

instantaneously solving Roosevelt's dilemma. The isolationists, angered by the attack on the great Hawaiian naval base, ceased their opposition and rallied to their country's defense. Hitler had not only blundered, but had committed a folly which proved well-nigh irrevocable. He had ruined his own cause.

In conclusion, it would appear that Hitler's role in the Pearl Harbor attack was a very subordinate one. He had attempted for years to keep America out of war and had desired Japanese help against his other enemies. Only when Japan refused to heed his advice did he consent rather reluctantly to a different course of action, although he never had a clear idea of what his allies had in mind. This involved him in the very conflict he had desired to avoid, thus making certain the defeat of the Axis and the survival of the democratic powers.

The fourth annual meeting of the Far Eastern Association will be held at the Statler Hotel, Boston, Massachusetts, April 1-3, 1952. Professor Franz Michael of the Far Eastern and Russian Institute, University of Washington, Seattle is chairman of the program committee. Requests to appear on the program should be addressed to him. The program committee reserves the right to accept or reject proposals in the interests of a balanced program.

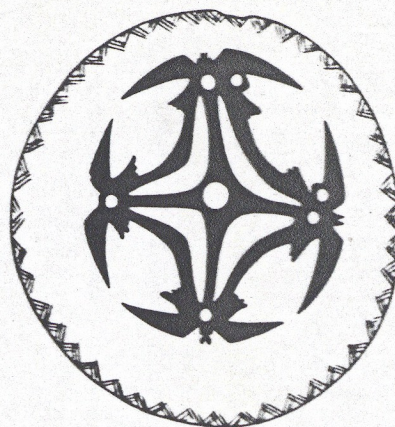


Fig. 1

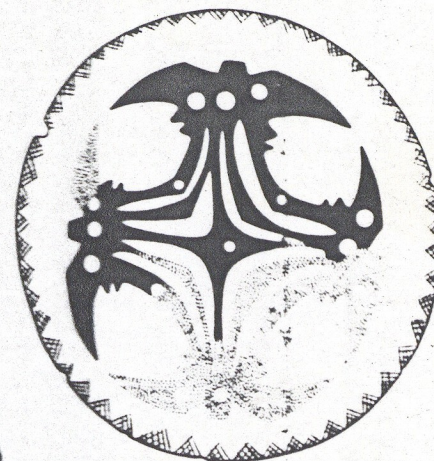


Fig. 2

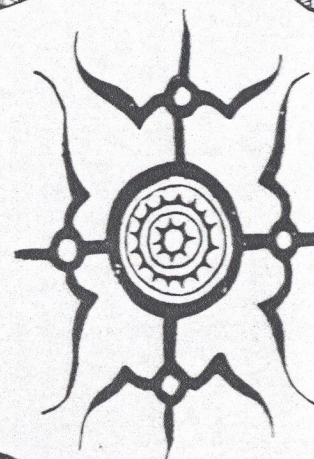


Fig. 3

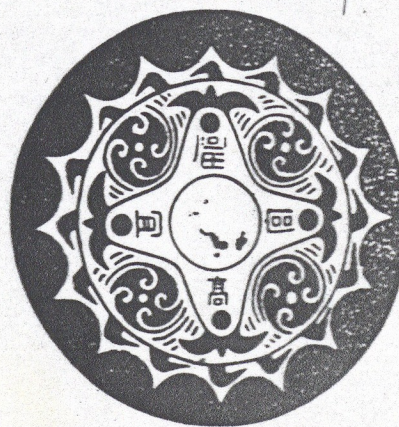


Fig. 4

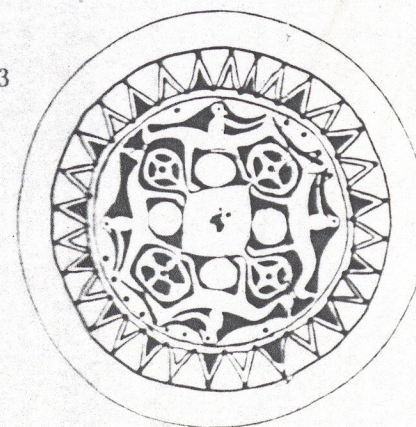


Fig. 5

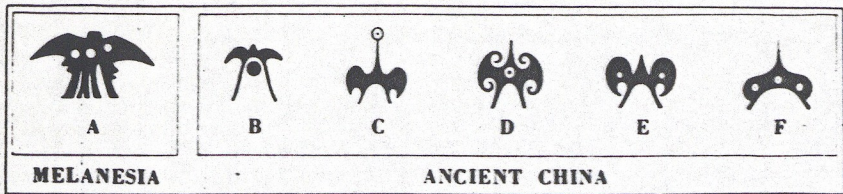


Fig. 6

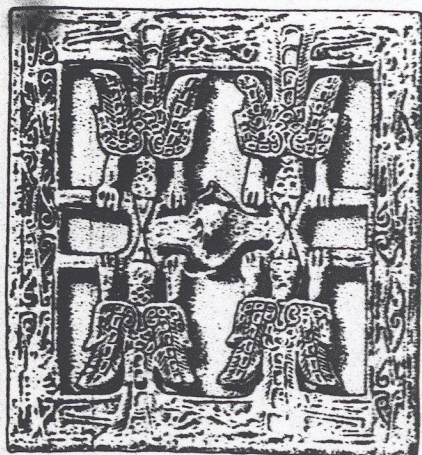


Fig. 7

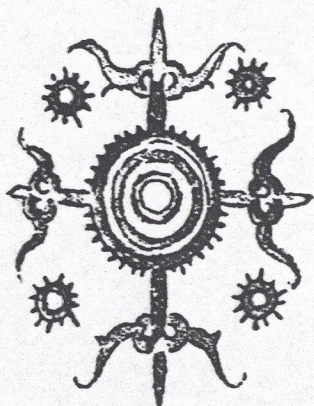


Fig. 9

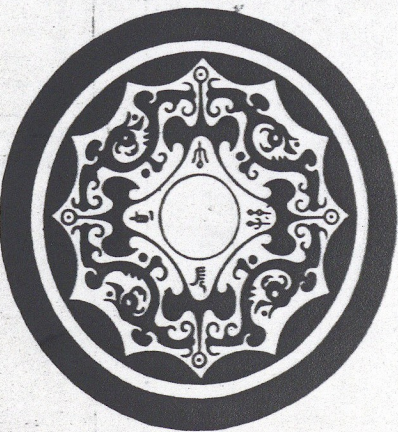


Fig. 8

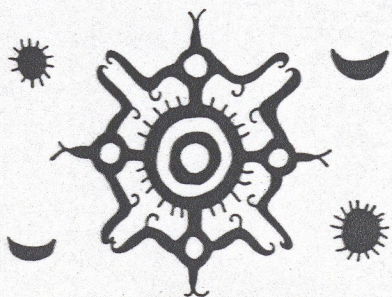


Fig. 10

AN ANCIENT CHINESE MIRROR DESIGN REFLECTED IN MODERN MELANESIAN ART

CARL SCHUSTER

IN vol. 9, no. 3 of *The Far Eastern Quarterly*, Alphonse Riesenfeld called attention to "Some Probable Bronze-Age Influences in Melanesian Culture." His point of departure was a stone ax from Bougainville in the Solomon Islands showing traces of derivation from bronze axes of types known from Indonesia, and suggesting analogies with trunnion axes of the bronze and iron ages from regions as remote as the Near East and Europe. It seems appropriate, therefore, to introduce in this place another comparison, of a slightly different order, between certain artifacts of modern or recent times in Melanesia and artifacts from the ancient bronze-age art of the Far East.

We begin with a type of Melanesian shell ornament, well known to the curators of our ethnographical collections by its pidgin English name of *kapkap*, which consists of a disk of white shell, generally of the giant tropical clam (*tridacna gigas*), to the surface of which is attached, by a cord passing through a hole in the center of the disk, a plaque of fretwork cut out of turtle shell. The design of the turtle-shell fretwork varies from one island group to another.¹ Our concern is with the design of a particular type of *kapkap* from the Admiralty Islands represented in Figs. 1 and 2.² In each of these, the turtle-shell fretwork is cut to represent four bird-like motives attached to the angles of what may be described as a lozenge-shaped framework with indented sides. The identification of the four apical motives as birds rests partly on verisimilitude, and partly on their similarity to more clearly recognizable representations of birds in other arts of the Admiralty Islands.³ The most striking

¹For the distribution of shell-applique ornaments in Oceania, see Gladys A. Reichard, *Melanesian Design*, New York, 1933, pp. 88-124 and plates 93-125, 128-130, 134-139.

