

FORGOTTEN ROUTES USED BY OCEANGOING VESSELS TO NAVIGATE THE WORLD'S SEAS

by

Dr. Josefine Huppertz

Summary

Beginning with the highly advanced cultures of ancient Syria and Egypt, I have elucidated how contained within their own sphere the Mediterranean countries actually were historically. Paleolithic cave art was initially not appreciated as stemming from prehistoric cultures. A chart of sea currents dating from early Stone Age Magdalenian times in the cavern of Castillo south of Altamira in Spain was not recognised for what it is because mastery of nautical navigation around 15,000 BC seemed impossible to modern Europeans.

These facts plus the world map of Turkish admiral Piri Re'is of 1513 launched my investigation. The evidence contained in Antarctic drill cores, the findings of ornithologists tracing the yearly migration of the Arctic tern to the Antarctic and back north, and also the most recent revelations by Aborigines of the Kimberley district of northern Australia have led me to the conclusion that we need to accord Paleolithic cultures the respect that is truly their due.

The results of my research clearly indicate that our judgemental distinction between cultures not having possessed written language and those who did should be maintained no longer, particularly as mankind's presence on earth can now be traced back over millions of years. Therewith evidence of writing within the last 4,000 years cannot by itself serve as the distinguishing characteristic of advanced culture. The art of c. 15,000 BC so far discovered must be considered at least as significant in the history of mankind and should not be seen removed in comparison with the development of advanced cultures of later millennia.

Further archaeological research will not only confirm ancient trade routes across the continents, but also early shipping routes that traversed the world's seas, as I was able to do on hand of a T'ao T'ieh on a golden crown discovered in the ruins of Chavín de Huántar in Peru. The design of this T'ao T'ieh is attributable only to the Shang period and thus it helps to open our view for a broader perception of our human history.

An important future direction of research will be to examine and to understand the historical and prehistorical global interaction of mankind's early cultures.

Introduction

FOLLOWING a congress on spacial constructs in Europe, Michael Jeismann noted in the *Frankfurter Allgemeine Zeitung* on April 12th, 2000, that history is a cartographer with a long memory. A world map from the „Apocalypse of St. Sever“, drawn by Stephanus Garcia c. 1076, illustrates this point of view. The map shows a flat, disc-shaped world with the designation „Oriens“ in an upper water's edge and the term „Occidens“ in a bottom shoreline. Between the two areas the map depicts those countries which were important at the time and their geographical relationships to each other.

This map belongs to the Roman type of so-called T-Maps, in which the separating seas were given a T-shaped configuration. The Mediterranean Sea separates the lower left half of the map labelled „Europa“ from the lower right half containing „Libia“ and „Aethiopia“. The upper right map segment with „Asia Maior“ and „India“ is separated from „Libia“ by the Nile. In the upper left half above the „Ellespontum“, the Dardanelles, lie „capacodia“, „albania“ and „irrania“, to cite just a few of the names. The space accorded countries on the map appears to show their diminishing significance with increasing distance from Europe.

EUROPEAN SHIPPING around 1076 also concentrated mostly on Europe and the Mediterranean countries. The Normans established kingdoms in Sicily and southern Italy, in the 9th century the Varangians (Vikings) founded Novgorod and Kiev. The 10th century saw the foundations laid for what was later to become Russia. The Arabs had already conquered North Africa and Persia in the 7th century, and in the 8th century they advanced all the way to India, in western Europe occupying parts of the Iberian peninsula. And starting in 1071 from the

Byzantine Empire, the Turk Seljuks conquered nearly all of Asia Minor.

This is merely a small selection of noteworthy historical facts significant for their times. These days scientists compete with one another to present the oldest human cultures. Highly valuable catalogues accompany successful exhibitions, such as the one in Basle about the Syrians, or in Frankfurt about the Picene. Research focusses mostly on the Near East, Egypt, Africa and the Mediterranean countries, and how far back their trade relations with Inner and East Asia may date is only touched upon occasionally and vaguely. The real roots of the cultures of those peoples in my opinion continue to remain unknown, as the research findings of Louis Leakey in the Olduvai Gorge, Tanzania, the findings near Aramis, Ethiopia, dated to be 4.5 million years old, and those of „Millennium Man“, a Homo sapiens predecessor discovered in the western central Kenyan district of Baringo and thought to be 6 million years old continue to serve as the starting point of all conjecture.

Building blocks furthering our understanding of human history have been created by the scientific studies conducted so far and are added onto with every exhibition. This was again convincingly demonstrated by the presentation of the research findings regarding the Olmeca of Central America held in Washington.¹

Development of advanced cultures in Syria and Egypt

WE SHOULD begin with the cultural realm of neighbouring countries in an extended sense. For Michel Fortin the cradle of culture is Syria, as set forth impressively by his catalogue and exhibitions in Switzerland, Canada and the United States. Syrian history indeed begins by leading us back into cultural spheres of the Paleolithic age and a time span

of at least a million years, lasting up until 12,000 BC.² Besides bone fragments and extremely rare skeletal remains of Neanderthal man and Homo sapiens, both documenting human settlement in Syria, artifacts found there further attest to human activity. Hoes, celts, scrapers and blades are formed of flint, a very hard silica mineral which, like granite and basalt, has endured over hundreds of thousands of years unchanged. Discoveries from the Mesolithic period (12,000 – 6,000 BC) are yet more revealing in the evidence they represent, and those of the Neolithic (6,000 – 3,000 BC) are so varied in Syria, that the culture they stem from can be reconstructed to a broad extent. In the 3rd millennium city states arose in Syria, lasting to about 1,000 BC. Principalities existed from 1,000 BC to 538 BC. Control was then gained by the Achaemenids (538 – 333 BC), who were succeeded by the Hellenistic era (333 – 64 BC), followed by the Roman era (64 BC – 395 AD), then the Byzantine era until 636, when Syria came under Arab rule, which lastly yielded to Ottoman conquest in 1516. The catalogue deals with the Islamic era up to the year 1577.

IN THE OASES along the Nile, written records document the beginnings of city states in the 3rd millennium BC, and from 1,000 BC on principalities establish themselves. The „Chronologie des Pharaonischen Ägypten“ (*Chronology of Pharaonic Egypt*) by Jürgen von Beckerath gives a detailed and critical listing of the known rulers of the Nile valley up to 332 BC as evidenced by the records so far discovered.³ The relatively late development of written language (we date it near the close of the 4th millennium, as older examples are so far lacking) and the widespread use of pictographs, which have been partially deciphered, make the conclusion plausible that we have not yet

identified the roots of the Nile valley societies and cultures. Thus the question remains unanswered, which of the prominent civilizations of the ancient Orient had origins dating back even further. Advanced cultures necessarily have long histories of development.⁴ It may therefore be assumed that regions of the Orient as well as Egypt had been settled for thousands of years not only along the coasts, but in the interior as well, before significant cities were built. Our knowledge of cultural advancement rests solely on the written evidence discovered.

THE POSSESSION of a written language instilled within the population of ancient Egypt such a degree of self-esteem, that the Nubians living in the south were regarded with disdain, for although they had their own language, it lacked any written form. In fact, writing as such seems to have been thoroughly foreign to them; the Nubians made use of Egyptian hieroglyphics only when that was unavoidably necessary. It appears that only centuries before the change in time reckoning, i.e. the Christian era, no Nubian culture had attained literacy. That is why the pharaohs reigning north of the Nubian territories above the Nile's first cataract referred to the people and their land disdainfully as lowly Kush. To the Egyptians, Nubians were uncivilized, illiterate foreigners, inferior to them in every sense. Yet the history and culture of the ancient Nubian-Sudanese Nile Valley in no way justify this attitude. Research conducted in the past few decades has revealed the significance the cultures of the neolithic Sudan had for cultural development in Egypt. It can no longer be denied that the roots of pharaonic Egypt extended far to the south over ages going back to the 10th millennium BC.⁵

The city-state of Kerma, which ruled in the Nile Valley from the 2nd to the 4th cataract for nearly a thousand years (2,500 – 1,550 BC), was completely independent of Egypt's rulers.

