reduced prints of these tracings are sometimes made, using high-contrast film while the tracings are illuminated evenly by back-lighting. Many of the illustrations in this book are such photographs, retouched with reference to actual field photographs of the art work (necessary because of the variable quality of the tracings). Great care is taken during the retouching process that nothing is added that does not occur on the rock itself, even though it is clear that the original drawing was more extensive. Technical pens of varying thickness are used to reproduce as exactly as possible the intensity of pigment on



56 A photographically reduced dot-for-dot copy of a tracing of a rock drawing complex at Pyramid Valley, Weka Pass. Scale: 50 cm

57 Photograph of the same drawing complex as shown in Fig. 56. Note how some features that were visible to the naked eye, and therefore appear in the tracing, have not registered in the photograph

the rock surface (Fig. 56). These photographically-reduced copies, complete with scale, are much more useful for quick reference than the more cumbersome tracings. They are also suitable for most printing processes, giving clearer results than photographs, which tend to be indistinct (Fig. 57), or hand sketches, which are sometimes inaccurate.

The third method of recording drawings is by direct photography, and it is in this field that the greatest advances have been made. Certainly, investigators were recording drawings in this

58 Bláck drawings from South Canterbury that have been outlined in chalk by an unknown investigator to aid contrast in photography. Right-hand figure: 48 cm high

way as long ago as 1890, and some of the results were surprisingly good. However, their subjects were usually only those drawings that were very clear and well lighted. On some occasions, outlines were chalked or scratched around the better figures in order to add to the contrast (Fig. 58). There are very few examples of rock art which cannot now be photographed using modern techniques without having to mark or damage the drawings themselves.

The types of film used by the present authors during this investigation were conventional black and white, colour, colour slides, infra-red black and white, and infra-red colour.

All the above have been tried both under natural lighting conditions and with a flash. In addition, various filters have been tried (Fig. 59). The best shutter settings and speeds for good results under the prevailing conditions can only be learnt by experimentation and experience, but it is often necessary to take several photographs of the same subject at various settings to ensure a satisfactory result.

Drawings that are shaded from direct sunlight are the easiest to see and photograph, some drawings being completely invisible in the sun's full glare. The selection of the best film type to use depends on the condition of the drawings, the available light and the use to which the finished product is to be put.

In October 1969, an attempt was made to photograph some of the rock drawings in North Canterbury using ultra-violet light. To do this, a portable power supply was necessary for the

59 This red design from Takiroa, North Otago, photographed extremely well when a green filter was used to increase contrast. Figure is 60 cm wide

ultra-violet light source, in this case a 1.2-metre tube. The difficulty of obtaining a power supply in the field is the reason that this method is not often used. However, though photographs of better contrast than those taken by conventional lighting were obtained, the results were no better than those gained from using infra-red or colour film. The most satisfactory lighting for photographing rock drawings, either in colour or black and white, has been found to be from a fluorescent tube used at night (Fig. 60). It has the advantage of being a controllable flat lighting, but, like the ultra-violet, requires a portable power supply.

Engravings

The recording of rock carvings or petroglyphs requires a slightly different approach. The best method is to make a mould of the figures using a latex or synthetic rubber compound, and later to make a plaster model from this. Great care must be taken to ensure that the original is not damaged during the process, particularly if the rock tends to crumble or flake. Cleaning of the surface is sometimes necessary before making the mould, particularly if moss or lichen growths are present.

Stereo-photography can be very useful in recording petroglyphs, but it does have the disadvantage of requiring special equipment for both photographing and viewing. Ordinary photography is more commonly used, though special lighting is sometimes required to throw the pattern into clear relief.

Field notes, descriptions, sketches and measurements are made as for drawings.

Excavation

Having found and adequately recorded the rock art, the final field activity that can be carried out is an examination of the shelter floor. Occupational evidence left behind by the previous inhabitants can often provide a great deal of information if it is excavated by a trained and experienced archaeologist. It is important to note, however, that any disturbance to the archaeological deposits is strictly illegal without the express permission of the New Zealand Historic Places Trust. Archaeological excavation is a very skilled and highly sophisticated operation, and the Trust has the responsibility of ensuring that the often tenuous evidence is not destroyed by incompetent 'digging'. Not all shelter floors are suitable for excavation; many slope steeply or are of solid rock, so that any material deposited during occupation will have long since disappeared. In such cases a search of the hillside below the site will often reveal traces such as shell, bone, stone flakes or charcoal.

Where the shelter has a comparatively level floor with some depth of soil, an examination is warranted, and once a permit has been obtained, the archaeologist may initially make small test holes or *sondages* in the soil with a small trowel. Sometimes a spade or pick of some sort is necessary in order to penetrate the hard-packed upper layer, which is often of clay or sheep droppings and of concrete-like consistency. Evidence of occupation, usually in the form of charcoal or burnt stones, can generally be found within thirty centimetres of the surface, if it is present at all. In some cases, though, an overlay of up to a metre in depth can occur, or even

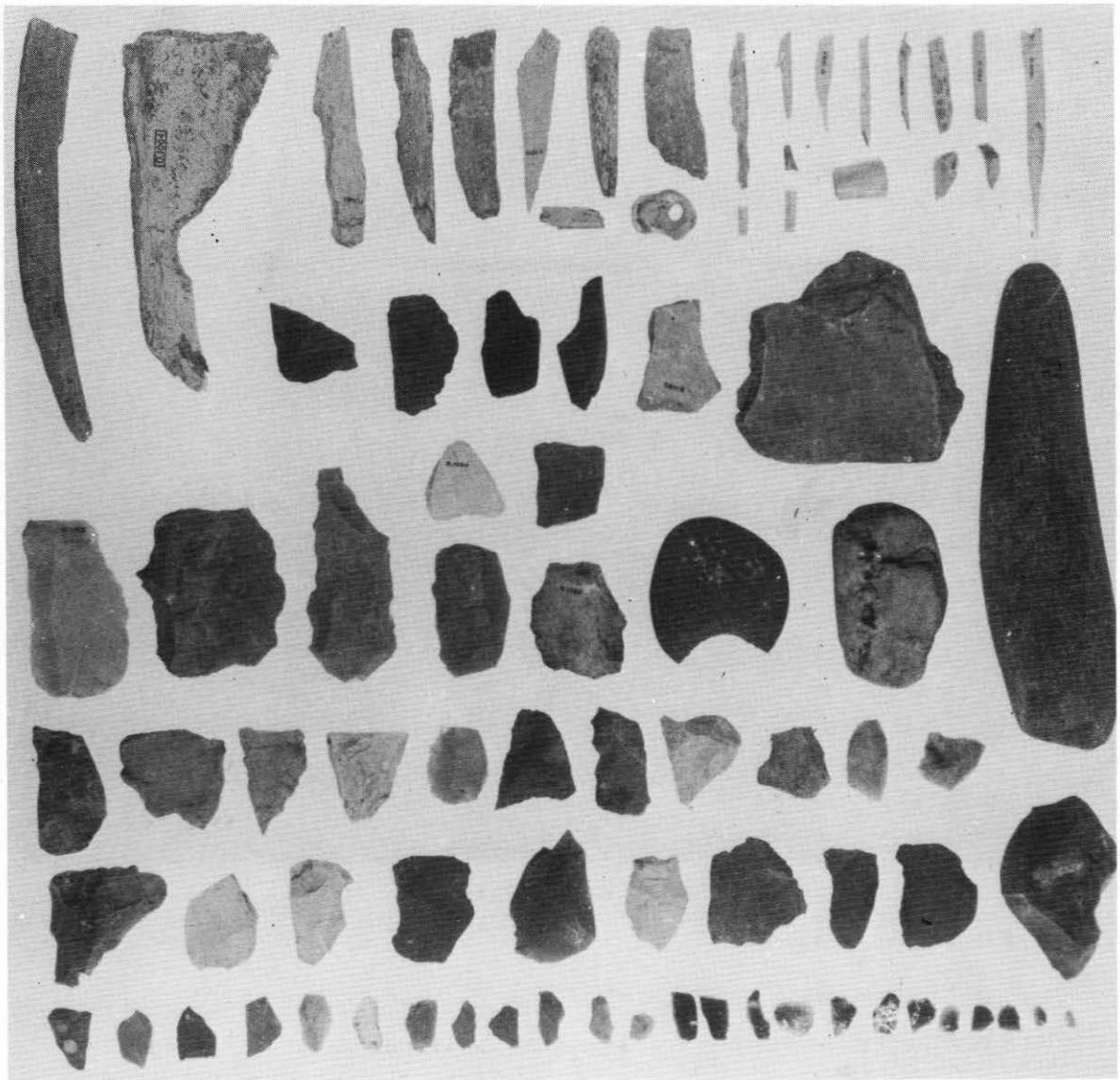
60 Photograph taken at night using a fluorescent tube, at Timpendean, Weka Pass. Most of the drawings visible have been overpainted

two or three occupational layers clearly separated by sterile material.

If occupational material appears to be present in quantities that would make wider excavation worthwhile, a proper archaeological 'dig' may be decided upon. Squares or trenches of suitable size are first measured and marked out with pegs and cords. Each square is given its own identification number; for example, A1, A2 and A3. If there is a deep sterile overlay, this is first removed with a spade and then excavation proceeds along conventional lines, successive layers being removed by trowelling, all occupational material being carefully recovered and placed in bags which are marked with the site name and number, the square number, the position and depth at which the object was found, and the initials of the excavator.

Material from individual squares or trenches is kept separate, as is that from any different layers that occur within those squares or trenches. The reason for this is that when the material is analysed at a later date the distribution and density of the various objects can be assessed. Material that might be required for radiocarbon dating is removed from the rest, carefully cleaned, dried and packed in airtight plastic bags to avoid contamination.

Occupational remains most commonly recovered from rock shelters are bone, shell, flaked and/or polished stone fragments, charcoal and burnt stones (Fig. 61). Their value in determining the age and use of the shelter will be dealt with more fully in Chapter six.



61 An assemblage of typical artifactual material from the floor of a Maori-utilised rock shelter. This selection was recovered from a North Otago site, and includes flaked, chipped and ground stones of various kinds as well as worked bone and shell

Analysing and reporting on findings

Once all the field work in a particular area has been completed, a comprehensive report on the findings may be made. This is not always done by the field worker concerned, nor is it necessarily done immediately.