²The two *kapkaps* illustrated in Figs. 1 and 2 (the latter, as often happens, with its fretwork broken) are the most fully developed specimens of their type known to me. Three additional examples of the type—two in Sydney, Australian Museum, A 14226 and A 19744, and one illustrated by James Edge-Partington, *An Album of the Weapons, Tools, Ornaments, Articles of Dress, etc., of the Natives of the Pacific Islands*, Manchester, 1890, iii, pl. 44, fig. 2—appear to be debased variants of the ornithomorphic norm evidently represented by our two examples. Probably related to the type, but badly debased, is a specimen in Berlin illustrated by Reichard, 1933, pl. 103, fig. 329. For a *kapkap* from Nissan in which four highly conventionalized birds appear to converge upon the center, see Fritz Krause, "Zur Ethnographie der Insel Nissan," *Jahrbuch des städtischen Museums für Völkerkunde zu Leipzig*, vol. 1, 1906, fig. 28.

³Cf. Felix von Luschan, *Beiträge zur Völkerkunde der Deutschen Schutzgebiete*, Berlin, 1897, pl. 37, figs. 9, 10, and p. 81 a. These designs are identified as frigate birds by Hans Nevermann, *Admiralitäts-Inseln (Ergebnisse der Südsee-Expedition 1908-1910*,

confirmation of the avian identity of these motives is, however, provided by the analogy of a motive from an island in Eastern Indonesia.

Fig. 3 represents a typical example of the *oiale*, a head-hunter's emblem, as engraved on bamboo by the Alfurs of Ceram.⁴ The four motives arranged radially around the central disk not only resemble birds, but are actually identified by the Ceramese as representations of the frigate bird⁵—a species widely figured throughout Melanesian art, and probably the one intended in the Admiralty Island *kapkabs*, Figs. 1 and 2. Points of analogy between the Ceramese *oiale* and the *kapkabs* include the motive of the disk itself (though treated differently in the two areas), and most notably, perhaps, the hole or holes in the bodies of the birds—represented by an actual perforation of the turtle shell in the *kapkabs* and by a ring-like drawing of the body in the birds of the *oiale*. Many Ceramese designs of this type, moreover, show a certain confusion with respect to the direction of the birds' flight, in so far as the characteristic forked tail of the frigate bird is sometimes represented at one end of the body, sometimes at the other.⁶ The same confusion is evidently reflected in the Admiralty Island *kapkab*, Fig. 1, by the representation of what appears to be the forked tail in different forms at both ends of the body.⁷

We now propose to align the Admiralty Island *kapkabs*, Figs. 1 and 2, comparatively with the design of a well-known type of Chinese bronze mirror of the Han dynasty, Fig. 4. Our interest centers, in the first place, on that part of the design, rendered black in the drawing, which surrounds the central knob of the

edited by G. Thilenius, II. Ethnographie, A. Melanesien, Band 3), Hamburg, 1934, p. 393. Actually, many more designs can be found in Admiralty Island art which so clearly represent the frigate bird that a native name is hardly necessary for identification.

⁴For additional examples of the Ceramese *oiale*, see Herman F. E. Visser, "Over Ornamentkunst van Seran," *Koloniaal Instituut te Amsterdam, Mededeeling No. IX, Afdeeling Volkenkunde No. 3, Volkenkundige Opstellen I*, Amsterdam, 1917, pp. 93-104, 14 pls.; and Carl Schuster, "Dr. Carl Schuster on Bird-Designs in the Western Pacific: Indonesia—Melanesia—Polynesia," *Cultuureel Indië*, vol. 1, Leiden, 1939, pp. 232-235. See also Figs. 9 and 10 of the present article. It should be said here that our comparison of Ceramese and Melanesian designs is supported by an extensive and notable similarity in cultural institutions between the two areas. Cf. Johan Philip Duyvendak, *Het Kakean-Genootschap van Seran* (Leiden thesis), Almelo, 1926; and Arthur Bernard Deacon, "The Kakihan Society of Ceram and New Guinea Initiation Cults," *Folk-Lore*, vol. 36, 1925, pp. 332-361.