It also had singular cultural characteristics without parallel in the Egypt of the time. The kingdom of Kerma continued to maintain its autonomy in later times, yet it had no indigenous written language. This demonstrates that the evolvement of writing must not be a criterion for determining an advanced culture or civilization. Significant kingdoms were to be found all over the African continent, but only dynasty-founder King Njoya of Mfon-Ben (now known as Foumban) in the Cameroon transposed the language of his people, the Bamun, into writing after having seen written Arabian and European texts.⁶

WE MUST ACCEPT the probability that the written records of various peoples had already been lost for posterity before we even became aware of their having existed. On the other hand, a great many inscriptions cannot be deciphered. An example of this are the Meroitic language inscriptions dating from the 3rd century BC on, of which according to Priese only rudimentary deciphering has been possible.⁷

The Phoenicians – renowned traders and seasoned mariners

THE PHOENICIANS amassed a great deal of literature which we know mostly as long decayed papyrus and leather scrolls, few of which endured to modern times. Greece and Europe owe their alphabet writing (as opposed to hieroglyphs and pictograms) to the Phoenicians.⁸ Their method of writing began to spread c. 800 BC. Thus Homer's epic poems „Iliad“ and „Odyssey“, together comprising nearly 28,000 verses, could be preserved in writing toward the close of the 8th century BC, and according to tradition the stories they tell go back into the 2nd millennium BC. In the middle of the 3rd millennium BC the Phoenicians left the Arabian realm and settled in the area of

today's Lebanon. They became known as expert seafarers who did not rely on keeping coastlines in sight, as then usual, instead taking advantage of open-sea routes, which additionally were safer. Phoenicians ships reached daily distances of 250 kilometres.

Christine Pellech succeeded in showing that Homer's „Odyssey“ contains the account of a circumnavigation of the globe by Phoenicians. In the four-volume epos „Argonautica“ by Apollonius of Rhodes she traced world-wide cultural relations. In the course of this research she identified three separate journeys described in Apollonius' work. One was a sea-borne journey around the world heading east, then the same undertaking heading west, corresponding to the travels of Odysseus, and finally a circumnavigation of Africa.

THE AGE of these works clearly shows that the world seas had been familiar to mariners much earlier than we had long considered possible. The discovery of numerous Phoenician ports of trade in the Mediterranean realm and west of Gibraltar along the African coast beyond Lixus, but also northward along the Portuguese coast all the way to south-western England clearly speak for very active maritime trafficking. The Phoenicians were able to draw upon practically inexhaustible supplies of resources that included gold, silver and copper, and exported the highly prized ivory not only from Africa. Their markets were far-spread; in later times the Carthaginians even dealt in amber acquired on sea travels.

On the Atlantic shore north-west of the Strait of Gibraltar, the Phoenicians in 1,104 BC established the trading station of Gadir, which was much later to flourish once more under Roman rule and the Latin name Gades. It has long since become the important Spanish port of Cádiz. Gadir was founded more than 80 years after the conquest of Troy (1,192 BC) in Asia Minor by the Greeks. Troy had until

then been the legendary wealthy centre of trade of the entire Mediterranean region. This status was at least in part fulfilled by Gadir, which gained lasting world-wide significance as a terminal port for trade across the Atlantic.

THE SUPREME deity of Gadir was especially revered as the protector of seafarers. The city's most sacred shrine, the Melcart temple consecrated to the local god of Baal, who in his female manifestation was called Baalat or Astarte, was the religious centre for a large region beyond Gadir, yet the name of the city-god worshipped in the temple remains unknown to us.

Patron deities of mariners are popular in various major ports around the world. A significant one in Asia, for instance, was T'ien Fei, the Chinese goddess of maritime trades. There was a temple dedicated to her in China's most important northern port of Tientsin, and in other ports as well.⁹ In contemporary Taiwan she is known as Mazu and is the most popular goddess of the seas and the actual patroness of the island.¹⁰

Paleolithic cave art

The fiord-like river-mouths along the Iberian peninsula's coastline offer a great many places suited for the landing of ships, a fact surely used to advantage by the Phoenicians in past ages of which we have no written records. Nonetheless we are given a different kind of documentation by the prehistoric inhabitants of those coastal regions – the paintings in northern Spanish caves such as those of Altamira, 35 km west of Santander, or the ones near Castillo. The paintings were rendered c. 15,000 years ago and deserve our profound admiration.

WHEN THEY were discovered in 1879 in the cave later referred to as the „picture gallery“

of Altamira, no one was prepared to believe in their Ice Age origins. Decades passed before it was accepted that people living thousands of years before our time had actually been capable of creating these works of art. Since then many paintings have been discovered in various caverns, rendered in an age in which at best there were stone tools available for mastering all of life's tasks. Thus it was (and still is) not generally realized, that the hewn and shaped stone artifacts found at locations all over the world do not convey the conclusive picture of the real cultural life and the capabilities of our prehistoric forebears. In Syria stone tools dating back to 7,000 BC were discovered, shaped out of hard rock and identifiable as axe-heads. Two examples of these made of polished basalt are shown in the Syria catalogue under the numbers 137 and 138.¹¹

ONLY THE STONE objects shaped for hunting, fighting and work survived over the ages, and they cannot convey to us precisely what was done with them. But we know, for example, that the seafaring inhabitants of the Murik coast of Papua New Guinea built outrigger boats needed to cross the open sea to outlying islands using stone tools as late as the end of the 19th century and the beginning of the 20th. Not only these seagoing boats but also dug-outs for use in lagoons, rivers and swamps, as well as the large tree-trunk drums and huts and houses of all kinds consisted of wood and other materials subject to decay, necessitating their eventual renewal or replacement. Stone implements, however, endured, and allow us a meagre idea of what really determined everyday life.¹² While there were Europeans in New Guinea at the close of the 19th century who recorded what they witnessed in detail, life in the Stone Age and throughout the millennia since then is hardly imaginable for us. The age of European discovery and the colonization of territories all over the world led to a clouding of our perception of the mental and spiritual

achievements of peoples foreign to us. These processes also convinced us that the European inventive drive made us superior.

DUE TO THIS meanwhile traditional attitude we find it difficult indeed to grasp and appreciate what other cultures have brought about, although the immensity of the challenges they faced with the limited means at their disposal stagger the imagination. Additionally, we still place our faith in the written word and historical evidence as proofs to be trusted. But written records, for example, often convey the feeling that they contain essentials invisibly between their lines of script or print. It must be remembered that many historical records (not only from the past) document solely what those in power wished to see recorded.

An instance of historical manipulation was presented by Thomas Reinhardt in the *Frankfurter Allgemeine Zeitung* of May 4th, 2000, under the headline, „Savages were always more reasonable. A patriotic Spaniard forged Christopher Columbus' log-book in the Sixties and up until now no one noticed it.“ What remains of Columbus' log consists of transcriptions not necessarily identical with the original. That would explain why his descendents did not have the 1493 copy of the original published. The explorer's grandson Luis Colón (the Spanish version of the name Columbus), himself an admiral, by royal decree was granted the publishing rights to his grandfather's log-book for a period of ten years. He did not take advantage of this right, probably because the text would have necessitated critical examination.

