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Aspects of the Cultural Succession in Canterbury-Marlborough, with Wider Reference to the New Zealand Area

By ROGER DUFF,
Canterbury Museum

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HAAST'S MOA-HUNTERS

It is appropriate that the evolution of human pre-history in New Zealand should be reviewed at a Congress which commemorates the founding of the Canterbury Philosophical Institute 100 years ago, its first President being Julius von Haast, who later founded the Canterbury Museum in which, no less appropriately this first contribution to the symposia on New Zealand's prehistoric cultural succession is being made. New Zealand was the first area in Polynesia in which an earlier phase of the local culture was distinguished from a later, and for this we owe the initiative to Julius von Haast. From the Rakaia River mouth in 1869 von Haast first realised the significance of the association of artifacts with the remains of an archaic bird fauna, notably the *moa* (*Dinornithiidae*). In retrospect it is fortunate that von Haast believed that the *moa* was exterminated in the early millennia of the Holocene, an error which justified his postulation that its exterminators, the moa-hunters, were remote in culture and time from the Maoris of the pre-European period. In spite of earlier discoveries of *moa* and human remains in presumed primary association, at Waingongoro by Richard Taylor (1843) and William Mantell (1847), at Opito Coromandel by W. E. Cormack (1850), at Awamoa, North Otago (Mantell, 1847), and at Kaikoura (1859), it is probable that the identity of the people who killed and ate the *moa* would have been considered of little importance had not von Haast first raised the question in 1869. We might be grateful also for his second error, the belief from Rakaia, that the moa-hunters were Palaeolithic and autochthonous. In the Victorian climate of vigorous scientific debate, this view raised a storm of controversy which promoted the first age of archaeological investigation in New Zealand. May I

interpolate that we have now moved into the second age with the assurance of no less vigorous controversy in prospect.

To return to the first age, the need to answer his critics led von Haast to carry out the first stratigraphical excavation in New Zealand (and Polynesia) the opening up of the Moa-bone Point Cave, Redcliffs, in 1872. In that excavation his techniques and approach were in advance of his time. Only the lack of trained volunteers of the type the N.Z.A.A. has helped to bring into existence caused the Redcliffs Cave project to fall short of its promise. We might contrast the implications of the seven weeks taken by von Haast's two men to turn over the extensive floor area with the time taken in the current salvage operations by the Canterbury Museum. Following an initial season of 23 days in 1957, with an average attendance of 12 volunteers, and participation by an average of 20 N.Z.A.A. volunteers over 20 days in January-February, 1958, an average force of 15 Museum Society members has since worked an estimated total of 80 days from 1958 to the present. Despite our ant-like industry a substantial area has still to be worked, but the project has been justified by the recovery of overlooked post butts from von Haast's 1872 structure. A ¹⁴C analysis of one of these post butts kindly provided by Mr T. A. Rafter of the Institute of Nuclear Sciences provides the earliest human dating for New Zealand, despite the problem, of accepting without correction ¹⁴C dates within the last thousand years. However, the mean date of 780 A.D., ranging between 715 and 845, is over 200 years earlier than the earliest New Zealand dates, from Moa-hunter sites at the extreme north and south respectively of the South Island east coast.