⁵Cf. Schuster, 1939, citing H. Krayen van Aalst, *Liefde-Macht*, den Haag, 1915, pp. 10, 54.

⁶See, for example, our Fig. 10, where the forked tails are represented at the outside; and compare the *oiale* illustrated on the cover of Krayen van Aalst's book, 1915, in which the forked tails extend inward so as to touch the central disk—in such fashion that they suggest the beginning of a lozenge-shaped diagram like that of our Admiralty Island *kapkabs*.

⁷The question may be raised whether in both instances we do not have to do with the confused reminiscence of an original double head. In another Melanesian archipelago, that of the Solomon Islands, the double-headed bird is a definite entity in native design; and there are considerable grounds for believing that the four birds in this type of composition were originally double-headed birds.

mirror. This may be described as a lozenge-shaped framework with indented sides, to each corner of which is attached a motive in the form of a modified trefoil. If our comparison is valid (and we shall substantiate it presently with further Melanesian documentation), then the question arises whether the four "trefoils" at the corners of the lozenge in this Han mirror do not likewise represent birds. So far as I am aware, such an identification has not heretofore been suggested. To propose it solely on the basis of the Melanesian analogy is perhaps, at this stage of our discussion, premature. We shall return to the question a little later.

Without insisting now upon the avian identity of the four apical motives in the Chinese mirror design, Fig. 4, we may proceed to our second and more complex Chinese-Melanesian comparison. Fig. 5 represents a disk of tridacna shell with incised ornament from the island of Buka in the Northern Solomons. Called *paparab* by the Buka natives, this specimen is certainly rare, and probably unique.⁸ The effect of the design is achieved not by superimposing a fretwork of a dark material as in the *kapkabs*, but by scratching directly on the white shell and filling in the scratched lines and areas with dark pigment. The design comprises a central round area enclosed by two peripheral zones. Within the outermost zone of plain shell lies a band of alternately black and white triangles with double outlines. The central field is occupied by an elaborate composition in which four groups of elements are repeated radially around a

⁸This object was collected in 1936 by a New Zealand missionary, A. H. Voyce, at the village of Ilitopan (Iltapan, Yeltupan) at the northern extremity of Buka, the northernmost large island of the Solomon group. In a letter of May 29th, 1937, Mr. Voyce wrote me: "Parkinson referred to such ornaments on North Bougainville and Buka during the last century, but as I am a very keen collector of ethnographical material of that sort, and during more than eleven years' residence had not seen or heard of any such ornaments, I thought that any that had existed must surely have been traded from the Southern Solomons, where they are fairly common."

The passage referred to by Mr. Voyce is evidently R. Parkinson, *Dreissig Jahre in der Südsee*, Stuttgart, 1907, p. 492, reading: "Other ornaments [i.e., ornaments other than those of the *kapkab* type, in two layers] consist of perfectly round, but sometimes elongated, plaques of tridacna shell with the engraved design of a stylized frigate bird; these plaques, called *kini*, which are made on Buka and Bougainville, are very highly regarded and are produced only by a few artists." Parkinson then refers to A. B. Meyer and R. Parkinson, *Album von Papua Typen*, Dresden, 1894, ii, pl. 45, showing a native wearing a neck-pendant of tridacna shell with engraved design. This pendant, however, is nothing like the *paparab*, our Fig. 5, but unmistakably represents a type of shell ornament well known from the Southern Solomons, particularly from Malaita (e.g., W. G. Ivens, *Melanesians of the South-East Solomon Islands*, London, 1927, pl. 15, top and right; Reichard, 1933, pls. 126, 127). It is thus likely that the piece worn by the Bougainville native in Meyer and Parkinson's *Album* was as Mr. Voyce suggests, traded to Bougainville from the Southern Solomons. The same conclusion is reached by Emil Stephan and Fritz Graebner, *Neu-Mecklenburg*, Berlin, 1907, p. 190, who attribute the piece mentioned by Parkinson and illustrated by Meyer and Parkinson to the island of Malaita in the Southeast Solomons. Nevertheless, it is still possible that our *paparab* represents the round (rather than the pointed oval) plaques referred to by Parkinson. However this may be, the writer has not seen any specimen even remotely resembling that of our Fig. 5 in any European, American, or Antipodean collection.

focal mass in the approximate shape of a lozenge. The main feature of each of these groups is what appears to be a human figure mounted on an animal. The four groups are differentiated into two pairs, in each of which the "riders" face each other, and the "legs" of the "animals" are also made to face each other. The "heads" and "tails" of the "animals" are distinguished by slight variations in shape. The spaces between the "animals" are occupied by four wheel-like ornaments,⁹ three of which are clearly attached by a short stem to the central mass. Between the "legs" of each "animal" is a small white disk. The space remaining between this fourfold composition and the circle enclosing it is occupied by a festoon of ten rather flat scallops, with their curves directed inward toward the center.

Before comparing this shell plaque with ancient Chinese mirrors it will be well to consider to what extent its design may be related to that of the Admiralty Island *kapkaps*, Figs. 1 and 2. In the first place, the outer zone of triangles on the Buka plaque, Fig. 5, seems to have its counterpart in the series of triangles scratched on the shell disks of the *kapkaps*. Moreover we may, I believe, at least tentatively equate the four "equestrian" figures of the *paparab* with the four birds disposed in similar radial arrangement on the *kapkaps*. If this equation is valid, then the "heads" and "tails" of the Buka "animals" correspond to the wings of the Admiralty Island birds, and their "legs" represent the curved lines, presumably extensions of the tails, which form the sides of a lozenge-shaped framework connecting the four birds with each other on the *kapkaps*. Each "rider" with his mount would, then, represent the body, head, and beak of a bird. In terms of this equation, it appears that the four "equestrian" groups of the Buka design may result from the misinterpretation or modification of a scheme which is preserved in a more original, and also somewhat simpler, form in the fretwork of the Admiralty Island *kapkaps*. If the four main motives of the Buka plaque were indeed intended to represent men riding horses, then we must assume that the plaque was made after the Buka natives had come into contact with Europeans.¹⁰ However, if these figures betray European influence, such influence is clearly superficial, and has hardly affected the composition as a whole. Unique though the specimen is, there can be no doubt that it is the product of a native Melanesian tradition. How old this tradition may be is a question to which we are now in a position to supply at least an approximate answer.

