

PHILIPPINE HORSES

First Brought to the Islands from Malaysia—Later by the Spaniards from China and Japan—Direct Spanish Importations Very Late—American Efforts to Improve the Breed

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EVERY visitor to the Philippines has had an opportunity to observe the many good qualities possessed by the native horse, or pony as it is more often called. Despite its diminutive size, it is often seen hitched to a native *carretela* (two-wheeled vehicle) and drawing a load of half a dozen persons, at a gait of six miles an hour, without regard for the tropical heat.

During a sojourn of seven years in the Archipelago, and experience of every province, I have been much interested in learning the origin of these native horses. Extensive questioning of both Spaniards and Filipinos has brought in every case the same answer, a perfectly natural one, that the horse was first brought to the islands by the Spanish conquerors. Some Spaniards, however, asserted that the native races contained a considerable infusion of Arab or Barb blood, but this was probably little more than a guess, based on the fact that the renowned Andalusian breed contains much of that blood, and might well be supposed to have been brought to the islands from Spain.

Study of evidence from many sources has convinced me that the common opinions are largely erroneous, and the object of the present paper is to cite in chronological order the data which I have been able to collect, to show exactly what the Filipino horses are, from a genetic point of view.

With reference to the introduction of horses, Philippine history may be divided in four periods:

1. The period when horses were altogether unknown to the inhabitants of the archipelago.

2. The period of first introduction

of the horse, with the Malay migrations from the Malay Peninsula and Sumatra to Sulu and Mindanao.

3. The period of Spanish occupation.

4. The period of American occupation.

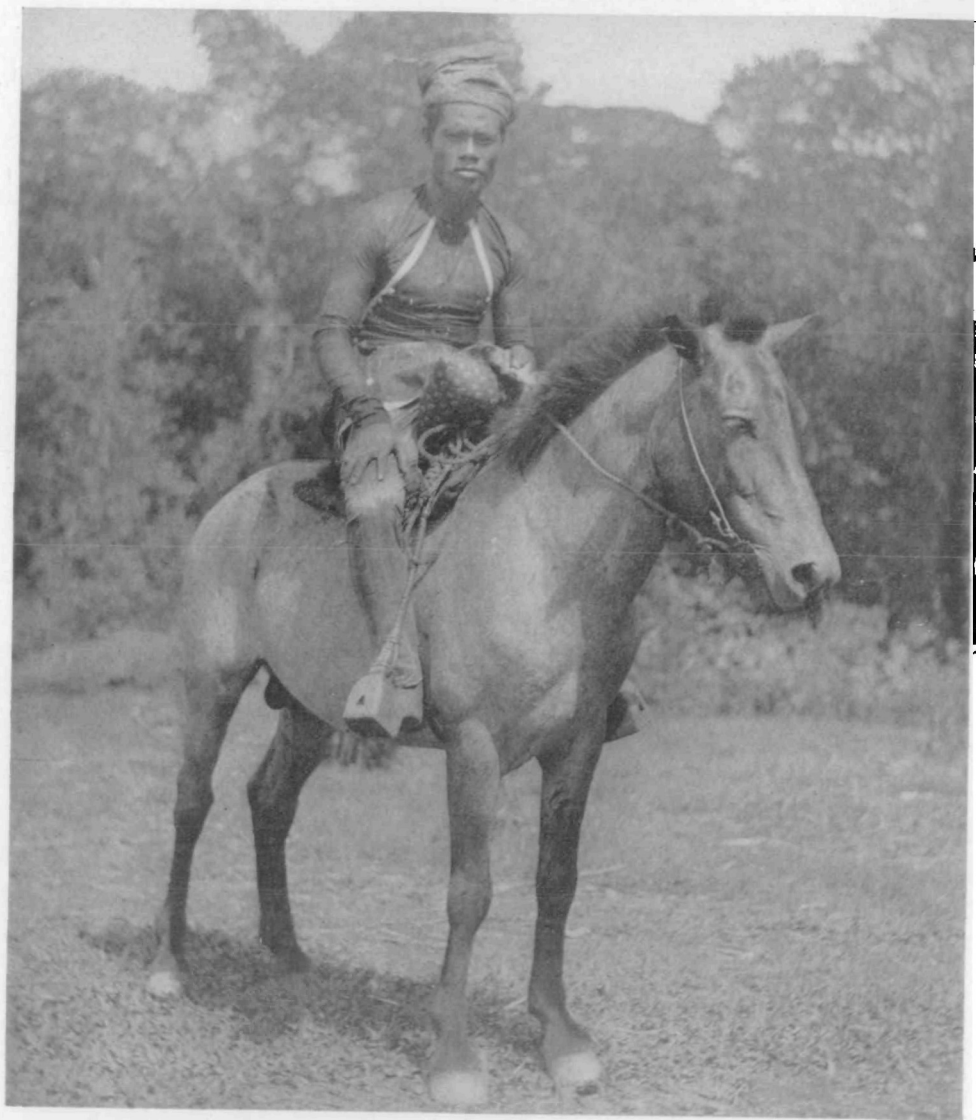
Evidence that the horse was unknown to the aborigines prior to the Malayan invasion depends on the fact that every wild tribe in the islands (except the Muhammadan tribes) knows the horse only under the name of *kabaya*, a corruption of the Spanish *caballo*. Had the horse been known to them before the Spanish conquest, they would certainly have had a native name for it.

