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Traditional Ways of Life and Healing among Philippine Mountain Tribes

by Norbert Kohnen & Perta Kohnen

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Translated by
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Acknowledgements
I should like to thank Mrs. Brigitte Khan Maylis for her help with the descriptions of the textiles, and Mr. Kurt Hangst of the ‚Museum für Ostasiatische Kunst der Stadt Köln (Cologne Museum of East Asian Art), who analysed tomb relics such as barter rings and gold teeth (exhibits A 412, 250 -- 257 and 121 -- 123) for their metal contents.

Photograph acknowledgements
All the photographs apart from those mentioned below have been provided by Petra and Norbert Kohnen.

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5: no. 6786
32: no. 7228
33: no. 7229
35: no. 7014
57: no. 6984

From G.H.T. Buschan: Die Sitten und Völker. Vol.1, 1st ed. Union Deutsche Verlagsgesellschaft, Stuttgart-Berlin-Leipzig 1914 --1922:
11: 327 p. 227
12: 332 p. 228
34: 310 p. 263

3: from A.R. Roces, C. Quirino, G. Cordero- Fernando (eds.): Filipino heritage. The making of a nation. Vol. 4., Lahing Pilipino Publ. s.l. 1977 p. 941)

42: from F. Paul: The preservation of corpses in ancient times. Ciba Z. Basel 4 (1937) 1476

45: from R. F. Barton: Philippine Pagans. Reprint (1st ed. 1938), Routledges & Sons, London 1979, counterpage 14

Front cover: A treat in everyday life - rolling a cigar with a tobacco leaf

Abbreviations:
The exhibits are listed with an inventory number in the catalogue section. Exhibits referred to in the text have an „A" in front of the last three numbers of the inventory number. The exhibits are classified according to the sections given at the beginning of the chapter „Catalogue of Exhibits". All exhibits belong to the private collection of Mr. and Mrs. Kohnen.

Abbreviations in the inventory:
The Philippine terms used are Ifugao terms. If other languages are used, the following abbreviations apply:
Bo: Bontoc, Ib: Ibaloi (Inibaloi), Ka: Kankaney, Ti: Tinguian.
Abbreviations of measurements:
H: height, L: length, W: width, D: diameter, B: base, S: size.

Printed and bound by SDK Systemdruck Köln GmbH
West Germany 1986

Sa mga mamamayang Pilipino

To the Philippine people

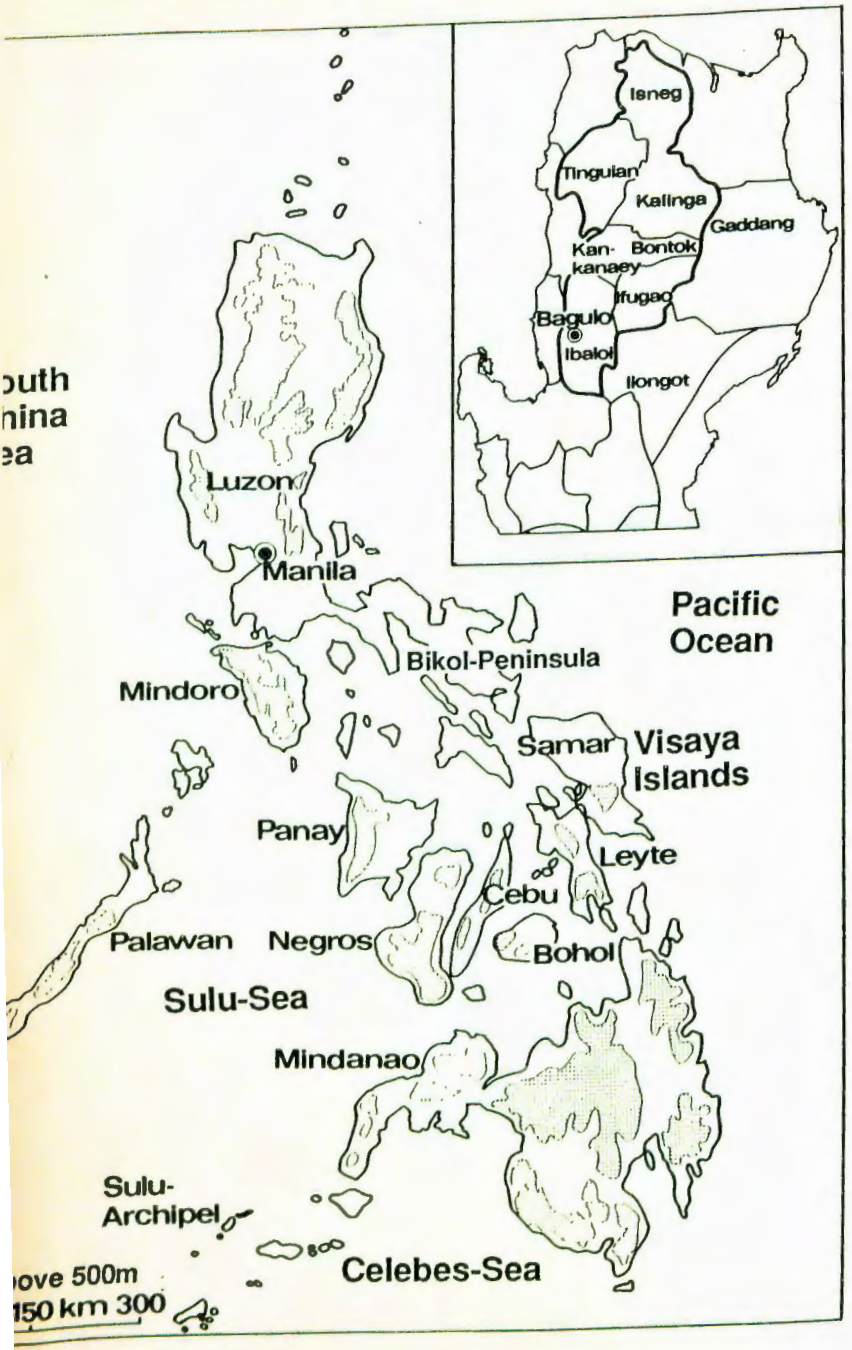


Fig. 1: The Philippines. The section shows the distribution of the different ethnic groups in Igorot territory. The thick black lines indicate the present boundaries of the provinces.

Contents

Introduction

The Igorot inhabit the Cordillera Central, the mountan chain in the north of the Philippine island of Luzon. They have never formed a political unity and the term „Igorot" in common use is a collective term which was introduced by the Spaniards and adopted by the lowlanders to distinguish the mountain tribes from inhabitants of the lowland.

Even today this term is used to refer to many different mountain tribes and their members, of whom there were 700,000 in 1983. The Igorot are of pre-Mongolian origin and speak their own languages, which belong to the Austronesic group. Amongst themselves they communicate in Ilocano, the language of the traders in the mountain region, or in English, which was the standard language taught in schools under the American government and which still serves as the lingua franca today.

As farming communities, they live for the most part in villages of up to 1,000 inhabitants. Their main activity is crop-farming (rice and sweet potatoes) but they also do some stock-farming (carabaos,pigs,dogs and hens). Their staple food is rice, which they cultivate in irrigated terraced fields.

Today approximately two thirds of the population are members of the Christian faith, but many Igorot, especially the elderly, follow traditional beliefs when practising their religion. Their religion is founded on animistic, manistic and monotheistic ideas and on a belief in nature. Their customs and rites, which had always been handed down orally , were analysed systematically for the first time in 1905 by American ethnologists and recorded by Belgian missionaries of the Congregation of the Immaculate Conception (CICM). The latter have been living in Igorot territory since 1907/1908.

The Igorot's general state of health is nowadays relatively good. Malnutrition is rare. The most common ailments are chronic bronchitis, lung disease and feverish upper respiratory tract infections. Worm infestation is endemic and is often associated with aemia.

The traditional healing system is gradually being replaced by western scientific medicine, which is taught at school and practised in the modern medical clinics run by the Philippine government. On the other hand, it is not only in remote areas but also in urban regions that we find a variety of old healing methods which have been used for generations. The traditional diagnoses are interpreted from dreams and often reached in a state of trance. The hidden causes of disease can be rendered visible for everybody by certain methods, e.g. by using a pendulum and interpreting magic signs. The course of the disease is determined by inspection of the liver and the gall bladder, the traditional prognostic method. Treatment is carried out with herbal medicines and massage or with prayers and offerings to appease hostile and disease-spreading ancestors and spirits.

This „magic" system of healing has often been beyond the comprehension of detached observers. The way of thinking of which such a system is the logical outcome, and the conceptions which determine the healers' actions have remained a mystery to them. One of the aims of this catalogue is to elucidate the theory behind the treatments used by the Igorot. Although the main emphasis will be on traditional healing methods, this is not a true reflection of the state

of medicine today in Igorot territory. It is important to stress that modern scientific medicine exists and is used alongside of traditional medicine. Even the Igorot view this as a cultural advance. Since, however, we know enough about these modern methods, this work will focus on the Igorot's way of life and traditional healing methods.

The spread of scientific knowledge to Igorot territory as a result of education and state initiative has raised prospects of more effective medical treatment. But at the same time it is increasingly ousting the scintillating mixture of empiricism and magic. Thus more and more a formal universalism is making itself felt which leaves no room for a variety of individual conceptions of medicine.

History of medicine in the Philippines

Apart from a few Chinese accounts, there are no written documents about the way of life and medical knowledge of the inhabitants of the Philippine archipelago in the period prior to the arrival of the Spaniards in 1521. Furthermore, no tomb relics have been found to date which were clearly identificable as medical instruments. Thus we have no insight into medical practices in the Philippines in the pre-Spanish era. But we do have other evidence of their culture such as household utensils, tools, jewellery and trading products, which give us some insight into the way of life at that time.

Prehistoric times

Stone Age (4000 B.C. – 500 B.C.)

Attempts have been made to reconstruct the early history of the Philippine archipelago from tomb relics such as stone tools and jewellery. The oldest excavations are ascribed to the pre-neolithic period 4000 – 3000 B.C. The neolithic period proper spans the years 2000 – 500 B.C. The tombs in the second layer of the Duyong cave on the Island of Palawan (2680+/-250 B.C.) and numerous other caves on different Philippine islands brought countless objects to light such as flake tools with sophisticated chopping techniques, shell ornaments and stone blades (A 250 – 299, plate 1)

Neolithic period (2000 B.C. – 500 B.C.)

Trade relations with settlements on the South Chinese and Vietnamese coasts existed as far back as 1000 B.C. and earlier. The monsoon, which blows from the south west from late April to July and from the north east from late September to February, had a favourable influence on seafaring; it swept the sailing-ships to the Philippine coasts and back again. As a result of these trade activities, pottery which was baked at low temperatures and objects made of bronze became common all over the archipelago. Moreover, the first evidence of urn burial in the Philippines dates back to this period.

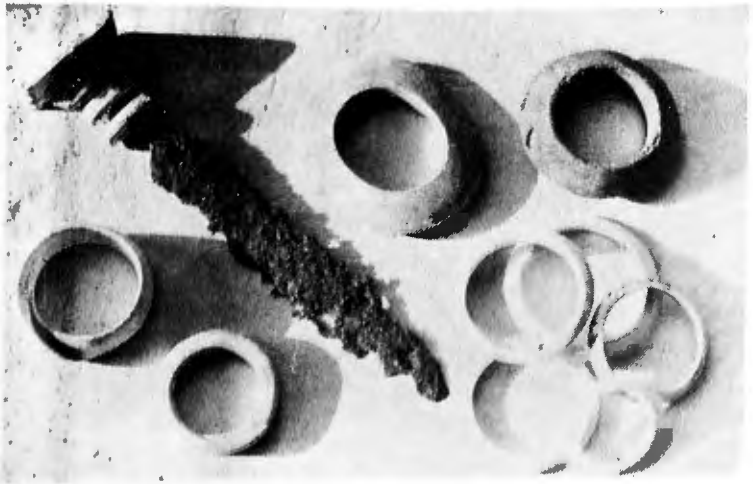
1: Stone tools, armlets and chest ornaments from the Stone Age (top row: A 294, 285, 284, 285, 278; bottom row A 290, 276 (section 1))

Jade earrings, carnelian and gold jewellery and glass fragments, the first of their kind, were placed in the grave of the deceased. Similar glass objects were found in prehistoric tombs in southern India, on the Malayan peninsula, in Java and North Borneo. This gave rise to the assumption that there were early indirect connections between the Philippine Islands and those countries and even the Indian subcontinent (113 p. 241). Rings of precious metal were introduced as trading currency; they had the shape of a nearly closed 'C' and were for the most part cast in gold or silver. It is possible that these rings were also worn as jewellery to demonstrate wealth.

Iron Age (500 B.C. -- 1000 A.D.)

The beginnings of iron working date back to the 5th and 4th centuries B.C. A distinction is made between an early metal period commencing in 500 B.C. and a late metal period commencing in 200 B.C. Iron objects like daggers (A 125, plate 2) were originally status symbols and not intended for everyday use.

2: Dagger from the Iron Age. Jewelry from the Neolithic period (Top row: A 125, 283, 282; bottom row: A 275, 270, 271 - 274, 279. (section 1)).



Pre-Spanish era (1000 A.D. -- 1521 A.D.)

Another important period began about 1000 A.D. It is usually called the Bau-Malay complex after the ceramic relics. It was above all characterized by intensive cultural and trading contacts with the Srivijaya empire in Sumatra and the Majapahit empire in Java. An abundance of magnificent jewellery found in tombs – beads, precious stones, glass and gold jewellery – indicates the influence on art that these great empires had in the last centuries prior to the arrival of the Spanish (gold necklaces A 220 – 223, gold bracelet A 219, gold ear studs A 217 – 218, gold barter rings A 215 – 216). Tomb relics dating from the pre-Spanish era also include human teeth ornamented with little gold pins or little gold triangles (A 121 – 123). They are very similar to discoveries made in South America and are said to date from the 11th – 14th centuries (216 pp. 449 – 454). During the Spanish era antique glass beads were for a long time made into elaborate necklaces. They were strung together with Spanish gold ornaments normally found in rosaries (A 224 – 228).

Medicine in the Pre-Spanish era

In 1521 Magellan discovered the Philippine Islands, which were unknown to the western world until then. He was accompanied by Pigetta, who wrote about this discovery and the first voyage around the world (142). The natives' methods of treating disease as described by him and as mentioned in other Spanish accounts were for the most part magic in kind. Pigafetta witnessedanimals being sacrificed to cure the sick. Typical offerings were pigs, dogs and hens. However, not only foodstuffs such as rice, meat, fish, bananas and rice wine were included in the sacrifices but also Chinese porcelain bowls and beads (6 pp. 4 – 5). In the early accounts the healing specialists were referred to as priests or media who, in a state of trance, established contact with the next world and who often divined the future and interpreted omens.

A historiographer of the Legazpi expedition, which began in 1565, describes how a priestess in a state of trance was able to predict the course of a disease. If the news was good, there were great drinking celebrations. If, however, the prognosis was bad, the priestess praised the sick man's outstanding character and added that the anito , the ancestors, had chosen him amongst many others to become one of them (6 p. 6).

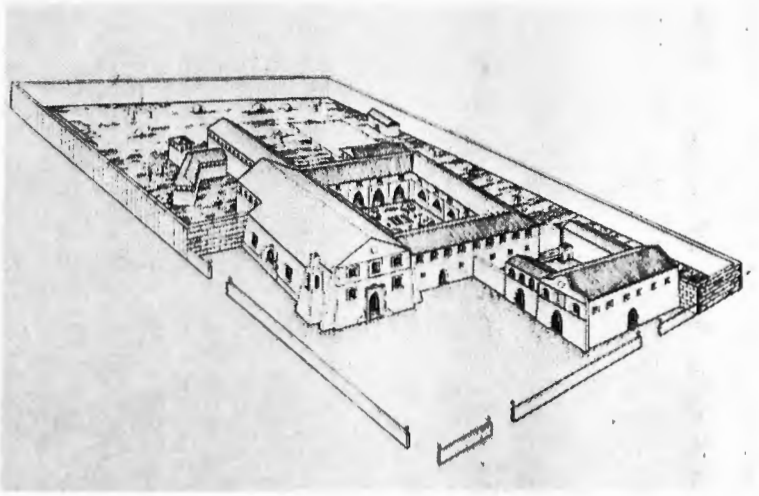
From earliest times the natives wore amulets and beads to protect themselves against disease, and this is still the custom today (plate

23). Herbalists, so-called herbolario, had a very wide knowledge. It is to the Jesuit monk Georg Joseph Kamel (1667 – 1706) that we owe a list of herbs which were known to the Tagalians in the Philippines in the 16th and 17th centuries. He described them in his book „Herbarum aliarumque stirpium in insula Luzone Philippinarum primaria nascentium, a Rev. do Patre Georgio Josepho Camello, S.J. observatarum & descriptarum Syllabus: ad Joannem Raium transmissus", which was published in 1704 as an appendix in the third volume of the Historia Plantarum by John Ray (97).

The Spanish era (1521 – 1898)

From the 16th to the 19th century the Philippines enjoyed better medical care than other comparable countries in South East Asia. This was due to the Spanish monks and their missionary zeal. However, these favourable conditions were restricted to Manila and other Spanish missionary bases. The first hospitals were built as early as the 16th and early 17th centuries. The monks, with their kind-heartedness, were for the most part left to their own devices; they only seldom received support from the government. It was the missionaries too who became the first qualified doctors and pharmacists. They founded convalescent areas and wrote the first medical books on treatment for the diseases rampant in those tropical regions.

The first hospital in the Philippines was opened by Adelantado D. Miguel Lopez de Legazpi in Cebu in 1565. This hospital bore a considerable resemblance to a military infirmary. When the seat of government moved from Cebu to Manila in 1571 this hospital was also moved to the capital. But it only catered for wounded soldiers belonging to the occupation forces and for patients who had become ill as a result of the long journey from Spain to the Philippines via Mexico. As early as 1577 the Franciscan Fr. Juan Clemente opened the first clinical station in the Franciscan convent (plate 3), which existed alongside the government-run hospital. The following year he turned it into an independent clinic built of bamboo and nipa. This hospital catered not only for the Spanish occupation forces but also for poor people of Spanish origin and soldiers' widows. In 1596 they began to offer medical care to natives (6 pp. 42 – 45). This clinic later developed into two hospitals, the „San Juan de Dios Hospital" and the „San Lazaro Hospital", which still exist today.



3: Franciscan convent in the old town of Manila. From 1577 on it housed a clinic.

From 1614 on Christians were constantly banished from Japan because of their religion and were given asylum by Governor General Juan de Silva in the Philippines. This continued until 1632, when the rulers of this northern archipelago sent a ship with 150 lepers to the Philippines. The Franciscan friars took pity on them and admitted them to the San Lazarus Hospital (219 p. 104).

A significant event in Philippine medial history was the construction of a canal and water system in Manila, financed by the generous donation of the merchant D. Francisco de Carriedo y Peredo (1690 - - 1743). Carriedo maintained trading relations between China, the Philippines and Mexico. At that time the Philippines were an important re-loading point for goods transported in galleys between these countries. Chinese silk was shipped to Acapulco in Mexico and Mexican silver to China. Carriedo made so much money with his transactions that in his will he left a sum of 10,000 pesos to the city of Manila. There was one proviso, however, namely that the money should be used to construct a new water supply system for the city. A few years later, in 1762, war broke out against the British and lasted until 1764. The harbour of Manila was besieged and the city plundered. Thus a sizeable part of the fortune left by Carriedo was lost.

4: The Carriedo Fountain in Manila.

It was not until about 100 years later, in 1867, as a result of profitable business with Carriedo's assets, that Manila had enough money again to embark a second time on the water supply project. In 1868 on January 23, the birthday of the King of Spain Alfons XII, the newly built water supply system was inaugurated. The memory of the generous benefactor is still kept alive today by the fountain outside the waterworks which was donated by the inhabitants of Manila (plate 4).

Until well into the 19th century medical care was almost exclusively in the hands of the monks. Owing to their excellent achievements, the Philippines in the 17th century under Spanish rule had a much higher standard of medical care than other nations. The development of the health system in the following 200 years was only minimal in comparison.

An academic training of doctors was not possible in the Philippines until about the end of the 19th century. Those who wanted to study Medicine had to go to Mexico or Europe. It was not until 1871 that the first medical faculty was opened at the Santo Tomás University in Manila, which had been founded in 1611 and was run by Dominicans. In 1878 a school for midwives was opened. At first professors and students of medicine took their lead from French textbooks. From 1874 to 1875 there were only 33 students enrolled. As the Medical Faculty was still very young many students preferred to pursue their studies in Spain. Others with a knowledge of German went to Germany to study. The most famous doctor trained in Germany was Jose Rizal (1861 – 1896). He performed the first eye operation in the Philippines and later became one of the pioneers of the revolution which freed the Philippines from Spanish colonial rule. Today Rizal is worshipped as a national hero by his fellow-countrymen (105; 109).

An important measure taken by the government to support and develop the medical system was the introduction of vaccination (1806). Under the direction of Dr. Francisco Xavier de Balmis, the Spaniards introduced it to in the Philippines only a few years after the smallpox virus had been discovered (1796) by Edward Jenner (1749 - 1823). On November 30, 1803, an expedition under his name set sail from the port of La Coruña in North-West Spain. It was led by seven doctors with their assistants. On board were 27 children with their mothers or nurses. The children were vaccinated in twos on every 8th or 9th day, so that they were recently vaccinated when they reached the Spanish dependencies in Central America. De Balmis and his crew stayed on the South American continent for more than a year before continuing their journey to the Philippines under the same conditions. On April 15, 1805, he arrived in Manila on the frigate "Magellanes".

The very next day the children of the Governor General Don Raphael M. de Aguilar were vaccinated to set an example to the Philippine population. And in the next few days about 6,000 people were vaccinated alone in Manila and the neighbouring province of Cavite (6p. 71). De Balmis returned to Spain after his voyage round the world on September 7, 1806, when he was welcomed by the King, who praised the success of the expedition (84). Over the years the vaccination programme was carried out with great consistency. Its success was remarkable. The death toll from smallpox, which used to be 40,000 a year, fell to 276 as early as 1915. There has been no case of smallpox in the Philippines since 1922 (6 p. 71; 179 p. 489).