⁹Wheel-like motives of this type are common in certain classes of Western Melanesian design; and in the Solomons, at least, they seem to have a specifically solar connotation. Cf. Richard Thurnwald, *Forschungen auf den Salomo-Inseln und dem Bismarck-Archipel*, Berlin, 1912, supplement, pl. 12, figs. 145, 146, 148; and especially vol. i, p. 537, where a motive of this type (fig. 110) from Buin at the southern end of Bougainville, is designated a "kreisförmiges Sonnenbild," evidently in translation of a native term, *bobotanke ru*.

¹⁰An alternative possibility which should perhaps be investigated is whether the designer could have had in mind a masked dancer.

Regardless of the difficulty of establishing the identity of some of its elements, most readers will, I believe, agree that the design of the *paparab*, Fig. 5, taken as a whole, and in combination with the apparently related forms of the Admiralty Island *kapkaps*, Figs. 1 and 2, shows an extensive and striking analogy with the design of the ancient Chinese bronze mirror, Fig. 4. The primary element in this analogy is the scheme of four "birds" attached radially to a lozenge-shaped framework in the center. The white disks under the bodies of the metamorphosed birds in the Buka plaque, Fig. 5, have their counterpart in the disks under the bodies of the birds in the Han mirror, Fig. 4. Beyond this, the four "sun-wheels" between the adjoining pairs of birds on the *paparab*, Fig. 5, clearly correspond to the four whirling motives which occupy corresponding positions on the Han mirror. The final, and it may be said conclusive, analogy between the Melanesian design, Fig. 5, and Han mirrors of the type of Fig. 4 lies in their peripheral zones. The band of scallops projecting inward from the circle enclosing the central field of the *paparab* has its obvious counterpart in the peripheral band of scallops characteristic of many Han and Late Chou mirrors, including that here chiefly under consideration.¹¹ It should be said at once that scallops used in this way do not appear to be typical of Melanesian design. If the scallops of the *paparab* correspond to the peripheral scallops of the two ancient Chinese mirrors here illustrated, we can hardly escape the further analogy, or homology, between the outer band of triangles on the *paparab* and the outer sawtoothed band characteristic of many Han mirrors of types other than those here illustrated.¹²

Even without regard to analogies in the composition of the central field, this combination of peripheral motives is alone enough to awaken at least a strong suspicion that the Solomon Island ornament is genetically related to certain types of ancient Chinese bronze mirrors. But if we take into consideration all the elements of correspondence, in the central field as well as in the

¹¹These scallops perhaps have their equivalent in the two zones of scallops in the Ceramense *oiale*, Fig. 3.

¹²The fact that the Buka plaque has two peripheral bands, one of scallops and one of triangles, may eventually prove to be decisive in determining the time and place of its Asiatic origin. For the present, however, this double border provides us only with a puzzle. For, since the *paparab* faithfully reproduces so many features of ancient Chinese mirror designs, it would seem reasonable to suppose that its double border also reflects a corresponding feature in a Chinese prototype. However, a cursory examination of many Huai and Han mirrors illustrated in several standard publications leaves us with the impression that the scalloped border ends in the later Han dynasty, at about the same time that the saw-toothed border begins to appear. Evidently the two types of border are never combined on the same mirror, even though they seem to overlap somewhat chronologically. These circumstances suggest that if the *paparab* goes back to a single prototype in ancient Chinese mirrors, that prototype might be of the later Han dynasty, and might be one which is still archaeologically unknown. The writer regrets that the circumstances in which this article was written make it impossible for him to search exhaustively among the ancient Chinese material for the closest possible prototype of the *paparab*; but he hopes that others may take up the challenging task.

peripheral zones, and if we include (as I believe we must) the Admiralty Island *kabkaps* of Figs. 1 and 2 on the Melanesian side of the equation, it is hardly possible to doubt that the modern (or recent) Melanesian and the ancient Chinese designs are very closely related.

Before considering the historical implications of such a relationship, we wish to adduce two more points of analogy between these two classes of objects: one in form, the other in structure. In point of form, we have already observed that the holes perforated on the bodies of the birds in the *kabkaps* (one, two, or three in number in Figs. 1 and 2) have their counterpart in the "perforated" bodies of the birds in the Ceramese *oiale*, Fig. 3. A glance at the series of "trefoils" from the lozenge-shaped frameworks of several ancient Chinese mirrors illustrated in Fig. 6, B to F, shows that "perforations" in varying numbers also mark the more or less clearly ornithomorphic finials of these frameworks.¹³ The persistence of these perforations throughout three traditions—Melanesian, Indonesian, ancient Chinese—cannot be dismissed as accidental. On the contrary, there is good reason to believe that these bodily perforations are symbolical of a definite conception, and thus proper to the designs.¹⁴ The persistence of such a feature provides an additional criterion of relationship among the various traditions here under consideration.

Again, in point of structure, there is a significant correspondence between the Melanesian *kabkaps* as a class and the ancient Chinese mirrors. Salmony has shown that the earliest known Chinese mirrors, dating from the early part of the Late Eastern Chou period (about sixth century B.C.) are often composed of two separate metal plaques, a perforated plaque being superimposed upon and either soldered or riveted to a plain metal base; or that, if such mirrors are cast in one piece, they show clear evidence of derivation from such a "two-layer" construction.¹⁵ The square mirror, Fig. 7, provides an appropriate example of the type, for it not only shows the nature of the metal *appliqué* (Salmony suggests that the sunken areas may have been originally paved with

¹³The selection of motives in Fig. 6, B to F, is not intended to represent a sequential series, either in terms of chronology or of evolution, but merely to suggest a general analogy, especially in the matter of circular "perforations," with the Melanesian bird-motive, Fig. 6, A. Each of the five Chinese motives here shown is repeated at the four corners of a lozenge-shaped framework surrounding the central knob of a mirror. By the inclusion of the motive F, we wish to raise the question whether such motives, which are repeated in many variants four times radially around the centers of Huai and Han mirrors, often without a lozenge-shaped framework, may not likewise be derived ultimately from the figure of a bird. This is obviously a question requiring an extended study of ancient Chinese mirror designs, and involving also comparative considerations, upon which we cannot embark in the present place. (See the second paragraph in note 26).