Although, from the discovery of a Type 2A ground adze in the lowest Moa-hunter stratum of the cave, von Haast agreed that the Moa-hunter culture was Neolithic, he did not cease to believe that the Moa-hunters lived centuries if not millennia before the Maoris of the Hawaiki migration. His later reflections on the subject (published in "Geology of Canterbury and Westland" in 1879) are worth passing notice here. He considered the possibility of future discoveries demonstrating "as it is not impossible" that "man already lived in New Zealand during the latter part of the Great Glacier period" (p. 407) adducing in support stone implements found by gold prospectors 15 feet under shingle at Bruce Bay, South Westland. He noted that in the Christchurch area "the ovens and kitchen middens of the Moa-hunter are confined to the inner lines of the dunes" and concluded, with particular reference to the Redcliffs Cave, that during "quaternary times, or the Moa-hunter age, the extensive estuary of the Heathcote-Avon in its present form was not in existence". Despite his belief that the Moa-hunters were autochthones he credited them with maritime skill "so that when the Moa-hunters landed with their canoes in some of the nooks of the rocky shore in the vicinity, they found a capital shelter in the cave, whilst the Peninsula, then probably an island and the opposite shores of the main land offered them a fine hunting ground" (p. 415). Indeed "they had reached already a certain state of civilization which in many respects seems not to have been inferior to that reached by the Maoris when New Zealand was first visited by Europeans" (p. 416). After speculating whether the Moa-hunters "belonged to a race different to the Polynesians" (p. 424) von Haast concluded that there "existed in quaternary times an autochthone race in New Zealand, having, like the present inhabitants, more or less strong affinities with the Melanesian type. This race hunted and exterminated the Moa, including in this native word all the different species of the *Dinornithidae*."

Haast saw the polarity of difference between the first phase of human pre-history in New Zealand and the end product as made known to European voyagers in the late eighteenth century. For the earlier pole of differentiation

he applied the term Moa-hunter, for the later, Maori, without qualification. He distinguished the essential point of difference of the first phase, an economy based on fishing and fowling, where the *moa* as the most distinctive quarry set the name. He noted the absence of implements of nephrite (a view somewhat modified but not invalidated by subsequent discoveries). He noted the absence of cannibalism, since confirmed from other South Island east coast sites.

By contrast, to his critics, who were many, the Moa-hunters represented the first few generations of the Hawaiki-Fleet, then considered to have arrived not earlier than five centuries before 1850 and by some, as recently as 350 years. We may indicate the nature of the question left open from the Haast period of speculation by quoting the wise observation offered by his colleague, and critic, Alexander McKay (1875).

“In all their traditions, treating of nearly four centuries of time, have any accounts of the Moa been handed down to us? The inevitable conclusion is, that the Moa was either exterminated long before by another race, or that the present inhabitants arrived here not 350 years ago, but 1350, and that one of their first works was the extermination of the Moa. Such is my opinion on the subject.”

THE MARUIWI THEORY

When Maori traditions traced back descent to New Zealand ancestors living at least eight generations and more before the Fleet, which Percy Smith's genealogical studies placed at 1350 A.D., and derived from a Society Islands Hawaiki, it proved too tempting to explain certain respects in which Maori culture differed from that of its assumed tropical Polynesian origins by invoking the hypothesis of a pre-Fleet migration from Melanesia.

This view, largely disseminated by S. Percy Smith and Elsdon Best on the basis of misrepresented Maori traditions from the Wairarapa tohunga, Te Matorohanga, held the earliest inhabitants to be an “inferior” Melanesian people, who were conquered by the “superior” Hawaiki Polynesians, of whom Toi was the forerunner. To describe these people Smith preferred the term Mouriri (from its resemblance to Moriori) whilst Best used the term Maruiwi, traditionally the name of one of their chiefs. An important part of this theory was that those of the Maruiwi who were not killed or absorbed by the Hawaiki immigrants fled to the Chatham Islands, to become the Morioris. This enabled Skinner (1923) to discredit this portion of the tradition on the grounds of the strongly Polynesian physical type of the Morioris and the Eastern Polynesian affinities of their culture. Yet later, Williams (1937) gave good reasons for doubting the source of these traditions, and the alleged period and conditions under which they were transcribed.

THE OTAGO SCHOOL

These views, the first (Haast) over-emphasizing the remoteness of the moa-hunters from the Maoris, the second (Maruiwi) possibly a fabrication, and certainly misrepresented, resulted in producing the opposite reaction in which the cultural identity of the Moa-hunter and Classic Maori phases was over-emphasized. This over-emphasis was made in New Zealand's first sustained and competent programme of archaeological research, namely the careful field excavations of sites in Otago and Southland by H. D. Skinner and David Teviotdale.

