

PREHISTORIC HUMAN FINGER-IMPRESSIONS ON A PIECE OF ROCK FROM SONGKLA PROVINCE

KASEM GAEW-IM & MONDANA GAEW-IM*

At present, mankind is so ingenious that he is able to walk in space and even, to set foot on the moon. Man has cleverly built many sophisticated spaceshuttles craft sent them out into the uncharted universe, and landed them on the very far away planets. These indicate the achievements of mankind, especially in science and technology. However, man is still trying to find out the answers to the questions of where his ancestors came from and for how long has he existed on earth. Man would like to learn about the commencement, the evolution of Homosapiens and also other mysterious events in the past.

The prehistoric periods of mankind are still of concern to us along with the mysteries of the universe and our future. Excavation is one of the many reliable procedures, which have been used by many outstanding archaeologists to find out the secrets of mankind. These finds, when put together, could one day be an important key to unlock the mysteries of the past and even to enable us to clarify to our present generation the problem of how long man has existed on this planet.

Leakey's finds in Africa (1,2), Peking Man in China (3), Java Man in Indonesia (4) have indicated the presence of man in various places on earth some thousands of years ago. So far, however, most of the outstanding archaeologists have not yet satisfactorily come across any kind of marks or impressions or the fossilized body of prehistoric man to reveal his real figuration. The carbon-14 dating method could be utilized in determining the age of the unearthed prehistoric objects. Undoubtedly, this procedure could indirectly be used to estimate the commencement of our species. The authors' find could be one of the significant prehistoric evidence, indicating the existence of man in the southern part of the Thai-Malay peninsula. Thorough study of these strange impressions would undoubtedly be elucidating to scholars and also support findings being published elsewhere (4-8).

Found

A rather round piece of sandstone, 10 x 8 x 8 cms in dimension, was found lying among rocks on the crest of the rock-fill dam of a small reservoir at Prince of Songkla University, Hat Yai campus, Songkla, Thailand. This catchment area was

* Kasem Gaew-Im, M.D., Ph.D. (Melb) & Mondana Gaew-Im, M.D., Department of Pathology, Faculty of Medicine, Prince of Songkla University, Hat Yai, Songkla.

built more than 10 years ago in order to collect fresh water from several streams running down from mountains nearby. The water from this reservoir would then be treated and distributed as fresh-water supply to the campus. All rocks were taken from a mountain at Rattaphum district, some 30 kms west-northwest of Hat Yai, where the campus is located. Both districts are in Songkla province (Fig. 1).

This peculiar piece of sandstone could be held up in one hand. There are several unequal impressions on one of its surfaces (Fig. 2). Some of these grooves and sockets look as if they were impressions of parts of the finger-imprints of the human right hand, having been deliberately left on the clay in a sculptor's studio.

Considering fig. 2, the socket -I is actually about 1.8 x 1.4 x 1.2 cms. This mark would snugly fit the distal 2/3 of the distal phalangeal portion of the index finger of the right hand being pressed onto the surface in the vertical direction. Two other longitudinal grooves, -M and -R, are located to the right of the previous shallow socket. These two grooves are close together, so resembling the impressions of the palmar surfaces of the distal 2/3 of the middle and also the ring fingers of the same right hand. Each groove is about 1.8 x 4.0 x 1.3 cms and the actual dimensions are shown in fig. 3. There is a rather straight ridge between the deep parts of both grooves. This crest -E could have been created by the corresponding narrow cleft between the palmar surfaces of the partially flexed middle and ring fingers when they were tightly placed close together. Perpendicular to the crest -E, there are two slightly elevated crescents -C, extending away in both directions from -E. The rather deep impressions, which are located distal to -C, obviously appear as concave imprints very much resembling the bulging surfaces of the palmar regions of the distal phalanges of the middle and the ring fingers of the right hand respectively. The planes of these distal portions differ from the ones proximally located. The latter belong to the bulging areas of the middle phalanges of both mentioned fingers. When the index finger of the right hand is vertically inserted into the socket -I, the distal portion of the particular finger could perfectly occupy the space. The curvature of the nail surface corresponds to the rather flat area of the socket while the ball portion of the distal phalanx snugly fits the concave side of it (Fig. 4).