¹⁴A perforated or ring-like body is perhaps the chief attribute of the "Sunbird," a motive to be studied in a larger publication by that title now in preparation by the writer.

¹⁵See Alfred Salmony, "On Early Chinese Mirrors," *Art in America*, vol. 30, 1942, pp. 190-198; and "Chinese Metal Mirrors; Origin, Usage and Decoration," *Hobbies*, *The Magazine of the Buffalo Museum of Science*, vol. 25, no. 4, April, 1945, pp. 36-45.

turquoise to provide a shining contrast), but it also gives us an early example of the four-bird composition in a relatively naturalistic representation. The importance of this mirror in the context of the present comparison need hardly be emphasized. It not only takes us back to the fretwork of turtle-shell applied to the clam-shell disks of the Admiralty Island *kabkaps*, but it provides, at the same time, a welcome support for our identification of the four apical motives in the Han mirror, Fig. 4, as birds. The structural analogy thus supports the analogy of form. It may be added that obvious reminiscences of an original "two-layer" construction survive on Chinese mirrors throughout the Huai style or late Chou period and the succeeding Han period, and that these reminiscences of an original *appliqué* may yet provide an important key to the mystery of the origin of the Chinese mirrors themselves.¹⁶

We come now to consider the historical implications of our comparison. The correspondences especially between the Buka plaque, Fig. 5, and the Han mirror, Fig. 4, are so extensive that the student of ancient Chinese bronze mirrors might well be inclined to wonder whether one of these objects had not somehow found its way to Melanesia and there been copied. In principle, at least, this possibility is not to be ruled out; though there is a parallel possibility which should also be given consideration.

It is well known that bronze artifacts of high artistic quality have been found in the possession of natives as far east as the north central coast of New Guinea. It is generally understood that these bronzes represent the easternmost advance of an Indonesian bronze-age culture, which was in turn inspired by a bronze-age culture of Southeastern Asia—largely if not exclusively by the so-called Dong-Son culture which culminated at about the beginning of the Christian era in what is now the Tonkin-Annam border region.¹⁷ Thus, bronze drums known to have been made at this time and place have been found at various places in the Indonesian archipelago, where there is good reason to believe they arrived not much later than the period in which they were made. Again, bronze objects have been found in Celebes, on the island of Roti near Timor, and in Dutch New Guinea, which, though they were probably cast in Indonesia, show marked evidence of influence from the bronze-age art of South-eastern Asia.¹⁸ Now, while the bronze-age Dong-Son culture of Indo-China formed on the one hand a focus or funnel of diffusion into Indonesia, it was itself undoubtedly subject to strong influences from the contemporary art of

¹⁶See the second paragraph of note 26, below. On the *appliqué* effect of Chinese mirror designs, cf. Ludwig Bachhofer, *A Short History of Chinese Art*, New York, 1946, p. 51.

¹⁷See A. N. J. Thomassen à Thuessink van der Hoop, "De Praehistorie," in F. W. Stapel (editor), *Geschiedenis van Nederlandsch Indië*, vol. 1, Amsterdam, 1938, pp. 9-111; and compare Riesenfeld, as cited at the beginning of our text.

¹⁸Hoop, 1938, pp. 61-93.

the Han dynasty in China. Inasmuch as Chinese-bronze mirrors characteristic of the Han dynasty have been found, among other Han dynasty objects, in tombs of the Dong-Son culture in association with bronze drums of the type known to have been exported to Indonesia,¹⁹ we have the last link in what may be described as a strong chain of presumptive evidence connecting Han dynasty China with Indonesia, and thence indirectly with Melanesia. It is not inconceivable that Han mirrors actually found their way to Indonesia along with bronze drums from Indo-China, and even possible that they reached Melanesia.²⁰ It is also conceivable that a bronze artifact made in Indonesia in imitation of a Chinese model (namely a Han mirror) found its way eastward as far as Melanesia, where it was copied in shell. While these are definite possibilities, it seems to the writer that the extensive Oceanic diffusion of motives of this type (from Ceram in Eastern Indonesia through the Admiralties in the Bismarck Archipelago to Buka in the Solomons—if not elsewhere) suggests something different than the arrival of a single Han mirror (or even an Indonesian bronze copy of a Han mirror) by some freak of circumstance in one Melanesian island. This picture of insular diffusion, as well as the extensive variations in design from one island to another, suggests rather that the motive was one of basic *ritual* importance in the culture or cultures of at least one group of peoples who migrated in this area. Such a wide distribution of the motive among a number of "primitive" peoples suggests that it represents an integral part of their cultural pattern, and awakens the question whether in these Oceanic motives we have not hit upon the primitive substratum of a type of ancient Chinese mirrors, rather than upon a late reflection of the Chinese mirrors themselves. Though a design like that of the *paparab*, Fig. 5, perhaps suggests the latter alternative, designs like those of the Admiralty *kapkaps*, with their "two-layer" construction, suggest the former. We shall not attempt to decide the matter, as it is obvious that not all the criteria for decision are in hand.

The question by what route and at what time this design reached the Indonesian and Melanesian regions in which it has survived until our day cannot, at least at present, be answered with precision. This question is obviously part of a larger question involving vast cultural movements from the Asiatic mainland into Oceania. We can only say that regarded against the background

¹⁹Victor Goloubew, "L'âge du bronze au Tonkin et dans le Nord-Annam," *Bulletin de l'Ecole française d'Extrême-Orient*, vol. 29, 1929, pp. 1-46; and Jean Przyluski, "Sur deux miroirs de bronze," *Revue des arts asiatiques*, vol. 9, 1935, pp. 165-167.