In the absence of burials, which at Wairau revealed in particular the existence of ornaments worn as necklaces and differing consistently from Classic Maori forms, the comparisons between the moa-hunters (with a small M) and the then undefined Classic Maori culture were restricted to the categories of adzes, fish hooks and simple utensils. Furthermore, for the Murihiku area of Otago

and Southland, there had been such a widespread archaic survival of early styles in these categories that the distinction between the Moa-hunter and Classic Maori phases was not so marked as in Canterbury and Marlborough.

The chief purpose of the Otago School was to disprove the contention that "a race different from the Maori" had ever lived in New Zealand. From the "overwhelming evidence of the tools and ornaments from the ancient village sites and from the total absence of anything of Melanesian origin, there can be no doubt at all that the inhabitants of Murihiku have always been racially and culturally Polynesian" (Teviotdale, 1932).

THE WAIRAU MOA-HUNTER REVIVAL

It was the fortunate discovery in 1939 of burials at the Wairau Bar (with their wealth of grave-goods including moa-bone necklace units and water-bottles improvised from moa-eggs), which "resolved this riddle of likeness versus difference by revealing a culture sufficiently like 18th century Maori culture to be regarded as the production of a people essentially similar to the Fleet Maoris but different enough to be regarded as ancestral and originating in pre-Fleet times." (Duff, 1949.)

"For want of a better term I propose to revive Haast's original term Moa-hunters to describe those settlers who began and probably completed the extermination of the important group of avifauna described (notably the moa, swan and eagle) in the certainty that some of their camps must be of pre-Fleet date, and in the possibility that all may so be." (Duff, *ibid.*, 1949).

In the first edition of the "Moa-hunter Period of Maori Culture" (Duff, 1950) the widespread if scattered recovery of artifacts of Moa-hunter type was employed to assume a former general, if not prolonged distribution of the Moa-hunter culture in the North Island. The principal diagnostic Moa-hunter artifacts which were not then recorded from the North Island were the horned 1A adze, the stone copy of the unmodified sperm-whale tooth and the triangular-sectioned minnow lure-hook with unbarbed point. Because of the primary association of moa bones with artifacts typical of the South Island assemblage, the following North Island sites were specifically nominated as Moa-hunter: Opito, Coromandel; Waingongoro, on the south-west coast; Porirua and Paremata, in West Wellington.

With reference to a current proposal to eliminate from the foundation of our reconstruction of Maori pre-history the corner stone of the primary association of a cultural stratum with *moa* remains, let us recall the magnitude of the breakthrough towards clarity from the moment the Wairau burials made known the distinctiveness of the Moa-hunter pole of differentiation.

N.Z. ORIGINS EARLY EAST POLYNESIAN

At that time the technique of C14 analysis was not available, nor had any distinctive assemblage of Moa-hunter artifacts been shown to underlie a recent Maori stratum. From the surface comparison in Canterbury-Marlborough of the cultural content of sites distinguished as Moa-hunter by the primary association of moa remains alone, with those associated by tradition with the sixteenth century intrusion of the Ngati Mamoe and Ngai Tahu, it was possible to contrast the upper and lower poles of the pre-historic succession. The Moa-hunter phase of Maori culture was seen to be the first detectable manifestation of New Zealand's earliest culture. The Moa-hunter adze kit was shown to be derived from Eastern Polynesia, specifically the Society Islands, despite the difficulty at that time of demonstrating the presence of important types in the Cook and Society