The evidence that horses were brought to some of the southern islands, at least, by the Malay invasion, is pieced together from a number of different sources, the Moro chronicles being too brief to afford much information. I shall present the data and allow the reader to decide whether or not it is adequate to support my position.

NATIVE NAMES FOR THE HORSE

In the first place, we know that the Moros—the Muhammadan peoples of the south islands—were familiar with the horse, because they have names of their own for it: *kuda* (Sulu) and *kura* (Magindanao).

Turning now to the history of Sulu, we read of the period of Malayan invasion: "Two prominent characters which mark the era are Makdum and the Rajah Baginda. Makdum was a prominent Arab judge and scholar who arrived at Malacca about the middle of the fourteenth century and converted the ruler, Muhammad Shah, to Islam. . . . Continuing farther east he reached Sulu and Mindanao about 1380."



THE SULU PONY IS THE OLDEST TYPE

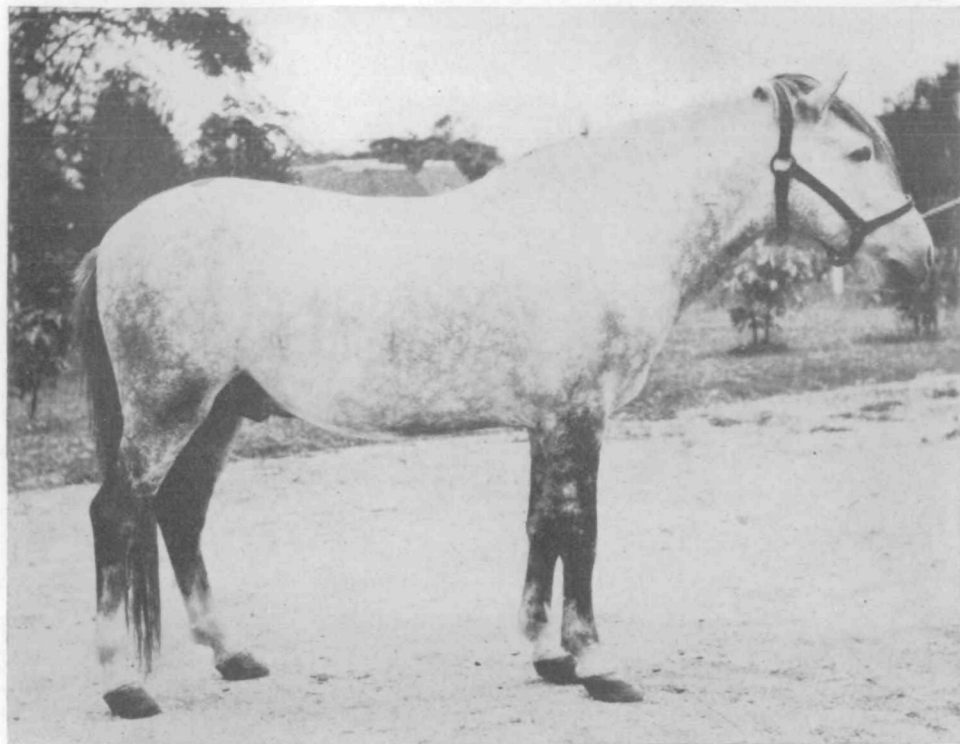
Long before the Spanish conquest, the Muslim tribes of the southern Philippine Islands had horses, which apparently came from Sumatra. The stock is still fairly distinct from that of the northern islands. This photograph shows a good specimen of the breed, with Sulu rider. The bridle is the last word in simplicity. (Fig. 11.)