However, most of the other measures introduced in the sphere of medicine by the Spanish government in the Philippines, such as Public Health Departments or other health institutions, were much less effective. The administration was so incompetent and those in command so irresponsible that the medical conditions were described as „scandalous" by the Americans on their arrival in 1898. The following is a description of the situation at that time (179 p. 489):

The Plague was raging in Manila. Every year 50,000 people died of cholera, 40,000 of tuberculosis, 10,000 of beriberi. Malaria was endemic and claimed 25,000 lives per year (61). Quinine was sold at an exorbitant price. Lepers were shunned. The mentally ill were chained up like dogs under the houses. A bone fracture usually led to being crippled for life. In addition, typhoid, diphtheria and foot-and-mouth disease were rampant. To realize the full extent of the death toll from these diseases we must bear in mind that in 1903 the total population of the Philippines was only 7 million (66 vol. II).

The American area (1898 -- 1942)

These intolerable conditions in medical care improved considerably when the Americans took over government in the Philippines in 1898. In the same year they set up a health committee at government level which, in 1901, became an established health institution known under the name of „Board of Health" and later „Bureau of Health". It was responsible not only for purely medical measures but also for health education. Campaigns against „ignorance and superstition" were conducted all over the country. Traditional ideas on medicine were to be ousted by scientific knowledge. Attempts were made to enlighten and inform the population at large about causes of disease and their scientific explanation and about preventive medicine. School curricula began to include courses on hygiene and lessons on general ways of preserving and improving health. Trained consultants were sent into the provinces to provide medical education (179 p. 489).

The diseases which still claimed many lives in 1903 and 1904 were beriberi, bronchitis, influenza, malaria, tuberculosis, rare cases of amoebic dysentery, gastroenteritis, cholera and some cases of meningitis. Skin diseases and parasite infestation were particularly common (61). In those days 40,000 people still died every year of tuberculosis in the Philippines. One sixth of all deaths in Manila were caused by this disease (186 p. 39). To combat this disease the „Philippine Anti-Tuberculosis Society" was founded on July 29, 1910 on private initiative and with government backing.

The Bureau of Health set up a hospital for acute cases of tuberculosis in Baguio City, a town in the Cordillera Central. Cases of chronic tuberculosis were treated in the hospitals of Manila. Attempts were made in schools and newspaper articles to inform the public about the risk of infection with tuberculosis bacteria and how they were transmitted.

As late as during the American period Manila was twice overrun by the plague. Heiser relates:

> „The plague broke through our surveillance system twice in Manila, in 1905 and 1912. When it happened for the second time we were prepared. One morning we received word that cases of the plague had been detected in several parts of the city. Immediately, as in the case of a fire alarm, the rat catcher crews started their hunt, every inch of their bodies wrapped up to protect them from fleas and their hands and necks powdered with naphthalene" (91 p. 92)

In 1906 a leper colony was founded in Halsey-Bay on the Island of Culion (12 degrees North, 120 degrees East), which belongs to the Calaminic archipelago between Palawan and Mindoro. It became one of the largest leper colonies in the world (94). In Manila, the Philippine General Hospital was opened on September 1, 1910. Its outpatient departments were open to one and all. Later the government built hospitals all over the country which were based on this model (62). In 1935 there were already 157 hospitals and more than 1,000 general and paediatric clinics. Vaccinations and inoculations against the most common disease were carried out all over the country and a committee for medical research was founded (179 p. 490).

By 1907 the disease mortality rate was reduced by one third and in the following years it continued to decline. In 1915 the cholera death rate

had dropped from 50,000 to 820 a year, while that of smallpox fell from 40,000 to 276. Scientific research projects on leprosy were launched and steps taken to treat it.

Whereas in the cities they had already started building drinking water and sewage systems in the 1930s, the villages even under American rule had to make do with contaminated surface water and infected wells. 70 % of the population were still infested with hook-worms in 1937. The slums of Manila were insufficiently provided with lavatories. Even in the dangerous malarial areas instructions about medicine and hygiene with regard to both curative and preventive measures were ignored. The American government in the Philippines, like health officers in other colonial countries, were forced to recognize that the reaction to their measures was one of apathy and indifference while traditional ideas still prevailed. This prevented any improvement in health education and also reduced the effectiveness of the Health Service (179 p. 490).

The period of independence (since 1946)

During the Japanese occupation from January 1942 to February 1945 the Philippine medical system came to a standstill. Even in the early post-war years there were no real changes or advances in the medical sector, despite the declaration of independence for the Philippines on July 4,1946. In 1954, the foundations were laid for a medical system which today extends to every small village. The Republic Act 1082 provided for the foundation of medical stations in the country. In the following years various four-year plans were approved (1957, 1963, and 1971) with the aim of speeding up the process and ensuring that the medical centres were adequately manned. Today there is an extensive network of Rural Health Units spread all over the Philippines. However, there is still an acute shortage of doctors and trained personnel, for very few people are prepared to go out into the country to develop the medical centers provided by the government to their full potential.
In 1975 the „Philippine Heart Center for Asia" was founded in Manila. In this outstanding institution the entire spectrum of modern scientific medicine including heart operations is put into practice.

Medical history of the Igorot

The origins of the healing methods among the Igorot are unknown. But as far back as 1763, in is book „Noticia historico natural" (Madrid 1763), the Augustinian monk Antonio Mozo wrote about medical practices among certain tribes who inhabited the „wild and impenetrable mountains" of the Cordillera Central and whom he would call „Igorot" (Igorrote in Spanish), which meant „mountain peoples" in several Malayan languages. According to him, this general term was applicable to all the primitive Malayan tribes in northern Luzon, who were alike in physical apperance, spoke the same language (sic!), and had reached the same stage of development (25 vol.48 pp. 73, 74).
Mozo's account gives some information about the Igorot's

5: Igorot woman with pockmarks on her upper arm. This photograph was taken in 1905. By permission of the J. Küppers Foundation in the Cologne Rautenstrauch-Joest-Museum: no. 6786

knowledge of infectious diseases and the necessary strict quarantine measures: when there was a threat of infectious diseases the Igorot re-directed their paths through bushes so that nobody could gain access to them. Furthermore, they made it known that any intruder would be killed. In this way (according to Mozo's information until 1763) they were never stricken with smallpox (variola) (25 vol.28 p. 80).

However, these measures did not prevent the big cholera and smallpox epidemics which later afflicted the country from reaching Igorot territory. Even today there are still some elderly people who claim to have had smallpox (about 1900–1910) (plate 5). There were also big cholera epidemics in the Philippines in 1812, 1820, 1882 and 1888 - - 1889. However, the epidemic brought in from India in 1820 affected the inhabitants of coastal areas and of Manila much more than the mountain tribes. A French doctor relates how „all day long and at night the streets were full of cars removing the corpses" (72 p. 36).

The most common diseases recorded among the Igorot and Ilocanos in 1903 and 1904 under the American government were above all bronchitis, which was most frequent in January and February, a benign form of beriberi, influenza, malaria, rare cases of amoebic dysentery, gastroenteritis, some cases of cerebro-spinal meningitis and different types of skin diseases and parasite infestation (61).

At the end of the last century the Igorot were visited several times by German and Austrian scientists, whose numerous publications describe the Igorot's traditional knowledge of health and sickness and their treatments. In this respect attention must be drawn to the works of Adolf Bastian (1826 – 1905) (15), Richard von Drasche (1850 - - 1923) (74), Fedor Jagor (1816 – 1900) (93), Adolf Bernhard Meyer (born in 1840) (130), the encyclopaedist Hans Meyer (1858 – 1929) (131 – 134; 169), Alexander Schadenberg (1852 – 1896) (150 – 154; 169), Otto J. Scheerer (1858 – 1938) (155–156; 169) and Carl Gottfried Semper (1832 – 1893) (171 – 172). Without doubt most of the literature in German on the Philippines at the end of the last century was published by the Austrian Ferdinand Blumentritt (1853 - - 1913) (26 – 59), who, however, had never been to the Philippines in his life. A street in Manila was named after him, although his name is popularly used to refer to the whole area of the town and not just the street.

Ethnographic survey

Geography and climate

The Igorot tribes inhabit the northern part of Luzon, the largest of the 7,107 Philippine islands. It separates the South China Sea in the west from the Pacific in the east. The Cordillera Central runs down the centre of northern Luzon. This mountain range extends between the 16th and 19th lines of latitude north of the Equator; it stretches over 320 km from north to south and 58 – 86 km from east to west, and is the largest mountain area in the Philippines. The highest elevations range from about 900 m in the north to about 2,700 m in the south. The valleys are deep, the valley basins seldom wide, and there are numerous rivers flowing through the colossal mountains.

The tropical climate is characterized by two periods: the rainy and the dry season. The rainy season usually lasts from June to November. The heaviest rainfalls in the mountains amount to 1,200 mm a day; the annual average is 4,597 mm (112 p. 38). In strong contrast, the annual rainfall in Hamburg amounts to a mere 750 mm. Rain falls on an average of 177 days in the year. Typhoons are fairly common in this region as the Cordillera Central lies in the path of the tropical trade winds and monsoons.

Owing to regional climatic differences and man's interference in nature, the vegetation in the uplands varies greatly. In the south, at an altitude of more than 1,000 m, there are vast, open forests with Benguet pines. There are also regions which are covered with bamboo thicket, deciduous forests, coniferous forests, young woods and moss. Trees grow up to an altitude of 2,200 m. That vast areas today are only covered by grass is partly due to the destruction of forests by man in recent years, but also to the fact that these areas have been inhabited and used for centuries(146 pp. 4, 5).

6: Settlement of the Kankanaey Igorot.

Ethnic groups

Igorot is the collective term for several mountain tribes. In 1983 their members numbered approx. 700,000. From the historical and ethnological point of view they can be divided into seven different language groups, so-called „ethno-linguistic" groups (Fig.1): the Ifugao (180,000), Bontoc (148,000), Kankanaey (93,000), Kalinga (106,780), Inibaloi or Ibaloi (93,000), Tinguian (44,000) and Isneg (19,000) (statistics of June 1983) (220). The Igorot are of Pre-Mongolian origin and speak their own languages, which belong to the Austronesic group (129). Amongst themselves they communicate in Ilocano, the language of the traders in the mountain regions, or in English, which was the language taught in schools under the American government.

It would go beyond the scope of this work to examine the similarities and dissimilarities of the various mountain tribes. However attention must be drawn to the works of those authors who have described the different ethnic groups and their cultural peculiarities in great detail. Whereas during the Spanish era only a few accounts were written about the mountain tribes of the Cordillera Central, e. g. by F. Antolin (3; 168), S. de Mas (128), M. Lillo de Garcia (124) and J. Villaverde (204; 50; 185), the American period of government saw more systematic research into the Igorot and their culture, as revealed in a number of publications by ethnologists and missionaries. The ethnologists R. F. Barton (7 – 14) and H. O. Beyer (22 – 23) as well as the missionary F. Lambrecht (C.I.C.M.) (115 – 118) took a special interest in the tribe of the Ifugao, while F.Eggan (76 – 80), A. E. Jenks (95 – 96) and F. M. Keesing (98 – 100) were particularly interested in the Bontoc-Igorot. The culture of the Kankanaey, Apayao and Isneg was investigated by the Belgian missionary M. Vanoverbergh (C.I.C.M) (188 – 202). A. Claerhoudt (67), and L. L. Wilson (209 – 215) studied the Ibaloi. F. C. Cole (69 – 71) presented a detailed study on the customs and rites of the Tinguian. Recently W. H. Scott (157 – 169) in particular published detailed works on the Bontoc-Igorot and their history and culture as a whole. The most famous works written in German are those by the Cologne ethnologist K. Tauchmann (180 – 184), who visited and studied the Kankanaey-Igorot again and again, by N. Kohnen (105 – 110) and by H. Velimirovic (203), who gave an account of the medical system of the Kankanaey.

More recent studies published by Filipinos who in some cases grew up in the communities under discussion are those by: K. C. Botengan (60) and C. Cawed (65) on the Bontoc-Igorot, by M. A. Dumia (75) on the Ifugao, by G. P. Keith and E. B. Keith (101 - - 102) on the Ibaloi and Kankanaey, by N. Anima (1 – 2) on the Tinguian and by M. C. Bello (18 – 21) on the Kankanaey.

Somatological studies on the Igorot were published by R. B. Bean (16), J. J. Roginsky / R. F. Barton (148) and R. Virchow (206 - -207), who wrote an article about the skulls of the Igorot.

Religion

Christianization of the Igorot started in 1767, when Dominican friars from the province of Nueva Vizcaya went to the Ifugao area and founded a missionary station in Kiangan (75 p. 38). Although the friars Juan Villaverde and Julian Malumbres were very successful at baptizing „heathens", the Ifugao were still along way from absorbing Christianity into their thoughts and actions.

More than two thirds of the Igorot are officially Christian today. But despite Christianization most Igorot adhere to traditional customs which have been determined by their old religion. The mountain tribes do not have one and the same religion although there are many similarities. Stöhr (177 – 178) gives a survey of Igorot religions, while Lee (119) deals particularly with the interaction of religion and social structure among the mountain tribes. Barton (14) and Lambrecht (115 – 118) describe the religion of the Ifugao and Vanoverbergh (200, 196 – 198) that of the Kankanaey.

The life blood of their traditional religion is the interplay between human beings, gods and local spirits as well as the anito, the spirits of the deceased who have the role of mediators.

The traditional religion of the Igorot is founded on the belief in natural powers and on animistic, manistic and monotheistic ideas. They worship heavenly bodies like the sun and the moon. With the exception of Orion, in which they see the „seven brothers", these heavenly bodies are not personified. The Igorot believe in natural spirits who live in particular places like, for instance, near water, in trees or in certain parts of the country and who are said to have supernatural influences on man. The deceased ancestors or anito play a particularly important role in the religion of the Igorot. By worshipping them the living can assure their wealth and health.

7: Ancestral figure on the door of the rice store room: A 46 (section 3.3)

However, this is only possible if due attention is paid to the signs which the ancestors convey through dreams and omens. The highest gods guarantee the preservation of the cosmic and social order through the harmonious balance of the cycle of birth and death. Thus reproduction and procreation rests in their hands. In the final analysis they rule over health and sickness, in that they rule over all regulating and levelling forces. The anito, on the other hand, act as medors, through whom the living exercise influence over this last regulating force.

Animistic belief

The Igorot distinguish between local spirits that have a favourable influence and those that have a harmful influence. The pinading belong to the first category. They live in the tribal settlements and are regarded as good-natured, useful and helpful. They ward off threatening diseases and harmful influences. Therefore the Igorot express their gratitude to them with libations before and after a meal and meat offerings at certain ceremonies. They receive their own special invitations to feasts (184 p. 110).

The harmful spirits take revenge for being ignored or injured by provoking all kinds of diseases. The amlag, for instance, capture souls, while others, like the pasang, make women infertile. Their favourite haunts are under rocks, on trees and in river beds, where they live like human beings. As these creatures are invisible to man, it is very easy to injure them out of carelessness by treading on them, destroying their houses or killing the animals that work for them such as snakes, spiders and ants (184 p. 110). They take revenge on the culprits by making them fall ill. But they can be propitiated by certain sacrifices. The belief is very common in the Philippines that the onset of disease is the revenge of the local spirits for the destruction of their homes. The Surigaonons in the north-east of Mindanao, for instance, traditionally ascribe most diseases to the vengeance of these spirits. In their imagination these supernatural creatures are dwarfs.

The Igorot think of these invisible spirits as creatures without an anus, because, like other spirits, they live on the scents and smoke of sacrifices. Therefore they do not require digestive organs in our sense. Mythology has it that they used to live among mortals as visible beings until someone spied on them in his curiosity for their unusual anatomy and openly asked them questions about it. They took offence

at this and left human society. Since that time they have visited human settlements only in invisible form. Fire is a means of orientation for them on their way home. For this reason fire is indispensable at all propitiatory sacrifice ceremonies in their honour.
A number of milder, harmless diseases are caused by supernatural beings if they are hurt by man's carelessness. The Igorot dread the revenge of the anantipakao, the amlag, the ampasit, the lib-libayan, the pasang and the tumungao. Stomach ache, toothache, headache, swollen limbs and skin infections are the punishments for their injuries. They can be propitiated by small offerings. A bundle of rice straw is set on fire and then an apology is made. The smoke of the rice straw is intended as sustenance for the offended spirit and the light as a means of orientation on the way home. The amlag are said to be particularly cruel because they capture the soul with a net when it leaves the sleeping body. This loss of the soul causes severe chest pain. As a means of recovering the soul sacrifices of chicken or pieces of pork are made to the amlak and ten chopping knives are offered symbolically in a prayer (183 p. 231).

Manistic belief

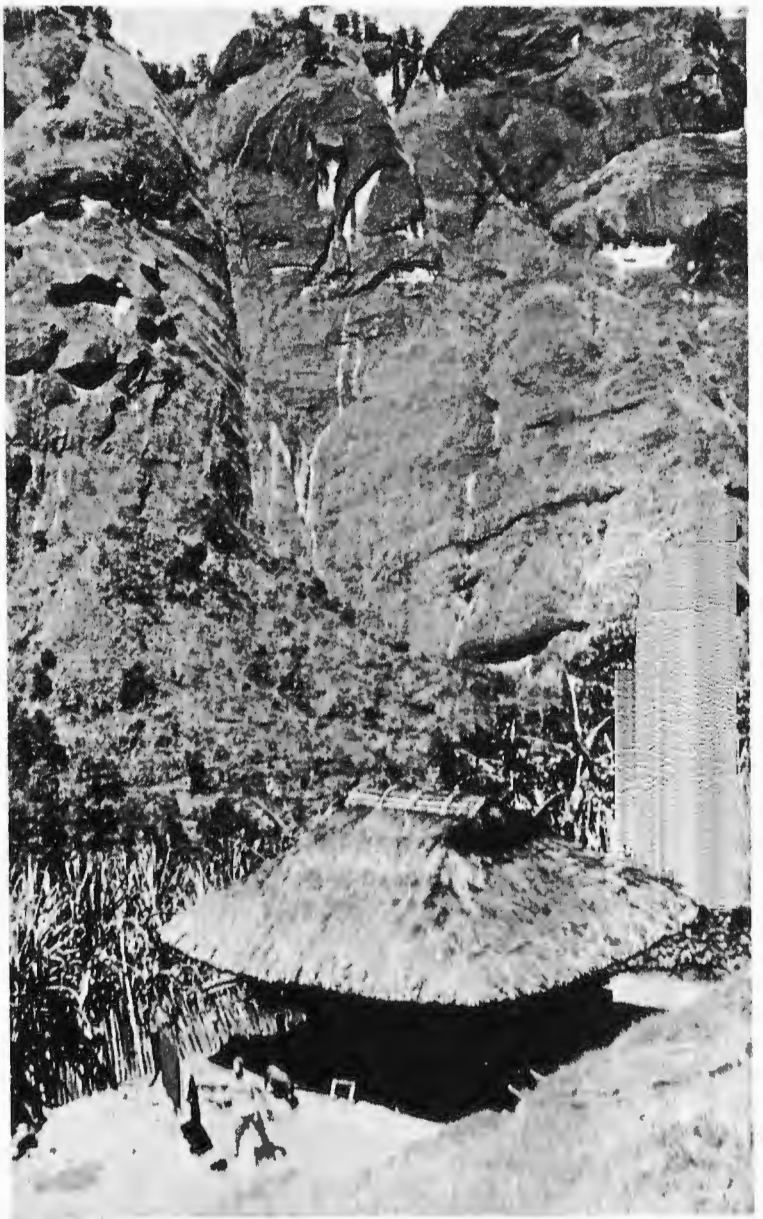
Every Igorot tribe has its own deities with different names and characteristics. But they all have a strong ancestry cult. It is not uncommon for some members to be able to name their ancestors for six or seven generations back. Anito are incorporeal beings which we would describe as the spirits or souls of the deceased or as ancestors. They are endowed with man's intelligence and abilities.
The spirits of the deceased have the same needs as human beings, who provide them with all the necessities of life. They express their displeasure like gods and spirits in the form of disease, death, poor harvests and other calamities. In dreams and omens they make their reasons known, name the culprits and demand sacrifices (plate 8). Thus the spirits of the dead are powerful beings who can communicate with the living and express their needs. As the ancestral spirits can actively intervene in the activities of the living, in their health and well-being, all economic and social relations, plans and activities are determined by these religious ties with the ancestors. Prophets, oracle-interpreters and other specialists establish contact with the spirits

8: Sacrificial feast for the ancestors. The offerings are sheaves of rice, rice beer and pigs. The five slices of sweet potato on the flank of a slaughtered pig are meant to call back the souls of the sacrificed animals and thus preserve the fertility of the domestic animals.

either by reciting prayers on their own initiative or because they have been selected by certain spirits to act as mediums. It is their function to keep up communication between individuals or the community and the ancestors and spirits. These men and women, who most deserve the title of „specialist", pursue their normal occupations in everyday life, e.g. farming, and do not form independent groups or classes.
If, however, the word „priest" is used in this work, it is only for want of a better term. It simply means a „specialist" in communicating with ancestors and spirits.

Monistic and polytheistic belief

It has often been emphasized that the Igorot religion is monotheistic. This is true in so far as there are only a few gods of special importance amongst the tribes and almost every tribe can name one god who is highest and who is referred to as god the father, e.g. Kabunian or as his son Lumawig. Some authors, however, doubt whether the highest gods occupied a similar monotheistic status in the Igorot religion before the first contacts with Christianity.
Like human society, the pantheon of the gods also has a hierarchy. In the Kankanaey-Igorot religious hierarchy Kabunian ranks highest, followed by other deities. Each god has a certain part to play in preserving and securing the cosmic and earthly order. The gods of the underworld and those of the upper world complement one another in fulfilling this task. Thus Massiken, the god of the underworld and rotector of the support of the earth, is responsible for stability and peace in the world while the role of those inhabiting the pantheon of the upper world is to safeguard fertility and further the development of man, animals and plants (184 p. 111).



9: The jagged rocks of the Kabunian Mountain resemble human faces. For this reason they were associated with the god Kabunian.

Housing and diet

House-construction and hygiene

The traditional houses of the Igorot are supported by a set of stilts. The ground-plan is usually square or rectangular and only occasionally octagonal. The living area, which has no windows, can be as high as 1.8 m above the ground, depending on the height of the stilts. The roof is pyramid-shaped and extended so far down at the sides that a large part of the surrounding area is roofed over (plates 10, 11, 16). In Ifugao territory cylindrical wooden blocks are attached to the top of the stilts to prevent rats from getting into the living area or the rice store-room above. The entrance with its swivel door, which can be locked, is reached by a ladder (A 40), usually made of bamboo (plate 12). When the inhabitants are not there the ladder is placed on its side against the locked door. The walls of the living area consist of strong panels of narra wood (pterocarpus indicus or winged-seed tree). The floor is made of think planks.

10: A traditional South Kankanaey house.

11: Life underneath the house. Prestige resting-bench, stone rice mortar and in the top left corner, almost out of sight, a child's cradle (see A 44 (section 5.1), A 38 (section 4.3))

12: A bamboo ladder leads up to the entrance. Skull trophies from earlier times testify to successful headhunts (see A 40 (section 5.1)).