groups. However, the inference was drawn on grounds of a distribution peripheral to the Society group and has since been confirmed, all Moa-hunter types except 5A now being recorded from the Tahiti area. From the implications of the later submergence of the Tahiti adze kit after the Early Polynesian period when New Zealand was settled, the proliferation of the type range in New Zealand was regarded as an *archaic* survival of Tahitian prototypes. From the viewpoint of Moa-hunter New Zealand the Moa-hunter adzes were archaic East Polynesian. Interesting problems were posed by the Moa-hunter ornament types, notably the "whale-tooth" and the "reel" necklace units, and by the peculiarity of the lashing provision through the shank limb of the unbarbed points of the Moa-hunter equivalent of the Polynesian bonito lure. The latter were seen to exhibit a moderate proximal projection ideally with two perforations, only matched for East Polynesia in Fanning Island. By contrast the final hardening of style in Western Polynesia had produced an even greater proximal projection, permitting a third perforation while Eastern Polynesia generally favoured a distal projection. For the Moa-hunter ornaments the "reel" necklace bead could be precisely matched in the recent period only from West Polynesia, notably Tikopia, while the "whale-tooth" unit could be best matched in recent Fiji. The problem was to reconcile an apparent West Polynesian ornament and fish-hook affiliation with an East Polynesian adze affiliation. The explanation offered was that during the Early Polynesian period, East Polynesia had retained certain proto-type forms ante-dating the later hardening into Eastern and Western fashions. From this point of view the Moa-hunter ornament and lure hook forms represented the *archaic* survival of East Polynesian fashions which were also proto Polynesian.

Both aspects of this thesis have just received dramatic confirmation from the Bishop Museum's current excavations in the Society Islands. In June, Yoshiko Sinoto noticed in the possession of a man from Maupiti Island two "whale-tooth" necklace units in whale ivory identical with the Moa-hunter and Moriori examples, together with a 4A adze. These had been removed from a burial on the reef islet of Motu Paeau. Dr Sinoto returned to uncover the remains, finding associated with a prone burial as at Wairau Bar, a third whale-tooth unit, two 3G adzes, three pearl shell lure shanks, of which the point base was exactly as at Wairau, intermediate to the later East-West differentiation.

This cross confirmation of the Early East Polynesian status of the first occupation of New Zealand might help us to treat with respect the foundation on which it was based, notably primary association with remains of the *moa*, a criterion so effective that the age and origin of the Moa-hunter phase could be proposed before stratigraphy and Carbon 14 analysis.

The earliest Polynesian migrations to New Zealand in the light of the illumination thrown by the demonstration of a Moa-hunter phase and Dr H. D. Skinner's distributional studies, are now seen to be not only East Polynesian, but specifically from the earliest settlement period which Buck (1944) designated as Early Polynesian in a thesis which has received insufficient attention since. The significance of Buck's Early Polynesian period is that it represented the first period of Polynesian movement into the groups lying in the southern tropic zone, during which the prototype culture as between the western and eastern groups still preserved many elements in common. The New Zealand evidence supports this hypothesis for ornament and lure fish-hook points and the composite dart head (Ulutoa) although by the same token the distinctive eastern adze assemblage arose in the Society Islands before the migration to New Zealand. On the basis of Percy Smith's genealogies and "in spite of their unreliability" Buck, *ibid.* (p. 504) it was "passively accepted . . . that the Polynesians began to move

out into the Pacific at the beginning of the Christian era and had reached Samoa by the end of the fifth century". Buck tentatively accepted the fifth century as the commencement of the Early Polynesian period, although "it may have been some centuries earlier". In the light of Golson's 100 A.D. C. 14 date for Samoa and Suggs' C. 14 dates from 100 B.C. to 100 A.D. in the Marquesas the time scale of Buck's Early Polynesian may be shifted backwards to cover the first to the tenth centuries A.D. Before the terminal of this period, New Zealand was settled.

Believing that the Early Polynesians entered through Micronesia, Buck postulated that in the eastern atolls of Micronesia they lost domesticated animals, cultivated plants and stone adzes. Although these details of the thesis may not be sustained, we may grant that the Early Polynesians were restricted to plants of South-east Asian origin, whether a full complement if brought through Melanesia or an attenuated list if brought through Micronesia. The conclusion, of chief importance to the early settlement of New Zealand, is the unlikelihood that the *kumara* as a plant of South American origin would be available in the central East Polynesian area in the Early Polynesian period. The first Polynesian settlers of New Zealand were probably restricted to plants of limited climatic tolerance, notably the *taro*, yam, paper mulberry and *Lagenaria* gourd. This would minimise the importance of agriculture in the first settlement period and help to explain the indications that the first centre of population gravity was the east coast of the South Island with its mosaic of forest and grasslands favouring the surviving *moa* flocks.