²⁰In this connection it may be of interest to consider a wooden club from Matty Island, off the north coast of New Guinea, published by Felix von Luschan, "Neue Beiträge zur Ethnographie der Matty-Insel," *Internationales Archiv für Ethnographie*, vol. 12, 1899, p. 125, fig. 7, which Parkinson, 1907, p. 424, regards as an imitation of an ancient Chinese sword; and, again, a Micronesian taro-spade of wood with the appearance of a metal sword, illustrated by Anneliese Eilers, *Inseln um Ponape (Ergebnisse der Südsee-Expedition 1908-1910)*, edited by G. Thilenius, II. Ethnographie, B. Mikronesien, Band 8), Hamburg, 1934, p. 230, fig. 97.

of such larger movements, the occurrence of what seems to be a Chinese mirror design in a native shell ornament of the Solomon Islands loses its first startling appearance of improbability.

While a satisfactory solution of the historical question remains in abeyance, there is still much to be accomplished through a more extensive and detailed comparison of the three classes of objects with which we are here concerned. Though such comparisons may lead ultimately to conclusions of interest to the historian, their chief and immediate value is to provide an insight into the nature of the designs themselves. It seems unlikely, on the face of the matter, that motives of this type should have wandered so far and been repeated or varied so often, if they were devoid of all significance. Should our identification of birds in these designs be correct, it becomes inevitable to ask what such an arrangement of four birds can possibly be intended to mean. Though the answer to such a question cannot be given with categorical assurance, still there are many clues pointing to definite inferences. In a recent article, Schuyler Cammann has shown that the symbolic designs on certain types of Chinese mirrors can only be understood by assuming that they were intended to be fixed or suspended, with the reflecting surface upward, from the centers of tomb vaults or of temple ceilings, "in order to establish the axis of the universe-in-microcosm symbolized by the whole structure, and to indicate the supernal Sun, or Sun-gate, at its summit."²¹ In other words, our mirror, with its fourfold radial composition, is a kind of cosmic diagram or mandala. The center of the mirror, as indicated by such a usage, is thought to coincide with the center of the universe, or to serve as a means of alignment with that center, as represented by the sun. The cosmic symbolism of ancient Chinese mirrors can be demonstrated again and again, not only on the basis of their function in such instances, but on the basis of such elements in their designs as the animals known to symbolize the four directions, or the twelve cyclical signs designating divisions of time and space.²² Since one of the basic meanings of the four arms or points in any mandala is undoubtedly the symbolization of the cardinal directions, we can hardly be mistaken in assuming that the fundamental or primary meaning of the four birds in our mirror design is to be sought in terms of this symbolism. We can hardly understand the attachment of four birds to

²¹Schuyler Cammann, "Suggested Origin of the Tibetan Mandala Paintings," *The Art Quarterly*, Spring, 1950, pp. 106-119. The author's argument centers around the observation that the animals of the four directions are represented on the mirrors in inverse order. Dr. Cammann has called my attention to the fact that in our mirror, Fig. 4, the inscription (in itself banal) likewise reads backwards, i.e., in counter-clockwise rather than in the usual clockwise direction.

²²Cammann, "The 'TLV' Pattern on Cosmic Mirrors of the Han Dynasty," *Journal of the American Oriental Society*, vol. 68, 1948, especially p. 165; and Cammann, "A Rare T'ang Mirror," *The Art Quarterly*, Spring, 1946, pp. 92-114. Cf. Schuster, "Das Vogelmotiv in der chinesischen Bauernstickerei," in Josef Strzygowski, *Spuren indogermanischen Glaubens in der bildenden Kunst*, Heidelberg, 1936, fig. 278 and p. 334.

the corners of a diagram enclosing the "center of the universe" except in the sense that these birds are thought to *support* that center (or the sun) by the beating of their wings. Nothing but this, it seems to the writer, can properly explain the motive of four birds attached to the corners of a framework surrounding the center of a mandala—be it an ancient Chinese mirror or some cognate form in another culture. This explanation no doubt also fits the early Chinese square mirror of Fig. 7, in which the four birds hold in their beaks and claws cross-bars "supporting," through an intermediate member, the boss under the perforated knob in the center. Also "supported" by these birds, through the same cross-bars, is the outer frame of the mirror, which, in such a context, can hardly represent anything but the all-inclusive frame of the universe. In point of form, the way in which the tails of the birds merge with the frame provides a measure of explanation for the arrangement of the four conventionalized birds in a later mirror like that of Fig. 4. Here, as in Fig. 7, the birds are apparently conceived as being attached by their tails to the corners of a rectangle; but the rectangle (or lozenge) has been, so to speak, turned inside out, so that the birds now appear to be flying away from the center rather than towards it. The inverse relationship of two designs like those of Figs. 4 and 7 may help us to understand the curious ambiguity with respect to the direction of the birds' flight which we have observed in some Indonesian and Melanesian designs of this type; and the same two Chinese designs might explain why the four birds are enclosed within the circle in Melanesia, while in Ceram they are attached to its periphery.

The considerations just outlined will perhaps suffice to indicate that in the ancient Chinese mirrors we are not dealing simply with decorative inventions, but rather with the symbolic expression of a metaphysical conception. As a matter of fact, such conceptions are not the monopoly of any one culture, nor are the designs by which they are expressed. It is not only in ancient China, or in modern Indonesia and Melanesia, that we encounter compositions reflecting these ideas. Actually, we are dealing with a well-established *type*, which has descended through the popular traditions of a number of different peoples not only in Oceania, but in Asia as well, and which survives in the traditional cultures of several Asiatic peoples until the present day. It is thus not a matter of choice, but rather of necessity, that we draw these modern Asiatic survivals, no less than the Oceanic ones, into comparison with the ancient Chinese mirror designs. As an adequate exposition of the modern Asiatic designs in this place would, however, take us too far afield, I shall risk the reader's indulgence by citing certain conclusions of a comparative study for which the documentation must be reserved until a later occasion.²³

²³An extensive study of carpet-motives and of cognate designs in other modern Asiatic popular traditions is planned for the publication mentioned in note 14.