PEOPLE living 15,000 BC and in even older ages did not document their considerable mental capabilities in written records, but rather in rock paintings. In Europe this took place in the later Paleolithic cultural periods Aurignacien and Solutréen, extending into the Mesolithic and the onset of the Neolithic. It is

Ice Age art and began c. 100,000 BC during the 4th Ice Age of the Quaternary. This Ice Age with its intermittent ice phases gave people the opportunity to especially study animal life and depict it on rock walls by drawing, painting or carving reliefs. This was not undertaken planlessly; there were „art schools“ in which young artists could develop their talents. One well-known school is that north of the river Dordogne near Limeuil, France. Engraved stones that served as master patterns were discovered there. In the cave „studio“ of Parpalló west of Valencia on the eastern coast of Spain, 1,430 rock slabs with paintings were found. Pattern pictures were shown to have been used in other caves, too, although the works they served as models for were not always executed at the same location. In one case a rock painting was created 300 km away from the place where the master pattern for it was found. For a large number of animal depictions no patterns have been discovered and may have been lost or destroyed.

THE CAVE paintings of the Ice Age artists were created in the course of thousands of years. A time of 20,000 years therefore means 800 generations! Yet the highly developed aesthetic sense of later Ice Age artists and their distinctive colour combinations have made it possible to clearly differentiate between the various style epochs.

The cave engravings and paintings discovered so far are not located near the entrances, but instead far inside in hidden crevices and corners in total darkness. Modern explorers face considerable difficulty in finding such drawings and paintings, which often can be viewed only from highly uncomfortable positions. And the explorer is beset by the feeling that it may be all but impossible to truly interpret the meaning of these wondrous works of art.

Catastrophes causing the destruction of higher Pleistocene fauna

THESE OCCURENCES toward the end of the Ice Age included increasing volcanic activity, such as the mighty gas explosions which formed the Laach volcanic lake in Germany's Eifel region north-west of the junction of the rivers Mosel and Rhine. Another such eruption was that of Rodderberg mountain south of Bonn, ashes of which were identified in the Marburg area, more than 100 km to the east, and others in the Erzgebirge mountain range along the German-Czech border or in Silesia, to name only a few central European instances. This violent and widespread volcanic activity had harrowing consequences for the inhabitants of such areas, as always caught defenceless by nature's catastrophes. Hunttable game was destroyed, that remaining fled or starved; settlers feared for the livestock they kept, their only remaining source of food. Faced with the incomprehensible, they turned to the supernatural and depicted the animals dedicatedly in full size and as true to life as possible, choosing for this places that were in themselves mysterious and sacred, well-hidden walls deep within caves. Thereby they hoped to invoke a higher protection for their stock against the forces causing widespread death.

This view is my personal conviction. American palaeontologists, however, advocate the hypothesis that thoughtless, wasteful slaughter was responsible for the mass death of animals in that age. But these scientists seem to disregard the fact that throughout the history of mankind, humans have accepted responsibility for nature and never wasted its resources, taking only what was needed for survival.

Rock paintings and other art by Australian aborigines in the 20th and 21st century

The art of this very special genre is still not adequately understood or explained, as convincingly shown by Christine Schlott with her field research in central Australia.¹³ She discusses works by artists living in the vicinity of Uluru (Ayers Rock) and Katajutas (Mt. Olga) that have adopted their own technique, called dot painting, instead of continuing in the traditional mode. In their practice of dot painting, paths, water-holes, spears, boomerangs, digging sticks, fire-places, stylized animals tracks and more are depicted. But the artists take care to make sacred symbols ordinary and to leave out especially powerful ones completely. This conscientious approach stems from their intention of not revealing the carefully guarded secrets of their people describing a reality beyond the worldly sphere of being, which, Andreas Lommel emphatically pointed out, has been incorrectly called Dreamtime.¹⁴

THIS MYSTICAL reality encompasses past, present and future. The adepts depict it in a kind of landscape style of painting, an image language understood by other initiates. Strangers are given explanations, but only to the extent permitted by the reigning taboos, and the restrictions the artists impose on themselves make sense indeed: certain questions must not be provoked. Christine Schlott attempts to explain the possible meaning of the so-called Dreamtime pictures, and is well aware that certain drawings allow different interpretations, as strangers are prevented from truly grasping the essential thinking of aboriginal Australians. The interpretations of signs and symbols provided by Christine Schlott can only serve as a general guide to the contents of the pictures, but without any form of explanation the viewer could not relate to them at all, reducing them to the mere aesthetical experience.

Beginning in the Thirties of the past century, Andreas Lommel received a certain degree of instruction from Aborigines, who when living self-determinedly harmonized with their environmental conditions in a manner absolutely amazing to Europeans. Their everyday life was highly spiritual; as hunters they required far less time to provide nourishment than a farming culture would have demanded of them, thereby leaving them free to pursue religious and artistic interests.

PALEOLITHIC cultural life in Europe as the last Ice Age approached its end may be imagined to have followed similar patterns. On both continents artists rendered their works at secret locations, removed from accidental or merely curious viewing. With the help of their Australian friends, Andreas Lommel and his artistically gifted wife Katharina succeeded in visiting and studying a large variety of rock painting sites.¹⁵ Even today there are „undiscovered“ rock paintings so well hidden in chasms and crevices, that only the family member to whom such a site belongs is able to locate it. But many Aborigines have left their traditional homelands, and clans have become extinct.

Bound by tribal and religious taboos, Stone Age artists would not have explained their works to non-initiates, would most probably not even have permitted them to see the pictures. We are therefore left to draw vague comparisons between ancient art and that of artists today working along historic lines. An example of the jealous guarding of spiritual art can be found in Kambot on the Keram river in Papua New Guinea, where in one modern instance an ancestor-painting was produced, but the master refused to share the essential ritual knowledge even with his assistants working on it.¹⁶ In another area of the South Pacific, young artists doing carvings based on traditional motifs admitted that they did not know the meaning of various elements they were including.

A sea-current chart of Paleolithic Magdalenian times

For the inhabitants of coastal regions like those of northern Spain, the sea had necessarily become a part of their environment. In regard to this, the cave of Castillo provides us a very special surprise. The cave, located in the Rio Pas valley near Puente Viesgo south of Santander and Altamira, was discovered in 1903, when workers in a tin mine came upon a very wet stalactite cavern beneath their shaft.

The way to the northern cave entrance in the steep mountainside leads through a lovely valley filled with flowers in spring and summer, including radiant orchids. South of this there is another cave entrance, arch-shaped and so small that a person can fit through only with difficulty, as the prehistorian and ethnologist Hans Rhotert found out in 1937. The cavern itself is quite spacious; in it a number of rock paintings were discovered, including the spectacular rendition of a red wild horse and the equally noteworthy one of a bison.

IN THE NORTHERN cave the scientists – foremost among them Hugo Obermaier, discoverer of the famous figurine nicknamed the „Venus of Willendorf“¹⁷ and Henri Breuil – came upon numerous drawings and engravings dating back through the entire early Paleolithic age. The voluminous book by André Leroi-Gourhan, „Prähistorische Kunst: Die Ursprünge der Kunst in Europa“, (*Prehistoric Art: The Origins of Art in Europe*) published 1971 in Freiburg, features impressive reproductions from the Castillo cavern. Of particular interest to us in Leroi-Gourhan's work is illustration No. 61, which shows red circles in rows of four that have now been identified by Christine Pellech¹⁸ as representing sea currents. Next to the circles there are „boxes“ also painted in red, which I

consider to represent rafts with simple superstructures. These could be cargo rafts similar to those still used by the Pacific coast inhabitants when the Spaniards reached South America's western shores.