Some time after Makdum (the Genealogy of Sulu says ten years) there came to Sulu a prince from Meninkabaw. This is a rich, high region in central Sumatra, from which many Malayan dynasties seem to have come. The first historic seat of Malay rule was Pagur Ruyong (in the mountains of

Sumatra), the capital of the so-called empire of Meninkabaw.¹

Five years after the arrival in Sulu of the Rajah Baginda, from this Sumatran region, the rajah of Juwa sent a messenger to Sulu with a present of wild elephants. We are informed that the messenger's name was Juya, that he

¹ Malay-English Dict., R. F. Wilkinson, III, 2.



MANY CHINESE CHARACTERS VISIBLE

This pony, photographed at Batangas, P. I., shows many of the traits which are found in the horses of China. It is learned from old records that the Spaniards, after they captured the Philippines, introduced many horses from China and Japan, which have helped to make the stock of the islands the complex mixture that it is today. (Fig. 12.)

died at Ansang, and that only two of the elephants survived in Sulu.² I mention these facts to demonstrate that the Rajah Baginda was a prince of some importance in Malaysia, and that there was communication between him and rajahs in the older region.

The next arrival on our scene is Abu Bakr, a learned Muhammadan jurist who is supposed to have been born in Mecca, and to have lived in Malacca and Johore for some time, proceeding eventually to Sulu by way of Sumatra and Brunei. He founded in Sulu the dynasty which was reigning at the time of the arrival of the Spaniards, June, 1578.

Examining the information furnished by the early Spanish chroniclers,³ we read: "Cinnamon, ginger, myrobalans,⁴ oranges, lemons, cucumbers, gourds, chickens, geese, deer, elephants, horses and other things are found there."

The statement that horses existed in the Muhammadan islands of the Philippine archipelago is substantiated by the report of Don Esteban Roderiguez de Figuerosa to Governor Sande in June, 1578: "These Moros are most dangerous people, being familiar with all manner of firearms and with horses."

The foregoing evidence makes me feel confident that before the discovery of the islands by Europeans, the natives

² Ms. chronicle belonging to Hajji Butu, prime minister to the Sultan of Sulu.

³ "First Voyage around the World," by Antonio Pigafetti (1519-1522).

⁴ Probably the fruit of *Phyllanthus emblica* L. This Indian product enjoyed anciently a great reputation; modern pomologists who have eaten it consider it nearly worthless.

of Sulu and parts of Mindanao possessed horses, and I have shown that these animals might easily have been brought by powerful Malayan princes as early as the fourteenth century.

THE MALAY IMMIGRANTS

But as to the exact origin of the animals, we cannot say with certainty. The records of Sulu assert that even before the arrival of the rajah Baginda from Sumatra, the trade of Sulu extended to Japan and China on the one side, to Java and Molucca on the other. Large numbers of natives of Celebes are asserted to have migrated to Sulu and been assimilated by the people there. Furthermore, a large part of the Malayan region acknowledged the supremacy of the Mongol conqueror Kublai Khan, and some of his followers might have been responsible for bringing horses to the Philippines. Again, vast hordes of people from Johore are said to have migrated to Sulu early in the fourteenth century, and might easily have brought the animals with them.

Thus it will be seen that there are two possible sources from which the first horses might have come to the Philippines: Malaya, or China.