Among the Asiatic traditions in which we encounter the motive of the four-bird mandala, probably the most important, because under a thin disguise of conventionalization it retains a wealth of original detail, is that of the knotted carpets of Western Asia.

One of the fundamental and most constantly recurring motives in Western Asiatic carpet design is that of four birds attached radially to a geometric diagram. In these motives the birds are generally, if not invariably, represented with ring-like or "perforated" bodies (as indicated by the appearance of the background color through the opening); and they are generally represented as converging in flight upon the center of the diagram to which they are attached. Each of the four birds in the carpet designs is generally shown grasping prey in the form of pairs of dragons or fishes—doubtless representing its cosmic antagonists. We venture to see an analogy for these cosmic dragons in designs of ancient Chinese mirrors of the type of Fig. 8. Though a survey of Late Chou and Han mirrors with designs composed on the basis of the "four-bird mandala" reveals considerable latitude in the choice of filling elements between the birds, still such a comparison suggests that dragons traditionally belong in these spaces, and that other creatures so placed are probably fanciful substitutions for dragons.²⁴ This does not mean that the whirligigs between the birds on the Han mirror, Fig. 4, are extraneous. The fact that "sun-wheels" appear in these positions on the *paparah*, Fig. 5, is enough to establish the whirligigs of Fig. 4 as traditional. This inference is confirmed, moreover, by the fact that *rosettes* occur regularly (in addition to dragons or fishes) in the spaces between the birds in the corresponding carpet designs. In the matter of these rosettes, again, we are fortunate in having a connecting link in Eastern Indonesia. As we see in Fig. 9, the four-bird *oiale* of Ceram is sometimes drawn with rayed rosettes in the spaces between the birds; and in Fig. 10 these rosettes alternate with lunar crescents—a circumstance which confirms our understanding of the *oiale* as a cosmic diagram or mandala, and relates it so much the closer to its modern Melanesian and ancient Chinese analogues. In the light of the Ceramese *oiale* as represented in Figs. 9 and 10, as well as of the *paparah*, Fig. 5 (and of the carpet designs, not here illustrated), we cannot hesitate to regard the four whirligigs of the Han mirror, Fig. 4, as an integral and significant part of its design.

It is perhaps obvious that such comparisons could, and should, be extended, to the benefit of our understanding of the designs, not only of the ancient

²⁴Though we cannot at the moment point to any obvious Melanesian or Indonesian counterpart for the dragons in the Asiatic four-bird mandalas, it is possible that certain perforated shell ornaments (*binuili*) of New Georgia in the Solomons preserve a reminiscence of this arrangement. In these (as generally throughout Melanesia, where the frigate bird is represented) fishes take the place of dragons as prey of the birds. An extended consideration of the *binuili* of New Georgia is planned for the publication mentioned in note 14.

Chinese mirrors, but of their Oceanic congeners—and perhaps in the end also to the advantage of our grasp of the historical relationships among these various traditions. In this place, we wish only to suggest that the usages and ideas associated with the four-bird *oiale* on the island of Ceram are especially worthy of study for the light they may shed on the conceptions ultimately underlying these motives. For in Ceram the *oiale* is closely linked with the ritual practices of a head-hunter's cult. To give only one instance: among the Alfurs of Ceram, when a young man returns from his first successful head-hunting expedition, he is invested with a *tjidako* or girdle of bark-cloth with the *oiale* painted upon it. The girdle, which has been secretly painted by the chief priest, is revealed *hanging from the ridge-pole of the club-house of the secret society*; and the admiring villagers are told that it has been painted by the spirits.²⁵ Here we have an obvious analogy with the suspension of the mandala-bearing mirror at the top of ancient Chinese tomb-vaults and temples.²⁶ Is the head-hunter's ritual in Ceram associated with this motive only by accident? Or

²⁵F. J. P. Sachse, *Seran (Mededeelingen van het Bureau voor de Bestuurszaken der Buitengewesten bewerkt door het Encyclopaedisch Bureau, vol. 29), Weltevreden, 1922, p. 113.*

²⁶The custom of suspending the *tjidako* with its four-bird *oiale* from the highest point in the club-house of the secret society in Ceram, and the custom of suspending the Chinese mirror in the same way from the highest point in tombs and temples, suggests that the original function of the four-bird motive must have been that of a ceiling decoration. This inference is supported by the occurrence of what is, in effect, a four-bird mandala painted on the ceiling of a (seventh century?) cave-temple at Ming Oi near Qyzil in Chinese Turkestan. See the color-plate at the end of Albert Grünwedel, *Alt buddhistische Kultstätten in Chinesisch-Turkestan*, Berlin, 1912. At the four sides of the ceiling four double-headed birds seize eight serpents (a typical carpet design); in the center is a blank space obviously representing (in practical terms) a smoke-hole, or (in symbolic terms) an opening to the sky or replica of the "Sun-door." (For architectural prototypes of this painted ceiling, see Albert von LeCoq, *Bilderatlas zur Kunst- und Kulturgeschichte Mittel-Asiens*, Berlin, 1925, pls. 99-103, pp. 31-33; and Josef Strzygowski, *Asiens bildende Kunst*, Augsburg, 1930, pp. 152-155).

Having identified the "four-bird mandala" as a ceiling design intended to be applied around a central hole symbolic of the sky, we find the way open to consideration of a significant feature of modern Asiatic nomad dwellings—specifically of the *appliqué* of felt in the form of a collar which is tied around the outside of the smoke-hole on the typical Mongol yurt. While these smoke-hole collars obviously serve the practical function of holding the roof-felts in place, it cannot escape our notice that they are cut in a pattern essentially identical with that surrounding the knobs of innumerable Huai and Han mirrors. The fact that the ancient mirrors were used as magic markers for the centers of ceilings, and that they show unmistakable traces of derivation from an *appliqué* of some pliable material, suggests to the writer that we may have, in the smoke-hole collars of the Mongol yurts, the modern survival of an ancient functional form which ultimately inspired the mirrors themselves.