THE INTERPRETATIONS of these cave paintings provided by Leroi-Gourhan no longer seem convincing; he was lacking the results of Obermaier's research, not yet published at the time. It received fitting appreciation through the work of Bandi and Maringer¹⁹ after Obermaier had died, but his conclusions provided no explanation for the small red circles. Their configuration, however, is comparable with the depiction of sea currents in modern atlases. The people of the 15th millennium BC must have explored the world's seas using rafts. Such sailing rafts are safer to navigate than sailing ships like the ones Columbus used for his discovery of America.

About 16,000 BC, when the most recent Ice Age was at its peak, the sea level was 125 metres lower than it is today. Land bridges connected North America and Asia, India and Sri Lanka, Ireland, England and France, Australia and Tasmania; or narrow sea channels separated land masses such as Australia and Indonesia. Europe's coastlines changed after the Ice Age; the Baltic Sea was a lake for a time, the Ankylos Sea (7,000 – 5,000 BC). The Ankylos culture is a cultural stage of the Middle Stone Age.

The coastal population of Europe

c. 15,000 BC

Mastery of navigation

THE PEOPLE of the Ice Age of 15,000 BC were so closely integrated into their natural environment that they felt themselves part of it, as many native peoples around the globe still do today. On their nautical travels they

observed not only the sun and stars, but made use of all natural phenomena, such as the winds, water conditions, wave formation along coasts and reefs, the meaning of clouds and the flight of birds. Seafaring coastal peoples must also have taken note of the behaviour and habits of the Arctic tern (*Sterna paradisaea*). This migratory sea-bird, also known as sea-swallow, leaves its breeding ground in the Arctic at the end of summer and flies c. 20,000 km to Antarctica as the summer there sets in. Along with at least 22 other species of birds and uncounted thousands of its own kind, the tern spends the Antarctic summer in the pack-ice zone. In early March, when autumn begins in Antarctica, it sets out on its journey north to the Arctic summer. By that time the sea-swallow will have flown the equivalent of once circling the Antarctic continent, an area larger than Europe. Recent radar-observation of the Arctic tern by Thomas Alerstam have verified its travels.²⁰

THE FLIGHT ROUTES taken by migratory birds, including the common swallow (*Hirundo rustica*), were surely an additional aid in orientation for people at home on the high seas. Further research into bird migration will provide more valuable information, as the orientation mechanisms of animals are by no means known completely yet. There are migratory birds that fly 3,000 – 4,000 km a day without stopping to rest. Some rely on the position of the sun to determine their route, others require the nightly stars as navigation aids, and certainly other factors are equally important. Bird migration research could also shed more light on the astounding navigational mastery of people having received their abilities from their fathers.

Traditional „navigation birds“ were ravens and pigeons, whose ability to learn was valued and caused them to be domesticated over thousands of years. A pigeon can cross 500 km of open water with little effort; they were

therefore employed at sea to find land. In China and Egypt carrier pigeons were bred very early in history – another fact which may seem outdated in the 21st century. We make it difficult for ourselves to understand life in the Stone Age, although information available in our times can be of help.

Unique prehistoric writing in images

THE REAL meaning behind some of the endeavours of people in the Paleolithic age and also Australian Aborigines of which we have evidence has continued to escape us or to be realized partially only, although we have the research of numerous scientific disciplines at our disposal.

One example of this may be seen in the depiction of hands on cave walls of the Cantabrian region of Spain, the French Pyrenees and the Dordogne in France. Most of them are not handprints (produced like fingerprints) but instead negative images in which the hand is purposely left out in the pigmented area. With fingers spread, the hand was held against the wall and mouth-sprayed with pigment, then lifted off.²¹ Alone in the cavern of Gargas, five kilometres from Montrejeau in the district of Hautes-Pyrénées, there are 120 such „hand negatives“ along with a number of engravings of the later Magdalenian period.

WHAT THE DEEPER meaning of hand images might be was one of Andreas Lommel's questions left unanswered in northern Australia. He was merely shown the method of producing the „negatives“ the way people of the Ice Age must have done it. This is worth thinking about – what are 15,000 years or more, when a cultural element apparently is still as significant today as it was then? We are clearly dealing with popular custom coupled to the life situation of a people and therefore not forgotten.

Since Lommel's time there aborigines of the Kimberley region of north-western Australia have decided to reveal some of their secrets. David Mowaljarlay of the Ngarinjin tribe was instrumental in the publication of Jeff Doring's book „Gwion Gwion“ (Cologne 2000). Mowaljarlay was known as a teacher and author of significant publications; he was a respected cultural intermediary and as a politician was untiringly engaged for aborigine rights. His „official“ surname was Banggal and he was a member of the Wodoi moiety from Brrejirad dambun. In spite of a serious heart condition he travelled to Paris in 1997 to attend a photo exhibition in the Musée Nationale d'Histoire Naturelle and a UNESCO presentation of aboriginal cultural exhibits. Mowaljarlay died in Australia on September 27th, 1997. In my essay on Andreas Lommel on the occasion of his 85th birthday I included a photograph of David Mowaljarlay, who as a twelve-year-old was a member of the Lommel group.²²

ALONG WITH Ngarjno, Ungudman and Nyawarra, Mowaljarlay Banggal was a keeper of tribal law and thereby empowered to grant insight into the manifoldness of the ancient culture of Australia's north-western aborigines. In the trilingual 336 page work „Gwion Gwion“ we therefore have not only a large number of reproductions of rock paintings with authentic interpretations, but in its entirety a veritable treasure of information which may even advance our understanding of European Paleolithic cave painting. „Gwion Gwion“ gives us the first explanation for hand images: they serve as a kind of sign indicating a meeting place nearby or documenting an assembly of many people (compare p. 38). They also stand for a whole family. An extended hand may occasionally be meant as an expression of supplication or of a demand, a signal made by the guardian of that particular place to remind visitors not to forget the customary gifts for the clan whose guests they are. A single hand could possibly

be construed as the secret sign of a sorcerer or an interpreter of dreams, someone with extraordinary powers (compare p. 304).

Together with many other cultural manifestations corresponding among peoples world-wide who were able to communicate with symbols instead of writing, the capability of interpreting the same forms of expression in rock paintings must have spread by way of prehistoric land and sea routes used far more frequently than we deem possible.

FINDS MADE by chance occasionally provide us isolated information about cultures that existed thousands of years before our time. They are often discoveries behind which we do not presume people who thought like we do and were perfectly adjusted to their environment. The technical possibilities of the 21st century tend to obscure our understanding – what we do not comprehend or cannot explain must be of extraterrestrial origin! A simple solution indeed, but not a verifiable one. Alone the mastery of the seas in prehistoric times is hardly comprehensible for us. Nautical charts that were discovered amaze us, yet reflect only a fraction of the knowledge mankind possessed then. The skills that made such travel possible have not been revealed to us, but oral tradition and experience would certainly have been essential.

Cartographic schools

In the Middle Ages cartographers knew how scientific instruments were constructed and had gained experience as masters of ships. In 1359 the court of Aragon issued an order that every Catalonian galley had to maintain two portolanos, as the exploration and documenting of nautical routes was deemed of utmost importance. The maritime cartographers were stationed in Mallorca, where according to research done by Traudl

Seifert, the Catalans established Europe's first cartographer school, which Italians also attended.²³

THE CATALANS were probably following an ancient tradition, for in the Paleolithic age, from which stems the chart of Atlantic currents in the cavern of Castillo, there were schools in which ongoing seafarers had to learn the skills needed on the high seas. Whether they used a kind of stick-map similar to those of the Micronesians, or collected their knowledge of sailing in songs like the Polynesians, we do not know. But there is much to indicate that they passed on their maritime experience orally before written records could even be considered an option. Yet it may also be possible that information perhaps written on leather was lost over the ages.