Buck's later Polynesian settlement period of the thirteenth and fourteenth centuries was distinguished from the first by the exclusion of Western Polynesia from the series of migrations, based on the Society Islands, which resettled Hawaii, Mangareva, Marquesas, Easter Island, the Australs, Cooks and New Zealand. It is in this period that we may consider the significance of the Maori traditions of a Fleet, although the questions raised by Sharp (1956) render the notion of a convoy quite unacceptable. Despite Sharp's further speculation that the Fleet canoes may have been fictitious, I personally accept the probability of the arrival during the period 1250-1450 of a canoe or canoes, importing some element sufficiently dynamic to spark off in the North Island among the already numerous *tangata whenua* the cultural effervescence which hastened, if it did not inspire, the local evolution of the Classic Maori phase. The most plausible imported element which we may accept from the traditions is the *kumara*, whose introduction at this time is a recurring theme in the canoe traditions. By contrast with the Early Polynesian plants the *kumara* had considerable climatic tolerance. As in Polynesia as a whole the New Zealand story was thenceforth of progressive isolation, three to four centuries of independent evolution, broken by the European voyagers of the late eighteenth century.

The demonstration that the ancestral N.Z. culture was East Polynesian has been formalized by Jack Golson (1959) in the proposal that the total N.Z. manifestation of Polynesian should rank as a culture which might be designated New Zealand Eastern Polynesian. In view of the confirmation from Sinoto's Maupiti burial that the earliest phase of the N.Z. culture derives, as previously suggested by Buck and myself, from Buck's Early Polynesian period, the early N.Z. phase might be provisionally distinguished, as suggested by Golson, as New Zealand Eastern Polynesian I. This depends on the assumption, as yet unproven, that the Classic succeeded or was precipitated by a later migration from East Polynesia.

The succession in the Marlborough-Canterbury area demonstrates a two-stage development generally agreeing with Buck's Polynesian reconstruction. The earliest phase reveals a distinctive East Polynesian artifact assemblage of Early

Polynesian status, in primary association with *moa* remains, commencing possibly as early as the eighth century (and not later than the tenth) from the C. 14 analysis of the Moa-bone Point Cave post butt, still strongly represented at Wairau Bar in the twelfth century, and surviving in the Redcliffs flat until the fourteenth.

Although as Golson reminds us (1959) the presence of agriculture in this period can neither be proved nor disproved, its absence may be inferred. The situation of the Moa-hunter sites implies a hunting and fishing economy and does not favour the hypothesis of agriculture, unless undetected *kumara* fields existed in the arable soils inland from the river mouth villages.

Following an unknown in the fifteenth century, the Classic Maori culture appears in sites associated with the sudden incursion of the Ngati Mamoe in the mid-sixteenth century and the Ngai Tahu in the mid-seventeenth. In the Kai-koura district, notably at Peketa (? 1550), Omihi (? 1600) and Pari Whakatau (1636), the material component of the culture includes the fortified village, the pit habitation, cannibalism, nephrite working, the barbed one-piece hook with shank barb, the composite bait fish-hook with barbed point, the turret bone comb, the 2B adze, and other elements identical with the Classic Maori phase of the North Island. Nephrite amulets such as the *hei matau* and the *hei tiki* and the nephrite *mere* are reliably associated only with the Ngai Tahu settlements, among whom the nephrite trade reached an early nineteenth century peak. Although agriculture is traditionally associated with Ngati Mamoe, field evidence in the dual forms of stone shelter walls and barrow pits for mining gravel to heap over the mounds are firmly associated only with such Ngai Tahu sites as Kaiapohia (1700-1830) Panau, Banks Peninsula (1820-30) and Te Wai-a-te-rua-ti, Temuka, early nineteenth century. In view of Douglas Yen's stipulation that *kumara* tubers could not survive the winter except in subterranean storage the apparent absence of storage pits in such sites is puzzling. It is possible that the Ngai Tahu in particular exploited their nephrite surplus to obtain annual replenishment of tubers from their North Island relatives, and that the harvest was totally consumed annually. In the absence of sufficient field archaeology, the question is highly speculative. South of Temuka there is no field evidence of agriculture and no traditional claim for it.