Such written records may take the form of interim reports on work in progress, or may detail complete findings from a particular area. They are usually published shortly after the completion of field work in some appropriate scientific journal or newsletter, or may, on the other hand, be incorporated in more comprehensive works, the compilation of which may be spread over a period of years.

The shorter published reports are valuable in that they enable other archaeological workers to keep up to date with the progress being made in this sphere as well as providing an easily accessible reference for future investigators.

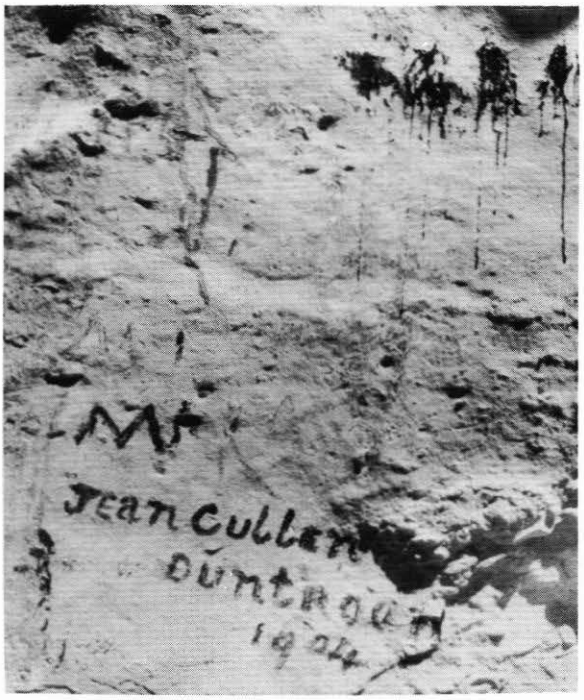
Although the more definitive works may contain a great deal more information, there is often a delay of several years before they are published.

Where a permit has been issued, a report on the work done must be made to the New Zealand Historic Places Trust.

Preservation of sites

The destruction of rock art sites throughout New Zealand has been a matter of some concern for many years, but it remains a problem for which no real solution has yet been found. Although much of the destruction is the result of natural agencies (Fig. 62), the protection of the drawings from damage by animals and humans is a more pressing problem. Some attempts to counteract this have been made by erecting fences around shelters considered to be of historic value, but these are all too often totally inadequate, and in many instances appear to have the effect of encouraging vandals to force an entrance and deface the drawings (Fig. 63). For this reason it is often preferable not to publish details of the location of newly-discovered sites, particularly if they are easily accessible.

62 This badly flaked rock surface with remnants of black pigment shows clearly how many drawings are destroyed by weathering. Weka Pass



63 Paint splodges and a name deface this well known rock art site in North Otago. The black Maori art work (shown in Fig 77e) is too faded to be seen in this photograph, but retouched incised spirals can be seen in some places. Vandalism such as this is very common

While no permit is necessary for general surveying and recording of rock art in New Zealand, it, too, is now protected by law, and must in no way be disturbed or defaced—this includes the sort of retouching and outlining in chalk that was done by some earlier investigators.

As yet, no really satisfactory method has been found to protect drawings from weathering. Many have already disappeared, and unless some means can be found to preserve them it seems likely that the great majority will eventually be lost altogether.

Chapter six
The place of rock art in Maori culture

We have now reached the stage where by correlating all the evidence we have gathered we can endeavour to ascertain the place of rock art in Maori culture. Before doing this, however, it is necessary to review briefly what is known of the prehistory of New Zealand.

Since the earliest archaeological investigations by Julius von Haast and his contemporaries a century ago, it has been recognised that considerable changes took place in the culture of the Maori people, from the time their ancestors arrived in the country until the time when European settlement so dramatically disrupted the old ways of life. A great deal of research has been undertaken to investigate this cultural change, but exactly when, how, and why it took place are matters still being debated today.

At one time, it was commonly believed that a different race of people lived in New Zealand before the arrival of the first Polynesian settlers. They were often called 'Morioris' and were thought to have had Melanesian physical and cultural characteristics. This is one of several New Zealand myths which have become firmly established largely through popular publications and school-taught histories, and which are extremely hard to eradicate. Exhaustive studies of artifact types and of human skeletal remains indicate that the pre-European inhabitants of this country were of the one single Polynesian race. Archaeological evidence points to them arriving here over a thousand years ago, and quickly adapting to the local conditions and resources, which must have been vastly different from those of their tropical Pacific island homeland.

Several different species of giant wingless birds, commonly called moas, some of which grew to over three metres in height, still existed in both North and South Islands. These provided a major source of food for a few centuries, and their leg bones were used to make fish-hooks, pendants, beads and other small artifacts. The settlers were now able to make things out of bone that they, or their ancestors, had previously had to make mainly from teeth, shell or stone; yet in most cases they kept to traditional shapes and designs. The greater variety of stone materials available also enabled them to manufacture a wider range of tools, implements and ornaments, although here, too, original Eastern Polynesian characteristics were largely retained.

Because their life was so influenced by moas, the early Maoris are often called Moa-hunters, though this term has been objected to, principally on the ground that their material culture persisted after moas had ceased to be economically important, either for food or for implement manufacture, because of their local rarity or extinction; not all Moa-hunters in fact hunted moas. In the South Island, and in particular the central and southern portions of it, the basically early cultural traits (the 'Moa-hunter' culture) persisted until at least the fifteenth century AD. During this period, several species of birds, including an eagle, a giant rail, a swan, and a flightless goose, as well as the moas, became virtually extinct. There is a possibility that some of these species may have been dwindling in numbers before the arrival of man, but there is no doubt that man hastened their final extinction. Their extinction in turn may have been the cause of, or at least an accelerating factor in, the cultural change that occurred about this time. An ecological factor that must have had an effect on the extinction of the moas, and consequently on the people who hunted them, was the widespread burning of the forests of the eastern South Island and possibly other areas of New Zealand.

When we look at the extremes of early and late periods of prehistoric culture in New Zealand, numerous distinct differences are apparent. The Moa-hunters were peaceable people, whereas the Classic Period Maoris of the eighteenth century (before the influence of European contact and trade) were warlike, and practised cannibalism to a limited extent. The Moa-hunters had little need for horticulture; in the eighteenth century, kumaras were widely grown in the North Island and as far south as Banks Peninsula. Early adze heads were of many well defined types, and more often than not were the product of highly-skilled craftsmanship. Later they became simplified in shape, and greenstone became popular as a material for their manufacture. Moa-hunter ornaments were inclined to be large and have simple but aesthetically pleasing lines. Classic Maori ornaments were smaller, and like the adze heads, often made of greenstone.

There is a contrast, too, between the Moa-hunter fish-hooks of utilitarian design, and those of the eighteenth century, which were of poorer basic design (largely because of the unavailability of moa bone) and carried so much ornamentation that they are sometimes referred to as being of baroque style. These are just a few examples of some of the more striking differences between the early and late, or Moa-hunter and Classic periods of culture. As yet, not a great deal is known of the intermediate steps along which various traits evolved. The possibility of influences from outside New Zealand occurring at some stage since the initial settlement, and local cultural development, cannot entirely be dismissed, but seem rather unlikely.

Notwithstanding the problems, we can build a basic framework (perhaps skeleton would be a more appropriate word) of cultural succession in prehistoric New Zealand. Now where does rock art fit on to this skeleton? And do our investigations help put any meat on the bones? How much does rock art tell us about the people from whom it originated?

Because of the tendency of earlier investigators, and artists in particular, to deduce too much from rock drawings, the modern student often tends to take the view that the drawings themselves tell us nothing. This is not strictly correct. One of the more obvious things they tell us, particularly where other occupational evidence is absent, is that at some time in the past there was human activity in the area in which they occur. The drawings also indicate that the artists who drew them not only possessed technical skill but had developed a certain degree of artistic appreciation.

By objective interpretation we can infer certain other facts, and by taking the drawings in conjunction with other known cultural facets of the pre-European Maori we can take our knowledge a stage further. We must, in fact, try to fit the drawings logically into what is already known of the prehistoric culture of the Maori, rather than attempt to build an unsupported cultural framework around the art work.

If the subject matter of prehistoric rock art in both North and South Islands is examined, it can be seen that nearly all the subjects depicted could have been executed at any time during the period of human occupation. We are not, of course, including contact period drawings, which by reason of their subject matter and obviously European-influenced styles have already been discounted. One subject of major importance when examining rock drawings for what they can tell us is the moa, which occurs infrequently in the South Island. Although this does not tell us with certainty that the artist was familiar with the living bird, it is at least a reasonable assumption that he was; and as the moa is known to have become extremely rare, if not extinct, by the sixteenth century, this tends to place the drawings early in the period of human occupation of New Zealand. Even this, however, is a dangerous assumption, as by applying a similar argument to drawings of 'taniwha'-type figures and mythical monsters, it could be implied that the artist was familiar with these in real life.

Some of the canoes depicted in the Kaingaroa shelter appear to have prow designs different from any of those observed by European explorers in use by the Maoris. It has been suggested that they show an early type that went out of use before European contact, and that the Kaingaroa canoes are thus of fairly early origin. However, until we can get independent evidence on the use and subsequent disuse of this particular design, the 'godwit prow' as it

has been called, it can hardly be accepted as a basis for dating the art work.

One fact that can be deduced from the study of drawing subjects is that where stylised forms, identical in execution and subject, occur in widely separated geographical areas (as in the South Island), they are the work of a single group travelling widely throughout the country, or two or more groups with a common background or frequent communication.

To summarise: the drawings themselves give us evidence of occupation, artistic ability, distribution of particular styles, and possibly (in some cases) an indication of age. But these facts still give no real insight into the artists as people. Nor do we feel that they can possibly ever do so. Only by examining other archaeological evidence from the shelters can we learn much about the people who were responsible for the art work they contain. This assumes acceptance of the premise that the drawings were executed by the same people who left the other occupational evidence in these shelters.