13: Hearth posts depicting the hearth gods hogohog (A 50, 51 (section 5.1))

The ceiling of the living area is a layer of plaited bamboo. The area above it right under the roof is the store-room for rice, which has wooden, ornately carved doors (A 46, 47; plate 7). Smoke rising from the fire place can escape through the store-room and out through a small flap which can also be locked. The roof is supported by *runo* stalks and thatched with cogon grass (imperata cylindrica L.) which is plaited and tucked in between the rafters. The timber construction is securely notched and does not require nailing (182).

Large pieces of household equipement are kept underneath the house and under the eaves, e.g. the mortars used for pounding rice and wooden seats, for this is where friends and guests are entertained. Only the rich can afford an ornamented „resting bench" (A 44) or even a prestige bench hagabi. With some tribes the latter is a very costly prestige object and one that can only be acquired by giving a number of feasts (plate 11). It is underneath the house too that the inhabitants go about their crafts: the men do wickerwork or carpentry, the women weave and sew (182). The child's cradle (A 38) too is hung up here, so that there is always some member of the family who while working can keep an eye on the baby – when it is not being carried around in a sling on someone's back or hip. In the middle of this area under the house pigs are often shut away at night in crates and hens in suspended bamboo cages (A 37).

In the traditional houses there are no lavatories or latrines. Even today children from an early age are told to urinate in the yard and defecate in the pigs' troughs. This is not done for hygienic reasons but to produce more pig food. Botengan writes:

> „This way of disposing of human excrement has always been the target of well-intentioned moves on the part of the government. However, farmers cannot understand why human faeces should be wasted because they make perfectly good pigs' food and a good fertilizerfor plants. Lavatories are pointless for these people. Although they were built especially for them, their purpose has not been explained to them in their terms of reference (60 p. 119).

The inhabitants of traditional houses eat, cook and sleep in the living area. The open fire place, suklot, contains a layer of sand and is surrounded by balks of timber. Firewood is stored to dry on a grid above the fire place. On either side of the grid there is a hearth post. In a rich Ifugao house these hearth posts depict the hearth goddesses hogohog (A 50, 51) (plate 13).

The Igorot eat with wooden spoons (A 12 – 18), from wooden plates (A 3 – 8) and out of Chinese porcelain dishes (A 300, 301, 344 - - 346). During the meal they usually sit on the floor on pieces of wood or small wooden benches. They are only allowed to walk on the

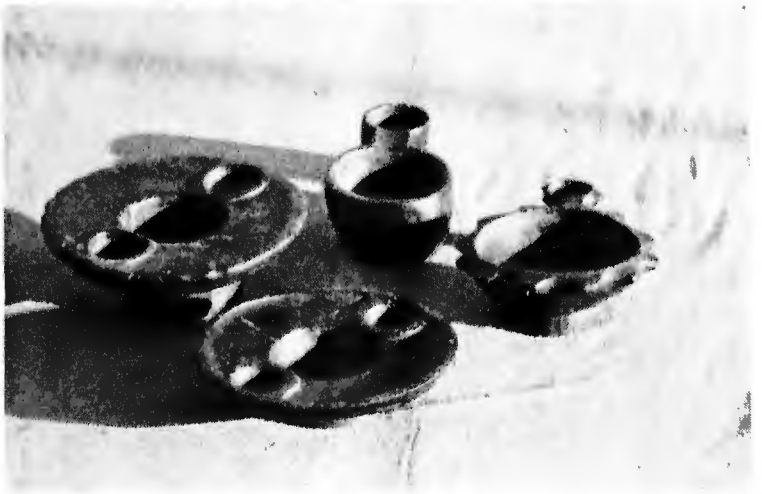
14: Preparation of food at an open fireplace inside the house.

floor with bare feet (plates 14, 15, 17). In the corners of the room, on shelves and ledges, they store food baskets (A 19 – 30), knapsacks (A 33 – 35), household utensils such as ladles (A 9, 10), storage bins (A 22, 27), salt containers (A 95, 96) and brooms (A 105), but also heirlooms like Chinese jars for rice beer (A 105), strings of beads (A 200 – 214) and ornaments of precious metal (A 71 – 77, A 410 - - 442), for instance coins and gold earrings. Clothing for special festivities is kept in large rattan baskets, acob, (A 840 – 881) (plates 17, 59 – 63).

Apart from cooking, eating and sleeping most of their activities take place in the sheltered area underneath the house, where there is plenty of space and light. The inside of the house serves as a sleeping area for the parents and small children up to the age of five. The grandparents usually have their own little house, which is more modest. They only join the rest of the family for meals. Older children leave the house at night and are accommodated with other children in single-sex sleeping quarters, supervised by an older man or woman. The girls' houses are used for courting. The boy's house primarily serves as a training ground for able-bodied men (182).

The Igorot's thoughts and actions are dominated by gods and ancestors; they see their existence as bound up in a natural cycle. And this is reflected in the way they construct their houses. Their house entrances face east where the life-giving sun rises. The dead take their leave on the west side through a door specially built for that purpose. The division of the house into three sections corresponds to the cosmic spheres. The bottom part is associated with the underworld, whose

15: Wooden bowls patiw and duyo. The small holes are for spices (from left to right A 5, 4, 7, 6 (section 5.3)).



16: Cultural changes: traditional house with thatched roof next to modern corrugated iron house on concrete posts.

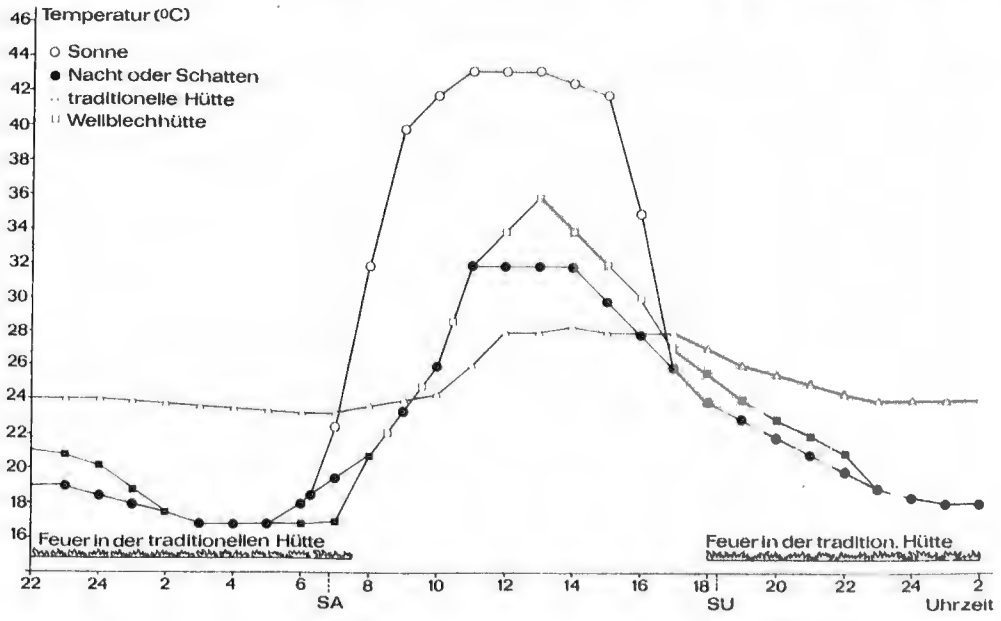


Table 1: Temperature curves for one day in the two types of house.

inhabitants look like pigs. According to mythology, the earth rests on a post of the kind supporting the house. The middle part of the house, which is for living in, is equated with the world itself. The upper part of the house with its rice store-room is compared to the realm of the gods who are responsible for fertility and food productivity.

With the improvement in road conditions and road connections new building materials reached Igorot territory and they are now increasingly replacing the traditional materials. This rapid development is partly due to a shortage of raw materials, in so far as wood and cogon grass have become very rare, but also to the fact that concrete and corrugated iron have almost become status symbols in the Cordillera Central. There are undoubtedly not only rational and practical advantages in using new building materials. Their introduction has also led to a change in the type of house built, which now corresponds to that built in the lowlands.

However, the modern houses are still built on stilts in the traditional way. They have large windows and doors, which make the living area much lighter. The walls are made of galvanized sheet metal or of corrugated iron like the roof. The cooking area is separate from the living area. One of the disadvantages of the new houses is that there is virtually no isolation of the living area against hot or cold temperatures outside. Moreover, the noise is unbearable inside when rain beats down on the corrugated iron roof.

Table 1 compares temperatures in adjacent traditional and modern houses which we recorded in 1983 (plate 16). In the traditional thatched hut the temperatures remained very stable (curve with triangles). However, we must not forget that there was a fire kept going even at night and as a result there was a great deal of smoke. In the modern house, on the other hand, the room temperature (curve with light squares) varied according to the outside temperature in the shade (curve with black circles) and for the most part the curves ran parallel. After sunrise between 6.15 am and 8 am, the inside temperature was lower than the outside temperature. Thus the curve with the black squares (corrugated iron hut in the shade) is below the curve with the black circles (outside temperature in the shade) at this time of the day. In our opinion this loss of heat was due to the evaporation on the dew-dampened walls and roof.

Towards noon the inside temperature was even higher than the outside temperature in the shade. Temperatures were recorded which were 8°C above those in the traditional hut. The isolation of the living area in modern houses against temperatures outside was at the very most 1 - - 2°C. This was most noticeable in the afternoon, when the curves for the drop in temperature inside and outside ran parallel to each other. At night the house with the corrugated iron roof was 5°C colder than the house with the thatched roof. Thus the fluctuation in temperature in the modern houses is more than 10°C greater than in the traditional houses.

Staple foods and the economy

Barton gives an example of the Ifugao's diet over one year. It reflects the situation about 1920: 42 % sweet potatoes, 32 % rice, 6.6 % meat and fish, 4 % maize, 15.4 % fruit and vegetables. 84 % of the foods stem from crop-farming, 4.2 % from stock-farming, 9.4% from hunting and fishing and only 2.4 % are imported (7 p.398). As rice is the staple food it is of paramount importance to all farmers in the mountainous region of northern Luzon. However, the rice harvests often do not yield enough for a whole year's consumption and so this shortage has to be compensated by sweet potatoes. In the mountains meals are monotonous and apart from rice, they contain very little vegetables and meat only on special occasions. Of course, they could enrich their diet by going hunting with the spear or with a pack of hounds, by setting traps, fishing and collecting shellfish and by growing and picking vegetables, fruits and spices. But only seldom do the Igorot go to such trouble. According to Reiter and Tauchmann, the following foods are available to the Igorot (146 p. 25):

Animal products:
wild boars, carabaos, wild chickens, pigs, chickens, goats, dogs, freshwater fish, shrimps, mussels, prawns, frogs, snails, python snakes.

Cereal plants:
rice, maize, millet, taro, yams.

Vegetables:
sweet potato leaves, various ferns, various types of beans, cabbage, water cress, rice shoots, bamboo shoots, palm shoots, runo shoots, water lily roots.

Fruits:
guavas, mangoes, pomegranates, lanzones.

17: The rich still possess old Chinese porcelain dishes. The main food is rice (see A 301, 310 - 312, 344 - 346 (section 5.3))

18: Terraced rice fields.

19: Drying sheaves of rice shortly after the harvest.

Spices and other foods:
sugar cane, sugar, mustard seeds, cayenne pepper, ginger, salt, onions, garlic, mushrooms.

In our experience, the range of foods has changed in the last few years because wild animals or snakes, for example, are virtually nowhere to be found. Owing to water pollution and the increased use of insecticides fish or shellfish have almost disappeared from the rivers and there is hardly anyone who goes to the trouble of picking mushrooms and ferns nowadays rice is grown in terraced fields which are irrigated by a complicated system of channels and dikes the whole year round (plate 18). Most of the irrigable mountain slopes are at an altitude of 450 m to 1500 m. They are covered with rice terraces whose stone walls and walls of earth are often as high as 15 m. The result is often very small rice fields. Riceland is privately owned and is the Igorot's source of wealth. Whereas in the old days field workers were rewarded for their services with a part of the harvest, they are given money more and more nowadays. They are paid by the day. Often the employer also provides a meal. Most of the work in wet-rice fields is done by women. They do the planting, weeding and harvesting. The men repair the terraces, prepare the fields for transplanting and carry the sheaves of rice up to the store room at harvest time. The land is usually tilled with a spade. Carabaos and ploughs can only be used in large fields and on slopes that are not too steep.

In Igorot territory rice is planted in January and harvested in June/July. It is famous for its good quality. The Igorot speak particularly highly of the size of its grains and its taste, which is much better than that of the rice cultivated in the lowlands. Apart from the rice for daily consumption there are special sorts for use in rituals and sticky rice is used to make sweets and rice beer (218 p. 3).

The Igorot do not do stock-farming so that they can widen their range of foods but so that they possess animals which can be slaughtered for sacrifice at ritual ceremonies and feasts, when relatives and close friends also partake of the offerings. Poor people keep pigs, chickens, ducks or dogs. Dogs are used both for hunting and as sacrifices. Chickens can be captured again with chicken traps (A 41). Only the wealthy possess carabaos, which they slaughter at important feasts. Sacrifices are often demanded by ancestors who express their wishes through dreams anomens or by spreading disease. Thus the diagnostic expert frequently discovers that a disease has been inflicted on someone by annoyed ancestors. This is their way of pointing out that they have received too few offerings from those still alive.

Fish, in so far as there are any left, are caught in the rivers and indeed still to a large extent in the rice terraces. Women and children bury small weir baskets (A 81 – 83) in the mud to catch the small mud fish.

Camote or sweet potatoes are planted and cultivated by women in fields which have been cleared by fire. The men help in clearing and preparing the fields. These fields are in many cases not privately owned. Everyone has the right to use the land which he himself has cleared as long as he cultivates it. If it lies fallow it is returned to the community. Sweet potatoes are regarded as inferior to rice and are the staple food of the poor.

Maize too is grownin these fields whereas vegetables are grown in small gardens around the houses or in the vicinity of the rice fields. Sugar cane is planted only in small quantities and is used for local sugar production.

20: A herdsman with the carabaos of the village.

21: A carabao pushes the sugar cane press. Sheaves of sugar cane are stored underneath the storchouse.

Children love sugar cane, which they chew as sweets. Fruit trees, coffee trees and shrubs are not the property of those who own the land they are on but of those who planted them (218 p. 4). Tobacco plants grow around the house and are cultivated in small fields where the conditions are favourable. The Igorot grow tobacco almost exclusively for their own use.

When women are not working in the fields they often spend their time weaving clothes. Men from poor families often work for a long time in saw mills, mines or road construction. Load-carrying also provides a source of

Life cycle

Pregnancy and childbirth

Conception

The Kankanaey-Igorot see conception as the result of sexual union combined with divine aid, which is founded on the observation that sexual intercourse does not always lead to conception. The man's sperm is equated with a flood. The ideas about conception stem from fishing experience. The sperm is supposed to be caught in the uterus like the fish in the weir basket. However, the gods can influence this process in that they are able to reduce the flow of sperm or diminish its effect; they can „suffocate" or „crush" it. If fertilization fails, the gods are blamed, for they can make the sperm go solid. A successful conception is indicated in dreams accompanied by orgasm (184 p. 92).

Pregnancy

We ourselves have witnessed and described pregnancy customs among the Kankanaey-Igorot (106; 110). This information, which is based on our experience with one Igorot tribe, cannot really be applied to other groups. Amongst the southern Kankanaey, there are no longer any special taboos during pregnancy or confinement, although women are generally recommended to avoid eating sweet things during pregnancy. The Bontoc-Igorot, on the other hand, observe taboos on certain foods for a whole week after the birth. For instance, they are not allowed to eat any fresh fish, fruit or vegetables. We could not find any evidence any more of the pre-natal marital customs described by the Augustinian monk Angel Perez as late as 1902. For instance, men were not allowed to cut their hair during their wife's pregnancy. This was a way of warding off evil spirits (141).

22: While the parents are working in the fields the children are looked after by the old people. Pipe-smoking is still a popular pastime with old women.

If the woman wears a chain made of a snake's vertebrae (A 213) around her head, it is thought that the pregnancy will be free of complications. These kind of chains are worn in the fields as protection against lightning. The Kankanaey never laugh at the deformities of others because they think it would lead to the same kind of deformities in their own child. A prediction about the sex of the unborn child is made on the strength of the first foetal movements. If they are felt on the left side first, it will be a girl, and if felt on the right side, it will be a boy. As far back as Hippocrates (460 – 375 B.C.) (Aph.5 p. 550 Littre) and in the Chinese document „Ping-yüan-hon-lun" of 610 A.D. (92 p. 41) mention is made of similar signs, although they are interpreted in the reverse way.

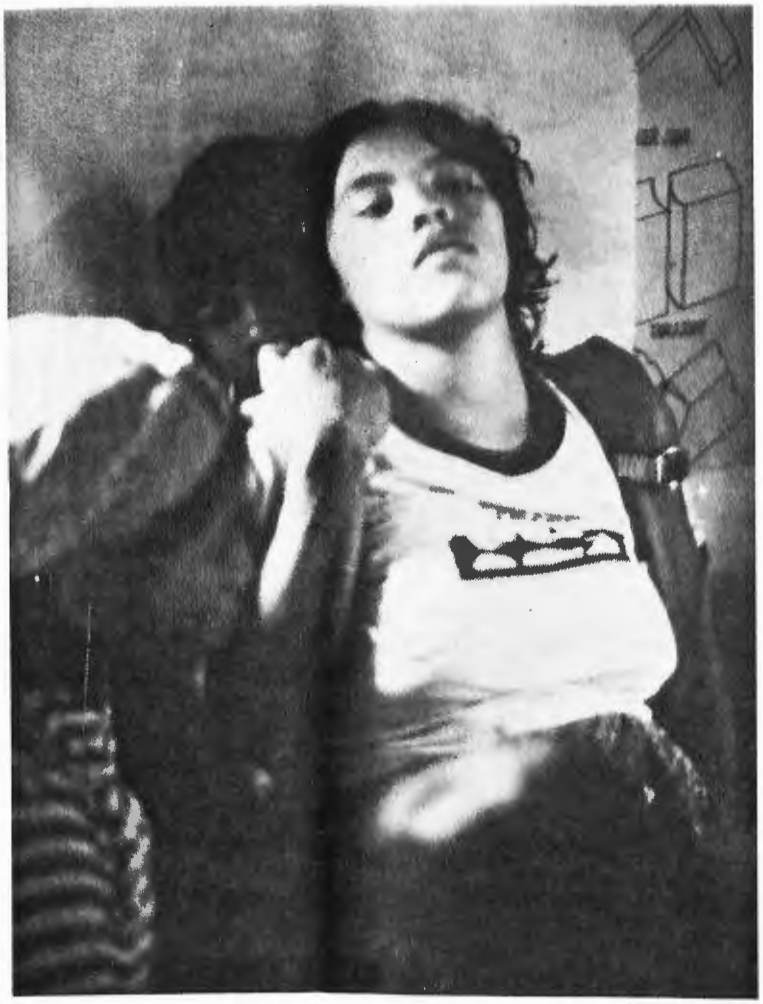
Birth

The date of birth is calculated in lunar months. When a woman misse her menstrual period for the first time, she registers the shape of the moon and adds nine lunar months plus seven days. Thus the duration of pregnancy is 273 to 280 days, depending on when the woman first notices the absence of her period. The pregnant woman works in the fields and carries heavy loads until shortly before giving birth, although in the last two months of pregnancy the loads are less heavy. It is not uncommon for the contractions to start unexpectedly when she is out in the fields, and many babies are either born there or on the way home.

As soon as the contractions become regular, a bed is prepared for the woman on a cogon mat on the floor of the house. The Kankanaey do not have their own birth huts as other groups do. The parturient woman lies down on the floor and finds something to push against with her feet, which, in fact, is regarded as one of the first advantageous positions in childbirth (173 pp. 29, 30). Most Igorot women give birth maintaining a vertical body posture, either squatting, sitting, kneeling, or standing. A delivery very rarely takes place in bed. The most popular posture is squatting while holding on to a window ledge. The woman will choose the position which is most comfortable for her, although frequent spontaneous changes of position are common. This was the normal procedure in earlier times too and also with various other groups (107; 114).

Present at the birth are the husband and an older woman with experience in childbirth, usually a relative or a neighbour. In only one out of three cases does a trained traditional midwife assist at the delivery. There is close physical contact between the parturient woman and those around her. They give her moral support, encourage her to press hard and massage her arms and abdomen during the pauses between the contractions. The husband helps his wife by allowing her to sit upright on his thighs, which he keeps wide apart, while holding her with his upper arms between breast and fundus uteri. Thus he gives her support in this or another position while she is pressing

23: Older children also look after their brothers and sisters. The small child is wearing a little necklace as protection.



24: The parturient woman sits on her husband's thighs during the contractions. Relatives stand by her side and give her moral support.

(plate 24). This assistance of a familiar person may be the precursor of the first obstetric aids, i.e. brick layers (217 p. 390) and wooden obstetric chairs.

Protracted births or abnormal positions of the baby are attributed to the influence of certain spirits, called „retarders". This situation can be obviated by a mansip-ok rite (Bontoc: insupok, 60 p. 102). For this rite a slaughtered animal, usually a hen, is offered to the protective spirit maxil in the hope that his support will ease the birth. The spirit pumaing is also held responsible for difficult deliveries. While calling his name they make an offering to him so as to distract his attention from the parturient woman. In the case of difficult deliveries the Igorot believe that a group of evil spirits block the birth canal and that this will lead to the parturient woman losing her soul. The obstruction of the birth canal is imagined as being the erection of a dam. This idea takes us back to the analogy between flowing water and a successful birth. In the case of a complicated delivery, the northern Kankanaey summon the relatives, for it is thought that the child will want to have all its relatives around him when it is born.

On birth the infant slides into the hands of a birth-attendant and is then washed. The Igorot still fear above all complications with the expulsion of the afterbirth. They believe that the afterbirth tends to stay in the womb and then move up to the breast. For this reason the parturient woman, her husband and those around her show no signs of relaxing after the birth of the infant but start massaging the woman's abdominal walls from the sides to speed up the expulsion of the placenta. The Igorot imagine the afterbirth to be a shawl in which the infant is carried by the gods until its birth. Should the expulsion be delayed, they give the umbilical cord a slight pull or take the drastic measure of separating the placent manually. In difficult cases another mansip-ok rite is performed. Not until the placenta is expelled is the umbilical cord severed with a bamboo knife, langkhit (A 197, 198). When the contractions start this knife is carved by a member of the family with the „best and cleanest bolo (machet). It is believed that the use of a knife with an iron blade or any other sharp instrument with a blade to sever the umbilical cord will turn the child into an argumentative good-for-nothing who draws a knife at the slightest opportunity (60 p. 103).