Testing for the squareness of the middle and the ring fingers to the grooves -M and -R, these grooves are properly occupied when the distal 2/3 of the palmar surfaces of the middle and the ring fingers of the same right hand are placed in (Fig. 5). The ball portions of the distal phalanges of both mentioned fingers perfectly fit into the concavities of both mentioned grooves and the narrow cleft between the two fingers reciprocally corresponds to the crest -E, while the crescents -C are pointed into the shallow and transversely placed skin creases, being between the palmar surfaces of the middle and the distal phalanges of the partially flexed middle and ring fingers.

When holding this rock in the left hand and inserting the three related fingers of the right hand, it would be a proper fit for a man moulding a piece of clay and then leaving it untouched till the solidifying process took place.

Discussion

Considering the socket and the grooves on the surface of this rock may mean nothing to one who accidentally comes across it unless he or she is an anatomist. The general appearance of this rock is quite similar to others found lying nearby. The size and the shape of this rock and all the dimensions of the socket and the grooves are, however, very similar to the bulging of the index, the middle and the ring fingers of the human right hand. A semi-solid mass of clay might have been moulded in both hands by a prehistoric human being. Part of such a semi-solid clay mass was probably held by the left hand while the right hand manipulated other parts of the clay. This handling procedure was unexpectedly interrupted and that particular mass of clay was left on the floor of the dwelling-place untouched for thousands of years. Nature exercised its secret power by changing the clay into a piece of sandstone having these marks on its surface. Other evidence in support of this hypothesis are the characteristic features of these impressions. It would be unusual for nature to create a socket and two parallel grooves with longitudinal crest and also crescents in such a manner. For these marks could not be simulated by nature or other animals except man.

From fig. 3, the plastic replica of this stone vividly reveals the characteristics of all three mentioned fingers of the human right hand. The inner surface of the mould, which faces this side of the replica, illustrates the bulging areas which reciprocally correspond to the three fingers of the human right hand. All crest and crescents properly adjust to the grooves and especially to all skin creases on the palmar surfaces of all mentioned fingers.

If one makes a thorough investigation of this particular surface of the rock, which is clearly illustrated in fig. 2, there exists another oval impression lying further from the tips of the impressions -M and -R. This mark has no similarity to the ridge -E. It may probably be a combination of marks created by the ball portions of the distal phalanges of the middle and the ring fingers. For the initial step of the manipulating process of the clay, the middle and the ring fingers of the right hand would have been fully extended and slightly pressed onto the surface of the clay. Then both fingers could have been progressively flexed causing another deeper but partially deviated press marks -M and -R respectively, together with the crest -E and crescents -C. When both fingers were lifted up from the surface of the clay, the initial and the final press-marks were then registered and left there forever. Nature solidified that particular piece of clay and transformed it into a solid but friable stone. This natural process was a complex one and took several thousands of years to reach completion.

However, one cannot provide the exact time in which the moulding procedure took place in the cave or somewhere around the mountain at Rattaphum district unless fragments from this finding were to undergo a sophisticated testing procedure such as by the carbon-14 dating method. Geological knowledge could probably also render an approximation of time for the process of the clay solidification.

The other point to be considered at this stage is that one cannot indicate the race of the owner of these impressions, but it is possible to postulate that there existed prehistoric human beings on the Thai-Malay peninsula very long ago. The years of this existence would theoretically be at least equivalent to the time required for the clay to be naturally solidified into stone.

Summary

A piece of rock, with possible prehistoric human finger-impressions, was found at the rock-fill dam of a small reservoir at Prince of Songkla University, Hat Yai campus, Songkla, Thailand. Thorough study of marks on this rock has led the authors to theorise that the impressions probably fit the index, the middle and the ring fingers of the human right hand, which had been deliberately left on a semi-solid piece of clay, which was thereafter naturally transformed into stone. The time required for this process of change would indicate the duration of the existence of man on the Thai-Malay peninsula.

