A Medicine-man's Implements and Plants in a Tiahuanacoid Tomb in Highland Bolivia

BY

S. HENRY WASSÉN

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Wolmar E. Bondeson, Helge Hjalmarsson, Carl-Herman Hjortsjö, Bo Holmstedt, Eskil Hultin, Jan-Erik Lindgren, Thomas Liljemark, and Richard Evans Schultes
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S. Henry Wassén
Director of the Museum

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# A MEDICINE-MAN'S IMPLEMENTS AND PLANTS IN A TIAHUANACOID TOMB IN HIGHLAND BOLIVIA

**S. Henry Wassén**

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Göteborg, April 1972

S. Henry Wassén

Göteborgs Etnografiska Museum
INTRODUCTION AND GENERAL DISCUSSION

1. Niño Korin

During a short visit to La Paz, Bolivia, in August 1970, following my participation in the 39th International Congress of Americanists at Lima, Peru, I had the opportunity to observe a small but interesting collection in the Bolivian National Archaeological Museum. The objects attracted my interest because of my studies of paraphernalia used for taking hallucinogenic snuffs by the South American Indians, now and in pre-Columbian times. It was a small collection from "Niño Korin, Villa General Pérez (Charasani), Prov. Saavedra", in the Department of La Paz.

This collection consisted of some wooden snuff trays (labelled, "tabletas de madera"), a small round wooden mortar ("mortero"), pestles to the mortar ("manos de mortero"), a small spoon of bone ("cucharilla de hueso"), a fragmentary tube for nasal inhalation ("fragmento de tubo para absorver por via nasal"), a small gourd considered to have been used as a container for a powder ("porro destinado para deposito de polvos"), and, finally, a plant called willca or willca-willca ("planta llamada la willca o willca-willca"). This plant did not belong to the original find, as it had been brought from Coroico in the Yungas of La Paz (the hot eastern slopes of the Andes). In answer to my specific question, a Bolivian museum colleague explained that the plant now exhibited in the show case was of the same kind as a fragmentary specimen found with the objects in Niño Korin. The botanical name was given as Piptadenia grata, an epithet which, however, seems to be uncertain (see Schultes, 1967:293, and von Reis Altschul, 1964, for a taxonomic study of the genus and excluded names).

This was the first time that I heard of Niño Korin, and at that moment I could not imagine that, in the near future, I should have an opportunity to describe and catalogue for the Gothenburg Ethnographic Museum in far away Sweden the archaeological collection (Number 70.19) from the same Niño Korin presented in this volume. To judge from its contents this collection seems to be a medicine man's specialized equipment. It had been found in June, 1970, at Niño Korin in the geographical habitat of the Callahuayas in the provinces Bautista Saavedra and Muñecas, by
my late colleague Stig Rydén (1957:7), described as the “northernmost Bolivian highland provinces on the east slopes of La Cordillera Real east of Lake Titicaca and bordering on Peru”.

When back in Sweden, I was able to study the important work *Cultura Callaway* published by Enrique Oblitas Poblete in 1963, and from what I understand from his caption for plate No. 87 (“Objetos encontrados por el Dr. Edgar Oblitas en una tumba de Callijicho”) and the text on page 491, the collection in the National Archaeological Museum at La Paz must have been presented to the museum by Dr. Edgar Oblitas Fernández, a son of Dr. Enrique Oblitas Poblete, who, like his father has a vivid interest in the cultural traditions of their high Andean fatherland.

The name Niño Korin is not used in the work of Oblitas Poblete but it is said on page 491 that in a place called Qalli-ichu (also written Callijicho and Callijichio) and Jiriachi, Dr. Edgar Oblitas found some very interesting specimens which had been abandoned by two excavating Niñogorin Indians. These specimens, some evidently of the same general character as single objects in the collection 70.19., had been presented by Dr. Edgar Oblitas to the *Museo Tiaguanacu* of the city of La Paz. An article on this collection in the Archaeological National Museum had been published by Gregorio Cordero Miranda, at that time Director of the Museum, in the newspaper “La Nación”, and, as the newspaper article has been quoted on pages 491–493 in the work referred to here (Oblitas Poblete, 1963), it is easy to identify one by one the pieces in the museum label said to have come from Niño Korin as exactly those which in the book are said to have been found in a grave at Callijicho. The newspaper information on the objects is, however, much more detailed than the short texts in the show-case and will be referred to in the general description of the collection from Niño Korin in this volume (fig. 1).