Hecataios of Miletus (c. 550 – 480 BC) was the best known geographer of the Ionic school. A world map of his has endured along with the geographic concepts of the Greeks of his time.²⁴ He pictured the world as being flat, while Paleolithic mariners ages before him had grasped the world's spherical shape. This in the broadest sense confirms what Traudl Seifert writes in the introduction of her exhibition catalogue: „The development of cartography did not progress in a continuous gentle upward curve: periods of the most rapid gains of knowledge unfortunately were often followed by long stretches of stagnation.“²⁵

A TIME OF 15,000 years BC is actually insignificant in view of the history of mankind spanning several million years. It is therefore hardly comprehensible that our forebears should not have received the attention or the appreciation due them. The deciding-line for us is the development of writing – and this is totally unfounded, as my exposition so far has shown. Catastrophic earth and seaquakes which caused large land areas to disappear in

the floods, and environmental changes continuing on in our time have also served to let knowledge born out of ancient tradition become forgotten. Wars, decimation and migration are further causes for the loss of the all but indestructible wealth of experience.

Today accelerated technical progress makes it possible to carefully unearth more of our cultural heritage, yet reconstructing things from out of the past remains a laborious undertaking, although the results time and again amaze us.

THE EXAMPLE of Alexandria serves to illustrate this. Located on the Nile delta, it was once the capital of Egypt and the most important cultural centre of the western hemisphere. This is where Claudius Ptolemaeus worked in the 2nd century AD and used his possibilities to popularize the observations and discoveries of earlier astronomers like Hipparchus of Rhodes (c. 160 – 125 BC). In Ptolemaeus' time the last of the two famous libraries of Alexandria still existed in the Serapeion, housing c. 200,000 valuable script rolls. All of that was consumed by fire in 390, the same fate suffered by the greater of the libraries, the Museion with its estimated 700,000 rolls in 47 BC. In 643, Alexandria was destroyed during the Arab conquest, the philosophical Greek world-view replaced by Arabian science. The new Academy was to endure the entire span of Moslem rule until 1517, when the Turks under Selim I (1467 – 1520) conquered Egypt. This rang the death-knell for Alexandria.

THE GRADUAL destruction of an old cultural centre led to the knowledge accumulated there by past research being irretrievably lost. Frequently only vague memories remained, like the nebulous idea of a southern continent still searched for by the Dutch and British as late as the 18th century. James Cook, too, was instructed to ascertain

the existence of such a continent. But on his second journey around the world from 1772 to 1775, during which he advanced to 71° 10' S., he found himself confronted by a mighty ice barrier instead of the hoped-for southern continent. Supposedly Cook tore up his charts, which featured the mysterious land.

WHEN THE Top Kapi serai in Constantinople (which became Istanbul in 1930) was converted into a museum in 1929, the director of the National Museum, B. Halil Etem Eldem, discovered in the historical imperial palace the map of Turkish admiral Piri Re'is.²⁶ Together with the German Orientalist Paul Kahle, who happened to be in Constantinople at the time, Director Eldem began an initial examination of this exciting find. The coloured map was painted in 1513 on gazelle skin and shows particularly fine workmanship. Only the western half of the map was found, the eastern half having been cut off at some unknown time. This was made apparent by five lines of writing at the eastern edge of the map which are halved, their beginnings lost.

On his world-map Piri Re'is had combined his own observations and those of others. He had also studied a great many charts depicting the old world. Beside Persian and Turkish maps, those drawn at the time of Alexander the Great were especially helpful to him. Then he also used charts contained in nautical handbooks about India and China. According to Piri Re'is himself, c. 20 charts were incorporated into his one. His excellent Turkish geographers drew the map in 1513 in accordance with the respected cartographic tradition of the time – and we are reminded of the cartography school in Mallorca in the year 1359.

PIRI RE'IS' comprehensive work also shows various types of sailing vessels at places of particular significance for them. Since then the Atlantic Ocean carried the new name of

„Ovosano“, meaning „healthy egg“, for it was then established that this ocean is completely enclosed by coastline like a lake.

The depiction of Antarctic coast on the map of Piri Re's was a sensation and remained an enigma. It seemed totally impossible that seafarers of previous ages should have seen an ice-free Antarctic coast and charted it. After all, even after Magellan's 16th century world circumnavigation (1521 – 1523) a southerly continent, an Antarctica, was the subject of debate. The fact that since antiquity and the Greek copies of Ptolemaeus' maps such a continent was presumed to exist is proof that it had at some time been sighted, but its existence forgotten to the point of rumour. The Antarctic coastline with bays and islands drawn by Piri Re's is shown by modern Antarctic maps as „Dronning Maud Land“ (1990),²⁷ „Queen Maud Land“ (1996)²⁸ and „Königin Maud Land“ (1984).²⁹

CHARLES H. HAPGOOD studied the map of Admiral Piri Re's with his students for seven years in order to verify the calculations of this unbelievably precise chart. The results of his research are presented in his book „Maps of the Ancient Sea Kings. Evidence of Advanced Civilization in the Ice Age“, (Philadelphia, 1966).³⁰

The world maps of Oroneus Finaeus (1531) and Gerardus Mercator (Gerhard Kremer, 1512 – 1594, map 1569) also feature Antarctica. The one by Finaeus shows astounding similarity with the Antarctic maps of today. In order to perhaps solve the question why, R. E. Byrd in 1949 conducted field research in the area of the Ross Sea, studied drill cores and found within a time-span of a million years three periods of moderate climate having occurred there. The coastline and mountain ranges must have been devoid of ice then. It is assumed that the most recent era of warmth on the South Pole continent took place 9,000 years ago, turning

cold again some 3,000 years later, c. 4,000 BC. Since Byrd's studies, a German polar research team has been examining Arctic drill cores in order to research historical climate conditions there.³¹

EXPERIMENTAL journeys using reconstructions of Stone Age vessels give an idea of Paleolithic knowledge and skill. In 1987 the reconstruction of a boat of 10,000 years past, propelled by oars and sail and measuring seven metres length by of two metres beam, the sail made of leather held together by fish bones, reached the Island Milos from the Greek mainland. This experiment successfully completed an archaeological research project. It had proven that as far back as the 8th millennium BC, obsidian from this south-westerly Cycladic island could have been transported to the mainland 150 nautical miles away.³²

Journeys across the Pacific Ocean

It can only be hoped that the missing half of Piri Re's' world map will someday be discovered in an archive somewhere, perhaps in India or even in China. At any rate it is known that the seas bordering the western Pacific were travelled 15,000, 20,000 and even 60,000 years ago, when the very first future Australians took to the waters and reached what was to become their continent. In 1974 a human skeleton considered to be of such an age was found near Lake Mungo in New South Wales. (Ref. FAZ, June 16th, 1999).

IN THE EAST Asian coastal regions there would accordingly have been nautical expeditions very long ago across the Pacific, too, by taking advantage of the Kuroshio (also called Japan current), an ocean current belonging to the strongest measured. The later to be established trade relations between China and India and Arabia, no less those

across the Pacific towards America, convey an idea of the wealthy countries that gained contact via these routes.

AND YET we are amazed and doubtful that all of this is supposed to have taken place thousands of years before our time. The cultural discoveries made in Inner and East Asia time and again cause sensations with their splendour and riches, and seem to indicate that there is much more we cannot even anticipate. Alone the story of the Shang rulers will hopefully be a fascinating documentation one day. Their legendary wealth empowered them to send trade expeditions across the Pacific, but the origins of their culture remain a mystery to us.