REFERENCES

1. Leakey, L.S.B. : Finding the World's Earliest Man. *National Geographic*. 1960, 118 : 420.
 ——— : Exploring 1,750,000 Years into Man's Past. *National Geographic*. 1961, 120 : 564.
 ——— : Adventures in Search for Man. *National Geographic*. 1963, 123 : 132.
2. Leakey, R.E. : In Search of Man's Past at Lake Rudolf. *National Geographic*. 1970, 137 : 712.
 ——— : Skull 1970. *National Geographic*. 1973, 143 : 819.
3. Montagu, M.F.A. : *An Introduction to Physical Anthropology*. Charles C. Thomas, Springfield, 1960.
4. Brace, C.L., and Montagu, M.F.A. : *Man's Evolution. An Introduction to Physical Anthropology*. Macmillan, New York, 1965.
5. Payne, M.M. : The Leakeys of Africa. *Family in Search of Prehistoric Man. National Geographic*. 1965, 127 : 194.
 ——— : Preserving the Treasures of Olduvai Gorge. *National Geographic*. 1966, 130 : 701.
6. Marshack, A. : Exploring the Mind of Ice Age Man. *National Geographic*. 1975, 147 : 62.
7. Johanson, D.C. : Ethiopia Yields First "Family" of Early Man. *National Geographic*. 1976, 150 : 790.
8. Tuttle, R.H. : *Paleoanthropology. Morphology and Paleoecology*. Mouton-Aldine, Chicago, 1975.

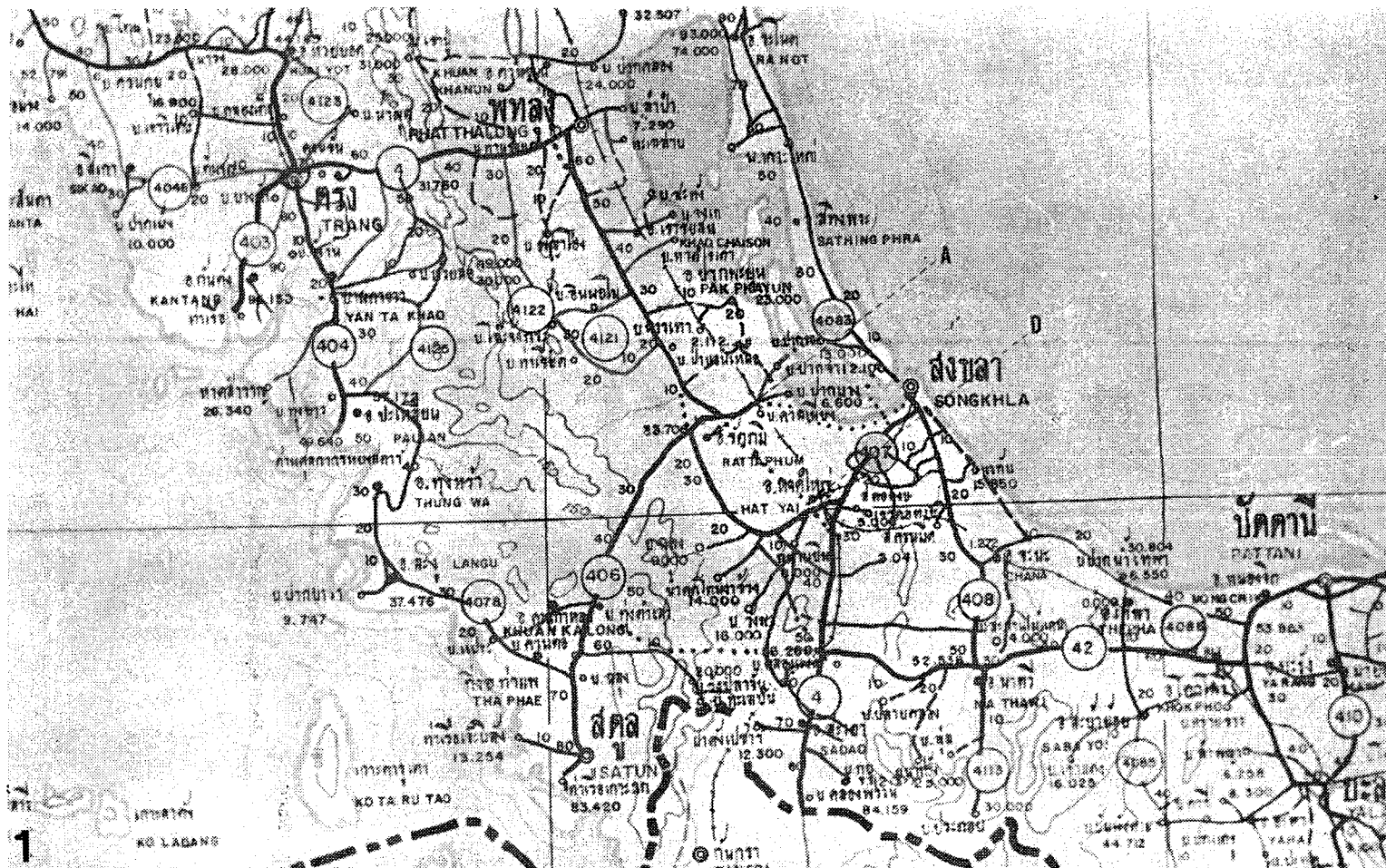


Fig. 1 Map of southern provinces of Thailand, showing the site of the rock-fill dam (D) and the original area (A), from where this peculiar rock was taken. Rattaphum is only 30 kms away from Hat Yai. Both districts are in Songkla province, Thailand.