If a detailed scientific investigation of the deposit in the floor of a shelter indicates that it had been used at one time only, and not repeatedly over several centuries, then there is a fair degree of probability that the drawings on the wall of the shelter were done by the same people who left the occupational deposit. Therefore, any information (such as age) that we can gain from this deposit probably applies to the art work also. It is necessary to stress the word *probably*, because it is quite possible in some cases that artists left no traces in the floor of the shelter, and that any occupational material there was left by other people either before or after the time of drawing. The degree of probability is much increased in many instances by finding in the floor deposit pieces of haematite of exactly the same shade as red drawings in the shelter. Where two or more occupational layers are present, indicating usage at more than one period, then the situation becomes less definite.

It is a fact, however, that in the great majority of New Zealand rock art shelters there is only one occupational deposit. In those where there are more, it is often apparent that either the time between successive periods of occupation was comparatively short (that is, within the same cultural period), or that there was a very great lapse of time between their formations. In the latter case, the most recent material almost invariably indicates European contact or even European occupation. Although the evidence from individual shelters may not always provide acceptable proof of age or other factors, the combined evidence from numerous shelters does justify the drawing of general conclusions.

This archaeological evidence from shelter floors can often tell us what the people were doing in the area, at what time (or times) in prehistory they were there, and something of their culture and way of life. To interpret it, to read a story from the clues left by prehistoric man, it is usually necessary to draw on several branches of natural science, principally botany, zoology and geology, and also the nuclear sciences for assistance with radiocarbon dating. In addition, a study of the known ecological history of an area is useful, as it can often substantiate the interpretation of purely archaeological evidence.

The occupational material found when excavating a shelter floor comprises the remains of things utilised by the occupants of the shelter and discarded, lost or left there by them. Generally they may be grouped into three categories—faunal, botanical and artifactual.

Faunal remains usually represent the inedible parts of food prepared and consumed at the site (Fig. 64). Bones of birds are common, and where it seems likely that they were obtained in the immediate locality they give some idea of the bush cover or lack of it in the vicinity of the shelter at the time of occupation. If, for example, there is a predominance of bush-dwelling species, it is reasonable to assume that there was bush nearby. This is very often the case, even in areas which are now comparatively barren tussock grassland. Bones of extinct species—moa, rail, goose and swan—found in midden context mean that the shelter was occupied when those species were still extant, though care is necessary here as moas in particular sheltered and even nested in some shelters, and the bones could have come from birds that died naturally. Sometimes, too, natural moa bone was obtained from swamp deposits and brought on to a site for the purpose

64 Fragments of burnt, broken moa bone, the remains of a meal, recovered from a rock art shelter at Castle Hill, Canterbury

of making artifacts, but it is usually not too difficult for the archaeologist to determine whether remains are of natural or cultural origin from their stratigraphical position, fractures and other marks, or even by chemical analysis.

Other kinds of bones commonly found are those of dogs and rats, more rarely seals, which must have been brought in from the coast, fish, and tuataras (which indicates that the traditional Maori fear of lizard-like creatures was not so strong as to prevent their use as food). To the best of our knowledge, no human bones resulting from cannibalism have been found in rock shelters, though burials are not uncommon. Shells from marine shellfish and sea urchins indicate that the shelter occupants recently visited or came from the coast, yet they have been found in sites sixty and even a hundred kilometres inland. In many areas, shells of freshwater mussels, and occasionally freshwater crayfish, are more common than marine species, even though they are not locally obtainable today.

Although unburnt wood, leaves and seeds have occasionally been preserved, the commonest form of vegetable matter found in any archaeological site is charcoal from fires that were made to provide warmth, cook food, or both. From its identification we learn what sort of trees or bushes grew in the area, and often, from the species and growth rate, something of the climate or environmental conditions. Where present, grains of pollen that drifted into the occupational deposit can often be isolated and identified, thus giving a broader picture of local vegetation.

Both faunal and botanical remains are suitable for radiocarbon dating, and it is by this method that we have the most accurate indication of the age of shelter occupation and hence of the drawings. Great care must be taken in selecting materials for dating. Charcoal, for instance, may come from trees that were already several centuries old, or even from relict logs of trees that died long before they were used as fuel. For this reason, shell or bone is often preferable.

Artifacts can be the most useful keys to the history of the occupation of a rock shelter, or for that matter of any archaeological site. Certain types of adze heads, ornaments and cutting implements were used only at a particular period of prehistory, and some of the materials from which they were made were fashionable at one time but rarely if ever used at another. Large knives of orthoquartzite (a hard flinty stone), for example, are associated only with moa hunting. A stone material found on a site some distance away from where it occurs naturally indicates either access or trade, and the type of artifact found can show what activity was being practised. A predominance of cutting implements—usually sharp-edged flakes of stone—probably means food collection and preparation, and an absence of manufacturing tools suggests temporary rather than permanent occupation. Any piece of bone, shell, wood or stone that has been utilised, modified or shaped in some way for a specific purpose can tell us something, no matter how insignificant, of the people who used it. A lump of burnt clay may at first seem to be nothing more than just that,

but if close study, comparison with other lumps of clay, and a certain amount of extrapolation suggest that small birds and rats were wrapped whole in damp clay before being cooked in a fire, then we have learned something more about the people who inhabited the site we are investigating. The ratio of 143 rat jaws to only three other rat bones, as found in one of the Timpendean excavations, may be puzzling, but strongly suggests that all the rest of the animal was eaten, only the jaws and teeth being inedible.

We could give many more examples of how archaeology is enabling prehistory to become history, of how we are learning about the people who lived here hundreds of years ago. But this is a book on rock art, and we must revert to the subject. Having explained, albeit briefly, what archaeology *can* tell us, it would perhaps be logical to describe some of the things that archaeology *has* told us about rock art and rock artists.

Of the hundreds of rock shelter sites known throughout New Zealand, only a few have been subjected to archaeological investigation, and fewer still to investigation by modern scientific methods. This is not really very surprising. It is slow and painstaking work; occupational evidence is generally sparse, sometimes disturbed, and often absent altogether. Many investigations have been made by amateur archaeologists whose methods have been no less exacting than those of their professional colleagues.

In the South Island, where we have data for about ten per cent of recorded sites, bird bones include species that became extinct four to five centuries ago. There were up to fifteen species of birds in a single site, and forest-dwelling species predominated in coastal North Otago and inland North Canterbury, though both areas are now bare of bush. In the only other South Island areas investigated, the Awamoko and Upper Waitaki Valleys, bird species were fewer, and reflected more open, sparser vegetation. Occasional forest dwellers were present in these areas, however, so there must have been at least some patches of bush at the time. The hunters consumed the birds at the shelters and did not take them back to larger coastal camps (where a different range of species is present), which, when taken in conjunction with other archaeological evidence (such as stone artifact materials and short-duration occupation), suggests a somewhat itinerant lifestyle. Presumably, when game was no longer easily available in one locality, the hunters moved on to a new area. This explains the very wide distribution of similar or identical art styles and subjects over so much of the South Island. No sites were occupied for very long, and most at only one time (although many have since been used for human and stock shelter and for storage by Europeans).

Botanical evidence, both from shelter sites and the much greater amount collected independently by botanists working in this specialised field, has shown that about the time most shelters were occupied, fires greatly reduced the forests in the surrounding areas. We do not yet know for sure the exact sequence of events, but there is little doubt that the fires were man-made (either deliberately or accidentally), and it is probable that with the disappearance of forest there was little to attract Polynesian man into the shelter areas.

Artifacts were generally of early types and the majority were cutting and scraping implements that would have been used in food preparation. The materials from which many were made included types of stone such as orthoquartzite, which was commonly used only in moa-hunting times. Tools such as adzes and chisels that would have been used for permanent construction work, such as in building or canoe manufacture, were rarely used in rock shelter areas, again reflecting the nomadic or wandering activity of the shelter occupants. There is not much evidence of how game was caught, presumably because the spears and traps were made largely of perishable materials, although a few bird-spear points and fish-hooks made of bone have been found.

Of special importance in dealing with what archaeology has told us of rock art are radiocarbon dates. All those so far obtained from South Island shelters lie between 450 and 850 years Before Present. The earlier dates were obtained from charcoal samples which appear usually to give an age of up to 300 years earlier than shell or bone samples from the same deposit. It is possible, then, that if correction

could be applied, all would be about the fifteenth century AD.

Although the recent development of radiocarbon analysis has given us an accurate and useful method of dating archaeological sites, it is often not possible to obtain reliable samples. The principal laboratory at which this is done is the Institute of Nuclear Sciences in Lower Hutt, which has to cater for geologists, botanists, soil scientists and others as well as archaeologists. It might be some considerable time after forwarding a sample before a result is known. There are, however, other data that we can use to establish with reasonable certainty the approximate date of the occupation (and consequently the execution of the drawings) in a shelter.

Where two or more sites contain the same diagnostic artifacts, or a range of identical types, it is necessary to get a date for only one of them, although it is of course preferable to obtain individual dates where possible. Similarly, distinctive art styles and techniques may be used to link sites of approximately the same age. As already mentioned, the presence of bones of extinct birds in midden context establishes the most recent age limit if the date of their extinction is known.

From their earliest discovery, people have been trying to determine when rock drawings were done. Some theories that have been put forward were based on a study of the drawings themselves and their dissimilarity from Maori art as it was known at the time of European settlement, while others depended for their reasoning on the lack of traditional knowledge of the originators of the drawings. For these reasons, most investigators placed their execution early in the occupational era, although there were some dissenters who felt that rock drawing had been continuous over the whole period, and even some who believed that all were comparatively recent.

Apparent evidence of the lateness of rock art was assumed from two factors: the obviously European figures and lettering of the contact period work (Fig. 65), and the present rapid rate of deterioration of many drawings. We have already dealt with, summarily, the contact period drawings; they cannot be taken seriously as age evidence of the totally different prehistoric art. As for the degree of deterioration by natural agencies, principally frost, sun, wind and water, we find that it can give no indication of age. In many cases, changes have occurred in the local environment, such as the clearing of bush or grazing of surrounding country by introduced animals, and these have influenced the effect of weathering (often accelerating it). It is, in any case, almost impossible to judge exactly what effect any of these agencies would have had.