N.Z. MANIFESTATIONS OF EAST POLYNESIAN I

The importance to the reconstruction of tropical Polynesian pre-history of the demonstration of its archaic survival in N.Z. as the Moa-hunter phase of Maori culture cannot be over-emphasized. Major modifications were inherent in the transfer of culture from a tropical to a temperate outpost; notably the limitations imposed by climate on tropical food plants, the need for clothing substitutes, warm house types, etc. However, in the limited categories of durable artifacts such as adzes, ornaments and fish-hooks, the common denominator of general resemblance rather than difference between the tropical and New Zealand forms is the outstanding phenomenon observed to date.

The same considerations which enable us to use its New Zealand outpost, as in many ways the purest survival area for recapitulating a significant assemblage of East Polynesian artifact categories, apply to the New Zealand area in our search for the earliest local manifestations of East Polynesian culture. The ancestral culture will in theory be recapitulated by tracing with precision, particularly in cultural terminology, its three manifestations. These are: The South Island manifestation, now differentiated into an early and prolonged Moa-hunter phase separated by an unknown transitional from a brief and intrusive Classic; the North Island manifestation exhibiting an increasingly explored early phase

and a Classic phase of unknown length; the Chatham Islands manifestation, exhibiting more specific similarities than the North Island with the South Island Moa-hunter phase plus significant resemblances with Classic Maori which do not appear in the early South Island phase. The manifestations may be expressed as a family tree comprising three vertical lines of evolutionary development deriving from a common ancestor represented diagrammatically as a horizontal. It is necessary to trace the successive phases within each vertical, employing in each case a cultural terminology expressing the polarity of differentiation between the top and bottom of the line. This implies in theory an equator of transition between upper and lower poles, and a separate classification to embrace the zone bordered by the upper "tropic" during which the earlier phase was declining, and the lower "tropic" in which the subsequent phase was taking shape. Only if the known at any point of one vertical can be specifically compared with a corresponding phase of the other one or two should it be bracketed horizontally under a common classification.

THE SOUTH ISLAND MANIFESTATION

To date the manifestation traced with least confusion is the South Island line. Its outstanding characteristic is the length and homogeneity of the Moa-hunter phase established from the repeated occurrence on the east coast of consistent cultural assemblages from the Cook Strait shores of Marlborough to Foveaux Strait. This manifestation may be regarded as the purest derivative of the New Zealand East Polynesian I we are trying to isolate. We may explain this phenomenon in terms of the accident of geography which permitted the first culture to survive in isolation, and the rain shadow east of the Southern Alps which provided the mosaic of grassland and forest required by the surviving *moas* and other archaic birds. The chief respects in which the Moa-hunter phase from the South Island might not be reliable as a check on the comparable phase from the North are in connection with a possible early introduction of agriculture, and in chronology. Dealing with the latter first the point can be made that the resources of the South Island environment, probably the New Zealand optimum for human habitation one thousand years ago, enabled the first exploring parties to leave massive midden accumulations which have proved more readily found than those in the North, where the first one or two centuries of occupation might have left no detectable trace. With this in mind we can note the demonstration of the greater age and longer persistence of the Moa-hunter phase in the South Island. From a period possibly as early as the ninth century, the Moa-hunter phase in the central South Island demonstrably continued to the fourteenth. From Wairau Bar a carbon sample (which was not related to the end or beginning of the occupation) gave a mean date of the mid-twelfth century. From the southern Murihiku extremity Lockerbie has demonstrated Moa-hunter occupation from the mid-twelfth century to the early seventeenth.