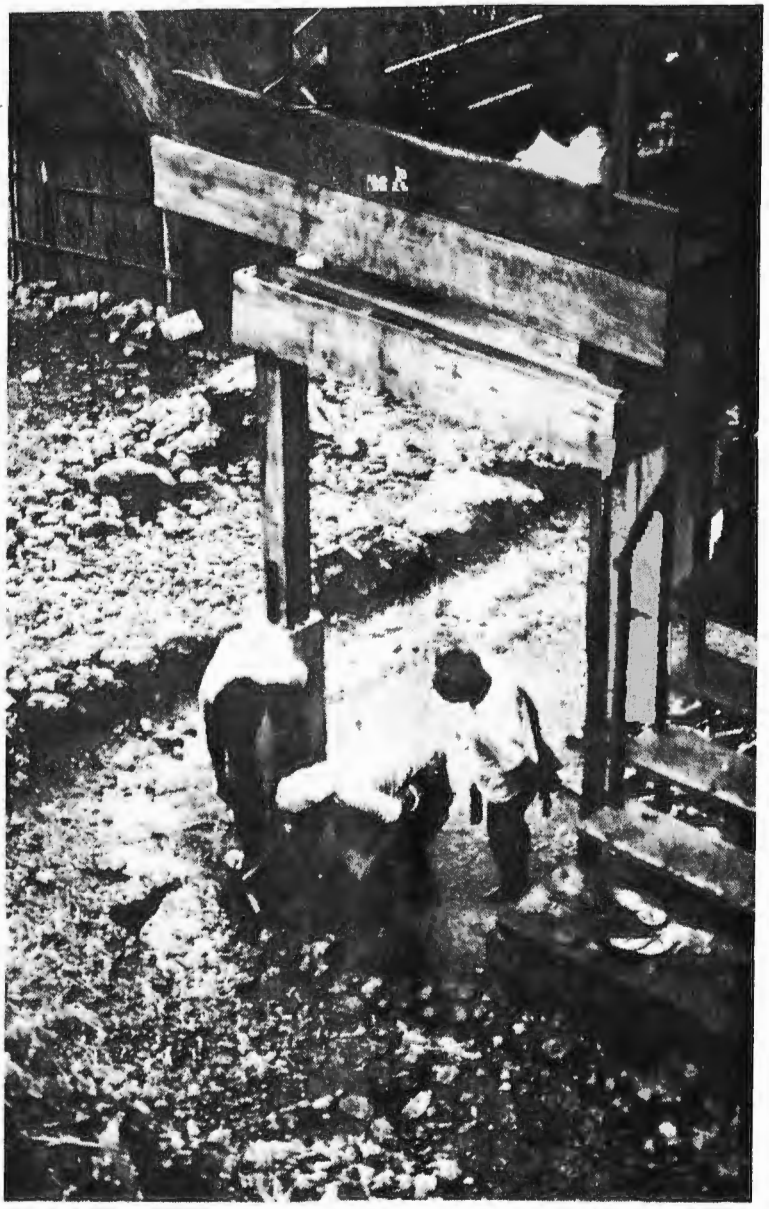
Whereas in earlier times the umbilical cord was severed by being torn off and no ligature was applied to the ends of the cord, today strips of material or fern fibres are applied. As early as 1864 Mallat described this custom of tearing the umbilical cord off which is found amongst primitive peoples in the Philippines. He presumed that tearing the

skin and blood vessels stopped the bleeding better than the application of a ligature (127 vol.II, p. 49).

The burial of the placenta

In ancient literature no reference can be found to the treatment of the afterbirth and the umbilical cord, puseg,among the Igorot. Even today it is common practice for the Igorot to bury the placenta and carefully preserve the umbilical cord. While the relatives and onlookers crowd around the new-born baby the father buries the placenta as quickly and inconspicuously as possible. He is usually assisted by one of the oldest inhabitants of the village, who being familiar with the traditional rites gives advice and ensures that the burial of the placenta is carried out correctly. The most suitable burial site is next to the front corner posts of the hut outside the living area covered by the roof. The posts pointing south are chosen so that the placenta will be exposed to the life-giving sun, which will strengthen the new-born child. Rain-water is supposed to drip from the roof on to the burial site. They think that in this way the child will become agile, industrious and active like water. Rain-water is supposed to cool and nourish the placenta.

The father digs a hole of approx. 30 cm in depth. He quickly puts in the placenta and the bamboo knife, covers the hole with earth and stamps on it (plate 25) so that nobody will be able to recognize the place of burial. Burying the placenta too deep is said to delay the baby's teething and not burying it deep enough is said to accelerate it unnecessarily. Anyone who gains possession of the afterbirth is able to exercise power over the new-born baby by casting a wicked spell on it. For this reason the burial site must be kept a secret. Re-animation of the placenta by means of a wicked spell debilitates the person it is connected with and similarly the death of the placenta must be ensured in order that the child can lead a healthy and energetic life. For this reason the burial of the placenta is of utmost importance to the Igorot. Here again we see the old tendency of the human intellect to explain everything in terms of opposites: the placenta, which is looked upon as the child's double, hasto die and be buried so that the child can live. Failure to observe the burial rules leads to imbecility in the child. Should animals on the loose,e.g. dogs or pigs, nose out the placenta and eat it, this can not only debilitate the child but even cause his death.



25: Burying the placenta and the bamboo knife which was used to cut the umbilical cord.

26: During a woman's confinement, ngilin, a black stick outside the front door indicates that there is a new-born baby in the house.

Protection of mother and child

Infanticide is no longer practised among the Kankanaey. However, Lillo de Garcia in 1877 (124; 26) and Meyer in 1883 (133) wrote about infanticide committed against twins. Later on this practice was modified in that the second-born twin was not killed but handed over to a relative. If the mother died during the two year breast-feeding period, the child was buried alive with her (153). One mother told us that an infanticide has occurred in her village as late as the 1940's.

After the birth of a child the northern Kankanaey place a sign in front of the house to ward off disease-bringing spirits. This is usually a one-meter-long stick of old black pinewood (plate 26), which can only be found buried in the ground in the mountains. The pinewood is said to come from very old, strong trees which have been buried as a result of earthquakes and floods and which still have great powers of resistance. The Bontoc-Igorot, on the other hand, mark the entrance of a house with new born babies with two big sticks, karutsakid, which meet above the door. They are supposed to indicate that the family now has to observe certain taboos and rituals during the first week of confinement (until the remainder of the umbilical cord drops off) - which is the ngilin period. Since, however, not even all natives are familiar with this custom they often get one of the older members of the family to sit in front of the house and inform strangers. They think that strangers could bring disaster and are convinced that disaster can strike them outside the house and in foreign parts. Babies are particularly susceptible to such a disaster. It can even cause their death. Asked about the cause of a disease the insup-ok , the diagnostic specialist, will often say: „..you contracted this disease at the place you went to recently or on the way there." (60 p. 106). In the case of the Bontoc-Igorot, the isolation of new-born babies from the outside world during the first days of life is ensured by the traditional religious system, which may largely have been a reaction to observing such cases of disease. From a modern medical and hygienic point of view, these isolation practices are equally justified.

The house is also protected against attacks and undesirable visitors by other signs such as pudung. These are reeds with their leaves tied in a knot. Barton calls this an „ethical lock", because it is useful in many situations where something is to be forbidden or „locked up". Thus pudung can prevent someone from walking over a new field dike or entering a house when its inhabitants are not there (14). Whenever mother, father and child go off to visit relatives in a different village, a

black cross is painted in the child's forehead to protect him from evil spirits. Older children often wear amulets, bracelets and necklaces as protective signs (plate 23). The northern Kankanaey name newborn babies after the first person who comes to see the baby who is of the same sex.

First meal

Immediately after delivery and after she has been washed the mother is offered her first meal, an abusang. This is pork which has been smoked for two to three months and cooked and prepared during the delivery. In earlier times abusang was the offering sanga which was presented to the abuy, the spirits which cause stomach pains. Today abusang is allegedly used to stimulate milk production in the woman's breasts. After this meal the baby is nursed for the first time. A Kankanaey mother does not eat anything during the next three days. If she has no milk, it is strictly forbidden to ask a wet-nurse to breast-feed the infant, as this could cause his death, according to the Kankanaey-Igorot. In such cases the infant is reared on sweet potatoes, rice, salt and sugar.

As soon as the baby is born the ngilin period begins for all members of the Bontoc-Igorot household. It lasts about a week, until the remainder of the umbilical cord drops off. During this time certain foods are forbidden. For instance, the family are not allowed to eat fresh fish, fruit or vegetables. Meat may only be eaten as itab,i.e. salted and dried. The family closely abide by these rules so that nothing will destroy their happiness. During this week they are not allowed to go out into the fields or to another village. This also applies to the intsawat, the midwife, if only on the day of birth (60 pp. 105 -- 109).

First bath

A young southern Kankanaey mother takes her first bath two days after the birth of a girl and three days after the birth of a boy. She goes to a spring where the water comes from a rugged precipice without any vegetation. The father chooses this spring before or immediately after the delivery. The mother is even expected to go a long way along dangerous paths in order to prevent the risk of being smitten by disease-bringing spirits. While she is having her bath she is protected by two pudung which keep away evil spirits. The protective signs are erected on either side of her. These are supposed to ward off the dreaded pil-piling, which are evil, disease-carrying spirits. They are attracted by the woman's lochia or blood and attack the mother or child. The Bontoc-Igorot mother only washes her face, arms and legs. Then she takes some spring water home with her in a coconut shell to wash her child. This bath is supposed to strengthen the baby and make it more resistant to disease (60 p. 106).

The umbilical cord

Breast milk, which is said to have healing powers, is regularily poured on the navel of the newborn child so that it dries up quickly. Only rich Bontoc-Igorot can afford to slaughter a chicken every day until the umbilical cord, the puseg, drops off. It is, however, common practice among all members of the commmunity to celebrate the „day on which the remainder of the umbilical cord falls off", the pamutting, by slaughtering a chicken. The dried up umbilical cord is kept either in a small vessel or in the bamboo ladder leading into the house (plate 12) or it is also buried so that nobody can gain possession of it and perhaps cast a wicked spell on the child. If the infant is a boy, the umbilical cord is buried near the placenta; if it is a girl, it is buried away from the afterbirth but not too far from the house. First it is put in the family bamboo or wooden chest, faor, which is always locked, or in a small earthen vessel and then it is buried near the house. It can also be buried near the hearth so that the child does not forget his parents too quickly and leave them (Bontoc and southern Kankanaey). Other tribes place it in the upper end of the bamboo ladder, which is situated at the entrance of the house and which they then seal carefully (northern Kankanaey). The Bontoc-Igorot believe the deeper the umbilical cord is buried, the longer the period will be until the woman becomes pregnant again.

After the remainder of the umbilical cord has dropped off, the Bontoc-Igorot butcher a chicken to announce the end of the taboo on certain foods and of all other precautionary measures observed by the family. Now the mother is allowed to leave the house again. However, before she is allowed to accept invitations to meals in other people's houses, a further ritual has to be observed, the tsumaktsakaran. Disregard of this obligation would have disastrous consequences for mother and child. Rich Igorots slaughter a pig. Neighbours and relatives are invited to the house. This is the first time they are allowed to see the baby. With this offering, the manmanok, the house is opened to all those who do not live there. At the same time, the two wooden sticks, karutsakid, at the front of the house are removed. However, only adults are allowed to come and go in the house of the woman who has given birth. Children are only allowed in when accompanied by an adult. They are not allowed to drop or break anything and even sneezing is forbidden as it could have disastrous consequences. Should there be any mishaps, the family have to slaughter a pig for their own protection.

27: Small children are taken to the fields wrapped in a sling.

The insupok is then asked to say prayers which avert the disaster (60 pp. 107 -- 109).

Circumcision

Circumcision is very common in the central region around Bontoc (Mountain Province). Botengan describes this custom (60 pp. 126 - - 128) and says that the Bontoc-Igorot expect boys in their puberty to be circumcised, nasegyatan. Any adult who is not circumcised is branded logyyup (long penis). Therefore boys have themselves circumcised as early as possible. Even six-year-old boys are encouraged by their parents to think about being circumcised. Here the pressure exerted by the community plays a very important role. It is not uncommon to see a group of six to ten-year-olds setting off to an old man's house to be circumcised. As recently as the seventies every man in the village of Tocucan claimed to have been circumcised.

28: Lousing is principally a form of caress.

Circumcision is performed by old men with a great deal of experience. They have made a name for themselves by carrying out the „operation" without complications by cutting and pulling back the foreskin. After this manipulation the penis is neither swollen nor infected. Nor is a „second operation" necessary. Payment for the circumcision is in the form of dried beans or a few tobacco leaves if the old man smokes.

After the „operation" the old man is not allowed to drink any alcohol, otherwise, according to common belief, all his patients would suffer from swollen genitals. The only instrument that the old man uses is a small sharp knife, which he carries with him wrapped in a cotton cloth (intsamey). Before use it is heated above a flame. He inserts the slender knife into the tip of the penis and slides it under the foreskin of the penis, which is held upright. His left hand keeps the knife in place and with a piece of wood in his right hand he gently taps the skin above the blade thus slitting it. He then rolls back the foreskin as far as it will go and applies a bandage, umok, the purpose of which is not only to stop the bleeding but also to accelerate the healing process.

The umok is a dressing made of tender leaves which have been chewed or pounded. It is then applied to the open wound. After the „operation" the boy is sent home with instructions not to wet the dressing. The umok, to which healing powers are attributed, has such a powerful effect because, according to mythology, it was introduced by a snake with two brothers as witnesses. It is assumed that these two brothers handed down the secret of the healing powers of the umok. In this way it became known as a general remedy for cuts and other injuries (60 p. 127). According to Bontoc-Igorot mythology, innumerable prayers and remedies have been handed down by these two brothers, who were medical experts.

Marriage

The ceremony of marriage does not only join the young couple but also the bride and the bridegroom's families. Among the Bontoc-Igorot the ritual whereby the two families exchange food is a major aspect of marriage. Its function is to protect the members of both families from incurable diseases. Some diseases are still attributed to a failure to comply with this ritual of exchanging food or of eating the food from the other family. The wedding itself often takes place when the couple have been living together for some time; in this way a time can be chosen which is right for both families from the financial point of view. Most of the guests are invited to the karang ceremony, at which the bride and bridegroom are officially declared married. An opulent meal is served at this celebration. Even the poorest in the village have to celebrate karang . During the ceremony attention is paid to omens and signs. If these are bad, they can be counteracted by offerings. Rich villagers can afford to entertain their guests for several days in succession.

With the wedding ceremony the bride is officially introduced into her husband's household, a ritual which demands various precautionary measures, whose function is to preserve the wife's fertility and the family's wealth. The bridegroom has to give his bride presents such as strings of beads (A 200 – 211) so that she is protected from disease. She is not allowed to open the rice store-room until he gives her another string of beads. Otherwise she would be punished with blindness by the local spirits. Nor is she allowed to take food out of the pots or water from the containers before she is given still more beads (120). If a fragile object is dropped at the wedding ceremony, this is seen as a bad omen sent by the ancestors, resulting in the immediate separation of the couple.

The Kalinga and the Gaddang have the most ostentatious and splendid ceremonial dress of all Igorot tribes. The bridegroom wears a richly ornamented waistcoat (A 844) and a red, black, yellow and white loincloth embroidered with beads (A 840). Only the rich wear a magnificent red chest pouch with bronze rings (A 842) and a head or neck scarf covered in beads (A 843). A richly embroidered, bluish black cape is hung loosely over the shoulders (A 841). A head ornament made of the finest feathers (A 847, 848) completes the bridegroom's wedding dress (plate 29, 30).

The bride's dress consists of a waistcoat with bead ornamentation and a hip blanket, tapis (A 846), which is also decorated with small beads

29: A young Kalinga in ceremonial dress. The photograph was taken in the 1940s (see A 840, 841, 843, 844 (section 4.1)).

or pieces of mother-of-pearl. It is fastened with a red, yellow and black woven belt (A 845) or a bronze belt (A 79). She wears large mother-of-pearl earrings (A 400 - 403) and often carries a small bag with bead ornamentation (A 849) (plate 66).

Headhunting

Much has been written about headhunting, a frequent practice among the Igorot tribes in earlier times. Headhunting was cited as a measure of the Igorot's primitiveness. The Spanish, for example, regarded it as justification for their invading Igorot territory and „restoring peace" to the area with the help of missionaries. This was the intention behind the „Galvey Expedition" in 1829, which S. de Mas described (155 pp. 173 – 178). The Spanish obviously never asked themselves what possible motives the Igorot could have had in headhunting and what particular significance it had for them. This question was not answered until the beginning of this century, when American ethnologists started their investigations. They realized that the Igorot custom of headhunting was not a sign of the „savagery of a primitive tribe", but of a strong sense of justice and a keen sense of responsibility towards both their fellow men and nature.

The most important motives for headhunting were:

1. A desire to wreak vengeance,
2. A desire to requite a violent or unnatural death in one's own group,
3. A desire to preserve fertility,
4. A desire to win prestige.

In the case of murder or any other serious violation headhunting was a legitimate means of requiting injustice and restoring order. In fact it was the only just way of restoring the social order. The same applied when dreams or omens revealed that one particular person was to blame for an unnatural death. Moreover, sometimes the oldest villagers demanded a headhunt when rice was being planted or harvested in order to preserve and improve the fertility of human beings, animals and plants. The Igorot sensed that the harvest sapped the fields. They believed that the fields would have no natural energy left if it was not replaced and restored by offerings (plates 8, 45). As the natural energy of the rice fields was of paramount importance, the offering had to be of the highest quality. For this reason a human being had to be sacrificed, although not necessarily a member of one's

30: Ceremonial dress of a young Kalinga. The photograph was taken in the 1940s (see A 841 - 844, 847, 848, (section 4.1)).

own group. Although the Americans officially prohibited headhunting when they first took over government in the Philippines, it was not until their administration had reached the remotest valleys in the Cordillera Central that the prohibition was heeded.

In 1913, however, there was an astonishing increase in the number of „unnatural" deaths in the Cordillera Central. That year rainfall had been very low, as a result of which the rice crop was very poor. Thus experts on Igorot culture explained the rise in „unnatural" deaths by the fact that humans were sacrificed to restore and improve the fertility of the fields. This was used as an official explanation by the government (75 p. 42).

Of course, a brave and successful headhunter was highly respected for his prowess among his own group. Therefore headhunts often took place as a means of winning prestige.

The area surrounding a village was divided into three zones: directly outside the settlement was the friendly zone, where the inhabitants organized joint celebrations but also war and headhunting expeditions. Then came a neutral zone. Although the Igorot, who lived in families and village communities, did not entertain friendly relations with the inhabitants of this area, they were able to move freely and safely there. The land outside this zone was hostile territory, where headhunting took place and where they were also under threat from hostile headhunters.

Before every headhunting expedition ritual precautions were taken and omens interpreted. After a successful hunt there were great celebrations with dancing around the trophy. Offerings were required to protect the hunters (2 pp. 53 – 58). The Bontoc Igorot armed themselves for a headhunting expedition with shields, kalasag (A 602), lances, tuf-ay (A 57 – 63) and headaxes, gaman (A 53 – 56), (plate 31). They also had a headbasket (A 80) and a special knapsack with a long, uncut grass cover,sangi (A 35), which was used exclusively for headhunts. Apart from the usual loincloth the headhunter wore a wooden helmet and an armlet, tangka (A 67, 68), which was embellished with an ancestral figure often decorated with the hair of the enemy or of the deceased. However, the Kankanaey and the Ifugao-Igorot used the tangka purely as an ornament and never for headhunting.

Once the enemy was defeated in battle his head was held by the pronged end of the shield, cut off with the headaxe, put into the warrior's bag and carried back to the hunters' village in a knapsack. The hunters' victims were usually elderly people as they tended to leave their village unaccompanied and thus lay themselves open to ambush. Apart from the head, hands, fingers and ears were also taken as trophies. It is said that sometimes even the scrotum was cut off to

31: Bontoc warrior with shield, armlet and head basket (cf A 35, 67, 68, 70, 80 (section 6.1)).

32: Relatives carry the victim of a headhunt back to the village. By permission of the J. Küppers Foundation in the Cologne Rautenstrauch-Joest-Museum: no. 7228.

33: A decapitated man is buried by his relatives. By permission of the J. Küppers Foundation in the Cologne Rautenstrauch-Joest-Museum: no. 7229.

make a receptacle for betel leaves (218 pp. 8, 9).

Gongs were sounded to announce the return of the successful headhunters to the village (plate 34) . Thereupon the villagers gathered at a central point in the village, usually the village square, ato, for a successful headhunt was celebrated by the entire village. The trophies were placed on the ato. On the hunters' return a hen was immediately slaughtered and sacrificed to prevent an act of revenge by the victim's spirit. The liver of the slaughtered animal was inspected in order to ascertain whether the dead man's soul had been pacified or whether further animal offerings were required. The oldest members of the tribe cleaned the trophies in the river while the warriors waited in the ato. The trophy was boiled and the skin, hair and brain were buried. The skull was kept in a headhunter's knapsack. The victim's lower jaw bones were made into gong handles (A 100, 191) (2 pp. 70, 71).

The relatives of the decapitated man buried the headless corpse in the direction of the enemy's village. They observed special rites and swore vengeance (plate 33). In Bontoc territory the nose flute was originally only played on occasions like this (A 193). It was only later that it was also played at weddings or during the planting and harvesting of rice.

Although headhunting was prohibited by the Americans at the turn of the century it was a custom which died hard. At the end of World War II it saw a revival against the Japanese. Dozier wrote about a headhunt which took place in Kalinga territory in Nantonin in 1960 (73).

34: Bontoc Igorot striking their gongs. The handles are made of human mandibles (cf A 100, 191 (section 3.2)).

Death und mummification

Death and burial

It is the custom and also essential for the community to send the dead man's soul into the world of the ancestral spirits in a prescribed way. From now on he will be a member of this world. The soul of the deceased lingers near the village until the death rituals are completed. He closely watches over these to make sure that his relatives look after him properly and in the traditional way. The living relatives are anxious to avoid all mistakes and negligence for fear of arousing the anger of the deceased, who can punish his relatives by invoking disease and other disasters. It is not the deceased's behaviour and deeds in his lifetime which determine whether he will have a comfortable life in the world of the ancestral spirits or whether he will suffer privation. His comfort depends on the care and attention of his living relatives. He communicates his wishes and needs to them through dreams.