Among the Niño Korin objects given to the museum in La Paz by Dr. Edgar Oblitas is also at least one transverse bamboo flute (*pincollo*) with interesting pyrographic ornaments described by Oblitas Poblete (1963:493, and fig. 90).

My efforts to find Niño Korin on a map were not encouraging. Following Ballivian (1890:80), I first knew only that it should be looked for near Charasani (or Charazani), recently changed to Villa Gral. José Pérez (Ponce Sanginés, 1969:148) which according to the U.S. Board on Geographic Names, Gazetter No. 4, Bolivia, lies at S 15° 12' W 69° 03'. Oblitas Poblete (1963: 486–491) who mentions the main plaza of Charazani as a “chullperio notable” (a chullperio from the word chullpa in its broad meaning
of a grave of archaeological character) offers also the interesting information that “algunos chullpas se encuentran enterrados en tinas de barro, otros en cestas de paja, muchos en nichos calados en plena roca”, or in English, “some chullpas (here the word means grave finds) are found buried in earthenware jars, others in baskets (or plaited straw protection), and many in niches hewn out of the rock”.

Regarding the name I first accepted and will use through this book the form Niño Korin as it was given to me in Bolivia. During my search for the exact location of the place I wrote to a Canadian friend of mine in Bolivia, who asked some Indians and got the meaning of the name as “Golden Child”, or “Golden Baby”, evidently because of the fact that Niño had been taken as Spanish. Gonzáles de Holguín (1901:181) has, however, Nina kori for “oro fino”, from nina, adj. “fino, muy perfecto” and kori, “oro”, and it is no doubt in these Quichua words that we should look for the meaning of “Niño Korin”. Ballivian (1890:80) spells it Niño-corin.

I was later informed that Niño Korin is a native aldea or estancia of about 200 inhabitants situated in the middle of the slopes of the small mountain (cerrillo) Callacallan. The finds were, however, not made exactly in Niño Korin, but in a place (ruin) in front of it called Calliicho, in the Cantón Chullina, Province of Bautista Saavedra, Department of La Paz. Bautista Saavedra was earlier a part of the province of Muñecas, but it is now a province of its own, in size 2.525 kilom.², with Villa Pérez, earlier Charazani, as capital, and bordering the provinces Caupolicán, Camacho, Muñecas and Larecaja. If marked on the map in fig. 2, taken from Wrigley (1917:185), Calliicho should be placed somewhat northeast of Charazani-General Pérez and southeast of Curva, with Niño Korin east of Calliicho. As the latter name had been substituted in the National Museum of La Paz with Niño Korin, I am going to use this name here, adding that the “zona del cementerio de chullpas” is found close to the Cordillera de Curva.

2. The Finding Circumstances

The collection described in this volume appeared first to me as a closed find or hoard, containing the equipment of a medicine man with containers, spatulas, enema syringes, some extraordinary interesting snuff trays and a corresponding tube, bag-like pouches with leaves of Ilex Guayusa, and, finally, an artificially deformed and trepanned cranium. As this material had been found in the heartland of the Callahuayas of Bolivia, I liked to look upon the whole collection as such a medicine man’s laboratorial
and medical outfit. I still think so, although I cannot pretend that it has been a find from a concealed niche as I have been informed that the finds were made in a "tumba multifamiliar". This was described as an open passage in the rock, about 50 m. in length, where bodies have been buried one next to another, and where, separated by stone walls, the tumbas appear. Each of these graves or niches has one corpse seated in a crouching position ("cada nicho contiene la momia de un cadaver sentado en cucullas") with its garments. This textile material consists of a special multicoloured shirt or sleeveless tunic (uncu) with designs ("con su vestimenta consistente en un poncho especial que se llama uncu, el poncho multicolor con dibujos"), and, on the head a sharp-pointed special woven cap called chino chchullu ("en la cabeza un gorro puntiagudo especial que llaman chino chchullu"). Montell (1929:204), following Cieza de Leon, mentions the cap, chuco, of the Aymara. "From La Paz it is expressively stated that the chucos were pointed (Rel.geogr., vol. II, p. 69)." The women are dressed in a huincha, fillet or headband with figures, in the way of a crown, and a multicoloured llijlla, shoulder mantle, with figures ("las mujeres visten con una huincha o faja con dibujos en la cabeza a manera de corona, una llijlla multicolor con dibujos"). Furthermore, they have from the shoulders a pollera, generally black with figures striped in the middle of the garment ("una pollera que desciende de los hombros, generalmente negra con fajas en media prenda donde aparecen dibujos"). The feet have special sandals called ojota ("los pies calzados con sandalias especiales que llaman ojota"). A man's corpse carries a capacho or bag with medicines and amulets ("El cadaver del hombre lleva una capacho o bolsa con medicamentos y amuletos"). According to an information also crowns (or huinchas) of gold (which were used by the mallcus or Colla kings) have been found in these grave niches.