In many limestone shelters, calcium carbonate has been taken into solution by water seeping over the surface and redeposited as a thin transparent layer over the drawings, thus

65 Photocopy of Maori names printed in missionary-style roman capitals, South Canterbury

66 This photograph, taken in South Canterbury, shows clearly a layer of calcium carbonate which has formed over, and almost completely obscured, a black drawing

protecting them. The same effect has been noted in greywacke shelters at Benmore, and in some of the North Island sites where there is a thin deposit covering the surface. In other cases, however, a deposit of opaque calcium carbonate (stalactite) two or three centimetres thick has formed over drawings, wholly or partly obliterating them (Fig. 66). Here again, though, because the rate of formation of the covering layer is variable, it does not indicate what length of time has passed since the execution of the art work, though it does differentiate between early and recent pigmentation.

In most porous rocks, the exposed surface becomes hardened by a crystalline deposit, typically under a centimetre thick, forming in the interstices or pores between the constituent grains of the rock. Of course, the formation rate of this 'case hardening' is also variable, but it has in some cases formed in petroglyphs where the artist has carved through the original hard layer and exposed a fresh surface. Though case hardening makes the rock face more resistant to abrasive erosion, it is under some conditions inclined to peel off in flakes, taking the art work with it.

Summing up all the available evidence for the age of prehistoric rock art in New Zealand, we can say that in the South Island, radiocarbon dating, extinct bird species, artifact types and the presence of forest indicate a peak in shelter utilisation at least 500 years ago. We do not know for what period of time they were in general use, nor do we mean to imply that they were never used after the fifteenth century. All the evidence we have shows that rock art flourished at this time and, just as importantly, we have no evidence to negate this conclusion.

In the North Island, the position is not so clear. There is only one radiocarbon date (late eighteenth century), and artifacts are not as useful because the cultural changes there are not so well known, although none of recognised early age has been found in a shelter. Bones of extinct birds have not been reported in primary association with occupational material, whereas those of European-introduced pigs have. Some petroglyphs are in, or associated with, pa sites of known late date. While these scraps of evidence suggest that North Island rock art is generally of much later origin than that of the South Island, this does not necessarily mean that *all* North Island rock art is late. The very diversity in style could conceivably be accounted for in part by time differences in which different styles were in vogue. However, at present there is no archaeological evidence to suggest that any North Island rock art is as early as that of the South Island.

Although the diversity of style apparent in northern rock art does not necessarily indicate that it was done over a long period of time, the

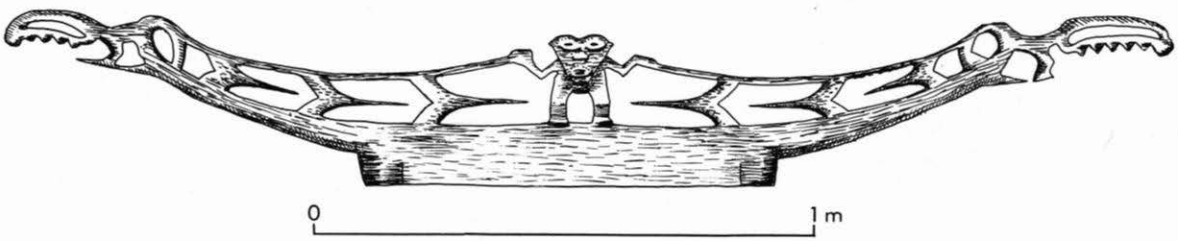
similarities found in the bulk of South Island sites can be taken as evidence of approximate contemporaneity. By this reasoning, the few South Island petroglyphs may have been done at a different time, possibly later, though we have no direct evidence of their age, and conversely some North Island drawings that appear to be markedly similar in style and execution to those of the South Island may be of earlier origin than the majority of the northern art works.

We mentioned earlier that several investigators have remarked on the dissimilarity of rock drawings from other forms of Maori art, and some have taken this to indicate great age. In the past it was even said that not only was rock art non-Maori, but it was also non-Polynesian, and had closer affinities with the art of a variety of distant countries. Although the fact that the artists were Polynesian has now been accepted, the problem of apparently un-Maori characteristics of the drawings does warrant examination. The Classic Maori art, with which rock drawings are generally compared, became known from observations and collections made by early European visitors and settlers. These were made in the late eighteenth and early nineteenth centuries, several hundred years after the date we have assigned to the bulk of the rock drawings. It is doubtful, then, if any great similarities could be expected, considering the cultural changes that took place during this period.

On the whole, the layman is inclined to think of those forms of Maori art that were current at the time of first European settlement as being typical of all Maori art, and anything that is different as being atypical, but this is as illogical as saying that the ruffled collars and satin skirts affected by Elizabeth I were not typically English in character because they are totally different from fashions currently worn.

Incidentally, the two aspects of Maori art are also divided geographically, because central South Island drawings are usually compared largely with examples of art found in the North Island. But the most pertinent factor is that we are discussing two entirely different types of art. In one, large areas of flat natural surface were readily available on to which easily obtained pigments could be applied with a minimum of trouble and the simplest of techniques. On the other hand, Classic art forms, with which the comparison is made, are mainly wood carvings and rafter patterns, both of which are forms of ornamentation applied to man-made objects. Wood carving occurs mostly on constructional units of buildings, as of course do the patterns painted on to rafters, and were thus affected by the size and shape of the material. Its form, too, was largely governed by tradition. The art work in particular parts of a building had traditional meanings, and stylised forms representing these traditional meanings were adhered to. In some cases the original meaning or origin of a particular design had been lost, but the design was still retained as part of the art tradition.

There is no evidence that the fundamental forms from which this traditional art developed were not already established at the time that rock drawings were being done. We hope that early and intermediate examples of decorative wood carvings which show the steps along which the traditional forms developed will be found some day. There is a reasonable chance of

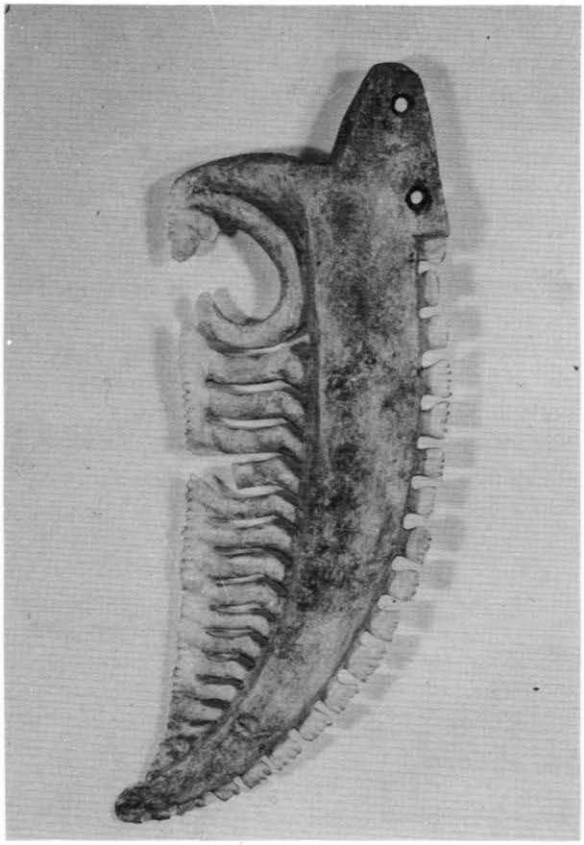


67 This unusual piece of wood carving, found in a swamp at Kaitaia (Northland), shows a simplicity of style more characteristic of early rock drawing than of later wood carving. Scale: one metre

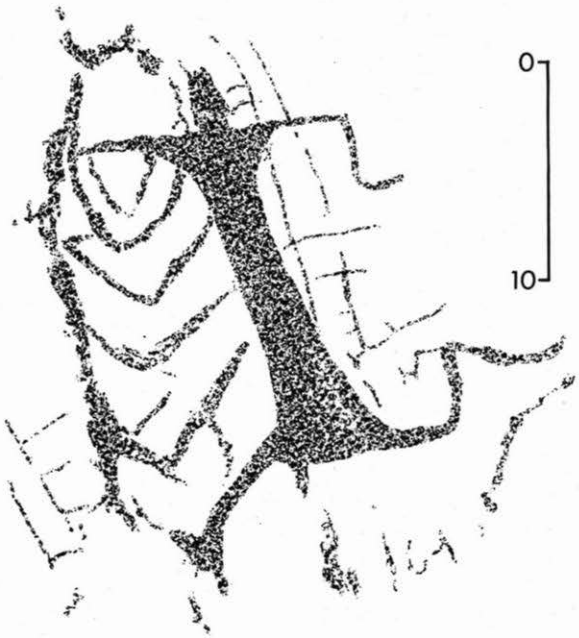
finding these (providing of course any exist) preserved in swamps where they have either been lost or placed on purpose. Some very fine wooden articles have been found in swamps during the digging of drains, or in some cases, like the delicate wooden hair combs recovered from Kauri Point by Wilfred Shawcross in 1965, in the course of archaeological excavations made for this purpose.

Some atypical wood carvings have been found in swamps, and because they are so different from the usual Maori carvings they have been the subject of much speculation as to origin and age. The old non-Polynesian theories have again been raised, but it is generally considered that they are simply early forms of wood carving. One of the best known of these is a bilaterally ornamental piece found in a swamp at Kaitaia about fifty years ago (Fig. 67). Its most striking feature is the horizontal row of chevrons extending from either side of the central figure; this particular convention is not present in Classic Maori wood carving. The row of chevrons also occurs, however, in 'chevroned pendants', intricately-carved breast ornaments made from whale teeth (Fig. 68). Two forms of chevroned pendant have been found; one is bilaterally symmetrical, and the other, as figured, of unilateral design (it is suggested that the latter were worn in pairs side by side), and both are considered to be of fairly early age, though there is no direct proof of this. However, regardless of age, both these and the Kaitaia carving show the chevron motif which is common in South Island rock drawings, where it generally runs vertically on or alongside a human figure (Fig. 69).