Accepting primary association with *moa* remains as the criterion for the Moa-hunter phase we might postulate an occupation which commenced generally before the end of the ninth century. Generalising on the basis of an admittedly incomplete scatter of C. 14 dates, we might assume its continuation in Marlborough-North Canterbury for five centuries (850-1350), in South Canterbury-North Otago for six (850-1450), in South Otago-Southland for eight (850-1650). At this time the Classic phase was well established in Marlborough-North Canterbury and moving progressively south. Banks Peninsula and the great southern extension of the Canterbury Plains served as a barrier to the unaltered intrusion of successive migrations southwards. South of Banks Peninsula we note the virtual absence of the 2B adze, and the tendency for most adzes large enough

to require it to retain a tanged butt. This archaic survival of a preference for butt differentiation extends into large examples in nephrite, notably types 1A and 4A, which appear from Banks Peninsula south either without stratigraphical context or in a context suggesting a mixed-Classic milieu. Into this category, characterized by a survival of butt differentiation, falls the class of adzes of Canterbury Plains greywacke as isolated by Dr Skinner, the cross-section generally rounded in response to the necessary reduction by hammer dressing, and the grip similarly modified from the Moa-hunter prototype. Here again no cultural association has been established.

THE NORTH ISLAND MANIFESTATION

Assuming that the North Island has been occupied at least as long as the South, it is difficult to imagine a commencing phase in its cultural evolution not agreeing with the South. We might presume a shorter persistence of the phase corresponding with the South Island Moa-hunter owing to the apparently smaller *moa* population, and the greater possibility of subsequent migrations from Polynesia fetching up on the North Island coasts.

The key to explaining the commencing and end phases of the North Island line must lie in the transitional. This applies whether or not the Classic was the end product of a long period of local evolution in which agriculture became progressively more important as land was cleared, whether it was introduced ready-made by a massive migration, or whether it was inspired by a late introduction of agriculture as claimed in the Fleet traditions. It follows that the cultural term chosen to designate the first or last phase must not embrace the transitional. Applying the same discipline in cultural as in site stratigraphy we must distinguish the earliest segment of the line by the most precise criteria available to us. I would suggest these are the same as for the South Island, namely, the dual criteria of the primary association of constantly repeated cultural assemblages with *moa* remains. From the Opito and Sarah's Gully material and from the widespread, if sporadic, distribution in the North of Artifact types agreeing precisely with the type specimens of the South, a definable Moa-hunter segment does exist. If *moa* association is the chief criterion, a long post-moa transitional should follow the Moa-hunter phase in most parts of the North Island. A new term should be introduced at the point where we can no longer establish a primary *moa* association.

PROBLEMS OF DEFINING MOA-HUNTER

In a retrospect such as this of the progressive advances in devising a satisfactory terminology for the N.Z. succession it is necessary to mention the inherent problems in the author's revised use of Moa-hunter to describe the South Island early phase. As stated earlier the term Moa-hunter was adopted "for want of a better" (Duff, 1949), alternatives then considered but rejected being Pre-Fleet or *Tangata Whenua*. The most serious difficulty was the eternal one in every conceptual reconstruction of a cultural succession—namely, defining the downward limit of a particular phase. This was frankly conceded in the discussion (Duff, 1950).

"At best in such an evolutionary study assigning a precise limit to a culture period such as this, is an arbitrary and meaningless convention. Thus the Moa-hunter culture would undoubtedly outlast the extermination of the moa. Its eclipse was probably gradual and irregular and not necessarily sooner in accessible parts than in remote areas. The accidents of tribal affiliations might partly preserve it, for instance, in the Wairau Plain, when it had been obliterated in

Canterbury. In Southland, however, it would undoubtedly survive longest, while in all parts of the South Island it probably modified the intrusive culture of the politically dominant North Island invaders. The Moa-hunter adze form almost certainly survived south of Banks Peninsula and reacted in turn upon the form of the adzes of the greenstone age.