The Igorot distinguish between normal and „nasty" deaths. A „nasty" death (170) is caused by an accident or by violence. In such cases, where the natural order has been disturbed by injustice and carelessness, retribution and offerings are required of the relatives. Among the Ifugao someone who has died a „nasty" death is on display for three days under the house. The performance of a ritual dance pacifies the deceased or rather his soul. Then the corpse is buried sitting upright in a small cave. Further rites are not performed until vengeance has been taken (218 p. 4).

When an elderly member of the community dies celebrations take place which, according to some observers, bear little resemblance to a death ceremony. The dances performed during the burial are like those at other festivities (24 p. 12).

Other observers have also been struck by the calmness and amazing cheerfulness of the death rituals (14; 95; 174). Those who keep death vigil laugh and tell stories. Mothers sit under the roof next to the dead body and nurse their babies. Nearly all the children who go in and out of the house touch the lap of the deceased (95 pp.75, 76, 78). It is said that in some cases this carefree attitude to the deceased even went as far as the children playing ball with the dead person's skull without being reprimanded by their parents (174 p. 126). It was common practice to place the skull-caps of defeated enemies in full view of everyone on a ledge outside the house (plate 12).

What is remarkable is that a natural death never gives rise to helplessness or desperation amongst the relatives and members of the community (108). In former times the corpse was on display for several days in a special death chair under the house. Today this is forbidden on grounds of health and epidemic hazards. Thus nowadays the body is placed in the house next to the hearth, where the traditional rites are then performed. There is nothing particularly unusual about a corpse and, in fact, the dead person is regarded as alive until he is buried. In earlier times he was even given food and addressed personally (184 p. 96).

Despite this apparently lighthearted and fearless attitude to the dead the Igorot still have certain anxieties in the presence of a deceased person and these they express in the prayers they chant during the vigil. They fear that the soul of the deceased could return and ask someone to accompany him, thus bringing disease and death. They try to avert this danger with the following prayer:

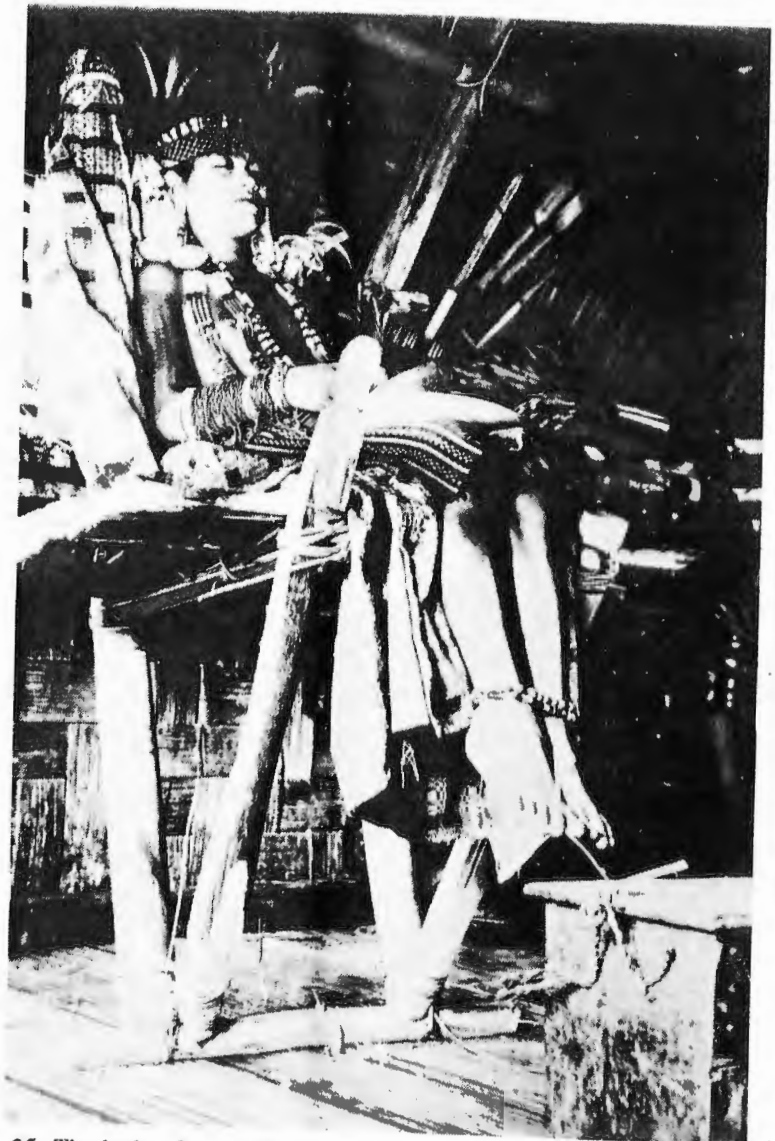
> „You are dead ... (name of the deceased). We are giving everything we can for your siling (burial ceremony). Do not come back to us, but let us live for a long time." (136 p. 374)

Or they recite the following prayer:

> „I call all members of the family so that nobody may follow the deceased, because, deceased, you are to be feared if anyone follows you..." (200 p. 104).

Other prayers express anxieties with trembling and supplications for health and a long life:

> „Now we call you dead. The time has come for you to go to the place where your ancestors live; help us who are left behind to remain in good health and lead a long life like you. It is good that you lived to an old age. Let us grow old too, let our sons and daughters grow old so that they can work for their parents." (108)



35: The body of a young woman lying in ceremonial dress on the death chair. By permission of J. Küppers Foundation in the Cologne Rautenstrauch-Joest-Museum: no. 7014

With death the soul leaves the body for ever and drifts downstream to the coast. As soon as it realizes that it is only the spirit of a dead person it returns to its former abode and looks for someone to accompany it to the world of the ancestors, thus bringing death and disease to those still alive. Since the Igorot live at such close quarters to their relatives and other members of the tribe they find it hard to imagine going on a long journey by themselves or sleeping in the house on their own or working in the fields on their own. Therefore it is only logical that the deceased should ask for a companion on his way to the world of the ancestors.

Blumentritt (50) writing about the Kiangan (Kiangan is an old Spanish military name for the Ifugao area near Kiangan) quotes accounts by J. Villaverde (204):

„The Kiangan say people die twice, the second time being the infliction of a (serious) illness. The souls of the deceased do not go straight to their place of destination but stay in the vicinity of the house for some time. They climb from rock to rock and from tree to tree, feeding on rubbish which they collect. At night, however, they try to enter their house again. They do this in order to abduct the person closest to them or his soul. The deceased husband, for instance, wants to take his wife with him to the next world or the deceased wife her husband, and the son his parents. Consequently, they believe that serious illness is caused by a deceased relative luring a soul out of a body." (50 p. 131).

The fact that the Igorot feel relatively little fear when faced with death within their family or group is evidence that they have found useful ways of understanding and coping with their anxiety. Experience has shown that anxiety can be overcome by performing certain death rites (108).

These rites include putting the deceased on display on a death chair under the hut in front of the house, mummification and burial in a wooden coffin in a remote cave or under a rock ledge (plates 35, 37). The Ifugao perform a second burial at a later stage, when, for instance, some member of the family falls seriously ill possibly because the soul of the deceased in its discontentment has invoked disease. Each stage of the burial ceremony is accompanied by prayers in which the deceased is assigned a specific and clearly defined sphere of action. Warnings and orders are given and requests are made to prevent the deceased from abducting other souls. As long as the corpse is on display the Bontoc Igorot are not allowed to go out to the fields as this would render them barren. The family of the deceased sometimes decides to move their house because they believe that the place of death is inhabited by disease-bringing spirits. The planks are numbered, and

the house is dismantled and moved to another site (plate 36).
The dead communicate their wishes to the living through oracles or dreams in the period between death and burial and sometimes even later. Thus as ancestors they are able to exert a strong influence on the living. The living find solace in this, for it means that death is no more than a transition to a different world where the dead, the ancestors, have new responsibilities and also a great influence on the living world.
During the burial ceremony sacrifices are made under careful supervision and in compliance with the requirements. By fulfilling their obligations perfectly those present lose the feeling of helplessness and powerlessness that arises in them at the sight of a dead relative or friend. Once the rites have been performed the corpse is wrapped in shrouds (A 862, 863) and placed in a wooden coffin. In earlier times this was a hollowed out tree trunk fitted with a coffin lid and secured with wooden pegs in the shape of ancestral figures. Their function was to keep the memory of the deceased alive and also to tie him to his place of burial. A wooden receptacle, tanob (A 31), was erected next to the coffin of a rich person. Meat offerings and the favourite luxury foods of the deceased (e.g. tobacco or betel-nuts) were put in it at regular intervals.

36: House of a deceased woman. The planks are numbered because the house is to be built on a different site after the burial. The whisk is used to keep flies away from the corpse.

37: Wooden coffins under a rock ledge.

Example of a Kankanaey Igorot death ritual

Dingey, the wife of Catonis, died on February 26, 1984 about four o'clock in the morning. She was more than 76 years old. Her exact age, however, was unknown as nobody had recorded her year of birth. She died amongst her relatives and her death was not unexpected as she was already quite old. During the weeks prior to her death she had suffered from some wasting disease. She had led a fulfilled life, given birth to several children and died a natural death. Nothing unusual or disturbing had happened in the last few days of her life which would have pointed to it being a „nasty" death.

Three days before she died, her relatives sent for the diagnostic specialist, the mambunong. He was to establish who had caused the disease by interpreting signs, for instance by swinging the pendulum. But this particular mambunong was in no hurry to go to the dying woman as she was already very old and had had a fulfilled life. „Why should I hurry, she is very ill and her death inevitable," he said later. He was right, for the next night she died. Her relatives washed her and wrapped her in sack-cloth. The traditional siling prayer was said:

„You are dead, Dingey. We are giving everything we can for your siling (burial ceremony). Do not return because of us, let us live a long life." (108).

The prayer was mumbled again and again and everyone looked closely at the dead woman's face to make sure that the body was lifeless. They made a death fan by attaching a sheet of a calendar to a bamboo stick. In earlier times they had wonderful death fans, sab-ong, made of buzzard feathers with an ancestral figure squatting in the middle (A 87). These were used to ward off evil spirits.

At daybreak the relatives were informed so that they could take their leave of the deceased, who had been placed on the floor near the hearth. The closest relatives crouched by the wall and watched over the dead woman. The son kept the flies away with the death whisk. Another relative sat outside the house and read prayers from the Bible very quietly. Gradually more and more people arrived. They talked about the deceased's experiences and good deeds.

Early next morning the first pig was slaughtered for sacrifice and the liver was inspected. Through changes in the liver, which were interpreted as omens, the deceased was able to communicate her wishes. If the omen had been bad, more animals would have had to be slaughtered to satisfy the wishes of the soul of the deceased. Even after the burial the spirit of the deceased can draw attention to itself through bad omens. The Igorot believe that in the next world the soul of the

38: Peg of a coffin in the shape of an ancestral fig. (A 86 (section 9)).

deceased passes through a hierarchy and that it can only rise in this hierarchy if the living relatives make generous sacrifices. Thus the ancestors have great power; death is not a symbol of powerlessness, it is merely a transition to another state. The living relatives of the deceased woman were not overcome by a feeling of helplessness because by following the traditional rites they were able to protect themselves from the threats of the spirits of the dead.

More and more relatives arrived. They sat down in front of the house or inside. Meals were prepared at the hearth and children were playing on the floor next to the deceased. Everybody prayed:

„You are going on a long journey and are not coming back, you are leaving your village for a far-away place."

The oldest people in the village expected Dingey to be on display on a death chair under the house, for she was a pagan, someone who believed in the traditional religion and had not been converted to Christianity. These relatives were to be disappointed. The deceased woman's children, who had been converted, arranged for a modern wooden coffin to be made. They explained their actions by saying that a missionary had converted their father, Catonis, on his deathbed. Despite his conversion, however, Catonis had been buried in the traditional way.

The more guests arrived, the more relaxed the atmosphere became. People were laughing and joking. Even in the house, where people were slightly more serious, the impression was not one of mourning. Nobody was crying or sobbing. Towards 8 o'clock the first relatives left taking pieces of the slaughtered pig with them. Others began re-thatching the roof of the house with Cogon grass (imperata cylindrica L.)(plate 40). In this way the dead woman's soul would not be able to recognize the house on its return to the village and therefore would not be able to abduct the soul of a relative. While the coffin was still being made under the house and the roof was still being thatched, the next offering was prepared: a dog was slaughtered and its liver inspected; its blood was kept for an unseasoned blood soup for the coffin-makers as payment in kind.

Once the coffin and the roof were finished the shrouds were checked for missing symbols and flaws in the cloth. The woven symbols reflect the world: stars stand for eternity and wealth, ancestral figures represent origin and protection as a result of being bound up in the next world, and snakes stand for a long life (A 862, 863). Three or four people took it in turns to count the shrouds and check the symbols. This procedure took more than half an hour (plate 41).

After a short lunch the deceased was wrapped in the shrouds and placed in the coffin. At first nobody was crying. The children went on

39: Signs of cultural change: an ancestral figure and a crucifix stand side by side at a burial site.

40: After a death the house is symbolically re-thatched.

41: Inspection of burial blankets (see A 863 (section 9)).

playing cheerfully in the house. The coffin was nailed up and everybody joined in the traditional Kankanaey dirges (see above). Then, however, tears came to the eyes of some of the elderly people when they realized that yet another old person had passed away and that the representatives of the traditional religion were now a dying breed. The house was full of smoke and more and more twigs were being burnt to get rid of the smell left by the corpse. The oldest guests recounted old myths and the dirges began again. After 2 or 3 hours, about 3 o'clock, the visitors left the house. Only the closest relatives stayed with the deceased.

The next few days were spent saying prayers, singing the songs of the iyayaley rite and slaughtering animals in accordance with the masadag rite. On the second day they slaughtered the second pig, on the third day a carabao and on the fourth day yet another pig. It was on the fourth day too that all the relatives came together to give small presents to the bereaved, e.g. sheaves of rice or money (approx. 5 peso, the equivalent of 1 kg rice). Then a grave was dug near the house. While everyone was talking about the good deeds of the deceased the coffin was hastily carried out of the house at sunrise, lowered into the grave and covered with earth. If during these proceedings a dog had crossed their path, if they had heard a raven croaking or seen a snake, it would have been considered a bad omen indicating the death of another relative. Finally the loose earth was trodden in and concrete poured over it.

Mummification

Mummification was a common practice amongst only a few peoples. Best known are the Egyptian mummies and the mummifications in Central and South America while those in Africa, Oceania, New Guinea and Hawaii (140) are less well known. The Igorot mountain tribes in northern Luzon also cultivated the art of mummification from very early on. As early as 1885 the German encyclopedist H. Meyer wrote about the tradition of mummification among the Igorot from his own observation (133).

H. Otley Beyer writes the following about the mummies and tombs in the province of Benguet:

„Some of the most interesting relics in this sub-province are a large number of burial caves and niches which contain wooden coffins,

bones and even dried mummies in some places. Considering what the climate is like in this region these mummies are in an amazingly good condition. The history of some of them can be traced back 150 or 200 years and more. The solution used for mummification is sablut, which in the old days was known to the Ilokanos and Ifugaos. On Mount Santo Tomas, near Baguio, over 20 mummies were found, more than half of which were in good condition.

In the northern part of the sub-province (Benguet), near Buguias and Loo, the famous mummy of Ano was stolen by a missionary from San Fernando, La Union. For years this mummy had been kept in a burial niche in a near-by mountain ledge; it was treated with great respect and frequently honoured with sacrifices by those living nearby. Thus the spectacular theft later became a matter for court proceedings. The mummy was in my care for some time; I carefully examined the corpse and studied its history. It was discovered to be over 200 years old and still in excellent condition. It had been kept in a wooden coffin in a dry niche more than 7,000 ft above sea-level. From the hairline to the soles of the feet the body was covered with the typical, fine tatoo patterns described by Hans Meyer in his monograph on the Igorot (1885). (All mummies still in existence should be photographed and examined scientifically.)" (22).

Process of mummification

The Igorot method of mummification was, of course, not as highly developed as the Egyptian method. But the mummies found in Igorot territory survived several hundred years without any major signs of decay. Baban Berong, an old and experienced Igorot, gives the following description of the traditional process of mummification amongst the Kabayan Ibaloi:

A large quantity of salt is dissolved in water and poured into the mouth of the deceased in order to prevent premature decomposition of the inner organs. The body is undressed and bathed in cold water. Then it is wrapped in the shrouds, kolebao, and tied sitting upright, i-asal, to a death chair with a high back-rest. The chair is placed in front of the house next to the ladder. The ends of a piece of material which is placed over the mouth are knotted to the back of the chair. Then further measures are taken which keep the body in this position for one week or for at least as long as fluid is secreted by the swollen body. The corpse is then removed from the chair and laid flat on the ground. Close relatives peel off the epidermis and the outer layers of skin from the whole body. This process is called duduan. After that the corpse is washed in cold water, wrapped in the same shroud and put back on the chair again. Now the worms already infesting the skin are removed, a process called begisan. The skin is preserved in an earthenware receptacle, which is buried in an enclosed spot some time later. It is here that the grave is later dug, so that the coffin is buried next to the urn.

As soon as the corpse begins to dry up it is saturated, from top to toe, with the juice of ground guava leaves <Psidium Guajava Linn. (144 p.664)> and patani leaves <Phaseolus lunatus Linn. (144 p.421)>. The juice is applied twice daily until the body has hardened and the undamaged skin has dried. A well controlled fire under the death chair fumigates the corpse. As soon as the body begins to shrink they alter its leg and arm position. The legs are pulled towards the body and the arms crossed over the chest. The hands and legs are then tied. When the hands and feet have stiffened in the required position they are untied again. As soon as the corpse has dried up it is placed in the sun during the daytime and fumigated at night. This process of drying in the sun and fumigating continues for more than two months and sometimes a year. The closest blood-relation decides when the burial will take place. The mummified corpse is then carried to its last resting-place in the cave of his ancestors or in another nearby cave

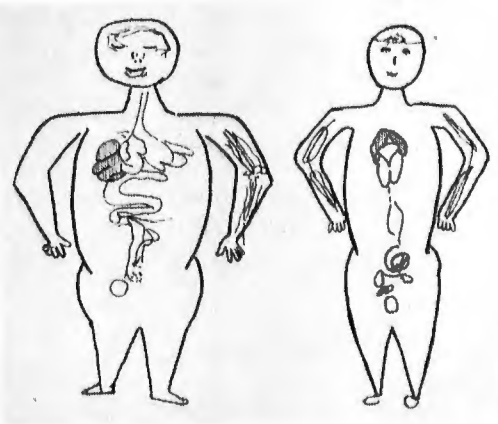
42: Mummies removed from their burial cave.

(plate 42) (101 pp. 10-11).
This method of mummification, i.e. salting the inner organs, applying the juice of guava and patani leaves, fumigating the corpse and drying it in the sun, was very common until 1850 and is said to have been used frequently until the end of the century. But then this practice was gradually abandoned because it was expensive and time-consuming. The decision as to whether and when a corpse was to be mummified was dependent on the social status and financial position of the deceased. It also depended on how many relatives the deceased had and how prepared they were to carry the costs of this ritual which lasted for many months if not years.
Until the 17th century mummification was shrouded in secrecy. The Igorot's knowledge of mummification was based on oral tradition. The early ancestors of the Ibaloi used herbs called atab. The leaves of this plant were crushed and the extracted juice applied to the corpse to harden it. Patani juice was also applied to protect the corpse from flies and other insects. Early explorers recounted how they had found small pieces of material in the ears, mouth and nostrils of mummies. Their purpose was probably to prevent fly infestation. Traditional burials and mummifications have been forbidden by law since the late 1950s.

Health and Sickness

Anatomy and physiology

The Igorot have an excellent conception of the topographical arrangement of human organs. They have gleaned their knowledge from watching animals being slaughtered for sacrifice. From a very early age children have the opportunity to learn about the anatomy of pigs, dogs and carabaos at disembowelling ceremonies.
When animals are slaughtered and sacrificed to the gods, spirits and ancestors all members of the family are invited to take part in the event. Large sacrifices are never performed in an intimate circle. As it is not forbidden to stand close to the sacrificed animal, even children in their curiosity can often study the organs and their position in the body. When the organs are subsequently boiled there is another chance to examine their size and appearance (plate 49).
By means of data by analogy and interpretations with multi-dimensional scale readings we were able to show that the the Igorot's conception of topography was not one-dimensional, i.e. they do not only arrange organs in the right order from top to bottom (cranial to caudal) but also very accurately in terms of a second dimension, distinguishing between inner, central and outer organs.
However, almost always one faulty conception prevailed in so far as the liver and gall bladder were thought to have more of a cranial position, somewhere between the heart and lungs. This „mistake" also appeared in other tests, when, for instance, they were asked to draw the outlines and position of familiar organs. In these anatomical drawings the liver appeared far too high up, sometimes even above the lungs (plate 43). This phenomenon can be explained by the fact that the liver and gall bladder are the organs through which gods, ancestors and spirits express their wishes in omens. Therefore they have a higher status than other organs, and in the Igorot imagination this becomes a higher topographical position. It is still not clear to what extent old Chinese ideas come into play here. The Chinese thought that life energy or even the soul dwelt in the liver.
In sketches the liver is always drawn with several flaps or lobes. This is an indication that the Igorot's ideas about the human anatomy are based on animal anatomy. Thus the sketches bear a strong resemblance to medieval drawings in our culture. Although a wide section of the Igorot community has an excellent knowledge of anatomy they know very little about physiology. For instance, when asked where liquid intake goes in the body they reply that it flows through the mouth, down the throat and into the stomach, a process which everyone is aware of. However, they are very unsure what happens next. They seem to think the liquid goes straight to the bladder, where it reappears as urine, and do not understand the function of the kidneys and other abdominal organs.



43: Outlines of the human organs as drawn by the Igorot. The liver was shaded in at a later stage.