As has been mentioned (in Chapter two), Dr Skinner drew attention many years ago to the fact that there were similarities between certain styles of human figures in rock drawings and human representations in other parts of Oceania. The headless human which is found in South Island rock art, for instance, occurs in similar style in rock engravings in Hawaii, in Easter



68 Ivory pendant with a chevron pattern also seen in South Island rock drawings. Found near Kaikoura. Length: 145 mm



69 Photo-mechanical copy of a rock drawing from North Otago, showing a human figure with a chevron pattern alongside. Scale: 10 cm

70 Unique black stone pendant found near the Waitaki River, featuring a headless human in a style not uncommon in South Island rock drawings (cf. Fig. 73)

Island 'script', and carved on clubs from Tonga. But more important to the present discussion, it is also on a black stone breast pendant found near the Waitaki River (Fig. 70). This pendant is unique, as are so many of the known examples of early portable art forms. Another unique artifact is a small wooden dog found in Moncks Bay cave on Banks Peninsula. It is quite unlike any Classic Maori wood carving, a fact attributed to its age. Its general resemblance to some of the dog drawings is undeniable, though this is probably due to both being representations of the same spitz-like breed of dog as much as to the same artistic style.

Another similarity occurs between rock drawings and rafter paintings in the bulbed volute pattern. It is incorporated in several traditional rafter and gourd designs, and occurs also in some of the more stylised yet striking rock drawings. The Opihi 'taniwha' design (Fig. 4) has several of them, and they are also in a 'bird-in-egg' drawing that was on a greywacke rock at the Shepherds Creek site covered by Lake Benmore after the Waitaki River was dammed (Fig. 71). These cannot be considered as typical examples of rock art; they are indeed atypical, but do indicate that we can find similarities if we look for them. There are many others too; some rock drawings have a slight resemblance to some tattoo patterns used by the Classic Period Maoris, and single and double spirals also occur in rock art as well as wood carving, tattooing and rafter designs.

However, although it is interesting to note the similarities between South Island rock drawings (which comprise the great bulk of known rock art in New Zealand) and various forms of Classic Maori art as it was found at the time of European contact, there is nevertheless no denying that the dissimilarities far outweigh the similarities. Whereas wood carving, rafter designs and tattoo patterns were generally

71 Although somewhat atypical of South Island rock art, this 'bird-in-egg' design from Benmore, North Otago, shows to a degree the bulbed volute pattern. The pigment was originally black, but has weathered to whitish-grey. Width: 28 cm

elaborate and curvilinear, rock art was inclined to be simple and more angular. We have already mentioned that one of the basic reasons for this difference is because they were different types of art done on different surfaces and with different traditions or cultural backgrounds. As the time gap closes, however, a genuine similarity does appear. Some of the late rock carving designs in the North Island have features almost identical to those in wood carvings, some of which were probably done about the same time. But another factor comes into this. Carving on soft rock was merely an adaptation of wood-carving techniques, so it is little wonder that some of the same designs and motifs were used in both. This is particularly so in the case of those North Island rock carvings that are in pits, or on terraces in pa, or on standing stones, rather than on the walls of natural rock shelters. In these situations the motivation to decorate is more akin to that which resulted in the Classic art conventions we have been discussing. Instead of being an entirely different kind of art as we suggested the South Island rock drawings were (the rock drawings being done on large areas of natural surface with easily obtained pigments and a minimum of technical skill, while the Classic art forms were restricted by materials, techniques and function), many of the similarities were due to similar restrictions and motivations.

To revert to the more common form of rock art represented by the thousands of drawings in the South Island, we believe that it had much less cultural significance than had much of the Classic art. It was done because, like people in all societies, whether primitive or sophisticated, the artists had a need for graphic expression, some no doubt more than others. They were governed to a certain extent by the conventions of the community in which they lived, but not to the extent of those Classic artists working on man-made objects, who were more closely bound by tradition and form. Rock drawings do not necessarily depict any aspects or activities of the contemporaneous community, but can reflect the standard of artistic appreciation of that community. Generally (and this does not apply to rock art only), artists are restricted in what they portray, and in their degree of stylisation, to what can be appreciated by the community as a whole.

In endeavouring to judge the aesthetic quality of Maori rock art, the greatest difficulty encountered by present-day investigators is that they have to judge by their own standards the work of a people whose culture was vastly different. Added to this is the fact that people's standards and sensitivity in aesthetic appreciation change, and this occurs as much today as it did 500 years ago. However, although artistic styles wax and wane in popularity, as witness the difference between a Goldie painting of the nineteenth century and the contemporary work of Norman Lemon, there are certain basic aesthetic standards to which any worthwhile art form must conform. Obviously, because of the limited pigments available, we cannot discuss the aesthetic use of colour in Maori rock art. Therefore, the criteria on which we judge it must be confined to form, balance, movement and composition.

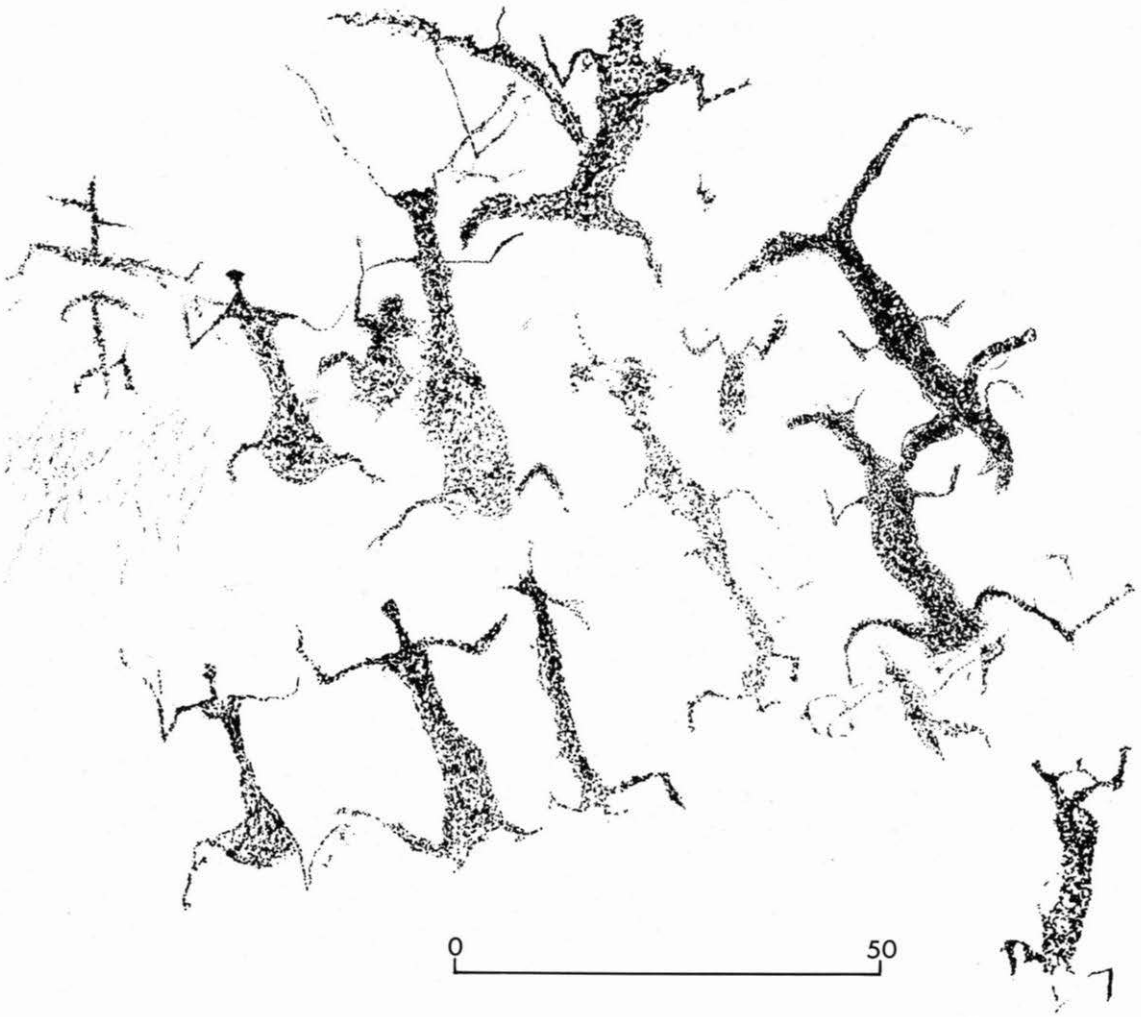
We have already discussed the degree of stylisation apparent in most examples of this art form. It seems probable that it came into being and developed as it did because the people found it aesthetically pleasing, and despite its simplicity, its popularity for decorative motifs in our own society today would seem to indicate that we too find it equally pleasing. Wherein then is its aesthetic appeal? Probably in its basic uncluttered simplicity—the modern school of art greatly emphasises the importance of balance and form. Despite the degree of stylisation, there is nothing in Maori rock art that strikes one as being biologically distorted or unnatural. This is because the standard is such that we recognise it as the artists' artistic concept of these objects rather than as unsuccessful attempts to portray something naturalistically. The lack of adherence to strictly natural proportions does nothing to detract from its aesthetic appeal, and generally a sound and pleasing balance has been achieved in the finished work.

On the other hand, there are few examples in the field of New Zealand rock art that portray a great degree of movement. Certainly there are some in which the lines are fairly fluid, and even some in which there appears to be a flow from one figure to another, but these are the exception rather than the rule, and on the whole individual figures are inclined to be rather static. By this we do not mean to convey that there is

an impression of stiffness or awkward angularity about the figures. Rather, that individual figures give an impression of being isolated units instead of seeming to be parts of a larger composition. It is this characteristic completeness of form that enables so many of the individual figures to retain their aesthetic appeal when removed from their original context.

In order to evaluate the qualities of composition in rock art, we have first to decide what factors affected the positioning of figures in a group on the rock background. There is the purely fortuitous type of composition determined solely by the availability of suitable drawing surface or rock space. Although this is legitimately called 'composition', it is not under the complete control of the artist. The other more important aspect of composition involves deliberate placement of figures following a preconceived plan.

Unfortunately, owing to the deterioration of so many drawings, there are relatively few sites where we can examine an entire complex in anything like its original form. Of those that



72 Photocopy of a tracing of a black drawing complex at Ngapara, North Otago. Human figures are shown in varying degrees of stylisation, and all appear to be part of a single composition. Scale: 50 cm

still exist, however, there appear to be very few that comply with what we would consider a high standard of artistic composition. Between these two extremes of totally preconceptive and totally fortuitous placement is the composition that evolves from the considered placement of figures in a suitable relationship, but not necessarily at the same time or by the same artist.