In favor of a Malayan origin is the fact that the bit used by the Moros is not only entirely different from that of the Spaniards, but is also dissimilar to any Chinese or Japanese bit which I have ever seen. Whether it is like those now used in Malaya, I am unable to say.

But it requires no strain of credulity for me to think it probable that horses were first brought to the Philippines from Sumatra, or one of the neighboring islands.

If we accept, as it seems to me we must, the idea that the Sulu horses are from some part of Malaya, it seems to me most probable that they came from the same place the Sulu people did—namely, Sumatra. It is possible that they have later had an infusion of blood from Celebes, or indeed from other sources.

Investigating the modern breeds of Sumatra and Celebes, we learn from

Hans von Barnekow that there is a breed called the Balak, which in usefulness excels all others. Its home is the high plateau of Sumatra, especially the shores of the great Toba lake. In conformation it is handsomer than any other of the native breeds, and is as good under the saddle as for cultivating. All other horses of the western coast of Sumatra are known under the collective name of Bovenland, although they vary a good deal in build and value; they are heavier than the Balak but do not equal it in utility.

The Celebes horse is now generally called the Macassar and although small and not beautiful, is hardy and strong. Its owners have long been distinguished above all other residents of the Malayan region, for skill in horse breeding.

I am inclined to believe that the Sulu horse represents the Batak, with perhaps some intermixture of Macassar and Bovenland blood.

These horses of the Moros never seem to have become known in the northern Philippines. We must next consider the origin of the horses found in Luzon and other northern islands.

THE HORSES OF LUZON

The discovery of the Philippine archipelago by Magellan marks the opening of a new chapter in the history of the Philippine horse, which was no longer to be the exclusive possession of a few Muhammadan tribes in the extreme south.

It might have been supposed that the natives of Luzon and the Visayan islands would have received the horse from Chinese traders who constantly visited them. But we are assured by the Chinese historian Chua Juka that his countrymen only skirted the coasts of the islands, and had no direct communication with the interior of the islands. The Spaniards, however, considered the horse a necessity: an old manuscript relating to the expedition of Villalobos, which left Acapulco, Mexico, in 1530 to proceed to the Philippines, mentions the commander's order that those who take horses may take two Indian slaves apiece.

If any horses were taken, they must



AN IGORROT PONY

The natives of Benguet province have many ponies, but due to lack of care they have in many cases degenerated to scrubs. This photograph, taken at Trinidad, Benguet, shows the average native pony of the district. The position of the rider's foot in the stirrup is particularly striking to an American horseman. (Fig. 13.)

have perished, as Governor Sande's relation (1576) remarks that the governor on his walks always went afoot, "as there were no horses." From the same source we learn that in the year 1576 a Chinese called Omacon appeared off Pangasinan, being in command of a ship that was searching for a pirate named Limobon, whom he found there. He had the good luck to discover that the Spaniards had already met and defeated this pirate.

The captain had brought with him, as present or for trade, thirteen horses, which the Spanish chronicler describes unflatteringly—"These beasts are full of bad habits like those of Galicia."

The above fragmentary records are all I have been able to recover concerning introduction of horses during the first years of the Spaniard's possession of the islands. But the trade quickly took greater proportions. In 1583 the general junta at Manila made a

memorandum, "That the buffalo (carabao) be domesticated, and that his majesty should give imperative orders that an effort be made to have many cattle and horses brought from China and Japan."

A letter of Santiago de Vera to Philip II, dated June 26, 1587, states, "Many vessels have come to these islands from China this year, and especially to this city more than thirty of considerable burden, laden with a quantity of merchandise, horses, cows and more than 3,000 men." In the relation of events for the following year, 1588, we read, that many horses and cows have been brought from China to Manila.

That the effort of the colony to introduce and distribute horses met with the approval of the king, is evidenced by his instructions to Gen. Dasmariñas, dated August 9, 1589: "Cattle and horses are to be sent to the islands, and the farmers sent shall be ordered to tame and breed the wild buffalo found there."

These positive orders evidently bore fruit. As early as 1604 Cherino says, in his relation of events from 1601 to that date: "But they (Chinese) have stocked the islands with horses and mares which have since multiplied, and great stock farms have been established."