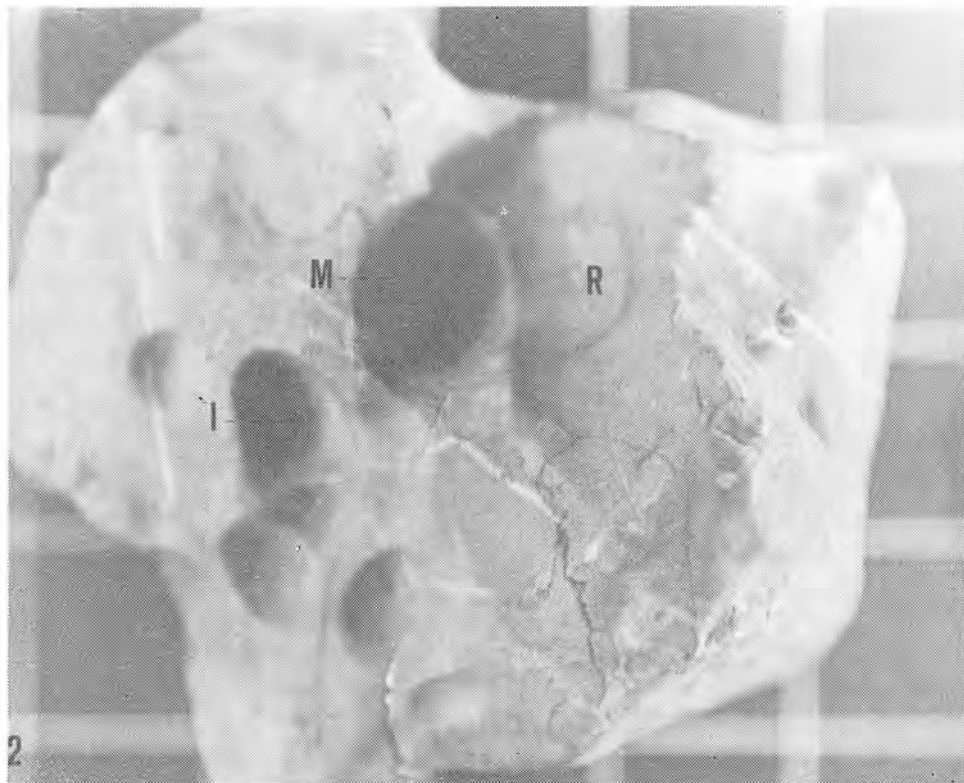


Fig. 2 Photograph of the rock, a little smaller than its actual size, revealing quite obviously the finger-prints of the human right hand. The area-I probably indicates the imprint of the distal phalanx of the index finger, while the impressions-M and -R are of the palmar surfaces of the distal 2/3 of the middle and the ring fingers of the same hand.

Each square area is 3×3 cms.



Fig. 3 Photograph of the plastic replica of the same rock was taken and enlarged to approximately 1.6 times of the actual size. The crest-E corresponds to the groove which appears when the palmar surfaces of the middle and the ring fingers are placed close together. The crest -C, which is perpendicular to the long axis of the crest-E, indicates the corresponding grooves lying between the adjacent surfaces of the middle and the distal phalanges of the partially flexed middle and ring fingers.



Fig. 4 When the index finger of the right hand was vertically placed in the socket—I, the ball portion of the distal phalanx fits into the concave side of the socket, while the nail surface perfectly contacts the flattened area of it. The depth of this impression is not deeper than the length of the distal 2/3 of the distal phalanx of the index finger.



Fig. 5 When the middle and the ring fingers of the same right hand are placed in the probable impressions, the photograph reveals that the palmar surfaces of both mentioned fingers could exactly adjust it to the grooves on this surface.