The chullpares are said to be found all over this region, many of them at the foot of the cliffs which are abundant in the region. The tumbas are found above the river Curva, that is to say in the lower region, not on the tops where the majority of the chullpares are found. This "lower" region is about 3500 m. above sea level.

That evidently very delicate objects have been kept without disintegrating may be explained by the dry winter, although there is much camanchaca or heavy fog in the autumn. In archaeological literature, we often get the impression that for climatic reasons such materials as textiles, basketry, etc. usually do not exist in the Bolivian Highlands. "The climate of all the Andean highland area is not conducive to the preservation of vegetal
remains and we have only scant evidence of the plants—either wild or cultivated—that was used” (Towle, 1961:62). Writing on Classic Tiahuanaco, Bennett (1946b:117) says that “nothing is known about woodwork, calabashes, basketry, and other of the more perishable materials, although they doubtless existed.” In the same article (p. 70) he states that “in contrast to the Coast, preservation is poor in the Highlands. Objects of ceramics, stone, bone, and some metal are preserved but other materials usually disintegrate”. We must, however, now take as a fact that finds dating from Tiahuanaco containing well preserved materials of wood, basketry, textiles, leaves, etc. recently, and evidently repeatedly, have been saved in what we now know as the region of the Callahuaylas, or, according to Wrigley (1917:183) and others “the traveling doctors of the Andes”. The climate can not have been as good here, east of the Cordillerana, as that described by Muñoz Reyes (1971:13) for the region of Titicaca, where it is characterized by its intense drought, especially in the eight months of the dry season, or ‘winter’, and where everything keeps better. “There are no destructive insects for the food, and no mildew or mold for clothing” (Muñoz Reyes, p. 13). Whatever the climatic conditions have meant for preservation of the finds from Niño Korin, they could hardly have survived until now if the region had been more accessible. Here we can refer to McCutchen McBride’s words (1921:13) about the provinces of Omasuyos and Muñecas: “Isolation and an extremely hard environment account for much of the backwardness of this region. Routes of travels, in ancient as in modern times, have left these provinces far to one side.”

3. The Callahuayas

The problem of the Callahuayas is interesting. It has been pointed out by La Barre (1948:217), who calls them Collawayus, that the “Aymara medicine is highly specialized, and consequently has a great many different categories of practitioners.” Deriving the name from q’ola ‘medicine’ and wayu, a kind of bolsa (bag or pouch), he finds them “the most famous of all.” What is relevant to the find described in this work is that the Callahuayas “come chiefly from Caupolican and Muñecas, provincias of the Departamento de La Paz, and particularly from the villages or cantons of Charazani and Curva, a few leagues east of the continental divide (Cordillera Real) in western Muñecas” (La Barre, 1948:218; cf. Tschopik, 1946: 569). Alvarado (1966:63–64) deals with the callawayas and other classes of curanderos. When Martín de Múrua in the 16th century wrote about
“yndios médicos” who went curing from one village to another and had taken the Spanish terms licenciados and doctores as an internal professional title, it could be that he describes an old callahuaya system, though he himself believed this “abominable modo de curar” to be something new. His whole description seems to fit the callahuayas (Múrua, 1962–1964, vol. II:101–102).

Ponce Sanginés (1969a:147–148) has discussed the fact that Guaman Poma de Ayala is one of the Colonial writers who mentions their names, as litter bearers of the reigning Inca (Guaman Poma 1936:331; cf. Rowe, 1946:239). They were considered as slow litter bearers, “lleuan alynga los ynos callawuya—espacio apasearse” (Guaman Poma, p. 331). Guaman Poma was, however, not the only one to mention the Callahuayas and their special reputation as litter bearers. Francisco de Avila, who during the first decade of the 17th century tried to find out all about what he considered as false and superstitious ideas prevalent among the Indians in the province of Huarochari, has also referred to them. “Unos hombres que se llamaban “Callahuaya” eran los más escogidos del Inca y únicamente a él le servían. Estos hombres vencían en pocos días distancias que requerían mucho más días para el caminar de otras gentes” (Avila, in Arguedas’ translation, 1966:133), or, in the edition of Trimborn and Kelm (1967:129): “Dann wurden sehr starke Leute namens Callahuaya vom Inka ausgewählt, die auch einen Weg von vielen Tagen in wenigen Tagen zurückzulegen pflegten.”