At Ngapara in North Otago, a drawing complex was discovered in 1968 which appears to be one of the few examples of deliberate artistic composition. It mainly comprises human figures whose similarity of style and present condition indicate that they are in all probability the work of one artist. They can best be appreciated when viewed in their natural context—in the limestone shelter—but a photographically-reduced copy of this group is illustrated in Figure 72. As can be seen, the figures have the appearance of dancing rhythmically across the rock face. This is so apparent that when the work was first observed the discoverers named it the 'Ngapara Twist' (after the then current dance craze)! There is no suggestion that the artist was in fact portraying a dance scene, but the effect is such that one cannot deny that the composite units of the whole show deliberate placement and aesthetic appreciation on the part of the artist. In common with all Maori rock art, there is no suggestion of perspective.

There is no doubt that there are many who would disagree over the aesthetic qualities of New Zealand rock drawings. Some would find them lifeless and ugly, and others would perhaps feel that the preceding remarks under-rate their qualities. It is suggested, however, that before judgements are made it is essential that the original drawings be seen, not just as isolated examples, but as they occur throughout the country.

Chapter seven
Diffusion and local invention in rock art

Rock art is found in many different forms in almost every country throughout the world. It is known variously as rupestral art, parietal art, petroglyphs and cave or rock drawings.

The best known is the paleolithic rock art of Western Europe, executed about 25 000 years ago, well known from such sites as Lascaux in France and Altamira in Spain. Possibly equally well known to New Zealanders are the rock paintings of the Australian Aborigines. Some of these are as modern as the European art is ancient, though it is probable that motivation for their execution nowadays is greatly influenced by European, particularly tourist, interest. The New Zealand tourist on holiday in Australia may travel hundreds of miles to see these paintings, yet never have visited a single rock art site in his home country, for as a whole New Zealanders are singularly unaware of the wealth of prehistoric drawings here.

Because rock art is found so widely throughout the world, being common to almost all primitive people from the Paleolithic to the present day, it is apparent that drawing on smooth and suitable rock surfaces was one of the earliest and easiest ways in which man was able to express himself graphically.

One of the most obvious features of this primitive art, when compared with the sophisticated art of more advanced societies, is the similarity of the rock artists' choice of subject matter. Rock art is composed almost entirely of depictions of human beings and the animals and objects that were important to the society of which the artist was a member. As well, there are some (though far fewer) representations of apparently imaginary creatures, together with certain signs and symbols, which though without meaning for us were obviously meaningful to those who drew them. Occasionally, figures can be seen performing some activity, such as throwing a spear or wielding a club, but backgrounds to these activities are noticeably absent. Landscapes and natural features such as trees are unknown (one of the earliest recognised illustrations of a botanical form can be found carved on the wall of an Egyptian tomb, the product of a civilisation that could hardly be described as primitive and for which agriculture had become as important as hunting was for the true rock artists).

Though the animal forms, figures and activities depicted in rock art naturally vary according to the time and country in which the artists lived, it is apparent that they were concerned basically with drawing the things most important to their way of life. Because the human figure in varying degrees of naturalism is found universally, it is equally apparent that the most important single object to the artist was man himself. What Robert Ardrey, in *African Genesis*, called 'the illusion of central position' is not confined to civilised man.

In comparing New Zealand rock art with that of other countries, numerous points of similarity can be found if we look for them. It is with the rock art of the Pacific Islands, however, that parallels are most commonly drawn, for it is generally acknowledged that New Zealand's original inhabitants came from Polynesia.

It is tempting to search for common features to indicate clearly that the Polynesian settlers brought with them to New Zealand a culture that included the art of rock drawing and carving, but investigations show that New Zealand and Pacific Island rock art have no more features in common than one would reasonably expect to find in the art of peoples with such similar cultures. The characteristics typical of

a. Weka Pass

b. Monkeyface

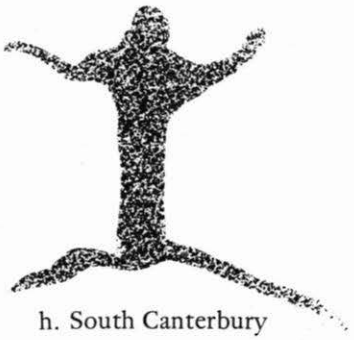
c. South Canterbury

d. South Canterbury

e. Clifden

f. North Otago

g. South Canterbury



h. South Canterbury

i. South Canterbury

j. South Canterbury

k. North Otago

l. Waipapa (N.I.)

m. South Canterbury

n. North Otago

o. North Otago

73 Human figures

rock art in this country are peculiar only to New Zealand, and appear to have developed here independently of outside influence. It is possible that New Zealand's earliest occupants had known of rock art before their arrival here, but there is no evidence definitely indicating the continuation of a previously-developed artistic skill. There is, for example, a certain prevalence of human figures in the rock art of many parts of Polynesia which is also apparent in the South Island drawings. This could be taken as evidence of some sort of link or connection, but the acceptance of such evidence means accepting a connection with almost all known rock art in the world, human figures being equally prevalent everywhere.

We have found that rather than attempting to compare New Zealand rock art with that of Oceania, it is more rewarding to analyse the similarities and disparities occurring within New Zealand itself. We have already noted the great differences between the rock art of the North and South Islands, and also the fact that South Island drawings are of the same style, as opposed to those of the North which differ greatly from site to site. There are, too, in the South what might be best described as 'local variations on a theme', distinctive treatments of common subjects confined solely to one geographical area. By illustrating these various features, we hope to give an over-all picture of the main characteristics of New Zealand rock art.

Such illustrations do present certain difficulties. While marked differences in style are easily shown, the great prosaic mass of South Island drawings, that are so indicative of the artists' common cultural background, do not lend themselves readily to clear or interesting reproduction.

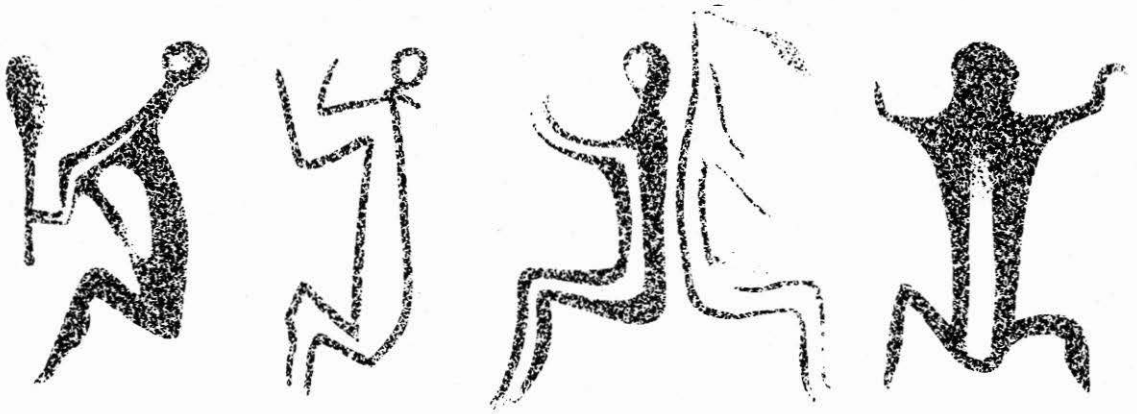
In an endeavour to give a widespread coverage of drawings and at the same time illustrate the main features, we have selected individual subjects which, by their numerical or geographical distribution and the artists' treatment of them, serve best to indicate diffusion of style or, conversely, local invention. Gathered together in this chapter are photographically-reduced copies of these selected subjects made from tracings and photographs taken throughout the country. It must be stressed that these copies have been made using a common mechanical tone for the sake of clarity, whereas in their original condition the degree of pigment intensity actually varies greatly. The situation of the site relevant to each figure is given, and can be ascertained by referring to the maps of the North and South Islands (Figs 42 and 17).

The fifteen humans in Figure 73 are all examples of frontal depiction, and all but one are from the South Island. They range from the very simple stick figure to various forms of full-bodied figures showing such additions as fingers and toes, internal body blanks, head projections and rounded or tail-like basal terminations. Despite the variety of individual treatments in this selection, they all show evidence of being variations of the same artistic convention, which is particularly noticeable in the disposition of the limbs. The sole North Island figure shown is the only one of this type to have been found there so far, and it is interesting to note that it is executed in charcoal (as are the southern figures), suggesting that they are possibly contemporaneous, though we have no proof to support this assumption.

It is apparent that not all the artists had the same degree of artistic ability (this is even more obvious when studying rock art as a whole), but the range of ability is no wider than would be found within our own community were we to examine the drawings of a wide range of the population. Because of their over-all similarity, variations in technique and execution are more likely to indicate individual preferences (and that drawing was not confined only to those possessing a degree of artistic skill) than they are to indicate differences in motivation, culture or time of execution.

Profile humans as shown in Figure 74 occur far less frequently than those previously described, but the conventionalisation of attitude is apparent. From the illustration it can be seen that they are markedly similar to half of a frontally-depicted figure, which is even more apparent when they are drawn back to back as in *c*. The frontal human *d* is included for comparison. So far, these profile humans have been recorded only from North Otago and appear to be a local development.