Such an hypothesis obviously implies many questions—not the least important of which is whether we are justified in deriving the form of the modern smoke-hole cover, and the form of the motives surrounding the centers of many Huai and Han mirrors of somewhat different types than those here illustrated, all from an original "four-bird mandala." This is a difficult question which should, however, eventually be contemplated. The symbolism of the Mongol smoke-hole "collar" has recently been studied by Dr. Cammann. Cf. "The Symbolism of the Cloud Collar Motif" *The Art Bulletin* 33 (1951) 1-9.

should we perhaps seek here, rather than anywhere else, for insight into the motivation underlying this curiously widespread design?

ILLUSTRATIONS

- Fig. 1 Plaque of tridacna shell overlaid with turtle-shell fretwork (*kapkap*) from the Admiralty Islands. After the original. München, Museum für Völkerkunde, 12-43-194. Diameter, 13.5 cm.
- Fig. 2 Plaque of tridacna shell overlaid with turtle-shell fretwork (*kapkap*) from the Admiralty Islands. After the original. Leipzig, Museum für Völkerkunde, Me 2079. Published: Gladys A. Reichard, *Melanesian Design*, New York, 1933, pl. 96, fig. 268. The broken portions of turtle-shell fretwork are "restored" by the shaded portions of the drawing.
- Fig. 3 Design (*oiale*) scratched on a bamboo lime-box (*kakapan*) from Ceram. After the original. Rotterdam, Museum voor Land- en Volkenkunde, 24239. Published: J. W. van Nieuhuys, "De Oorsprong van de Toempal-Kapala der Javaansche Batik-Saroeng," *Nederlandsch-Indië Oud en Nieuw*, vol. 14, 1929, p. 198, fig. 4.
- Fig. 4 Design on the back of a bronze mirror. China. Later Han dynasty. Second century after Christ. Diameter, 10.2 cm. After Robert W. Swallow, *Ancient Chinese Bronze Mirrors*, Peiping, 1937, fig. 35.
- Fig. 5 Ornament of tridacna shell (*paparah*) with incised decoration from Buka, Solomon Islands. Diameter, 11 cm. After the original. Chislehurst, Kent, England, Cranmore Ethnographical Museum, 4665, 12.9.38.
- Fig. 6 Bird motives in Melanesia and in ancient China:
- A. Detail of Fig. 2
 - B. Detail of Fig. 4
 - C. Detail of Fig. 8
 - D. Detail of a Chinese bronze mirror dated by inscription 172-178 after Christ. After Lo Chen-Yü, *Ku Ching T'u Lu*, 1936, part 1, p. 2-b.
 - E. Detail of a Chinese bronze mirror. After S. Umehara, *Ancient Chinese Mirrors in Europe and America*, Tokyo, 1931, pl. 34. (Cf. Lo Chen-Yü, 1936, pt. 2, p. 24-a).
 - F. Detail of a Chinese bronze mirror. After Lo Chen-Yü, 1936, pt. 3, p. 1-b.
- Fig. 7 Back of a Chinese bronze mirror. Late Eastern Chou, around 500 B.C. 7.6 cm. (3 in.) square. After the original. Buffalo Museum of Science, Ch 185. Published: Alfred Salmony, "Chinese Metal Mirrors; Origin, Usage, and Decoration," *Hobbies, The Magazine of the Buffalo Museum of Science*, vol. 25, no. 4, April, 1945, p. 37, fig. 1.
- Fig. 8 Design on the back of a Chinese bronze mirror. Later Han dynasty. Second century after Christ. After Lo Chen-Yü, 1936, part 3, p. 7-b.

Fig. 9 Design (oiale) painted on the bark-cloth girdle (*tjidako*) of a head-hunter. Ceram. After K. Martin, *Reisen in den Molukken*, Leiden, 1894, pl. 23, fig. 1, b.

Fig. 10 Design (oiale) painted on shields and on the bark-cloth girdles (*tjidako*) of head-hunters. Redrawn after G. de Vries, *Bij de Berg-Aljoeren op West-Seran*, Zutphen, 1927, p. 83, sketch no. 6. The outer symbols are designated "suns" and "moons."

NOTES ON TUN-HUANG MANUSCRIPTS IN PARIS AND LONDON

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Materials at the Bibliothèque Nationale, Paris. Of the thousands of fifth to tenth century documents which came from a temple grotto at Tun-huang the better materials are to be found in the *Collection Pelliot* in Paris. This contains documents about half in Chinese, and the rest in Tibetan, Sogdian, and the Kucha, Khotan and Uighur languages. Access to them is to be had in the manuscript room of the Bibliothèque Nationale where Madame Guignard is in charge of the Oriental materials. There are two catalogues of the rolls; both are unique copies in longhand. The numbers mentioned below refer to the actual numbers on the rolls according to which they are arranged in storage and may be requested by readers.

A bound notebook bearing the title *Collection Pelliot-manuscripts* is kept in the manuscript room. The title page is marked *Inventaire sommaire des rouleaux Pelliot*. This contains the notes of Paul Pelliot in his own handwriting. The contents of this first catalogue are arranged in two parts (unnumbered). The first part has the title *Manuscripts de Touen-huang* entered at the beginning and at the top of each page in the handwriting of Pelliot. It contains titles and brief notes on (1) Chinese manuscripts and also (2) rubbings (*estampages*), inscriptions, etc., in various languages, as follows: Nos. 2001-3511, manuscripts, mostly Chinese, and mostly Buddhist; Nos. 4500-4521, rubbings, manuscripts, etc., including some long notes; Nos. 5522-5544, manuscript fragments, etc., in Sogdian, Chinese, etc. The second part of the first catalogue contains three sets of notes: Nos. 1-155, rubbings, inscriptions, etc. 8th century to modern; cartons 1-5, contents, *Paquets*, listed by number; Series 1-30, *Manuscripts Pelliot (Sanskrit)*; and a page of brief titles. There also exists another copy in Pelliot's hand. This contains partially complete notes on Nos. 3512-3992. Some numbers remain blank and are without identification.

The second catalogue is in loose leaf form in two packages containing notes in the handwriting of Wang Ch'ung-min and marked *Catalogue de la collection Pelliot*. The first part of Wang's catalogue is in the manuscript form as written out by him and is marked *Fonds des manuscrits chinois de Toen-Hoang*. The items are numbered 2001-2488. The notes supplement those in Pelliot's catalogue and include in some cases references to publication of the documents.