Ponce Sanginés (1969:148) raises the question: did the chroniclers just forget to mention the Callahuayas, or, did the Callahuayas get their reputation as curanderos after the conquest? He considers the solution of this problem to rest in further investigation in which an immigration of natives from the Puna must be taken into account, as evidently groups of Indians emigrated to more tranquil places because of forced work in the mines. To Lastres (1951:117) it seems clear that the importance of the Callahuayas was reduced during the Colonial period, and that they now, also with a diminished social influence, have their settlements in the villages Charazani and Curva in the Department of La Paz. As this view is of importance for our discussion I quote the original: “Cuales son los curanderos actuales, herederos de mucho del arte del “hombre de las medicinas”? Son los Callahuayas, que venden sus hierbas en los Hampi-catu o mercados ambulantes. Habitan en el sur del Perú y en Bolivia. El yatiri y el Kamili, son igualmente conocedores del secreto de las hierbas, o brujos. Paredes dice de los Callahuayas, que formaban una casta aparte entre los Kollanas. Recorren
los pueblos de la sierra, llevando en sus alforjas, un arsenal de remedios, amuletos, eco-nopas, ekekos, lagartos, etc. Su prestigio disminuyó considerablemente en la Colonia, presentándose en los Hampi Catu. En la actualidad, ya menoscabada su influencia social, habitan en los pueblos de Charazani y Curva en el Departamento de La Paz (Bolivia).

Ponce Sanginés (1969:150) further discusses the controversial explanations of the name for this Indian group of travelling herbalists and vendors. "Al parecer la explicación más satisfactoria radicaría en que deriva de la región septentrional del actual departamento de Puno (Perú), donde aún se conserva el nombre de Carabaya para designar a una provincia, nombre que por extensión se habría aplicado al territorio de la actual provincia boliviana de Bautista Saavedra. En la información levantada por Francisco de Cáceres se estipula en julio de 1573 que los yacimientos auríferos de Carabaya que se explotaban durante el Inkario eran entre otros San Juan del Oro e Hípara, vale decir que se incluía a la prov. de Sandía, que limita por el E. con territorio boliviano. En un otro documento del siglo XVI, se menciona a la provincia de Chacane (o Charasani), compuesta por Pelechuco, Mocomoco, Chuma, etc. "los cuales pueblos son la cordillera adentro de Carabaya" (Ponce Sanginés, 1969a:149-150). With this the Bolivian author absolutely rejects the explanation by Paredes (1963:245), Wrigley and others (e.g. Otero, 1951:39, following Camacho, 1941-46) that the name should mean "bearer of drugs", "portadores de remedios".

The secret language of the Callahuayas (Oblitas Poblete, 1963:469, speaks of "el idoma callawaya o machchaj juyai") has been discussed and a wide relationship with the extinct Pukina has been proposed among others by Ponce Sanginés (1969:148). Oblitas Poblete (1963:469-481) favors the idea that the Inca rulers had a language other than Quechua "para hablar entre ellos" and that this language could be the same as the so-called secret language of the Callahuayas. He considers the Callahuayas to have functioned in Inca times, favored by the Inca as their "médicos de cabecera". In this idea he follows Garcilaso de la Vega's information about "grandes herbolarios" etc. (Oblitas Poblete, 1963:470). I thank my friend and colleague Dr. Tom Zuidema for a reference to Cristobal de Molina's (El Cusqueño) work, dated 1574, where we find an expression for the interest in medicinal herbs (p. 13) and especially a clear separation of the highland and lowland cultures in a creation myth about Tiahuanaco (p. 14). In this myth, the differences between the highland and lowland inhabitants is accentuated in words like these "y a las que habían de residir en las montañas que se fuesen a ellas; y a las que en la sierra, cada
una a las partes y lugares que habían de residir”. Also, the animals were created differently for the two regions, “mandando a cada una que las que habían de ir a las montañas fuesen a ellas, y los demás fuesen por la tierra”.

4. Guayusa, Enema Syringes, Snuff Trays, and Vilca

If we now—and it seems to me justifiable—accept the owner of the medical equipment found in Niño Korin as a very early type of Callahuaya, a second question presents itself: Is the use of guayusa known among the Callahuayas—that is, according to the published reports of plants employed by them for curing or other purposes?