THE PROLIFERATION of knot-strings which the Austrian Kuno Knöbel saw in a museum in Vietnam's old imperial city of Hué, and had seen in use on the Ryukyu Islands south of Japan in the same manner they had been used by the Incas, inspired his idea, that there must indeed have been very early exchanges between Asia and the Americas. With the „Tai Ki“, the reconstruction of a Chinese junk of the Han era (c. 100 AD), he attempted to cross the Pacific to prove the feasibility of his theory. He was also motivated by the fact that in Copán in western Honduras, site of significant Maya ruins, the Chinese ideogram showing a circle equally divided into halves by an S-shaped line is clearly identifiable. A complete account of the „Tai Ki's“ journey was written by Erno Wiebeck, an expert well-versed in describing famous ship reconstructions based on historical discoveries. Wiebeck time and again points out the difficulties our forebears faced on the high seas, and how with years of experience they mastered them far better, it would seem, than the captains of today manage.³²

Throughout history the western coasts of North, Central and South America saw the

landings of voyagers from overseas. People appeared on the shores out of the vastness of the ocean, settled in the coastal regions or migrated into the interior and in time brought forth noteworthy advanced cultures. This development was evidenced beyond all doubts by the Olmeca exhibition in Washington. The most recent findings from La Venta in Central America had brought clarity about the origins of this great people – Chinese symbols from the Shang era were found not only there but widely spread throughout Central and southern North America. Discoveries made in the north Peruvian homeland of the Chavín Culture additionally prove the active trade with Asia which prevailed. On a golden crown found in the ruins of Chavín de Huántar south-east of Huaráz, 3,200 metres (10,500 ft) high in the Andes, I discovered an engraved T'ao-t'ieh as known to us only from the Shang era. I discussed it in my remarks on the occasion of the 30th anniversary of the death of Heine-Geldern 1998 in Vienna. My text may be read in the „Acta Ethnologica et Linguistica No. 72“, Vienna, 2000.³³ The T'ao-t'ieh of the Chavín gold crown is pictured on the cover of this magazine and within the text.



**Golden crown found in the ruins
of Chavín de Huántar**

Closing remarks

NOT ONLY was America visited by sea but also by airborne vehicles – this is the conclusion suggested by the recently discovered golden objects now on display in the Überseemuseum (*Overseas Museum*) of Bremen, labelled as amulets.

Extraterrestrials were again made responsible, this time for having inspired the illiterate prehistoric population of Columbia to make these brooches, which appear to resemble the space shuttle. How simple the explanation would be if the gigantic figures and line patterns etched into the ground in the Nasca region of Peru were consulted, as well as certain relevant journals from ancient China.

THERE MO TI (c. 479 – 381 BC) experimented with kites he had designed, which remained in the air for three days. A large kite made of bamboo was capable of carrying the weight of a person. It was known at the time that c. 1,500 years prior to Mo Ti a neighbouring people had possessed flying „wagons“ that easily travelled 40,000 Chinese li in the air using the winds. Thousands of years later these so-called „wagons“ were shown in a Chinese encyclopaedia of 1430 AD, but as mere wagons and without any mention of their original function of flying. In South America at the time of the Chavín culture some newly arrived travellers were

asked if they had come by sea or by air. These facts should be accorded greater attention. A beginning has been made with the construction of larger scale models of the c. 3 cm gold objects in the Bremen museum. The German air force officer Peter Belting and the dentist Dr. Algrund Eenboom built these radio-controlled craft to test their flight capabilities, and found that they are excellent gliders. Their distinctive characteristic is the delta shape and they have a rudder and even elevators.

THEREWITH these exhibits in the Überseemuseum of Bremen led to the recognition of yet another proof of our ignorance regarding the technical knowledge accumulated by our forebears in ancient millennia. We are merely at the outset of discovering the achievements of our ancestors and are continually gaining certainty about the knowledge of the world that must have been manifested as far back as Paleolithic times. The book of the secret holy paths of the Ngarinjin of Australia should be remembered, a people able to construe long past events from the configuration of specific constellations of stones. They make us aware of how little we have so far comprehended of human history, which not only by way of the seas but also on land left us manifold evidence well worth documenting.

Translation Peter Hübner

Zusammenfassung

Eine entdeckte Meeresströmekarte der Altsteinzeitmenschen des Magdalenien führte zu vorliegender Untersuchung. Vergleiche der Höhlenkunst im Paläolithikum mit den Felszeichnungen und Malereien der Aborigines des 20. ja 21. Jahrhunderts lassen weltweite kulturelle Zusammenhänge erkennen. Sie existieren tausende von Jahren über Land-, aber auch auf Seewegen. Das wird ansatzweise erläutert und ist nachvollziehbar in dieser Arbeit geschehen.

REFERENCES

- ¹ Huppertz, Josefine; Sankt Augustin 1997, p. 7 ff.
- ² Fortin, Michel; Quebec 1999, p. 341
- ³ von Beckerath, Jürgen; Mainz 1997
- ⁴ Huppertz, Josefine; Vienna 2000
- ⁵ comp. Wildung, Dietrich; Munich 1999, p. 12 f.
- ⁶ Schmitt, Alfred; Wiesbaden 1963
- ⁷ Priese, Karl-Heinz; Mainz 1992, pp. 10, 12
- ⁸ Latacz, Joachim; Mainz 1990, p. 11 f.
- ⁹ Huppertz, Josefine; Nettetal 1988, p. 223
- ¹⁰ Wäadow, Gerd; Sankt Augustin 1992
- ¹¹ Fortin, Michel; Quebec 1999, ill. 137, 138, p. 188
- ¹² comp. Huppertz, Josefine; Sankt Augustin 1998
- ¹³ Schlott, Christine; Dresden 1999, pp. 108-119
- ¹⁴ Lommel, Andreas; Munich 1994, p. 65 ff.
- ¹⁵ Lommel, Andreas; Hamburg 1952 & Takarakka Nowan Kas Publ., Queensland 1997
Lommel, Andreas; Munich 1989
Huppertz, Josefine; comp. Sankt Augustin 1997
- ¹⁶ Huppertz, Josefine; Aulendorf 1981, pp. 101-112 & Aachen 1992, pp. 92-99
- ¹⁷ The Willendorf figurine was found 1908 during excavations led by Obermaier at the site of a mammoth hunter camp of the later Aurignacian period.
comp. Exner, Walter; Waldeck ³1999
- ¹⁸ Pellech, Christine; Vienna 2000, pp. 52-66
- ¹⁹ Bandi, Hans-Georg & Maringer, Johannes; Basle 1952
- ²⁰ Alerstam, Thomas; Bonn 1997, p. 250
- ²¹ comp. Maringer, Johannes; Basle 1952, ill. 92, p. 71 or ill. 95, p. 73 & ill. 125, p. 98
comp. Gutiérrez Sáez, José Luis, et al; León 1995, p. 28, ill. „mano en negativo“
- ²² comp. Huppertz, Josefine; Andreas Lommel, in *Geokultur* 1997, pp. 2, 3, ill. „David Mowaljarlay at the age of 12“. „Andreas Lommel and David Mowaljarlay“ in: *Oceania*, Vol. 64, No. 4, June 1994, pp. 277-287
Lommel, Andreas; Munich 1997, p. 723
- ²³ Seifert, Traudl; Unterschneidheim 1979, p. 11
- ²⁴ Huppertz, Josefine; Nettetal 1988, p. 210
- ²⁵ Seifert, Traudl; Unterschneidheim 1979, p. 9
- ²⁶ Piri Re'is was admiral of the Red Sea and Persian Gulf fleets. He studied contemporary nautical science and particularly navigational theory. His work „the ‚Bahriye‘ contains descriptions and graphic depictions of the Mediterranean Sea and coastal cities and countries of the time, and contains important information regarding the sea and shipping.“
comp. Kahle, Paul, 1933, p. 10
- ²⁷ Antarctica, Antarktis, 1:12,000,000; Karlsruhe ⁷1990
- ²⁸ Satellite Image Map of Antarctica, 1:5,000,000; US Dept. of the Interior, Geological Survey; Reston, Virginia 1996
- ²⁹ Antarktis 110° W. – 0° – 90° E., 1:6,000,000, satellite photo map; Frankfurt/Main 1984
- ³⁰ Hapgood, Ch. H.; Kempton, Illinois 1996

³¹ Permanently manned German research units within the Norwegian area of Antarctica are the station named after polar explorer Georg von Neumayer on the ice shelf in north-western Dronning Maud Land and the Georg Forster Station in the north of Dronning Maud Land. Between them further inland lies the intermittently manned Norwegian Troll research station, named after the German Antarctica explorer Prof. Georg Troll, who died September 5th, 1991.