“What is attempted here is to contrast the peak or zenith of Maori culture with the peak or zenith of the Moa-hunter phase.”

In the then absence of proof of the time priority of the Moa-hunter phase, it was further stated (*ibid.*, p. 15): “It is safe, then, to distinguish these people by the one aspect of their existence on which we can be positive—namely, that they were contemporaries of the *moa*, and that they hunted these birds on a considerable scale.”

The problems in brief were to allow in the definition for two anomalies—first, the existence of cultural assemblages of Moa-hunter type, contemporary with the *moa* but without associated *moa* midden, second, the probability that after the extermination of the *moa* the material content of the Moa-hunter culture would not immediately disappear.

CONCLUDING SUMMARY

The Paper went on to state the objections to the use of Archaic to designate a cultural phase as a whole. Previously Archaic had been used as a stylistic term to describe artifacts which could be presumed to represent a conservative survival of Early East Polynesian fashions. These in turn were limited to categories of adze, ornament and fish-hook types.

If Archaic were to be used to designate a phase of cultural evolution as a whole, it provided two less legitimate meanings (the first primitive; the second early). The third and more legitimate meaning was the survival of an artistic or cultural style beyond the period or place in which it came into existence. In this sense artifact assemblages of the early Maori phase could be held to represent the archaic persistence of East Polynesian styles. Although Mr Golson had not defined his proposed Archaic, by inference he had attempted to blend two interpretations: Archaic with retrospective reference to East Polynesia, and early with regard to the later emergence of Classic Maori. In practice the term was increasingly used by his disciples to cover the whole pre-Classic range. The inevitable effect of this would be to extend Archaic to include proto-Classic assemblages, thus increasing the difficulty of learning how, when and why the Classic Phase differentiated from earlier Phases.

The problems of applying Moa-hunter to the pre-Classic phases were scarcely more satisfactory, except in sites where artifactual assemblages of archaic facies were found in primary association with *moa* remains, and implying an economy based on *moa*-hunting. The chief problem was how to designate assemblages marked by a persistence of artifacts of archaic style, after the presumed extinction of the *moa* in the local region. A proposal was made that these post-*moa* and pre-Classic assemblages might be designated as residual, in the sense that they represented the conservative persistence of the earlier and definable phase. This had the advantage over Mr Golson's proposal of sub-dividing the pre-Classic evolution into two phases; Moa-hunter and residual.

Going further, Mr Roger Green subdivided the pre-Classic into three phases: Settlement; Developmental; Experimental.

With Archaic subject to the problem of definition, and with Moa-hunter finding little support, it became clear that attempts to propose a scheme with a New Zealand-wide reference were premature. Much more field work is required

to establish the data from which to define the regional aspects of the successive phases.

In the light of the discussion following the contributions to the Symposium on the Pre-historic Cultural Succession the author became aware of the confusion arising from the question whether the earliest phase of Maori culture should be called Moa-hunter because of the role played by *moa*-hunting in its economy, or Archaic East Polynesian because its adze, fish-hook and ornament styles represented the archaic survival in New Zealand of East Polynesian fashions of the Early Period. If archaic is restricted as a stylistic term to describe artifacts of Early East Polynesian type wherever found in the New Zealand Cultural Succession one element of confusion might be removed. Where these artifacts are found in association with a *moa*-hunting economy as on the east coast of the South Island, the phase to which they belong might continue to be called Moa-hunter, with the expectation that it can ultimately be divided again into sub-phases such as Settlement, Development. Whether or not a Moa-hunter phase can be established for the North Island, the use of Archaic to designate any phase, rather than artifact styles, is likely to prolong the confusion in establishing the New Zealand succession.

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DR R. DUFF,
 Canterbury Museum,
 Christchurch.