A search in the list of plants used by the Callahuayas, published in Catálogo, etc. (1953:5–10) was in vain.

Bravo (1918:167) mentions a booklet called “Clasificación de las plantas medicinales usadas en la farmacopea callahuaya o sea de los indios curanderos aymaras que el Comité Departamental de La Paz remite a la Exposición Universal de Paris” which was printed in La Paz in 1889. It has not been possible for me to find the original of this publication which has two authors, Nicanor Iturralde and Eugenio Guinault. Since, however, Otero (1951:188–192) has published the same list, I have had a chance to examine it. Ilex Guayusa was not included in the list of botanical names. Bollaert (1834) has in his list “of most of the articles that compose this travelling shop (of the ‘Chiritmanos’, by some called the travelling doctors of Peru, and are Indians of Upper Peru, or, as it is now termed, Bolivia”, op. cit., p. 32) the Aymara word youruma, defined as “bark of a tree, powdered, and taken as snuff in headach”. Whether or not this is the same as No. 87 yuruma in Otero’s list (1951) I do not know, but in this list of 1889, it is botanically identified as Laurus, its therapeutic value is given as a resolutive, and it is said to be used for curing equimosis and hemicrânea. Oblitas Poblete (1969:216) has listed the medicinal use of the bark, leaves and flowers of Laurus nobilis Linn., but he does not give its name in Aymara. He has, however, the Aymara yoroma (in Quichua, puño puño) for Ilex paraguayensis (Oblitas Poblete 1969:245), the maté or yerba maté, and he dedicates half a page of his text to this close relative of Ilex Guayusa, which we know as Paraguay tea. As his catalogue “exclusively refers to medicinal plants used by the Callahuayas” (op. cit., p. 17), we must conclude that the plant is known and used by them.

It is uncertain that the stimulant and useful properties of Ilex para-
guariensis St. Hil. of the Holly Family, Aquifoliaceae, were known in the pre-Columbian Peru, although Harms (1922:180), following Rochebrune (1880:353), has reported finds of leaves of Erythroxylum Coca and Ilex paraguariensis from a grave at Ancon on the Peruvian coast. Towle (1961:62), however, considers this determination open to doubt. “More probably, the leaves are those of a Peruvian species, several of which may be used satisfactorily for preparing maté”. According to Cooper (1949:546) “our sources are silent on the early use of Ilex beverages among the peoples of the Andean Highlands and west thereof”.

Even though I have been unable to find any information on Ilex Guayusa Loes. in the literature dealing with the Callahuayas, we are now confronted with the discovery of several portions of leaves from this plant in the collection 70.19., as properly described for the numbers 20 b, 41–47, 52 b, and 58 b. To judge from the finds, the Indian who was buried with his medical equipment took much care in preparing these leaves. They must have been of outstanding importance to this unknown Indian “scientist”, who left fine material for radiocarbon dating so many centuries after his activities ceased. The leaves must be considered as a highly important part of the collection, which is also apparent from the contributions of Schultes, Holmstedt and Lindgren in this publication. From my anthropological point of view it seems fascinating that we now through this old find of Ilex Guayusa leaves, are able to confirm the use already during Tiahuanaco time of carrying a bunch of such leaves as reported in the 18th century from the Pinche at the Pastaza by missionary Veigl who writes that “wenn sich der Barbar etwann auf einige Tage vom Hause entfernen will, so trägt er auch sein Töpchen, samt einem Busche Guayussablätter, an dem Halse hangend mit sich” (Veigl, 1785:46). The leaves in the Niño Korin find have been carefully strung together forming flat oval cakes or bundles. The way in which leaves of Ilex Guayusa are strung together and sold at the market in Pasto, Colombia, is shown in Dr. Schultes’ paper (p. 135). His figure 7 illustrates the Coll. number 71.2.1, which kindly has been presented to the Gothenburg Ethnographic Museum by the American botanist, Mr. Homer V. Pinkley of the Botanical Museum, Harvard University. He bought this bundle of leaves in Pasto in 1966, and, the same year on July 3rd, he bought another bundle of guayusa leaves at Baños, Ecuador, now catalogued in our museum as 71.2.2. In both instances, the use of the leaves was given as “antispasmodic”.