³² Wiebeck, Erno; Hamburg 1994, p. 163

³³ Huppertz, Josefine; Vienna 2000, pp. 110-113

BIBLIOGRAPHY

Alerstam, Thomas: Zugvögel. In: Arktis. Antarktis. Bonn 1997, pp. 250-254

Antarctica, Antarktis. 1:12,000,000; Karlsruhe. 7th edition 1990

Antarktis 110° W – 0° – 90° E. 1:6,000,000; satellite photo map. Frankfurt/Main 1984

Bandi, Hans-Georg and Maringer, Johannes: Kunst der Eiszeit. Levantekunst. Arktische Kunst. Basle 1952

Beckerath, Jürgen von: Chronologie des Pharaonischen Ägypten. Die Zeitbestimmung der ägyptischen Geschichte von der Vorzeit bis 332 v. Chr. Münchner Ägyptologische Studien Bd. 46, Mainz 1997

Doring, Jeff: Gwion Gwion. Ngarjono, Ungudman, Banggal, Nyawarra. Sydney 2000

Exner, Walter: Die „Venus von Willendorf“. Ein altsteinzeitliches Fruchtbarkeitssymbol? Waldeck ³1999

Fortin, Michel: Syrien. Wiege der Kultur. Quebec 1999

Franchi Dell'Orto, Luisa (Ed.): Die Picener. Ein Volk Europas. Rome 1999. Exhibition in the Schirn Kunsthalle, Frankfurt/M. 2000. Curator Giovanni Colonna

Gutiérrez Sáez, José Luis; Ceballos del Moral, José Maria: Puente Viesgo y las Cuevas del Monte del Castillo. León 1995

Hapgo

od, Charles H.: Maps of the Ancient Sea Kings. Evidence of Advanced Civilization in the Ice Age. Kempton, Illinois 60946 USA 1996

Huppertz, Josefine: Eine neue Weltkarte. Die Welt des 21. Jahrhunderts. In: verbum svd. vol. 29. Nettetal 1988, pp. 207-238

Huppertz, Josefine: Mobul, der Stammvater der Kambot-Leute in Nordost-Neuguinea. Aulendorf 1981

Huppertz, Josefine: Mobul. The Ancestor of the Kambot People in North-East New Guinea. Revised edition. Aachen 1992

Huppertz, Josefine: Kulturtraditionen der Osterinsulaner. Sankt Augustin 1994

Huppertz, Josefine: Innerasien und Rapa Nui, die Osterinsel. Ein unterschätztes Phänomen in Bezug auf eurasisch-pazifische Kulturbeziehungen. Congress in Bad Wildungen, May 1997. Waldeck 1997

Huppertz, Josefine: Begegnung zweier Welten. Waldeck 1998

- Huppertz, Josefine: Andreas Lommel. Erforscher australischer Aborigines und Bewahrer bedeutender Felsmalereien. Zum 85. Geburtstag. Waldeck 1997, ²1998
Eng. Version: Andreas Lommel. Explorer of the Australian Aborigines and Preserver of Significant Rock Paintings. In Honor of his 85th Birthday. Waldeck 2001
- Huppertz, Josefine: Innerasien, Wiege zur Weltherrschaft einst und jetzt. In: *Acta Ethnologica et Linguistica* Nr. 72. Vienna-Föhrenau 2000
- Jeismann, Michael: Die Stunde der Platzanweiser. Dimensionen im Kopf: Eine Berliner Tagung über die Raumkonstruktionen in Europa. In: *FAZ*, April 12th, 2000
- Kahle, Paul: Die verschollene Columbus-Karte von Amerika vom Jahre 1498 in einer türkischen Weltkarte von 1513. In: *Forschungen und Fortschritte*, Vol. 8, No. 19, July 1st, 1932, pp. 248-249
- Kahle, Paul: La Carte Mondiale de Piri Re'is. Actes du XVIII Congress international des orientalistes. Leiden 1932
- Kahle, Paul: The Last Map of Columbus. The Geographical Review. XXIII, No. 4, 1933
- Kahle, Paul: Piri Re'is Haritasi. Piri Re'is Map. Editor: Deniz Kuvvetleri Komutanlığı. Hidrografi Neşriyatı. Istanbul 1966
- Latacz, Joachim: Die Phönizier bei Homer. In: *Die Phönizier im Zeitalter Homers* von Ulrich Gehrig und Hans Georg Niemeyer. Mainz 1990, pp. 11-21
- Leroi-Gourhan, André: Prähistorische Kunst. Die Ursprünge der Kunst in Europa. Freiburg 1971
- Lommel, Andreas: Die Unambal, ein Stamm in Nordwestaustralien. Hamburg 1952.
Engl. edition: Takarakka Nowan Kas Publications, Queensland 1997
- Lommel, Andreas und Katharina: Die Kunst des alten Australien. Munich 1989, ²1990
- Lommel, Andreas: Carl Strehlow. In: Jo-Anne Birnie Danzker: Traumzeit Tjukurpa. Kunst der Aborigines der Western Desert. Die Donald Kahn-Sammlung. Munich 1994, pp. 65-68
- Lommel, Andreas and Mowaljarlay, David: Shamanism in Northwest Australia. In: *Oceania*, Vol. 64, No. 4, June 1994, pp. 277-287
- Lommel, Andreas: Aborigines auf einem UNESCO-Forum in Paris. In: *Museum Aktuell*/July 1997, Munich 1997, p. 723
- Lommel, Andreas: Some Remarks about Migration of Peoples, Tools, Weapons, Motives of Art and Shamanism. In: *Migration and Diffusion*, Vol. 1, No. 4, Vienna 2000, pp. 29-41
- Maringer, Johannes: Kunst der Eiszeit. In: Bandt and Maringer, Basle 1952, pp. 17-113
- Obermaier, Hugo: Der Mensch der Vorzeit. Berlin, Munich, Vienna 1912
- Pellech, Christine: Crossing the Atlantic in Early Times. In: *Migration and Diffusion. An International Journal*. Vol. 1, No. 1, January-March, Vienna 2000, pp. 52-66
- Piri Re'is (Muhiddin ibn Mahmud or Ahmet Muhiddin), Kitab Bahriya. Two vols., Berlin 1926
- Priese, Karl-Heinz: Das Gold von Meroë. Mainz 1992
- Reinhardt, Thomas: Wilde waren schon immer vernünftiger. Ein patriotischer Spanier fälscht in den sechziger Jahren das Bordbuch des Christoph Kolumbus und niemand hat bis heute etwas davon bemerkt. In: *FAZ* May 4th, 2000
- Rickenbach, Judith (Ed.): Geheimnisvolle Zeichen im Alten Peru. Zurich 1999
- Satellite Image Map of Antarctica. 1:5,000,000; U.S. Department of the Interior. Geological Survey. Reston, Virginia 1996
- Schlott, Christine: Bilder aus der Traumzeit. Moderne Malerei aus Zentralaustralien. In: *Kleine Beiträge aus dem Staatlichen Museum für Völkerkunde*, Nr. 17, Dresden 1999, pp. 108-119
- Schmitt, Alfred: Die Bamum-Schrift, three vols. Wiesbaden 1963
- Seifert, Traudl: Bayerische Staatsbibliothek. Die Karte als Kunstwerk. Dekorative Landkarten aus Mittelalter und Neuzeit. Unterschneidheim 1979