Production seems to have outrun demand, for Viana in his memorial of 1761 reports that although there are many horses in the islands, "there would be more if the ranchmen had a better sale for them. They are accustomed to kill them in order to dry their flesh and sell it."

To sum up, we find that as early as 1751 the horse had, through the activity of the Spaniards, become introduced and distributed in the northern islands; and that these horses were not from Spain, as has been ever since taken for granted, but that they were from China.

CHINESE HORSES

When we try to ascertain the ancestry of these Chinese horses, we meet with little success. It is known that they were domesticated in the Flowery King-

dom at a very early day: a hymn ascribed to the Yin dynasty (1766-1122 B. C.), describing the emperor's horses, mentions thirteen different colors. All black horses had to be turned over to the monarch.

In trunk and limbs the horses of Korea and Mongolia bear a close resemblance to that wild Siberian breed known as Prjevalsky's horse, and to the semi-wild Tarpan from the same region, and it may well be that the Chinese horses in general are of northern origin.

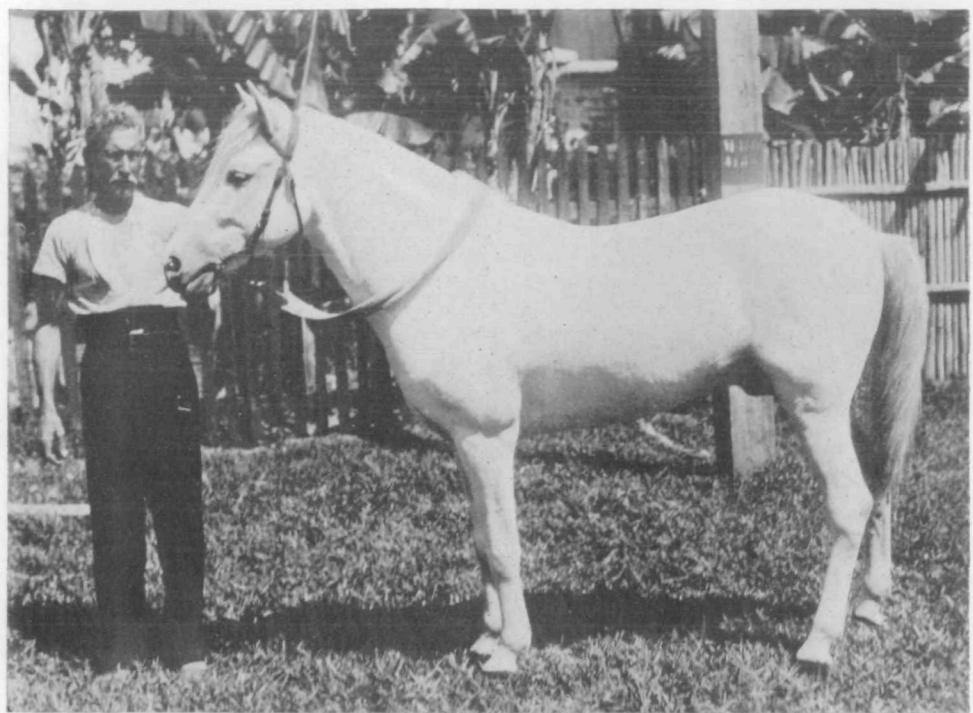
It is natural to suppose, and is demonstrated by such facts as we have, that the horses brought to the Philippines were from the southern provinces of China. Even today the resemblance between the breeds in these two regions is close. The Mongolian horses which I have seen are coarser than these south China horses and the still smaller Philippine ponies.

It will be recalled that the orders of King Philip II directed that horses be brought from Japan as well as China. The first record of importation from Japan is in a letter to the monarch from Santiago de Vera, dated June 26, 1587. "In a former letter," he writes, "I informed your majesty of the arrival of a Japanese vessel laden with flour and horses (which they are bringing to this city), at the town of Segovia in the province of Cagayan in these islands." This is the most northerly province of Luzon. "They had been driven ashore upon the coast there and some of the crew and horses escaped."