Great importance is attributed to the blood as the carrier of vital energy. A person is considered very strong and healthy if he has „lots of blood". While liver and gall bladder are the most central organs from the topographical and anatomical point of view, the heart has a more peripheral position like the kidneys and lungs. According to tradition, the heart is the source of courage and a courageous person is said to have a „strong" heart. Painful illnesses are often attributed to certain spirits having attacked the liver. The head symbolizes man's individuality, which is why certain magical powers are associated with it. These powers were able to be acquired by headhunting. Human hair and nails are also said to possess special powers which were particularly suited to analogy magic. For this reason they were often removed from the corpse and preserved in a very safe place.
Human excretions such as sweat, saliva and urin are „dirty" substances which sully people and which are therefore to be avoided. Thus nobody is allowed to enter a house when covered in sweat. He must first must wipe the sweat off and cool his body down. Spitting in front of someone is regarded as a contemptuous and very insulting gesture, as this action would make him unclean (184 p. 94).
Aging results from a deterioration in certain bodily functions. It is seen as a natural process and respected as such. „Weakening at the knee" may be a sign of general weakness in old age but it can also be seen as a special symptom of illness through which the ancestors communicate their dissatisfaction with the way their living relatives are treating them.
My own surveys on the cognitive classification of illness among the Kankanaey Igorot revealed that illnesses are first of all characterized with anatomical terms. Many names for diseases consist of the name of the part of the body and the appendage mansakit, which means painful or unhealthy: e.g. mansakit di dubdub, chest or heart pain, mansakit di eges, stomach ache, mansakit di siki, pain in the leg, mansakit di tong-a, aching limbs. They also classify according to the course of the disease. Thus a distinction is made between acute illnesses of short duration and chronic illnesses of long duration. Furthermore they distinguish between external, visible illnesses and internal, not openly visible illnesses. Thus the practical aspect of treating illness and the question of prognosis are the criteria for classifying illness.

Origin and cause of illness

The following account, which was written by the missionary J. Villaverde in 1879 and translated by Blumentritt, will serve as an example of traditional medical practice among the Igorot and at the same time illustrates how little outsiders understood of their „magic" healing system.
„The witch-doctors use the following healing methods. No sooner has the healer entered the house of the sick than he is given a chicken, which he kills in the name of the old woman who rules the underworld Kadungayan; he then inspects the animal's gall-bladder. After he has taken a good look at the patient he makes his prognosis in the following way: „The patient's soul is in such-and-such a place because it has seen the spirit of its grandfather, son, father,etc. In order to assure his return it is necessary to slaughter so and so many pigs and a carabao." At that moment he seizes the Gansa, the instrument mentioned above, and makes a terrible noise on it. Then he proclaims that he can see the sick man's soul leaving the soul of the deceased grandfather and returning and approaching the sick man's body. If the patient's condition deteriorates or if he has a relapse, the witch-doctor is sent for again, whereupon he says: „The sick man's soul has left again and is being held back by this or that spirit; he seems to have grown accustomed to the life in the next world, or else he wants to join the spirit of his deceased wife. More pigs and more carabao are now necessary to make the soul return." Many healthy people take part in eating the slaughtered animals, and the witch-doctor takes most of the meat home. This often leads to the financial ruin of the sick man's family, which we will mention later." (50 p. 131)
This example describes certain ideas about the cause and development of disease as well as a kind of diagnosis and therapy which was provided by the witch-doctor. The missionary Villaverde portrays him as a charlatan and does not seem to understand what is going on. In another translation the account reads as follows: „The healers, who in my opinion are nothing but charlatans or swindlers, use the following healing methods..."(163 p. 328). Unfortunately no mention is made of the prayers which accompany every healing ceremony.
In order to properly understand the medical system of the Igorot with its magic diagnoses and remedies, and its prayers and actions by analogy it is necessary to give a short survey of the basic structures of our modern, scientific medical system. Particular emphasis will be placed on the distinction between the cause and the basis of disease, which is so important to the Igorot.

44: A sick man sacrifices a pig to propitiate the offended ancestors. The mambunong, conducts and supervises the ceremony.

Modern scientific medicine

Modern medicine distinguishes between aetiology (the cause of a disease), pathogenesis (the mode of development of a disease), diagnosis (identification of a disease) and therapy (treatment of disease). The Igorot medical system will also be described in terms of these classifications, although one more classification must be added. For in the Igorot medical system the basis of health and sickness plays a very important role. As a dynamic principle it provides the powers which produce sickness and which preserve the natural state of health. It is only when certain causes act upon this basis that disease can develop.

Of course, modern Western medicine also assumes the existence of a dynamic principle which acts as a basis for the preservation of health and the development of disease. This basis for health or sickness is manifested in normal and abnormal (physiological and pathological) processes. To be able to draw a comparison with other medical systems these processes must be seen as natural forces. Thus even modern medicine can be put down to the interaction between natural forces which takes place in accordance with the laws of nature and which is responsible for the dynamics of natural processes. The natural forces and their interaction are the ultimate basis for preserving health or causing illness. This will be illustrated by the example of a bacterial infection.

Modern medicine sees bacteria, viruses or other organisms as the cause of an infection. The development of disease is interpreted as a reaction of the body. It cannot be put down solely to the cause of disease. It is the basis together with the cause that sets off a reaction, a movement, the dynamics of disease, the development of disease, the pathogenesis. A bacterial infection on its own does not cause manifest disease. Disease only develops when the organisms find a suitable basis. However, the „natural basis" of the body is far from a suitable basis. On the contrary, it is seen as a dynamic force geared to preserving the natural order in the body and to fighting off pathogens.

Modern medicine also sees this physical order as a teleological principle, i.e. this natural basis can only be seen as working towards one goal - the preservation of health. The plan of such a natural order is said to be determined and located in the genes of the cell nuclei. Thus it is assumed in modern medicine that bacteria disturb this order and that the system reacts by trying to restore the lost order.

Pathogenesis is seen as an interplay between the organisms which have invaded the system, in this case the bacteria, and the natural forces which maintain the natural order. Changes in the body occur according to certain laws which depend on the natural forces. In modern medicine pathogenesis is seen as a general or specific defence mechanism of the body; many symptoms such as the rise in the number of white blood corpuscles, inflammation, oedema, redness and fever are interpreted as such. The doctor with his specialist knowledge is able to make a preliminary diagnosis on the strength of presenting symptoms. He then tries to specify the organism so that he can make the final diagnosis. Therapy based on the diagnosis consists in strengthening the body's resistance, e.g. by vaccination, administering immune globulin, or by making use of the pathogen's own dynamics and introducing substances into their natural cell and reproduction cycle which kill destroy them.

The medical system of the Kankanaey Igorot

The basic ideas underlying the medical system of the Kankanaey Igorot can be summarized as follows: disease is interpreted as being a way of telling human beings that they are to blame for some disturbance of the order which must be restored. A disturbance of the natural harmony is caused by human beings (cause of disease). This violation induces the guardians of order (gods, ancestors and natural spirits) to inflict disease on humans (inflictor of disease). They often achieve this by abducting the culprit's soul (development of disease, pathogenesis). Disease usually only develops when the natural basis and its dynamic forces have been affected (basis of disease). The sick person can exercise influence over his situation by seeing the error of his ways, admitting his guilt and presenting sacrifices (initiation of treatment, therapy) and can hope that the natural forces will restore the balance and turn illness into health (healing) (Table 4).

Natural basis

The Igorot as farmers are confronted daily by the principle of the balance in nature. The natural basis produces the constant change between sunrise and sunset, rainy season and dry season, youth and age, birth and death. The farmers have learnt to make use of this natural principle of recurrence: they sow when the natural powers of growth are at their greatest and render the fields fertile, and they harvest before the dying powers of nature prevail and the fruits on the fields rot.

The Igorot are very aware of this eternal harmonious balance. It is not only in the annual cycle of nature that it manifests itself but also in the cosmic and divine realm of the upper and underworld, in the human and social spheres, and in the domain of health and sickness.

Every Igorot is familiar with the principle of the cosmological and cosmic order, which determines the recurrent rising and setting of the sun and in which the cosmos is a dynamic force. The cosmological powers which created the universe as well as the cosmic powers which preserve its present order are characterized by moderation, recurrence and balance. In our western culture too this principle of order was attributed to divine powers.

The idea of balance pervades the Igorot's whole way of thinking and it is reflected in their mythology and rites. The creation does not mean anything to them; they believe in the eternal principle of the cycle of birth and death, in which man's existence is seen as a chain of cyclic events (184 p. 88). Just as the highest gods Kabunian or Lumawig have to maintain the cosmic balance, so it is the responsibility of man to provide for a balance in his earthly and social domain. It is in this context that headhunting must be viewed.

The natural basis of health and sickness
The basis of disease

In the light of such a principle of order and harmony illness cannot be a matter of chance. For, if everything in the universe and on earth is created according to regulating principles, then something as unusual and unnatural as disease must have its own purpose. Disease is regarded as a sign or symbol which draws attention to something else. The Igorot interpret disease as a symbol of some disturbance of the order.

As human beings can only live in a harmonious natural order they are obliged to restore the balance and order. In their own area of life they should behave in compliance with nature and should act according to the principles of balance. Thus the Igorot perform ceremonies to restore the balance on every occasion that man intervenes in the process of nature. What is removed from nature is replaced by something else and the balance is restored (plates 8, 45).

Murder, serious crimes, rape and violence are human infringements of a natural harmonious order in personal and social relationships. They call for retribution, which in earlier times was fulfilled by a headhunt. The violated person and his relatives are obliged to restore the balance; if they do not, the whole group becomes guilty.

Killing an animal on a hunt is also considered an infringement of the natural cycle and in particular of its reproductive powers. For this reason the hunter is in a dangerous position. His wrong-doing is a potential basis for disease. Therefore he has to ask the soul of the killed animal for forgiveness. The same applies to the slaughtering of animals at sacrificial ceremonies (plate 8).

The disease caused by hunting and killing an animal is called amling or sikit disease. The Igorot believe that a hunter who kills a wild animal will be invaded by a power which does not particularly affect him. Often he may not even recognize this changein him. But if he meets a weak person on his way home, someone „who does not have a strong will", the dangerous condition and the power inhabiting his body might spread to the other person and make him suffer from general weakness accompanied by dizziness and sweating. This disease

45: Tobia offerings at harvest time. Offerings are presented in a number of caskets (see A 113 (section 7), A 114 (section 3.4).
Bottom right: A pair of rice gods, bulul, (see A 101, 102 (section 3.3).

is treated by a specialist who performs the so-called amling or sikit ritual: in prayers he asks the soul of the animal for forgiveness and bids it to leave the sick man.
A similar explanation of illness is well known among the Cherokee in North America and the Bororos in Brasil. According to Levy-Brhl, among the Cherokee rheumatism is caused by the spirits of killed animals, above all stags. He also says: „the hunter's disease is inflicted by an act of revenge on the part of the animal...A hunter falls ill or dies - who is to blame for this blow? An animal-person who he killed and who is wreaking vengeance." (122 p. 241 footnote).
Another similar disease also called amling among the Kankanaey Igorot is unconsciously caused by man. Particularly old and dignified human beings with strong personalities are said to have a special power which could leap over to younger and weaker individuals, causing trembling, shaking and unconsciousness. The symptoms described by the healers were like those associated with an epileptic fit. The cause of the disease is a lack of respect shown by a young person to an older person.

Like killing an animal, harvesting too is an unnatural infringement of the natural cycle. The damage must be compensated by offerings. Offerings of compensation are called tobia among the Igorot. Their purpose is to preserve the reproductive powers of nature. It is only in recent times that we have developed a new attitude towards nature; we are gradually becoming aware that sacrifices must be made to maintain the cycle of nature. The Igorot performed sacrificial rites every year at sowing and harvesting time. In the old days the most valuable thing on earth, a human life, had to be sacrificed for the preservation of the basic natural forces. It was, however, not necessary to sacrifice members of one's own community ; the victim of a headhunt amongst another group would do.
If a group neglected the sacrificial rites or violated the balance of nature, be it from neglect, carelessness or even on purpose, natural disasters loomed or, in the case of an individual, serious, mostly chronic diseases. However, the natural basis and its natural forces cannot cause disease on its own since the basis cannot be a legal principle. It merely functions as an executive organ. Diseases are inflicted as punishment by other powers, i.e. by the „guardians of

order". They can be ancestors or spirits who react to an individual's bad behaviour. This reaction from the „guardians of order" is triggered off by a special cause.

The cause of disease

An unusual or chronic disease is caused by the sick person's earlier behaviour which violated the natural order. His misdemeanours led to the natural harmonious cycle being stopped and upset. Natural,social and supernatural spheres can suffer disturbances; consequently, disease can have natural, social and supernatural causes. Negligence towards the body results in natural diseases.
Overwork gives rise to aching limbs, the consumption of inedible mushrooms leads to food poisoning, poor body hygiene causes mild skin rashes and exposure to extreme heat or cold causes influenza and a cough. A cold is, for instance, caused by a draught, but only because the patient did not protect himself against it. Negligence towards the family and the community such as theft leads to diseases on social grounds. For example, the northern Kankanaey are familiar with the botud, chronic hepatitis with ascites. Negligence towards ancestors or spirits causes supernatural diseases: serious chronic ailments like paralysis, bleeding stomach ulcers or goitre with breathlessness, but also "accidents" like snake or dog bites for which the injured supernatural beings are responsible.
An injustice or a negligence does not immediately lead to illness. The spiritual beings responsible for the cosmic, natural and social order, the „guardians of order" punish this disturbance by acting on the natural basis.

Infliction of disease

Disturbances of the natural cycle can induce the ancestors or natural spirits to inflict disease on the culprit. The reasons can be manifold: ancestors can feel hurt because their requirements as regards offerings have not been fulfilled by the living, a negligence which jeopardizes their social rise in the other world. The abodes of natural spirits have perhaps been destroyed by carelessness or the animals which help them (ants, spiders and snakes) killed, and this interrupts the normal course of their lives. Taboos are perhaps ignored. Quarrels erupt in the personal or social spheres and thus disturb the social order. We talk of a special kind of infliction if a member of the community approaches a magician in order to take vengeance on someone by inflicting disease on him.
There can be a human cause of supernatural and magic diseases as they can be inflicted by a magician either on his own initiative or on behalf of someone else. But the magician is also dependent on the dynamic force of the basis of disease and its powers of keeping order. He cannot, however, inflict disease on someone purely arbitrarily. Thus with his witchcraft he tries to tell the guardians of the cosmic or natural principle or the evil spirits that some injustice has been committed by the person he wants to harm: this person is guilty because he has disturbed the order and therefore must be punished. Not until the magician has succeeded in plausibly explaining the injustice can he hope that the guardians of order and the dynamic force of the natural principle will inflict disease on his victim. Then he can gather the disease-bringing powers by means of a fetish and inflict disease on his victim.

Development of a disease (pathogenesis)

Disease only develops if there is a cause (human guilt) and if supernatural, human or natural beings feel induced to punish the culprits because of the disturbed order. Illness is seen as a reaction of the „guardians of order", who with the help of the natural forces inflict diseases to point to a certain violation and to demand the restoration of balance and order.
The development of disease, the actual pathogenesis, is explained by a weakening or loss of the sick man's soul. It is in particular supernatural powers and witchcraft which are able to abduct the soul. As with the causes of disease and the world order, the development of disease is also divided into three parts: a violation of order in the upper world, on earth and in the underworld (table 2).
Diseases with natural causes are brought on by changes in temperature, cold weather or excessive heat, by the direct effect of the first rain after the dry season or by drinking water after the first rain. The natural powers of the human body are also have a harmonious balance. Thus illness develops only when resistance is low, as is the case with the amling disease, or when the attack (by supernatural beings or by a magician) is too strong. Such an attack can be initiated by gods and ancestors, as well as by magicians and nature. While gods, ancestors and natural spirits are able to abduct a soul without any mediator (like the amlak spirits, who capture the souls of their victims with nets), magicians must look for help from other

45: Tobia offerings at harvest time. Offerings are presented in a number of caskets (see A 113 (section 7), A 114 (section 3.4).
Bottom right: A pair of rice gods, bulul, (see A 101, 102 (section 3.3).

is treated by a specialist who performs the so-called amling or sikit ritual: in prayers he asks the soul of the animal for forgiveness and bids it to leave the sick man.

A similar explanation of illness is well known among the Cherokee in North America and the Bororos in Brasil. According to Levy-Brhl, among the Cherokee rheumatism is caused by the spirits of killed animals, above all stags. He also says: „the hunter's disease is inflicted by an act of revenge on the part of the animal...A hunter falls ill or dies - who is to blame for this blow? An animal-person who he killed and who is wreaking vengeance." (122 p. 241 footnote).

Another similar disease also called amling among the Kankanaey Igorot is unconsciously caused by man. Particularly old and dignified human beings with strong personalities are said to have a special power which could leap over to younger and weaker individuals, causing trembling, shaking and unconsciousness. The symptoms described by the healers were like those associated with an epileptic fit. The cause of the disease is a lack of respect shown by a young person to an older person.

Like killing an animal, harvesting too is an unnatural infringement of the natural cycle. The damage must be compensated by offerings. Offerings of compensation are called tobia among the Igorot. Their purpose is to preserve the reproductive powers of nature. It is only in recent times that we have developed a new attitude towards nature; we are gradually becoming aware that sacrifices must be made to maintain the cycle of nature. The Igorot performed sacrificial rites every year at sowing and harvesting time. In the old days the most valuable thing on earth, a human life, had to be sacrificed for the preservation of the basic natural forces. It was, however, not necessary to sacrifice members of one's own community ; the victim of a headhunt amongst another group would do.

If a group neglected the sacrificial rites or violated the balance of nature, be it from neglect, carelessness or even on purpose, natural disasters loomed or, in the case of an individual, serious, mostly chronic diseases. However, the natural basis and its natural forces cannot cause disease on its own since the basis cannot be a legal principle. It merely functions as an executive organ. Diseases are inflicted as punishment by other powers, i.e. by the „guardians of

order". They can be ancestors or spirits who react to an individual's bad behaviour. This reaction from the „guardians of order" is triggered off by a special cause.

The cause of disease

An unusual or chronic disease is caused by the sick person's earlier behaviour which violated the natural order. His misdemeanours led to the natural harmonious cycle being stopped and upset. Natural,social and supernatural spheres can suffer disturbances; consequently, disease can have natural, social and supernatural causes. Negligence towards the body results in natural diseases.
Overwork gives rise to aching limbs, the consumption of inedible mushrooms leads to food poisoning, poor body hygiene causes mild skin rashes and exposure to extreme heat or cold causes influenza and a cough. A cold is, for instance, caused by a draught, but only because the patient did not protect himself against it. Negligence towards the family and the community such as theft leads to diseases on social grounds. For example, the northern Kankanaey are familiar with the botud, chronic hepatitis with ascites. Negligence towards ancestors or spirits causes supernatural diseases: serious chronic ailments like paralysis, bleeding stomach ulcers or goitre with breathlessness, but also "accidents" like snake or dog bites for which the injured supernatural beings are responsible.
An injustice or a negligence does not immediately lead to illness. The spiritual beings responsible for the cosmic, natural and social order, the „guardians of order" punish this disturbance by acting on the natural basis.

Infliction of disease

Disturbances of the natural cycle can induce the ancestors or natural spirits to inflict disease on the culprit. The reasons can be manifold: ancestors can feel hurt because their requirements as regards offerings have not been fulfilled by the living, a negligence which jeopardizes their social rise in the other world. The abodes of natural spirits have perhaps been destroyed by carelessness or the animals which help them (ants, spiders and snakes) killed, and this interrupts the normal course of their lives. Taboos are perhaps ignored. Quarrels erupt in the personal or social spheres and thus disturb the social order. We talk of a special kind of infliction if a member of the community approaches a magician in order to take vengeance on someone by inflicting disease on him.
There can be a human cause of supernatural and magic diseases as they can be inflicted by a magician either on his own initiative or on behalf of someone else. But the magician is also dependent on the dynamic force of the basis of disease and its powers of keeping order. He cannot, however, inflict disease on someone purely arbitrarily. Thus with his witchcraft he tries to tell the guardians of the cosmic or natural principle or the evil spirits that some injustice has been committed by the person he wants to harm: this person is guilty because he has disturbed the order and therefore must be punished. Not until the magician has succeeded in plausibly explaining the injustice can he hope that the guardians of order and the dynamic force of the natural principle will inflict disease on his victim. Then he can gather the disease-bringing powers by means of a fetish and inflict disease on his victim.

Development of a disease (pathogenesis)

Disease only develops if there is a cause (human guilt) and if supernatural, human or natural beings feel induced to punish the culprits because of the disturbed order. Illness is seen as a reaction of the „guardians of order", who with the help of the natural forces inflict diseases to point to a certain violation and to demand the restoration of balance and order.
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powers whose favour and compliance they win with offerings.
Among the Ifugao the magician prays to the war spirits hipag, and by means of fetishes he can weaken the souls of his fellow men and invoke evil. The victim falls ill owing to the loss of his soul. Now other specialists, the mantobia , are able to recapture the soul from the magician by sorcery. This results in the evil magician being weakened, falling ill or even dying. The weaker he becomes and the more his power diminishes the more the victim's condition improves.

Development of disease (pathogenesis)
Weakening or loss of soul caused by:
-- One or more gods (monotheistic or polytheistic belief) usually with the backing of the ancestral spirits
-- Individual ancestral spirits (manistic belief) The Anitos summon the soul either because they have been offended or because they want someone to accompany them to the underworld.
-- Magicians (magic belief) The Mansapo can abduct human souls by magic.
-- Local spirits (animistic belief) The spirits living in certain places abduct a soul for support or company

Table 2: Cause and development of disease.

Diagnostic techniques

Acute illnesses of short duration are attributed to natural causes. Usually the patient himself, the head of the family or one of the oldest members the family makes the diagnosis. In such cases the therapy consists of household remedies like medicinal herbs and massage. Thus the diagnosis and therapy of these natural diseases correspond with our ideas and methods. In our society too these „minor" illnesses are diagnosed and treated within the family with household remedies. Owing to the wide range of tablets available, the Igorot's knowledge of medicinal herbs has for the most part disappeared. Nevertheless, there are two books (68; 144) which deal with the knowledge of medical plants among the Igorot.

If a disease is not ascribed to natural causes a "diagnostician" or "diviner" must be summoned to determine the cause of illness. Supernatural diseases are suspected if chronic illness or accidents occur where no human guilt is involved. The diagnosis of such supernatural or magic diseases is made by reading signs and interpreting omens. There are different kinds of diagnostic specialist: the mansip-ok , the mangengey ,the manbaknao, the man-ila and the mansingeng, whose methods will be discussed in the next section (also see table 3).