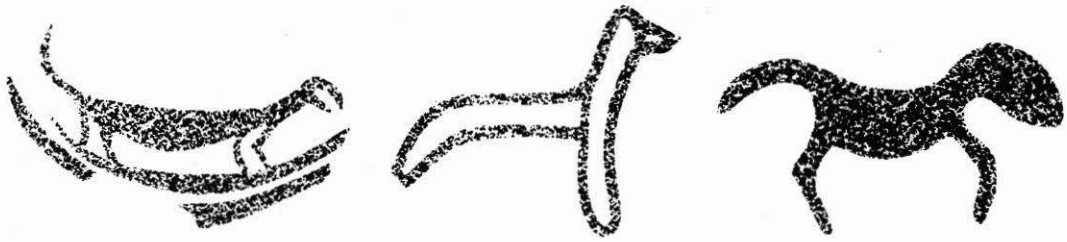
Of the six dog forms shown in Figure 75, five



a. North Otago b. North Otago c. North Otago d. South Canterbury

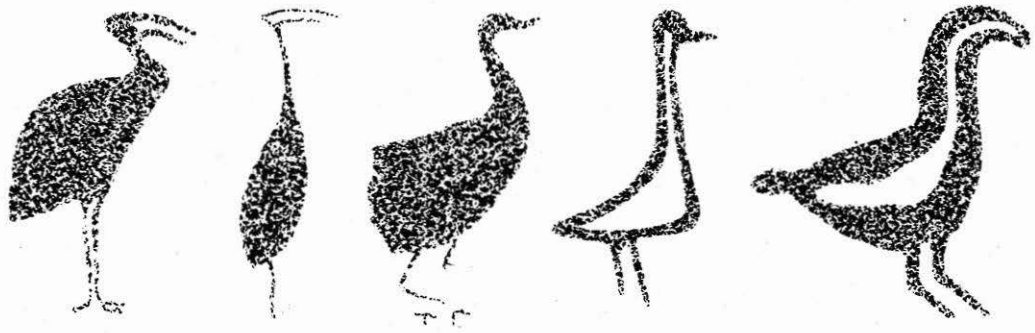
74 Human figures

a. North Otago b. North Otago c. South Canterbury



d. North Otago e. Weka Pass f. Waipapa (N.I.)

75 Dogs



North Otago

76 Birds

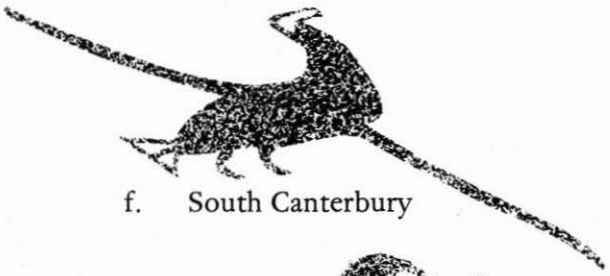
a. North Otago

b. Castle Hill

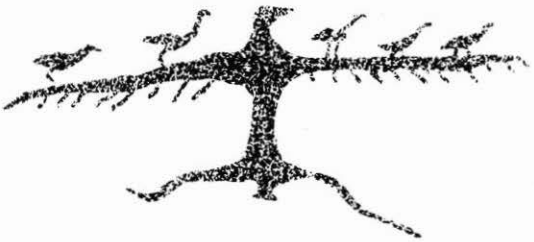
c. North Otago

d. Weka Pass

e. North Otago



f. South Canterbury



g. South Canterbury

h. North Otago

77 Birds and 'birdmen'

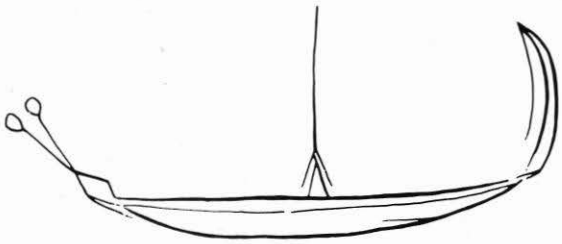
are of South Island origin and one is from the North. They have been selected to illustrate local variation, but those in the top line (*a*, *b* and *c*) represent the most common styles. Those in the lower line (*d*, *e* and *f*) are isolated examples, though kinship is apparent in the style of *d* when compared with *c*, and *e* when compared with *a* and *b*. The North Island representative, *f*, of a totally different type, once again illustrates how wide the gap is stylistically between North and South Island rock art.

Representations of birds in South Island rock art (there are none definitely known from the North) fall into two main groups. The first of these (Fig. 76) appear to be reasonably naturalistic drawings, and though it would be dangerous to associate a specific drawing with a specific species, most appear to represent birds of an aquatic type. All these drawings are found in North Otago. Stylised heads similar to those seen on dogs are apparent on some, as are internal body blanks also common to dogs and humans.

The second group (Fig. 77) shows various examples of flighted birds and 'birdmen' type figures. Although these are commonly classed as two separate forms, we have shown them as one in order to illustrate the point made in Chapter three that the so-called South Island birdmen could as readily be stylised frontally-depicted birds. These forms are widespread throughout the South Island but none is known from the North.

The last selection (Fig. 78) shows drawings of water craft (predominantly canoes) and is notable for two reasons: first that these are the only commonly depicted man-made objects, and secondly that this is the only group in which North Island representations dominate. Only one of those figured is of South Island origin, and this is a reed raft or mokihi rather than a canoe. In the five North Island canoes, *b*

a. South Canterbury



b. Ongare

c. Tarawera

d. Kaingaroa

e. Waipapa

f. Rua Hoata

to *f*, the wide variation in technique and style common in North Island rock art is apparent. Example *b* is incised, *c* painted in red, *d* bas-relief with incised spirals, *e* drawn in red, *f* hollowed out to take the form of a canoe as viewed from above. The few known South Island drawings of water craft (represented by *a*) appear to be of the mokihi, and are always associated with human figures, the style of which makes their South Island location apparent. At only two North Island sites are humans included in canoe depictions and then in very simplified form (*c*).

In closing this chapter we must stress that the examples shown are intended only to illustrate in general terms diffusion and local variation in New Zealand rock art. In such limited space, obviously, there are many examples (even whole categories), both typical and atypical, that have of necessity been omitted. However, it would require a volume ten times this size in order to give comprehensive coverage of all the known variations that occur in the hundreds of known sites.

Chapter eight
Conclusions

So far we have endeavoured to present the known facts concerning New Zealand rock art. We have outlined its occurrence throughout the country, the materials and techniques employed in its execution, and its subject matter. We have also discussed its relationship with other aspects of Maori culture, its archaeological significance, and reviewed briefly the work of other investigators in this field. Except in a few instances, we have endeavoured to keep strictly to factual presentation and not colour the text with our own personal opinions.

It is obvious, however, that after spending years studying rock drawings we do have opinions of our own, and have even formulated definite theories as to the age, origin and significance of this rock art. Though these theories may be at variance with many of those put forward by earlier workers, it must not be thought that we despise their ideas. We are only too aware that most of them were working with much more limited evidence than we have at our disposal; even so, some of their conclusions come very close to our own.

The scientific method of formulating a theory is first to gather together as much data as possible and then to form a theory that fits all the facts. It is legitimate to infer a certain amount by working from the known to the unknown, but it is never legitimate to distort or ignore factual evidence. When he examined the Timpendean rock drawings in the late nineteenth century, Julius von Haast chose to select a few individual drawings from a very large complex and speculate that they had some connection with shipwrecked Tamil mariners, despite the fact that he had no valid evidence to support his theory. On the other hand, he ignored all other evidence that was overwhelmingly in favour of the drawings being of Maori origin. W. Maskell, with a more realistic if less romantic approach, looked at the drawings, looked at the occupational evidence from the floor of the shelter, considered the fact that he knew of only one race of people present in New Zealand in pre-European times, and concluded that there was more likelihood of the drawings being of Polynesian origin than anything else. He said all this somewhat scathingly in an article in the *Journal of Science*, much to the discomfiture of the eminent and dignified Dr von Haast. Several investigators since Haast's time have put forward ideas based on selected or insufficient evidence, and even today we occasionally hear theories on Indian, Egyptian or Spanish origins of Maori rock art.

Over-all, however, we must pay tribute to the work done by these pioneers in the field of New Zealand rock art, sometimes under extremely difficult conditions. Their records have proved invaluable, and have formed the basis of everything that has been done since.

In forming our hypotheses, we have taken into account more than the drawings. Factors we have considered have been the geographical distribution of sites, occupational material from shelter floors, the results of radiocarbon dating, the known ecological history of rock drawing areas, comparisons with prehistoric sites other than rock shelters, the culture of the Maori people at the time of European contact, the lack of traditional knowledge of the art work, and regarding the drawings themselves, their subject matter and style. Most of the evidence we have used has been obtained as the result of our personal research. Where it has not, we have been careful to check the reliability of the source. As with previous sections of the book, we find it necessary to deal with the North and South Islands separately.

In the South Island there is a vast complex of rock art sites that follow no regular route or pattern, but which are found wherever suitable natural rock formations occur. Allowing for local variation and the occasional anomalous work, all the drawings are sufficiently similar in style and execution to assume safely that they are the work of one race of people with the same cultural background and belonging to the same period of prehistory. The drawings themselves give us little indication of their actual age, except that depictions of what appear to be moas and extinct giant eagles, and their dissimilarity to Classic Maori art at the time of European contact, would suggest that the artists lived during the early rather than the later part of the human era in New Zealand.

Such material as has been recovered from the floors of rock shelter sites supports this idea of early occupation. By comparing the artifacts with those from sites other than rock shelters, we find that in method of manufacture, type and material used, they are identical with those recovered from sites that are among the earliest known in New Zealand. Included in food remains are quantities of moa bone and the bones of other birds that have been extinct for hundreds of years.

Marine and freshwater shells and the bones of seals, dogs and rats, by their mere presence can tell us little, because these species were used for food during the whole of the prehistoric era; but of particular interest, if we consider the ecology of these rock site areas, is that the bird bones found are predominantly of bush-dwelling species. Though most of these species are still found in certain areas of the South Island, it is commonly accepted that the bush in which they lived disappeared from the shelter areas probably between 500 and 800 years ago. If the artists regularly hunted these birds in the vicinity of the shelters, as the quantity of bone indicates they did, then it must have been at a time before the disappearance of the bush.

The direction in which our theory is heading is becoming fairly obvious, and with the aid of radiocarbon dating we have been able to strengthen our theory even more. A series of dates obtained from rock shelter sites throughout the South Island ranges from 450 to 850 years Before Present. Though radiocarbon dating is not infallible, particularly when dealing with such comparatively recent history (that is, recent by world standards), it can hardly be coincidental that they all fall within the range that we had already predicted from our other findings.

Taking into account all these facts, it is not surprising that the Maoris living in New Zealand at the time of European contact could not supply any information as to the origin of the drawings, and were reduced to ascribing them to various mythical sources. Nor is it surprising that many investigators have been puzzled by the almost total dissimilarity between rock art and the later forms of art such as carving and tattooing which are commonly thought of as typically Maori.