Again in a letter to the king from Governor Tello, dated June 17, 1598, we read, "After this the ambassador was invited to dine with the [ruler of Japan] three times and was finally dismissed with a present of twelve coats of mail, thirty lances and two horses."

The most lucid and concise description available relative to the trade in horses is that by Dr. Antonio de Morga, which follows:

"There were no horses, mares or asses in the islands until the Spaniards had them brought from China and Japan, and brought them from Nueva



THE PHILIPPINE HORSE AT ITS BEST

From the mongrel stock of the Philippines, representing breeds of all parts of the world, some good strains have been isolated, and when care is used, ponies can be produced which for local conditions are excellent. The horse shown above illustrates a good type produced in the Northern islands; although the animals are small, they are hardy and very capable. (Fig. 14.)

España (*i.e.*, America). Asses and mules are very rare, but there are many horses and mares. Some farms are well stocked with them, and those born there (mixed breeds for the most part) turn out well: they have good colors, are even tempered and willing to work, and are of medium size. Those brought from China are small, very strong, good goers, treacherous, quarrelsome, and bad tempered. Some horses of good colors are brought from Japan. They have long, well-shaped bodies, thick hair, large fetlocks, large legs and front hoofs, which makes them look like draft horses. Their heads are large and their mouths hard. They run slowly but walk well and are spirited and of much mettle."

From the above, I think we are justi-

fied in concluding that a considerable number of Japanese horses was brought to the Philippines, first and last. It may be worth while to try to fix the exact breed of these.

There are four recognized breeds of horses in Japan: the Hokkaido, Nambu, Miham and Satsuma. The description of the Nambu given by Sawamura Makoto⁶ convinces me that the horses taken to the Philippines were of this blood. He says:

"The Nambu breed is easily distinguished by a thick, low neck and long, slender body. The croup is narrow, short and sloping, and not well developed. The legs are short and rather heavy while the articulation is somewhat weak, the hoofs being large and flat. Owing to the poorly devel-

⁶ In the *Journal of the International Institute of Agriculture*.

oped muscles the gait is not very quick or light. The height is from 4 ft. 7 in. to 5 ft."

In a conversation about Japanese horses Professor Fujita, who formerly occupied the chair of zoology at the Imperial University of Tokyo, informed me that the Nambu is the best horse produced in Japan today, as well as one of the oldest and purest breeds, foreign blood not being desired by its owners.

In connection with this breed, I wish to call attention to the horses sometimes met with in our provinces of Cagayan, Isabela and Ilocos Norte. These individuals show in a marked degree the characters above-mentioned. I recall particularly a horse seen in Cagayan province in the year 1910, which one would have felt certain was a Japanese importation. Inquiry brought out the fact that not only he, but his sire and dam as well, had been born and raised in the town.

It would seem, from the information available, that the importation of horses from Mexico met with many obstacles. In his instructions to Dasmarinas (August 9, 1589), Philip II advised him that he was writing the governor of Nueva España to send to the Philippines twelve mares, two stallions, twenty-four cows and two bulls, and Dasmarinas was requested to take these with him. On May 25, 1596, Governor Tello was advised by the king of a similar order to the viceroy of Nueva España, but in the following year the governor reported that the animals had not been received. The first actual evidence I have found of the presence of Mexican or Spanish horses in the Philippines is the letter of Fray Gregorio de la Cruz regarding an expedition to Camboja (now French Indo-China). Under date of August 1, 1595, he acknowledges receipt of a Castilian horse which together with some hunting dogs and emeralds was being sent to the king of Siam as a present. Aside from one or two hints of this sort, there is no record of the introduction of horses from Mexico during the first century of the Philippines, and it is my belief that not until later were they introduced in such

numbers as to exert much influence on the industry in the islands.

The ancestry of any horses brought from Mexico can be confidently traced to the horses brought there from Spain by Cortez, Coronado, and other early explorers; for it is well known that the horse did not exist in the New World prior to the arrival of Columbus.

SPANISH HORSES

The original horses brought to Mexico were certainly not, as most people suppose, of almost pure Arab or Barb stock. The Spanish horse of the fifteenth century had been subjected to a long process of cross-breeding. Because of the weight of both armor and rider, the Spaniards had felt the necessity for a heavier horse than either the Arab or the Barb, and therefore introduced German blood.