Table 3: Healing specialists

Man-anap Diagnostic specialist	Mambunong adviser on offerings	Mansapo evil magician
Mansip-ok (Manbuyan) Egg or pendulum diagnostician	Mambunong Calls invisible powers by prayer Performs sacrifices Request or order to retract disease	Mansapo Evil magician producing illness and death on his own initiative or on others' instructions Prayers over garments hair,nails death by dog bite insect stingDiviner
Mangengey Medium Establishes contact with supporting spirit	Manman:performs inspection of gall-bladder Supervises sacrificial ceremonies magic arrows and guardian of traditional rites	
Manbaknao Expert on He uses: water yeast infusion Tapuey		
Mansingeng Specialist in identifying evil witchcraft		

The most frequent method of diagnosis is the pendulum diagnosis which was described by Meyer as early as 1885:

„If an Igorot falls ill the first question to be asked is: What has aroused the anger of the anito and what must be done to appease them? The question of what steps are to be taken to cure the illness is of secondary importance. First they try to pacify the anito with an offering. With the purpose of finding out the anito's wishes, they attach a stone to a string and blow on it e asking: Do you want a hen or a pig or a carabao? If the stone moves at the first question, a hen is slaughtered. If it moves at the second question, a pig is slaughtered and so on. Pieces of the slaughtered animal's heart and lungs are speared on pieces of wood and hung up on a post outside the house. The family eats the large remaining part of the offering, a ritual in honour of the anito." (133 p. 387).

The diagnostic method is expected to give definite evidence of who inflicted the disease and the cause of disease. For the pendulum diagnosis a suitable stone is fetched from the river and tied to a 50 - - 70 cm long string. All those who could have inflicted the disease - - gods, ancestors, spirits or magicians -- are invoked in prayers. A movement of the stone after a name has been mentioned indicates that this is the person who inflicted the disease. Then they determine the cause of disease and when the offence was committed (plate 46).

Apart from the pendulum diagnosis the Igorot also use the egg diagnosis. The diagnostic specialist, the mansip-ok, places a raw egg upright on a plate while invoking a number of gods, spirits and ancestors. The moment the egg topples over it is a sure sign that the last-named inflicted the disease. Other mansip-ok put the egg on a plate and wait for it to come into an upright position. This rite is accompanied by the following prayer which in this case refers to an sick child:

„Here I pray over this egg, whoever you are
who have captured my child,
if you are a spirit,
make the egg on this plate stand upright;
if you are a killed foe, make this egg stand upright;
if you are a spirit from the peripheral areas of this settlement,
make this egg stand upright and let us know where you have gone."
(200 p. 119).

The cosmic and natural powers which maintain an equilibrium are subject to the will of the highest gods of the upper world. If they allow some other powers to inflict illness, they assume that the sick person will recognize the symbolic meaning of his illness and try to find out what offence he has committed in order to restore order. The

46: Mansip-ok performing the pendulum diagnosis.

healers totally adapt their diagnosis and therapy to the expectations of the gods.

Healers and their methods

Like priests, healers do not form a separate class among the Igorot tribes. Like all other villagers they are farmers and become healers or priests as soon as they have learned to recite the traditional prayers and perform the necessary rites correctly. Owing to their specialization they are highly respected. They are frequently consulted in all matters, even in non-medical questions.

As media or shamans they are outstanding personalities who are capable of establishing contact with the gods, spirits and ancestors and of interpreting their will and different signs. Their special status does not result from the office they occupy but they are continually under pressure to prove that they deserve this status. The same applies to black magicians. They occupy the same rank although their power can have a negative influence on humans and will only be neutralized by an appropriate counter-spell.

The faculties and knowledge of the priests and healers may be inherited from the ancestors, although this is not necessarily so. Anyone who wants to learn how to pray and perform rituals will join an experienced specialist, a mambunong, and accompany him over a long period, sometimes even several years assisting at his healing performances (plate 56). He will be recognized as a healer as soon as he has achieved some success.

Any disease which is especially violent or long-lasting is attributed to a supernatural origin. A „diagnosis specialist or „diviner" must be called to find the cause of the disease. The Igorot call diagnosticians or experienced diviners man-anap (anap meaning „ to find out"). They use the pendulum or egg diagnosis (plate 46) or tell the culprit and the cause by reading in a rice beer infusion which was kept in a covered coconut shell (A 107) and prayed over it (plate 48). The functions of a mananap , diagnostician, and a mambunong, offering specialist, are mostly performed by the same person. He is paid with some bundles of rice, meat or other offerings. In such cases he will take home the best pieces of liver, heart or fat (plate 47).

There are five different kinds of diagnostic specialists: the mansip-ok , the mangengey , the manbaknao , the mansingeng , and the man-ila (table 3).

Sip-ok means „to exactly find out". Mansip-ok are diagnosticians or diviners who employ special techniques like the pendulum diagnosis or the dissection of offerings to diagnose diseases.

Healing media are called mangengey (gengey meaning „to separate"). This name quite well describes the character of the mangengey

because they are media who, like a shaman, will fall into trance and thus enables the sick person and those around him to get into contact with the offended, disease-bringing beings and ask them about the diagnosis (causes). Mangengey cannot learn their capacities. They are selected by a spirit. In the same way they can unexpectedly be left by their protective spirits. The mangengey are always women. Often they convene with their invisible mates in a divinatory meeting to drink rice beer and pray for support to one of the gods or spirits they know asking him to indicate the responsible and cause of the disease. After several hours of praying the helping spirit will invade her and thus enable those present to communicate with spirits and deities via this medium. Thanks to her faculties the community will be informed about the number and size of offerings claimed by the gods, ancestors or spirits.

Manbaknao or „sign interpreters" are mostly men who can read the diagnosis by changes in the water and in yeast or rice beer infusions. At first prayers are pronounced to invoke the gods and their powers. One of those liquids is poured into a coconut shell which is specially destined for healing rituals and
covered with a banana leaf. After new invocations the banana leaf is removed. Signs are interpreted and prognoses stated from the way the liquid rose up in the grooves of the inner surface of the coconut shell or the way the yeast set on the ground of the shell. There do not seem to be any rules or definite hints as to the interpretation but the prognosis rather depends on the situation (plate 48).
Singeng means „to examine" or „to observe". Mansingeng are specialists who are consulted if a disease is attributed to an evil spell. The „examiner" is able to describe the malevolant magician, his

47: A sick man consulting a mambunong. As payment he has brought along a skewer with pieces of meat.

48: The manbaknao's method of diagnosis is to read the signs from a yeast infusion in a coconut shell.

proceeding and the object which is to be harmed.
Man-ila diagnose diseases by closely looking into the eyes of the ill. In most cases this method is practised by old women.

The advisers on offerings

For serious diseases a specialist must be summoned, the mambunong. The word bunong has the connotation of „giving back, compensating, giving presents" or simply „preparing and giving offerings". Mambunong are specialized in healing and sacrificial rites but they are not necessarily oracle interpreters or prophets. Their task consists in getting into contact with spirits and gods, inviting them to ceremonies and feasts, promising them offerings and in return inducing them to take diseases back. They are also summoned if wealth and fortune are desired. The mambunong usually conduct the rites and accompany them with their prayers. Men as well as women may become advisers on offerings.
A mambunong who undertakes to heal a disease will try to induce the invisible powers to perform a healing rite. While reciting prayers he will butcher the animals provided as sacrifices by the ill: one or several chickens, dogs, pigs or even carabaos. At the same time he will beg or order these invisible powers who sent the disease to take it away. He will point to the ill's confession of guilt and his sacrifices of reconciliation. In some cases he may only supervise the proceedings of the ritual and leave the butchering of the animals to the family.
When performing their healing rites the mambunong generally use sacrificial caskets, punamhan (A 110, 113, 116, 117), which mostly contain several small sacrificing bowls (A 110, 113) (plates 45 and 64). In the beginning of this century, when a cholera epidemic was raging in the Cordillera Central, special sacrificial receptacles were manufactured in the northern Ifugao area which were used for special healing rites. They represent the figures of ancestors or deities who embrace the vessel, which has the shape of a swollen body, with their arms and legs (A 116, 117) (plates 50 and 51). Meat sacrifices were hung on special sacrificial hooks (A 109) and offered to the powers of the beyond world. In the healing of ear diseases the Ifugao used small ancestral figures which were tied to the skull bones of a butchered pig (A 119, 120). The head of the figure was then inserted into the outward auditory canal and turned with prayers and implorations being

49: Sacrificing a pig for a sick relative under the supervision of a mambunong. After the animal has been slaughtered the bristles are burnt off over the open fire.

50: Casket for offerings at healing ceremonies (A 117 (section 7)).

51: Casket for offerings at healing ceremonies (A 116 (section 7)).

52: Ritual object for curing ear diseases (A 120 (section 7)).

chanted (plate 52).

The divinatory ceremonies (hepatoscopy, gall bladder augury)

In dreams and by the intervention of a specialist the Igorot are capable of addressing invisible powers, ancestors, natural spits and gods. However, the specialist relies on subjective signs and their subjective interpretation. In order to be able to make a definite statement about the judgement of the invisible powers objective and visible signs are required. Only this way the judgement is rendered intelligible and evident to everybody. This aim of objectivity and visibility is attained in the divinatory ceremony which among the Igorot is practised with the liver and the gall bladder of a sacrificed animal. The Egyptians and Babylonians already interpreted signs in animal organs in a similar way.

The Kankanaey-Igorot call the divinatory ceremony man-man, which means „to bring into order, to repair or arrange". It is not only the specialist who gets introduced into the interpretation of signs, but the Igorot in general are familiar with the signs and their meaning. For example, they can tell by looking at the liver or the gall bladder whether a sacrifice or the expectations linked to it have been understood by the supernatural powers and whether a sacrifice has been accepted or rejected. According to the filling, location and shape of the organ the Igorot are able to distinguish between more than five different qualities of gall bladders by which they interpret the success of a sacrifice.

All sacrifices which are destined to invisible powers are accompanied by a liver inspection. Pigs and white chicken are the most popular animals for sacrifices. When examining liver and gall bladder the Kankanaey-Igorot discern the following criteria:

The best sign, paslipten , is a gall bladder which is undamaged, filled and located at its normal place. Less favourable signs are a bright, „white" liver and a gall bladder which only slightly protrudes over the edge of the liver and is hardly arched. This is called sinmislimlit . A bad sign, naekban , is a gall bladder which is covered and completely enclosed by the liver. A dry and empty gall bladder is considered an extremely bad sign, especially if it is not located in the centre of the liver but lateral or if it is covered by a liver vene, ipket .

A good omen is interpreted as acceptance of the sacrifice by the supernatural powers. The divinatory ceremony reveals whether the aim of the rite has been achieved. It also gives information as to whether the invisible ancestors, natural spirits or deities understood the wish and significance of the sacrifice. Thus bad signs in the first place do not imply that the patient cannot be cured but rather that his wishes and the meaning of the sacrifices have not been understood or that his admission of guilt has still not been accepted. In such a case the invisible powers either demand more sacrifices or the „performance" must be repeated.

However, unlike the prophecying techniques of the Dajak on Borneo (described by Levy-Bruhl, 123 p. 166 - 170) the Igorot do not necessarily address a specific question to the animal they are going to sacrifice in order to subsequently receive the answer by the gods through signs in the liver. In the case of the Dajak the living pig is asked a question during certain rites. In order to make sure that it does not change the signs of the gods by its own, the community will conceal that it will be killed until shortly before the sacrifice. Subsequently the liver will be examined.

53: Inspection of the liver and gall bladder serves as an oracle. A very full gall bladder like the one the shaman is holding is a good omen.

54: Basket for offerings used in evil witchcraft with little bowls and magic arrows (A 110 (section 7)). In the centre: a fetish ornamented with feathers (A 111 (section 7)).

Black magic with fetishes (hipag)

Mansapo are known for their faculty of performing witchcraft. Although one will hardly meet a mansapo these days the elder villagers will readily recall their methods when asked about them. The mansapo acted on his own initiative or on behalf of someone else when sending a disease or even death to an individual from motives of vengeance or reprisal. In most cases he was not able to achieve this goal by using his own power. For this reason most of the mansapo took recourse to fetishes, hipag (plates 54 and 65). These were carefully preserved in sacrificial caskets, the tangongo , which were exclusively used for black magic. After having invoked the revenge-taking spirits, the monhipag , spells were cast on the person to be witched by reciting prayers over his clothes, hair or nails. Another method was to carve a figure which was then given the name of the victim. Subsequently the parts of the body which were to fall ill were pierced by magic arrows. Plate 54 shows a tangongo sacrificial casket, a hipag and magic arrows.

Hipag are savage, cannibalistic war spirits which are invoked by

warriors prior to their embarkation on an expedition to inspire them with courage and vigour. Besides hipag are fetishes reported to give strength by themselves and used to worship those spirits. The malevolent magicians mansapo often availed themselves of these fetishes which mostly were wooden figures representing men, dogs or boars. River stones or fragments of a man's mandible were also used as hipag .

Apart from the base the man-like hipag figures hardly differ from the figurettes of the rice gods or rice granary gods (plates 64 and 65). Other hipag are small wooden statuettes (A 111) who are called by the name of the individual to be harmed by the spell. For such vengeance-taking rituals (e.g. in the case of murder, headhunt, black magic and killing by witchcraft) special sacrificial caskets, the tangongo (A 110), were required.

Another method of black magic was practised by sending out a dog with the order to bite the victim or an insect telling it to creep under the victim's skin and cause a disease. To achieve this the mansapo would pray over a sacrificed piece of meat and call the revengeful spirits. He would catch an insect which was sent by them, charge it with a specific task by pronouncing magic formulas and finally send it to the victim (plate 55).

Hipag are also said to have protective functions against all different kinds of evil. Some were placed on each side of the path leading to the house to safeguard home and road, for instance to ward off smallpox. Those who use the hipag pretend that they will be protected against „all sickness and other harm caused by evil spirits".

55: A mantobia luring a magician's soul with offerings (pig-meat, rice and rice beer). It settles on the plate of rice in the shape of a fly.

Healing from black magic

Diseases caused by black magic by intervention of a mansapo will be cured by the mantobia by means of a counter-spell. Tobia is a „replacing sacrifice". It is required, for instance, if a divinatory ceremony revealed that a previous sacrifice had not been accepted. Here tobia means that the evil-sending sacrifice which had been performed by a magician must be annihilated by another tobia sacrifice. Thus the sick person will summon a mantobia to replace the sacrifice which had made him fall ill.
By reciting prayers similar to those of the first healing rites the mantobia calls the soul of the mansapo whom a mansingeng had described and indicated as responsible for the evil spell cast on the ill. The soul of the mansapo will come in the guise of an insect provided the mantobia is powerful enough to exercise a counter-spell. The insect will sit down on the laid-out offering. The mantobia will catch it (plate 55), lock it in a receptacle made of bamboo and roast it on the fire. At the same time the mansapo will suffer from violent pains. Finally the mantobia will kill the insect and dig the bamboo tube. The responsible mansapo will die a painful death, under the condition, however, that the mantobia is more powerful than the plate mansapo. In the other case the power to harm and kill could be converted.

Treatment of diseases (therapy)

The natural diseases

The different causes of illness demand different ways of treatment. In the first place there are slight and temporary diseases with natural causes which can be healed with massage or herbs. For example, a cold is cured by warming up the sick person and stiffness of the limbs is treated with massage.
In the case of a slight everyday disease the head or one of the elder family members will first try to make a diagnosis by himself - by sacrificing rice bundles and saying prayers - and endeavour to cure the ill. He will pronounce some prayers to diagnose and treat the disease like the following:
„Here I pray over the stomach of... (name of the ill), here, whoever you are who has taken possession of him, whether you are haunted by spirits, tell us so, and how we can exorcize you, so that, just like in one single moment, he will be healed." (200 p. 120).
Prayers of treatment may also consist of orders geared to provoking the healing process or requesting the responsible spirits to disappear. An inflammation is treated by pronouncing the following prayer:
„Here I pray over this inflammation, if you are a snail, disappear, so that you cease to be swollen. If you are an abscess, become watery, so that it be known when they must do away with you, this inflammation, so that you disappear". (200 p. 120)

Supernatural diseases

Diseases which have been caused by ancestors or other powers like local spirits who abducted the ill's soul need treatment by a specialist. He will endeavour to make the lost soul return by saying prayers and burning rice straw (plate 56).
In this case the specialist will ask the sick person or his family when and where he first recognized a weakening of his strength. Armed with a lance and accompanied by his assistant who carries offerings, he will embark on an excursion to look for the lost soul at the site indicated by the ill. He sacrifices a chicken or rice and kindles rice straw to make the soul return with the glowing fire. The smoke of the rice straw is to nourish the soul while the light will help it to find its way home (plate 56).
If the ill's state remains unchanged despite these methods the disease is attributed to magic and witchcraft. In such cases the ill can only be healed by casting a counter-spell. Thus also among the Igorot a number of treatments are known which an outsider would call „magic". Invisible powers are transmitted in order to make a man fall ill or to heal him. Often the treatments merely consist of prayers and ritual offerings or of an „analogical act". This may easily lead to the conclusion that such treatments are useless. For the Igorot there is nothing extraordinary involved in these „magic" causes and therapies or anything secretive which might unfold its influence in obscurity. Although such „witchcraft" must be performed by a specialist all members of the community are familiar with this procedure and it has proven as effective treatment throughout many generations. A magic explanation is one possible interpretation among many others of the world's phenomena man wishes to understand. In a healing system magic treatments are logical conclusions of clear and intelligible concepts shaped by this world and its phenomina. Below the reader will get an insight of the „magic" healing system of the Igorot.

56: A shaman with spear and ritual cloth calling the lost soul of a sick man. Prayers and a bundle of burning straw help them to find their way back to the sick man.

„Magic healing" by prayers and analogies

According to the Igorot conception of the preservation of health the most simple way of treatment is a direct acting on the basis of the disease itself since it integrates health and illness in a balanced and proportionate flow. Thus this principle only calls for a reinstation of order so as to regain a condition of health. Man's direct influencing of the basic, natural and supernatural powers responsible for maintaining a harmonious balance of world, universe and nature is not conceivable in the Igorot way of thinking. It is, however, feasible to exert an influence by mediators and petitioners. This can be practised either by directly invoking the gods, by mediation of the ancestors or by arranging a reconciliation with the local spirits. In fact, these three entities are those powers capable of influencing, guiding and controlling the powers of origin.

even menaces. The spirits' favour can be obtained by offerings. The mortal will generally communicate their wishes and expectations at sacrificial feasts in prayers and ritual performances.
However, every serious disease is blamed on the sick person who disturbed the order or offended somebody from negligence. Healing - i. e. a return to a state of health - is not possible until this guilt has been admitted and compensated and the omnipotent order has been reinstated. The first obligatory action to introduce the healing procedure consists in an invitation of the hurt beings and a reconciliation in the presence of the community. The ill will admit his guilt and show his preparedness and desire to restore the damaged order. Afterwards his wish and expectation to be healthy again is expressed either in actions or recitations of prayers. The community's task is to control the performance of the prayers and rites as to their exact accordance with the prescribed rules. This is the only possibility man has to exert an influence on the spirits of the beyond world and this demonstration, in fact, is the essential part of the „treatment". During the communication with the supernatural powers it is of ultimate importance to underline the ill's wish to become healthy since only they are able to influence the powers ruling over health and illness.
Thus the ways of influencing the basis of a disease are constricted to and achieved by a demonstration, an admission of guilt as compensation and finally by a statement of the desired expectations.
The same applies to the sacrificial rites which are performed by a mambunong. They are successful only if the formal ritual proceedings are adhered to without fail, which means all prescribed traditional formalities have been fulfilled and the oracle has proven the acceptance of the offering. For this reason sacrificial rites are of ultimate importance to the Igorot. However, they do not expect an immediate reaction right after the sacrificial or healing rite. On the contrary, they are well aware of the fact that healing is a prolonged process. For the moment being all participants are satisfied if the omens indicate the acceptance of the offerings by the supernatural powers.
The wishes and expectations linked to the sacrificial rites must therefore be stated very precisely by means of prayers. The following prayer is chanted if a child is late in using his legs for walking:
„There is (they say) a man whose child is unable to walk.
Then Lumawig says:
'Take stones and make a heap of them,
then destroy the heap
when you come home, say:
'The lad runs at once,
as he is not unable to walk.'
Then (they say), the man does it
and his child walks
(nevertheless)". (200 p. 122)
In this prayer the following principle becomes evident:
At first the praying community refers to the initial origin and to the prayer one of the highest gods of the Igorot, Lumawig, gave to men. At the time he cured a paralyzed cripple by perfoming an analogical magic. He gave the order to pile up stones to make a heap and just like this heap was destroyed by a hand's stroke the cripple's incapacity to walk was annihilated by a similar stroke.
Prayers of this kind are performed in a rite which is to demonstrate the admission of one's guilt by offerings. Furthermore, it is possible to express the result this prayer is to provoke. However, according to the imagination of the Igorot praying and sacrificing already suffice so that in these days the „demonstration" of the specific expectations is frequently limited to the recitation of prayers.
Velimirovic (203 p. 111) reports on another analogical healing rite in the case of measles. A red shawl was laid over the rash caused by the measles. Then the shawl was removed by jerks accompanied with the chanting of prayers. The analogy here is that the skin disease and the reddening are to disappear simultaneously just like the red shawl is pulled off the skin.

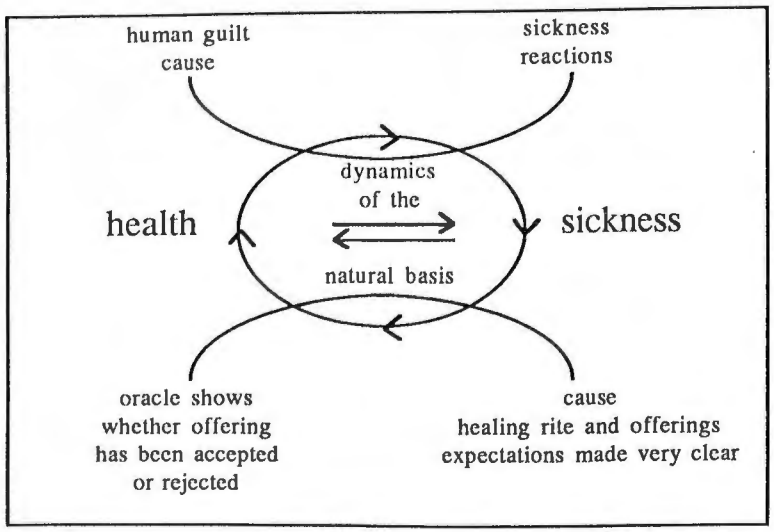

Table 4: Dynamics of the cooperating powers which influence health and sickness.