- Wärow, Gerd: T'ien-fei hsien-sheng lu. Die Aufzeichnungen von der manifestierten Heiligkeit der Himmelsprinzessin. Einleitung, Übersetzung, Kommentar. In: Monumenta Serica Monograph Serie XXIX. Nettetal 1992
- Wiebeck, Erno, Lübeck, Irmin: Welt der Entdeckerschiffe in berühmten Nachbauten. Hamburg 1994
- Wildung, Dietrich with an essay by Schoske, Sylvia: Die Stadt in der Steppe. Grabungen des Ägyptischen Museums Berlin in Naga, Sudan. Berlin 1999. Munich 1999

AUTHOR'S MAIN PUBLICATIONS

- 1972: Wie das "Handbuch der vergleichenden Religionsgeschichte" von Wilhelm Schmidt ins Chinesische übersetzt wurde. In: Sinica-Festschrift zum 70. Geburtstag von Bischof Vitus Chang. Hg. Hermann Köster, in Ostasien bekannt unter dem Namen Gu Ruoyu. München
- 1974: Josef Thiel 1908-1972. Abriß eines nicht alltäglichen Lebens und kommentierte Veröffentlichungen Thiels. München
- 1974: Johannes Frick (geb.1903), beheimatet in zwei Welten, zum 70. Geburtstag mit einer eingehenden geogr. Beschreibung der Provinz Qinghai. Kommentierte Veröffentlichungen Fricks. München
- 1974: Aus den Anfängen der „Monumenta Serica“. München
Die Arbeiten München 1974 erschienen in: China erlebt und erforscht. Partielle Beiträge zur kritischen Chinakunde. Hg. Hermann Köster. Gu Ruoyu.
- 1977: Zum Schädelkult in Porapora (NO-Neuguinea). In: Verhandlungen der Naturforschenden Ges. Basel, Bd.86, Nr.1/2, pp.207-236, Basel
- 1979 : Kleiner Museums-Führer. Völkerkundliche Sammlung der Steyler Missionare. Missionshaus St. Johann, Aulendorf-Blöndorf. o.J.
- 1979: Das tragische Schicksal einer chinesischen Enzyklopädie. In: Kleine China-Beiträge. Jos. Huppertz und Herm. Köster. Ku juo-yü, (Gu Ruoyu). München, Teil I, pp.11-75
- 1984: Einige Bemerkungen zur Haustierhaltung, insbesondere der Pferdezucht, in Zentral- und Ostasien. In: Berichte der ökologischen Aussenstelle Schlüchtern, Heft 11, Ökologie in China, Schlüchtern, pp.43-56
- 1986: Zhongguo gudai sima yambian chaxi, In Lishi zhishi (Chengdu), pp.10-11
- 1987: Gedanken zum Konfuzius-Tag. In: China Heute, Jg.VI, Nr.5. St. Augustin, pp.75-76
- 1988: Eine neue Weltkarte. Die Welt des 21. Jahrhunderts. Mit einer Karte der Ausdehnung der Reiche in Europa und Asien zur Zeit der Han-Dynastie (206 v.Chr. – 220n.Chr.) und des Römer-Reiches unter Hadrian 117 – 138 und eine weitere Karte über die Verbreitung des Arians der Europäischen Gemeinschaft und der Ausdehnung der Volksrepublik China heute, gezeichnet in meiner Weltkarte von 1973. In: verbum svd. Vol.29, Nettetal, pp.207-238
- 1989: Lebensraum Ozeanien und die berühmten Grabanlagen der Osterinsel. In meiner Weltkarte einmal: Die Verbreitung der Sprachen im Pazifik, und zum anderen: Das Turan-Altai-Gebiet. Kulturzentrum früher Völkerstraßen bis in den westlichen Hallstattkulturraum, und Wanderwege der Protopolynesier, dann die Verbreitung des ehemaligen deutschen Kolonialbesitzes und die Einflußzonen verschiedener europäischer Nationen. Eine ausführliche Tabelle zeigt die Pazifischen Inselstaaten und ihre gegenwärtige politische Situation. München

- 1991: *Culte des ancêtres à l'Île des Pâques*. München
- 1991 : *Culto de los antepasados en la Isla de Pascua*. München
- 1991 : Wanderbewegungen in den pazifischen Raum – unter besonderer Berücksichtigung der Ansichten Thor Heyerdahls zur Osterinsel. Mit meiner Weltkarte als Verbreitungskarte im Anhang. In: *Völkerkunde Tagung 1991*, München, pp.189-195
- 1992: Ein Beispiel katholischer Verlagsarbeit in China. Eine zeitgeschichtliche Studie. In: *Studia Instituti Missiologici Societatis Verbi Divini*. Sankt Augustin Nr.54
- 1992: Auch veröffentlicht in: *Analecta SVD*, Nr.71. Apud Collegium Verbi Divini. Romae
- 1992: *Ancestor Worship on Easter Island*. Sankt Augustin
- 1996: Das Werden der Kölner und Bonner Völkerkunde-Institute und Museen – nach einer Untersuchung von Lothar Pützstück. In *Abhandlungen und Berichte des Staatlichen Museums für Völkerkunde Dresden*. Bd.49. Dresden, pp.353-358
- 1996: Die Bevölkerung der Osterinsel und ihre Missionierung. In: *NZM*. Bd.52, 1996/4. Immensee, pp.269-294
- 1998: *Begegnung zweier Welten*. Aus den Anfängen der deutschen Kolonialherrschaft in Deutsch-Neuguinea oder Kaiser-Wilhelms-Land und aus den Anfängen der Steyler Missionsgesellschaft in Deutsch-Neuguinea ab 1896. Waldeck
- 1998: Hermann Köster, Ku Jou-yü (Gu Ruoyu), zum 20. Todesjahr 1998, Waldeck
- 1999: Prof. Dr. Hermann Köster – Ku Juo-yü (Gu Ruoyu) 1904-1978. Untersuchungen über chinesisches und westliches Denken. In: *Mitteilungsblatt der Deutschen China-Gesellschaft* 1/1999, Bochum, pp.23-30
- 1999: *Europa und Mission*. In: *Unser Europa: Mitteilungen aus dem Museum für Völkerkunde*, Hamburg NF, Bd.29, Hamburg, pp.91-102
- 1999: *Carl Troll zum 100. Geburtstag*. Waldeck
- 1999: *Carl Troll zum 100. Geburtstag und 25. Todestag. Eine Würdigung seiner Expeditionen in drei Kontinenten*. In: *Mitteilungen der Geographischen Gesellschaft in München*. Bd.84, München, pp.215-221
- 2000: P. Peter Gerhards SVD (1912-2000) Chinamissionar und u.a. Gründer des Hauses Fu in München. In: *China Heute XIX*, Nr.3-4, pp.75-78, Sankt Augustin
- Weiterhin zahlreiche Buchbesprechungen.

Correspondence address:

Dr. Josefine Huppertz
Ilmenastr.9
D-53757 Sankt Augustin
Germany

Tel: 0049-2241-33-58-66