The story of this cross and its effects may be graphically studied in the museum of paintings at Madrid, in the paintings of Rizzi, Bartolme, Gonzales, Paret, Goya and others. Horses in the later paintings, such as those of the Duke of Zaragosa and Charles IV, have oval heads like those of sheep, while as early as the middle of the fifteenth century the type of the Andalusian was that of a Germanic race. This process was probably largely influenced by Charles I, himself a German.

Thus it is evident that the Spanish horse had lost much of its Arab or Barb blood before introduction to America. Just what blood had entered is not known; but as most of the large West European races contain a greater or less degree of Norse blood, there is ground for assumption that whatever race was utilized contained some of that blood. Norse horses were mostly dun colored with black points. The mane is long and heavy and falls to both sides with a longitudinal dark band connecting the mane and tail. Distinct dark bars are also present, especially in the region of the knees and hocks. The ears are short and carried in an upright position. The outline of the face becomes convex

near the muzzle and ends in a rather long upper lip.*

It is to this crossing that the dun (buckskin) color which is not uncommon in Mexican horses may be attributed. In the Arab this color is practically unknown, as for more than 2,000 years all horses of this color and cream color (albino) were held to be fit for no free man to ride. So by constant selection the colors were eliminated.

Reviewing other sources from which horses were brought to the Philippines, we find in a report dated 1620, entitled "Prizes for Oriental Products," that "From Ormuz which is in Persia they bring excellent horses and find carpets." Viana's Memorial, 1751-1765, states: "From Vengalu (Bengal), the Coromandel and Malabar coast and other parts of India they bring sulfur, birds-nests, cotton, rice, gold and horses." This information is important in that it brings into the native horse two lines of descent from a quarter least expected—viz., the Persian Gulf Arab and some unknown Indian breed.

The importation of horses from Persia probably accounts in a certain degree for the strong resemblance between certain Filipino horses and the Arab.

During the latter part of the nineteenth century many Spanish stallions were brought to the islands, to improve the native stock.

AMERICAN BREEDING

This brings us to the American occupation in 1898, when a new element enters. The Bureau of Agriculture has established stock farms and maintains blooded stallions in various provinces. These animals are at the service of the public *gratis*. Among the breeds used are the Arab, Anglo-Arab, Gulf Arab, Morgan, Kentucky, Standardbred, selected native, and grades. It is too early to foresee the final result of such a mixture. At first the desire seemed to be to produce a fast animal that would bring a high price on the race track, but a ruling that half-breed horses must be entered as such, checked this tendency. At

present the natives are very slow in taking up the improvement of their horses. Much promiscuous breeding of inferior stallions takes place, due to the fact that castration is not practiced; and it is my belief that no great improvement can be made in Philippine horses until a stallion tax or other restrictive measure is passed, which will prevent this.

Reviewing the horses I myself have seen in the various provinces, I find five fairly well defined types, not counting the various half-breeds and mestizos or scrubs. It should be said that there is almost every possible gradation between these types. Nevertheless, the types are distinct—anatomically, and not by geographical lines. They are:

1. A type which favors the Arab in many points. The head is sharply chiseled, though not dished as in the Arab; eyes large and lustrous; ears well placed, normal and mobile; head well attached, neck rather thick, well curved and graceful. Chest as a rule full and well developed, though sometimes narrow. Withers full, hindquarters developed to a sufficient extent, tail gracefully placed and carried with vigor. Croup regular and compact. The rump, withers and hindquarters are remarkably strong. Both fore and hind legs are clean-cut, free and muscular, with good articulations. The hoofs are generally oval, black and hard, though there is sometimes a tendency to mule-foot. Mane and tail full. It is needless to say that individuals of this type have been produced by more or less careful breeding and are therefore most plentiful in the provinces that have been longest settled.