The mechanisms of magic healing rites

Illness is the objective and obvious expression of disturbed order. For this reason the healing procedure is initiated in analogy to the causing elements of the disease. Just like man is guilty of damaging the harmonious order and igniting an impulse in the dymamic natural basis which provokes illness, man attempts to set a new sign when initiating a certain treatment which is to demonstrate discernment and admittance of guilt. Simultaneously he is well aware that human beings are not able to influence the natural basis directly (table 4).
In fact, the expectation prevails that the dynamic power inherent in the principle of cosmic order will bring about healing out of the infinite cycle of balance. Health and illness are imagined as an ever-working pair of scales used by the natural and supernatural powers to outbalance health and illness. The disorder produced by man is just an impulse which only needs a second impluse in the right direction to be compensated. To achieve this aim gods, natural spirits and ancestors are invoked as supernatural powers and requested to get the compensation procedure under way. Regarding health and illness man can only be the causing agent, he cannot act dynamically. Thus the ultimate impulsion emanates from the gods and ancestors or from the basis of nature.
Accordingly the magic sacrificial rites of the Igorot observe the following principles:
1. The sick person and the relatives performing the healing rites express their acceptance and approval of the cosmic order as basic principle by uttering statements and prayers.
2. In many cases they refer to the healing principles by telling in prayers the reasons (the dynamic powers) due to which healing took place in former times. Healing is always achieved by some dynamic power which has been ordered by some god or ancestor. This process is accompanied by chanting of prayers of mostly divine origin. The healing methods employed by gods in former times should be continued in the future. Nowadays, however, a mere reciting of the prayers with reference to the original healing methods is sufficient. This way the gods are given the opportunity to fulfil men's expectations regarding health. In fact, the upper world had transmitted these prayers to humanity, following their first healing processes, so as to enable men to communicate their expectations and address the gods as healing mediators.
3. After having declared their willingness to make sacrifices the community members will execute the sacrificial rites. What is crucial in the case of treatment by sacrificial rites is not the material aspect, i. e. physical success of a „therapy" and immediate convalescence of the ill, but rather the precise statement of the expectation. For it is up to the gods and spirits to initiate healing and present it. Man has no influence.
All man can do in such a treatment is to exactly state his expectations. Max Weber (208) introduced the term „zweckrational" ('object rational') to designate actions which are to expose expectations while actions only representing a certain value are called „wertrational" ('value rational'). The latter is the case if the expectation and the value to be obtained by the action have been expressed (208 p. 11-16).
The actions performed in the sacrificial and healing rites have a different character than productive acting. In modern times acting is always imagined as productive acting , i. e. as activity directed to producing some result and defined by what is produced, the finished product. Productive acting is guided by a specific knowledge and the resulting product is imagined as ideal before its completion. The

means employed are determined by aims and objects and thus also by the imagined product. In fact, productive acting is not accomplished until the desired product is obtained.

In contrast to this, magic acting is initial acting. Initial acting is determined by expectations and serves as a leading rein towards possibilities and objects. It is guided by one's power of judgement and accomplished within its originality. Thus, for instance, political acting or even a game often are initial acting since, due to the multi-dimensional structure of the activity, new possibilities are coming up in the course of this activity which makes it impossible to conceive any final aim. In fact, especially during a game it may happen that the participants can only express their expectations of how action should develop. Magic acting can never be productive because the acting person himself does not dispose of the means (origins) to produce the expected result. Within his expectation he is only capable of initiating the healing process but he is unable to create the product by himself.

Domestic and decorative possessions

Tools and household utensils

Tools

Rice harvest knife gamuhlang
(A 199)
A rice harvest knife consists of a rounded, often beautifully carved handle, 12 cm long and 2 cm thick, and a semi-circular blade which is approx. 10 cm long and 1 cm wide and inserted at right angles into the centre of the handle. The handle is held upright with the blade protruding between the middle and index finger. The handle can also be shaped like a pregnant woman, which is meant to preserve the fertility of the fields.

Axe gaman
(A 53 – 56)
Traditional axes have many different shapes. Whilst most were for everyday use, some were used in battle as head axes. The wooden shaft is fixed to the blade by means of a thorn and a clamp and is covered with strips of rattan. Sometimes iron studs are hammered into the shaft, which testify to the wealth and heroic deeds of the owner.

Spear pahor
(A 57 – 63)
The spears of the Igorot often have broad metal points with sharp barbs. The shafts are often adorned with strips of rattan. The spears were used just as often as walking-sticks as for hunting and in battle. Since October 1941 spears have been officially forbidden, even as walking-sticks (75 p.43)(Plate 57).

Walking-stick pattan
Plate 58 (A 103)
Walking sticks are made like spears. Valuable specimens have their points adorned with one or more little human figures of wood or brass.

Prestige resting bench hagabi
(A 44), see Plate 11
To reach the top in Ifugao society the rich man must give a number of expensive feasts, which culminate in the himmagabi feast, the celebration during which the prestige bench, the hagabi,is built. Statements about the number of feasts and animal offerings required vary greatly. Some say several feasts had to be arranged in order to attain the new social position. Others claim only one big feast was necessary. Sometimes pahang feasts had to be given after the hagabi was built in order to win the benevolence of the spirits and thus ensure the family's well-being. Allegedly in many cases half the harvest had to be sold or they had to work for five or six months in order to be able to provide the necessary 20 pigs and 20 carabaos (160 p. 209). Thus Gagelonia speaks of the greatest demonstration and dissipation of wealth among the Ifugao (86 p.155).

Household utensils

Many wooden plates and bowls or wicker baskets are used in the house. Only a few will be mentioned here.

57: Igorot with a rain cape made of grass (see A 890 (section 2.2)), basket on his back (see A 57 (section 2.2) and lance (see A 57 (section 2.2)). By permission of J. Küppers Foundation in the Cologne Rautenstrauch-Joest-Museum: no. 6984.

Bowls duyo
Plate 15 (A 3, 6, 7),
The general term for bowl is choyo or duyo. They are made of hard wood. The most common shape of bowl with the Ifugao is round with a scalloped outer edge. They often have one or two handles.

Spoons pa-o
(A 12 -- 18)
Spoons are made from the hard wood of the pomelo tree (citrus maxima) (218 p.21). The Ifugao use spoons frequently. Guy says: „The spoon is an unusual implement. The Ifugao are the only tribe in the Philippines that do not eat with their fingers. Even in the poorest household there are enough wooden spoons for every member of the family and in rich families there are a whole range of these spoons to be found." (89).
Spoon handles are often carved with stylized human figures either sitting or standing. There is often a hook on the figure's head to hang up the spoon. There are various sizes of spoon and the angle between the handle and the bowl of the spoon also varies. Tagaong (A 9,10) are ladles and inacho (A 11) are stirring spatulae.

Baskets and bags

Plates 59 -- 63

Acob (A 20, 21, 25, 27, 30, 99) are rattan baskets in which rice is kept. There are two different types of basket, one with a rectangular base and one with a round base. These baskets, for instance the rectangular hoop (A 110), are also used to carry food to the fields (111 p.2, 36, 38, 41). Magic figures and fetishes e.g. minahu and hipag (111 pp.2, 32, 33) were kept in them for ceremonial use.

Kupit (A 92, 93) are small or medium-sized shoulder bags used for carrying food and other goods. Men usually keep their pipes and tobacco in them (111 pp.2, 12). Labba is an open round basket also used for transportation (111 p.2). Palongan (A 29, 97) are round or rectangular shallow bowls (111 pp.2, 34).

Taloo (A 19, 28) is a square or rectangular wicker basket for keeping food in (111 pp.2, 35). Tampipi is the name of different types of basket used for storing clothes and shawls (111 pp.2, 14 – 16). Tupil (A 98) are rectangular baskets of different sizes used for carrying food to the fields (111 pp.2, 30 – 31, 45).

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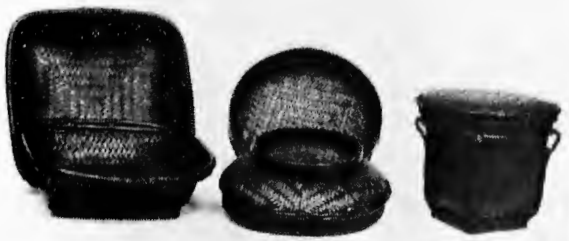

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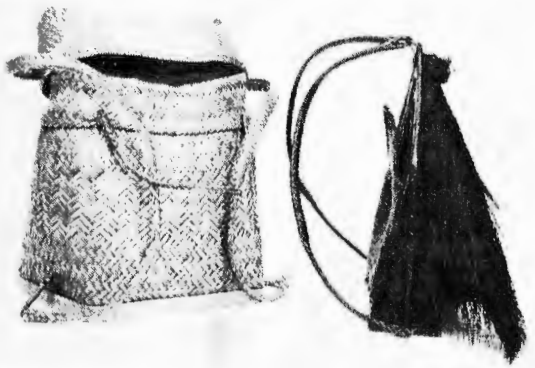

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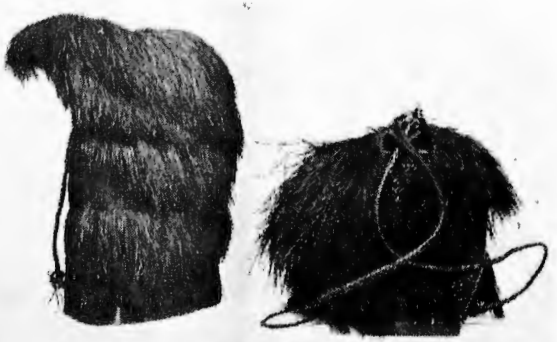

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58: The top of a walking-stick sculptured with ancestral figures (A 103 (section 2.2)).

59: Rattan food baskets. From left to right: tupil (A 98), acob (A 30, 99, 25 (section 5.2))

60: Rattan food baskets. From left to right: taloo (A 19, 28), acob (A 20, 27 (section 5.2)).

61: Bag, kupit, with false bottom in the middle section as a secret compartment (A 93 (section 2.2)).

62: Rattan knapsacks, pasiking (left: A 36, right: A 34 (section 2.1)).

63 : Rattan knapsacks. Left: a bangaw (A 33 (section 2.1)) and right: a headhunter's knapsack, nyabnotan (A 35 (section 6.1)).

(A 98) are rectangular baskets of different sizes used for carrying food to the fields (111 pp.2, 30 – 31, 45).

Pasiking (A 33, 34, 36) is the general term for all closed knapsacks (111 pp.2, 9). The sangi (111 p.2) are open knapsacks and the bangaw (A 33, 34) travel knapsacks with a soft, black fibre cover as protection from the rain (111 pp.2, 6, 7). The nyabnotan (A 35) is a ceremonial headhunter's knapsack with a cover made of uncut grass (111 pp.2, 5).

Ceremonial objects

Rice gods bulol or bulul Plate
64 (A 101, 102)
Bulul are probably the Igorot's most famous representations of gods. The 40 - 75 cm high statuettes made of narra wood (pterocarpus indicus) depict human figures in crouching or upright positions. Their heads are often supported by one or both arms, which is the posture adopted by Ifugao priests during prayer. Often the sex is indicated. These figures are put in the rice store-room to ensure a rich harvest. Bulul protect against diseases, frighten off thieves and prevent the rice supplies from being used up too quickly.

At ceremonies the bulul are brought out of the store-room and offerings are presented in little caskets to the other-worldly powers which are present in the figures during the prayers. The priests appeal to the rice gods to inhabit the wooden figures during the ceremony. Amidst ritual dances and prayers the mambunong, the shaman, daub the figures with the blood of slaughtered animals, give them rice beer as a libation and take them back to the store-room after the ceremonies, where their function is to protect the rice supplies. In Ifugao territory the bulul are often given names: the male bulul is called punholdayan and the female buyan in punholdayan. Buyan is a very common woman's name in Ifugao mythology. It is very expensive to make bulul figures and provide a ritual introduction for them. Therefore only the rich can afford to do so. They have to give several feasts which require a vast number of pig offerings.

Caskets for offerings punamhan, tangongo
Plates 54 and 45 (A 110, 113 – 118)
The caskets for offerings (punamhan, kinahu, tingkib) are carved from hardwood, narra (pterocarpus indicus) or pomelo wood (citrus maxima) or made of woven rattan. The plainest among them are rectangular or square, with no ornamentation and consisting of one piece of wood with a removable lid (A 115,118). The more valuable caskets are ornamented with lines or representations of animals or human beings. Many caskets have stylized pigs' heads or carabaos' heads on both sides (A 114,116,117). The lids are ornamented with human symbols or symbols of ancestors, snakes and lizards. Often there are some small dishes to go with the casket. The Ifugao use the punamhan in

64: Rice gods, bulul (A 101, 102 (section 3.3)) and a ceremonial casket, punamhan, with the remains of offerings (A 118 (section 3.4)).

nearly all their ceremonies. The lids are removed and turned upside down and the rectangular caskets placed on top. During ceremonies the priests put their offerings to gods, spirits or ancestors into the casket, e.g. areca nuts, feathers, rice, fermented rice beer grains, birds' eggs, short pieces of wood, little pieces of meat and bone. Even war fetishes hipag (A 110 with A 111) and figures depicting house gods are often kept inside (11; 13 p.210). The lid is replaced and the shrine returned to the rack above the fire place. The contents eventually rot or else are eaten by insects. By no means every familiy has its own punamhan. They borrow one from a neighbour when necessary.

Wolz describes his observations at a ceremony where a punamhan was used for the first time:

„Two or three priests slaughter 6–8 hens and then place the following objects in the punamhan: an areca nut in every corner, lime and betel leaves to chew, birds' eggs, pebbles from streams, the „thunder-stones" and some heads of rice. This is followed by the nantib ceremony, during which hen's blood drips into the casket, and some of the animal's feathers are placed inside. The sacrificed hen is given to the priest who conducts the ceremony. During the next three days he is only allowed to eat meat and rice. After the nantib ceremony further hens are slaughtered and the signs read from an inspection of the blood, liver and gall bladder. The purpose of this exercise is to discover whether the spirits have accepted the punamhan or whether another casket has to be made." (218 p.50).

War fetish hipag

Plates 54 and 65 (A 106, 111)

Hipag are savage cannibal war spirits invoked by warriors before they go into battle. Hipag is also the name of the fetishes through which these spirits are worshipped and which also inspire strength and endurance. These fetishes are usually wooden figures or they consist of fragments of a human mandible or of stones from a river (139 p.13).

Sometimes the human hipag figures (A 106) are hardly distinguishable from the rice gods or rice store-room figures. The only difference seems to be the size and possibly the shape of the bases on which the statuettes rest. Those figures in a sitting position normally have their arms crossed and their hands on their knees. The hipag serve as protection against all kinds of evil. Some are placed at the sides of the paths approaching the house in order to protect both paths and house and also to ward off smallpox. Beyer says that they protected their owners from "all kinds of diseases and other attacks by hostile spirits" (63 p.195).

In 1929 Barton wrote a description of the hipag based on his own observations:

„The hipag are war fetishes. They are up to 15 cm in height and are sometimes shaped like a human being, a cock or a boar. Others are stones tied to a short stick, or fragments of a human mandible, or a crocodile tooth or an entire skull, or simply a hard stone from a river. The fetish has important powers. Above all it is meant to protect its owner from the monhipag gods, who are conceived of as being a group of frightening creatures, many of whom have cannibalistic traits. Through a cock-shaped fetish, the „full-fledged cock" (a mythological figure), is worshipped. The stone fetish, which is tied to a stick, has connections with the gods too, but it also serves as a magic protection, which diverts the enemy's spears and makes them fall to the ground. All fetishes are covered with a crust of blood, sometimes more than 1.5 cm thick." (9 p.813).

65: War fetish, hipag (A 106 (section 7)).

Hipag are also connected with the pili, protective spirits who are supposed to guard possessions and prevent theft and destruction (139 p.11). As house gods, the hipag are kept in the house in woven rattan baskets (A 110).

Bronze gong gansa, khangsa
(A 100, 191)

The bronze gongs, which come from China, are 30 – 50 cm in diameter with edges varying in thickness from 3 to 5 cm. Their surface has often been forged. The handles are carved wooden figures depicting human beings or ancestors, while in earlier times the mandibles of conquered enemies also served this purpose (see plate 34).

Drum lugag
(A 192)

The conical wooden drums are sometimes more than one meter high. They are made from one piece of wood and ornamented with strips of rattan. In earlier times they are supposed to have been beaten before and after a headhunt.

War armlet tangka or tagkil
(A 67, 68)

Tangka are only worn as war armlets by the Bontoc Igorot. The Kankanaey and Ifugao wear them purely as ornaments on their upper arm. They are made of two boar's tusks tied together with strips of rattan. Sometimes four tusks are used. Attached to the tusks are ancestral figures praying in a squatting or upright position. These are often ornamented with an enemy's or ancestor's hair or with hens' or birds' feathers. Sometimes a bit of an enemy's bone was used instead of a wooden figure (see Plate 31).

Hearth posts with figures of the hearth gods hogohog
Plate 13 (A 50, 51)

The gods of the hearth fire, hogohog, are frequently represented on one or both of the wooden hearth posts supporting the rack above the fireplace,suklot, on which the firewood is kept. Carved wooden posts like this are very rare. Only the richest in the village could afford them. They have an irregular dark-brown or black patina depending on what kind of wood was used (88 p.88).

Jewellery

Old beads ong-ong, way-way, kulkul
(A 200 -- 211),see Plate 66

Kulkul is the term used for bead jewellery consisting of several strands. It is usually worn as head ornamentation. Way-way and ongong, on the other hand, are necklaces made of one or two strands.
From pre-historic times until the Spanish era the Igorot's ritual and decorative old beads, which had been handed down from generation to generation, were not only trading objects and status symbols, they often fulfilled functions at healing ceremonies, for they were said to possess magical powers. They came from China, Central Asia, India and Europe.
Even the Egyptian Pharaos are said to have worn beads with "eye" motifs to ward off evil spirits. In Roman times traders wore red coral jewellery to protect them from being attacked. It has always been the case among the Igorot and in Mountain Province as a whole that possession of the beads is not simply a sign of inherited wealth. They also play an important role in rituals and ceremonies, as trading currency, and last but not least in medicine in preventing and treating disease.
Before battle an old "medicine woman" places a string of beads beside the warriors' shields to invoke the protection of the spirits. At marriage ceremonies the bridegroom has to give his bride a string of beads before the wedding meal to protect her from disease. She is not allowed to open his rice store-room until he has given her a second string of beads, otherwise she will be punished with blindness by the local spirits. Moreover, she cannot take food out of the pots or water out of the containers until she has been given still more beads (120).
The Kalinga attribute magical and healing powers to some of their beads, particularly cornelians. Thus they are even used by traditional healers. As early as 1595 the Spanish conquerors had this to say about the natives: „They wear magic beads on their wrists which they were given by sorceresses with the threat that they would die if they ever took them off." (25 vol. XXX p. 288). Even today beads are placed beside sick people and prayers said over them. Beads are also said to develop protective powers. Thus they are given to children in particular. The colour blue is of great importance here as it is supposed to have a protective function (Plate 23).
When and how did these mountain tribes, who lead such an isolated existence in every other respect, come into possession of these valuable beads and where do the beads come from? From some of the myths and legends surrounding their emergence we suspect how old they must be. However, on the basis of chemical analyses of their glass composition, it is possible to draw conclusions about their age and their countries of origin (120).
The Philippines carried on a flourishing pottery trade with China particularly in the 12th century A.D. It also incorporated trade in glass beads and precious stones. But the majority of the beads brought into the country by Chinese traders probably came from the Middle East and Europe. Glass beads and western goods were bartered for silk.
Excavations in Asia and Africa revealed that beads were the main currency in early trading activities. In the course of European expansion in the 15th and 16th century A.D. glass beads also became very widespread amongst the peoples inhabiting the periphery of Asia, where they were prized above all other forms of trading currency. Therefore it is not surprising that Magellan carried beads with him for trading purposes on his first voyage round the world. However, owing to their early cultural contacts, the Filipinos possessed beads even before the arrival of the Spanish.

Trade and trading value

Even today glass beads and precious stones are prized currency with the Igorot mountain tribes. Particularly among the Kalinga and Gaddang (northern Luzon) strings of beads that have been in the family for generations have fetched high prices. Thus among the Kalinga, for instance, one single agate bead of a special type, called adungan, was sold for two carabaos. They distinguish between approximately 100 kinds of glass,stone and metal beads, which they give special names. Heirlooms such as beads or old Chinese jars have their own genealogies. In earlier times they were a gauge of the owner's wealth and status(120).
The value of individual beads ranged from carabaos to hens, to sheaves of rice or less valuable commodities. A cornelian, a jasper, a Venetian „chevron", so called because of the zig-zag pattern, a bead with dark blue stripes and a white centre or a glass bead with a gold inlay were all worth one pig. Beads with brown stripes were only worth one small pig. Whereas the small Venetian „chevrons" fetched two cocks and the yellow beads that look like fish eggs as much as three fat

66: Young Kalinga woman in ceremonial dress. Kulkul, a string of beads with several strands (see A 200), is a popular head ornament. Dangling earrings of mother-of-pearl (see A 400 - 403 (section 8.1)). The necklaces contain many Venetian „chevron" beads with a zigzag pattern.

hens, small red beads with white centres were only worth two hens and pink beads only one hen. Other little transparent beads were sold for sheaves of rice.

The use of certain beads

Vanoverbergh writes about the use of beads to cure and prevent disease among the Isneg. Beads were used along with other objects as a panacea: lumpag, long black and white beads, were hung below the bed of a patient who was critically ill; yellow beads and white beads were strung together and used to cure sick babies (188 p.290). The dark Prussian blue beads were used as protection against evil spirits and as a means of exorcizing them. The light blue beads, on the other hand, merely had a protective function. The small red beads with white centres were used at shamanistic ceremonies. They also served as ceremonial presents, as trading objects and as jewellery.
Only successful headhunters were entitled to wear the big yellow beads (A 202). The small yellow ones (A 205 – 207), on the other hand, were worn as ornamentation at celebrations or were used for bartering.

Age and origin of beads
(see Plate 66)

Jasper (A 210):
c. 15th century, Central Asia

Glass bead with brown stripes (A 205):
c. 15th century, Middle East

Yellow beads shaped like fish-eggs (A 205):
c. 15th century, Middle East

Large yellow bead (A 202):
c. 17th century, Southern Asia

Small yellow bead (A 205,206,207):
c. 17th -- 18th century, Europe, Middle East

Dark Prussian blue bead (A 202,204,209):
c. 17th century, Northern China

Red bead with dark-blue stripes and white centre (A 203):
c. 16th century, Venice

Light-blue bead (A 204,211):
c. 17th century, Southern Asia

Large red bead with white centre (A202,203):
c. 16th -- 17th century, Venice

Small red bead with white centre (A 208):
c. 16th -- 17th century, Venice

Cornelian (A 201, 202, 208):
c. 17th century, Southern China

Glass beads with gold inlay (A 203):
c. 17th century, Amsterdam

Venetian „chevron" with zigzag pattern (A 203,206,209,211):
c. 17th century, Venice

Pink glass bead (A 206):
c. 18th century, Asia

Small pink and amber beads (A 210):
c. 18th century, Europe

Round transparent glass beads (A 207):
c. 17th century, Southern Asia

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