Our work has been something in the nature of a glorified treasure-hunt-cum-jigsaw-puzzle: first find the pieces and then try to fit them together into a coherent whole. We are not suggesting we have found all, or indeed most of the pieces, but we do consider that at this stage we are able to see at least the outlines of the picture. It is a picture neither complicated by revolutionary theories nor at variance with the basic sequence of prehistoric settlement as it is generally accepted to have occurred.

It is a picture that tells a story. Our story began perhaps 900 years ago—with the earliest Polynesian voyagers thinly resident in the South Island, a South Island very different from that which we know today. Bush, with its accompanying profusion of birds, covered almost all the land from coast to coast. Wading and swimming species abounded in the lakes, rivers and swamps, while moas in their tens of hundreds stalked over the lands that today are given over to sheep and cattle.

Because the coast with its lesser extremes of seasonal temperature and its wealth of food in the form of seals, fish and shellfish, provided a measure of hospitality, the early Polynesians set up camp initially at the mouths of rivers and streams mainly on the eastern side of the island, and probably for a time paused in their travels to draw a breath and take stock of their surroundings.

Doubtless they could have lived quite comfortably in their coastal camps for an indefinite period, but human nature being what

it is they were curious about the inland areas, the bush-clad country which on a clear day could be seen to stretch on and on to the foothills and flow up into the highest mountains. Besides, they needed for their way of life some things not available on the coast: suitable rocks to flake into sharp-edged cutting tools superior to the coastal greywacke that they first used, stone to shape and grind and polish for adzes and chisels.

And so they set out—perhaps at first just one or two bolder spirits—forerunners of the Haasts and Heaphys and Brunners of European times, and they returned with treasures of orthoquartzite and argillite and even greenstone, and stories of hunting grounds where there were birds in great numbers and even their own kiore—the Polynesian rat—living fat and multiplying in this new land. The great inland areas were a storehouse of good things, there for the taking, and in many places it was not necessary to face the discomfort of rain and wind, for the outcropping limestone had eroded into natural shelters which afforded protection from the weather for any number of people.

Expeditions in all probability were confined to the summer months, for these people from tropical islands could have had no great love for the snow and heavy frosts of winter. These were not food-gathering trips in the sense that the food was collected and taken back to the coastal sites; the accumulation of bones of many bird species that were left in the rock shelters, and their absence in the coastal sites, indicates clearly that the food was eaten in the area in which it was collected.

The size of the deposits tells us that these were not merely overnight visits; whole parties including families must have shared in the feasts, for it seems unlikely that the women and children were left on the coast to fend for themselves for weeks at a time. Like summer holiday-makers of our own day they set forth on their annual trip inland, reverting for a brief time to the life of the nomadic hunter which must have been the lot of all man's primitive ancestors. And like today's holiday-makers they took with them enough food to keep them going for the first few meals: coastal shellfish, seal meat and dogs, the shells and bones of which they left in the rock shelter floor deposits. If they took anything else it must have been only the barest of necessities, some small adzes, the odd personal ornament—a drilled shell or tooth pendant—and a few suitable stone cutting flakes, though even these were more likely gathered *en route* or in localities close to the shelter sites.

Sometimes tragedy must have struck. The bones of a twelve-year-old child, carefully placed in a rock hollow and concealed behind a wall of loose stone in the Awamoko Valley, North Otago (Fig. 79), remain today as a pathetic reminder that even such a free life as was theirs must have had its hardships and sorrows.

So they hunted, and in the limestone shelters

79 Skeleton of a twelve-year-old child in a cleft at a limestone rock shelter at Awamoko, North Otago. From the position of the bones it is apparent that the body had been trussed, a common burial practice in pre-European times

they lit their fires and cooked the food they had gathered. On such an occasion as this, for the first time, one of these people must have lifted a stick of charcoal from a fire and marked the smooth walls beside them. They (and others) may have experimented with this new idea for quite a period before the idea of drawing an actual design was born, or there may have been a memory of such drawings in another land at another time; but whatever the degree of invention, at some time, in some place, the first South Island rock drawing appeared, initiating a record of human graphic expression which would spread throughout a whole people over great distances, and remain as a record long after the disappearance of both the artists and their culture.

We cannot know with certainty, nor will we ever, what their real motivation was. The execution of such drawings was surely of some interest to them or they would hardly have introduced red pigment to their art work, a pigment that had to be deliberately taken into the drawing areas, for it was not found there naturally. Nor is it likely, had drawing held little interest for them, that it would have become so widespread, with such evident and deliberate adoption of specific styles and conventions.

We know they drew, we know where and we know how, and we can fairly safely say we know when, but as to why we can only guess. We like to think that these peaceful people, resting full-stomached and warm around their fires, drew for that most human of all reasons, because they wanted to, because it gave them the same pleasure, the same feeling of satisfied achievement, that inspires all artists to create, whether they use canvas and oils, pencil and paper or natural pigments and smooth rock face.

So they spent their time hunting and eating, sleeping and drawing (Fig. 80), with the last perhaps the least important of their activities, incidental only to the primary purpose of their visit. And as the summer ended they returned to the more equable climate of the coast, taking with them the stones and rocks of the inland, to spend the winter working and fashioning them into the tools and ornaments so characteristic of their culture. And on these great coastal sites, such as those of the Rakaia and Waitaki River mouths, they left the archaeologist further evidence of their occupation and activities—not the bush bird bone and freshwater shells so predominant in the rock shelters, but marine shell, coastal bird bone, and moa bone and artifacts: stone knives, adzes, chisels, fish-hooks and flakes—the finished products of their craftsmanship.

For perhaps three or four hundred years they lived this way, with the coastal sites probably becoming more permanent and more settled, though never developing into the Maori pa or village that is so commonly pictured today. On the coast, the moa was almost extinct. But the people continued to hunt the inland bush, sheltering among the rocks, drawing their strange typical drawings wherever they might.

Then they stopped. Suddenly there was no more bush, no more birds. The rock shelter areas became the inhospitable areas we know today, swelteringly hot and almost waterless in summer, often bleak and snow-covered in winter. Their motivation for visiting these areas ceased to exist, and with it the opportunity to draw. Among the scientific fraternity there has been and still is a great deal of disagreement over the reason for the disappearance of the South Island's eastern bush cover. Some say it was the result of a climatic change, some that it was the result of fires, either man-made or natural, others favour a combination of all three theories. On only one thing are all agreed—that originally there was bush, and that by the beginning of the fifteenth century it had gone except for a few isolated pockets in swamps and valleys.

So ended the rock drawing era in the South Island, with such finality that by the time the Europeans arrived on the scene 400 years later, the Maori people had no longer any memory of who the artists had been or why they had been there. A few Maoris, accompanying the earliest European explorers up the great river route of the Waitaki, saw the shelters and art work and added a record of their own passing in the form of drawings of horses, missionaries, sailing ships and the like, as well as names in a fine missionary-taught script. A few others left their mark in South Canterbury. By their actions they added unwittingly to the confusion and mystery which would surround South Island rock art for

80 'They spent their time hunting and eating, sleeping and drawing . . . .'

the next 100 years, by promoting the theory that the practice of rock drawing had been continuous throughout the Polynesian era.

These are our conclusions as to the origins of South Island rock art, conclusions based solely on all the facts at our disposal.

Unfortunately, we find that the picture in the North Island is not so clear, and in fact could scarcely be described as a picture at all. Not only have we very few pieces for our jigsaw, but most of the pieces we do have do not fit together, appearing almost to be from a dozen different puzzles. Why this should be we just cannot tell. The Polynesian era probably started in the North Island at the same time as in the South, and artifactual evidence, such as obsidian and argillite, indicates that there must have been contact or trade between the North and South even at a very early period. Why then should there be in the North Island a series of art works that differs radically not only from those of the

South but also from each other? A possible answer is that the North Island Maori did not find that his hunting areas and those areas where suitable rock for drawing occurred coincided as they did in the South. Not much occupational material has been excavated archaeologically from North Island shelters nor, consequently, have numerous radiocarbon dates been obtained. There is no common style or technique, so we cannot even say that these are the work of a people with a completely common culture, or that they are the product of one continuous prehistoric period. It becomes apparent that we know very little. But it does seem that North Island rock art may belong to a later period than that of the South.

Our reasons for suggesting this are threefold. The marked differences from site to site may indicate that these artists had a more settled kind of life, with less general communication between areas than was the case with the more nomadic South Islanders. A village existence, with various tribes remaining more or less within their own territories, could have resulted in the development of rock art styles that varied from area to area. If this is the case it is probable that the population density and distribution that led to the creation of such conditions occurred in the late, rather than the early, period of prehistory.

Noticeable, too, is the fact that in both technique and style the North Island rock art is more akin to the late Classic Maori art. It consists mainly of carvings, rather than pigmented drawings, and there is a prominence of such forms as spirals and curvilinear designs. The addition of facial features to the human form is also characteristic of the known later art styles.

Finally, North Island rock art shows in many places a marked European influence. Examples of obviously contact-period drawings, such as missionary-type script, are proportionately far greater in the North Island than they are in the South. The sole radiocarbon date from a North Island rock art shelter indicated an age of about 200 years, while the occupational material from other shelter floors include pig bones, which must post-date European contact.

These are our two pictures as we see and interpret them. We see the South Island rock art as the product of an early period of occupation, executed incidentally during inland hunting excursions, the work of one people with a common culture. While the North Island picture is more blurred, we feel most of the art work is probably later, but this is as much as we can say at present.

Here, for better or worse, we must leave New Zealand rock art.

We do not suggest that this is the last word on the subject. On the contrary, we hope it may be only a beginning. But whatever else is to be done must be done quickly, for with every day the drawings become fainter, harder to find, more difficult to visualise as they originally were. Animal- and human-proof barriers would help to slow their deterioration, but it is not possible entirely to stop the effects of time and weather.

We hope that those who have read this book may have found something of use or interest; we even hope that there will be some who will disagree with our findings, because without disagreement there can be no progress; but most of all we hope that there will be others like us who will find Maori rock drawings an endless source of pleasure, interest and fascination.

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