2. A type that favors the Chinese horse. Individuals are generally rather short (49 or 50 inches) but thick-set. Head heavy though not noticeably long, nose flat, nostrils rather full, lower jaw powerful, forehead and face rather narrow, profile more convex toward the muzzle, ending in a somewhat long upper lip. In neck, shoulders and trunk they resemble a small cart horse. Hindquarters are full and rounded and tail well placed, although there is slightly more slope to the croup than we generally desire. Hind legs are fairly long with hocks close together, often cow-hocked, hoofs vary but generally oval, black and hard, though sometimes narrow. Mane heavy and full, falling on both sides; tail long and full.

3. In the third type are most of the horses of the islands, particularly in the rural districts. They vary around 48 or 50 inches high, with medium head, well chiseled and placed, profile straight, neck gracefully curved, chest rather

* J. Cossar Ewart, "Multiple Origin of Horses and Ponies."

narrow, croup sloping, legs clean-cut, hoofs oval, black and hard, articulations good. Tendency to cow-hock. Mane and tail not very full, although the prevalent custom of roaching the mane and clipping the tail makes it hard to decide.

4. Another type, found mostly among the non-Christian tribes, is a small, stunted animal, the result of promiscuous breeding, poor food and little care. These animals seldom stand over 4 feet high—many will come within 45 or 46 inches. They are mostly dun colored, rough coated; face narrow and sometimes inclined to that configuration which is called hatchet-face. They are inclined to be ewe-necked; chest narrow and weak, croup narrow and often sloping, hindquarters weak, rather cut legged and cow-hocked. Mane is short and bushy, having the appearance of being roached even when it is not; tail similar. The only redeeming feature in these horses is their hardiness and ability to exist on mountain grasses and other non-nutritious roughage throughout the year.

5. The fifth type, not often seen, resembles the Nambu breed of Japan. The head is heavy and long with straight profile, neck straight, body long and slim, withers prominent, croup narrow and sloping, legs heavy with well-developed fetlock, front hoofs quite large and round, mane full and falling on both sides, tail full and long.

The horses of Sulu and part of Mindanao might be considered to be a still different type, having, as I showed, a distinct ancestry. Their heads are broad with forehead inclined to be bumpy, ears rather long and set obliquely on the head, eyes large and far apart, neck thick, chest and shoulders well developed, withers strong but not prominent; profile straight, almost dished; muzzle square with large nostrils, body moderately long, croup sloping but not narrow. Hocks well placed together but not cow-hocked; legs rather short, hoofs oval, well-formed and hard.

In color there is every possible variation, throughout the islands, but buckskin largely preponderates. There follow, in order, the bay, gray, piebald,

black, and a good many albinos. In a census taken by the writer on one island, Catanduanes, where there are more than 3,000 horses, between 55 and 60% of the horses were of the various shades of dun, varying from fallow to mouse.

CONCLUSION

In conclusion, I have endeavored to prove that the Philippine horse is not, as popularly supposed, a descendant of horses brought to the islands from Mexico and Spain by the Spanish, but that the bulk of the animals brought in by the early colonists were Chinese. I have also shown that horses existed in parts of the archipelago prior to the Spanish conquest, and I have endeavored to trace the ancestry of these to Malaya. I have pointed out that, in addition to China, other channels hitherto almost unknown have poured equine blood into the Philippines; so that the horses of the islands today contain large or small amounts of characters from the Chinese, Japanese, Mexican (including various races entering into the race so designated), Persian, Indian, Sumatran breeds.

The data furnished have been obtained from the following sources:

The Philippine Islands, by Blair and Robertson; a translation of the manuscript of the Archives of the Indies, at Madrid.

History of Sulu, by M. M. Saleeby; based on original MS. (known as the *Luntar*) obtained from the Sultan of Sulu, and the Genealogy (*Tarsila*) of Sulu, obtained from Hajji Butu, prime minister to the present sultan.

Archives of the executive bureau, Manila.

I am particularly indebted to Dr. Saleeby for information personally furnished.

New Oat Varieties for Maine

After five years of selection, the Maine State Agricultural Experiment Station has isolated twelve pure lines of oats which it considers particularly valuable for local conditions. They are

described in Bulletin 250 (May, 1916), the introduction to which gives an interesting account of "pure lines" and the general principles governing cereal breeding in the light of genetics.