The Colombian ethnobotanist, Victor Manuel Patiño, has in his paper of 1965 summarized many of the data on the use and distribution of Ilex
Guayusa, which he appropriately called “a neglected stimulant from the eastern Andean foothills”. Among the interesting facts that he reports is the observation during the decade 1756–1767 by a missionary, Juan Serra, at the Santa Rosa of the Caquetá Mission that strings with bundles of guayusa leaves were hung in the patio to dry (Patiño, 1965:313). He has also referred to the highly interesting Jesuit information published by Velasco (1844:35) that leaves of huayusa “are strung together and carried from the low provinces to the highlands” (Patiño, 1965:312), or in the original Spanish text: “Huayusa, árbol no muy alto, de hojas largas y anchas como una mano, dentadas sólidas. Estas se conservan ensartadas en hilos, y se llevan de las provincias calientes y bajas á las altas. Dispuestas como el té, de bellísimo gusto, quitan todas las frialdades y las infecciones venéreas. También son el mayor matrícula para las mugeres, á las cuales les fecunda por estéries que sean de muchos años” (Velasco, 1844:35).

Lowie (1948:7) has listed guayusa (Ilex sp.) among “Useful wild plants of the Tropical Forests” as “an anesthetizing drug, used in eastern Ecuador”. “Guayusa is a purgative and emetic and is believed to give strength” (Steward and Métraux, 1948:626). Steward (1948:529–530) enumerates yoco, coca, and guayusa as “stimulants, taken by anyone, for their effect in anesthetizing or allaying fatigue and hunger” when writing about the tribes of the Montaña. Spruce (1908, vol. 2, pp. 453–454) wrote about guayusa as “a tonic used in the Eastern Andes”. In 1857, he found a group of guayusa trees “supposed to date from before the Conquest”, “at about 5000 feet above the sea, in the gorge of the Pastasa below Baños, on an ancient site called Antombós”. He found that “the Jibaros make the infusion so strong that it becomes positively emetic” (p. 454). Steward (1948:530) says that “guayusa (Ilex sp.), anesthetizing and sustaining rather than exhilarating but serving also as an emetic, is used only by the Quijo, Záparo, and Jivaros”. Cooper (1949:546) enumerates also the Canelo, Candoshi, Aguano, Panobo, and the 18th-century Pinche, of the Montaña region”. He also points out (p. 546) that the guayusa beverage “was earlier drunk through a narrow wooden pipe or a slender reed”. A wooden tube as well as reeds are found in the collection from Niño Korin, but I take the tube (70.19.3) to have been used with the snuff trays and at least some of the reeds to have been used as enema syringes.

Karsten (1935:174) states that “the guayusa is not a real narcotic but a tonic, to which the Indians ascribe magical purifying effects”. The guayusa tree holds a place in the religion or superstition of the Jivaros, and this tree and the genipa tree are regarded as “men” (Karsten, 1964:80).
Pérez de Barradas (1957:182) dedicates only a few lines to the guayusa infusion but mentions caffeine as its active principle.

Through Karsten we also have the information that the Jivaro prepare a clyster to purify the stomach of small children. He saw the Indians prepare one of four different plants (which he names) adding that “this strong medicine was injected into the rectum of the child by means of an enema syringe consisting of a hen’s (sic) bladder attached to a piece of the stem of the sanahoria plant (Daucus) which is hollow. Syringes of this kind are commonly used by the Indians” (Karsten, 1935:508–509). Irrespective of the zoologically impossible statement about “a hen’s bladder”, the notice of the common use of enema syringes among these Indians is of interest as there always is a possibility that the man from Niño Korin directly or indirectly got his stock of guayusa leaves from a northern region.

The importance of the montaña or forest region for the Callahuayas is often stressed. With reference to their journeys, Wrigley (1917:192) says that “the journey is prefaced by a trip to the montaña for outfitting the wallets.” Bandelier (1910:104) explains the name Chunchos which they sometimes get on the Island by their gathering some of their medicinal herbs “in the montaña, or forests, where the wild tribes (often called Chunchos collectively) dwell and roam”. Paredes (1963:248) says that these curers went to the Camata valleys to get herbs and roots before starting on a long trip. Wrigley (1917:194–195) found that “Camata was one of the gateways into the montaña” and he defines four early recognized routes “for the penetration of a vast stretch of montaña”. With reference to Curva he concludes that “a people situated near the border country with relatively easy access to sources of supply would naturally be selected to act as purveyors of the medicinal plants of the montaña. The ancient origin of the profession of the Callahuayas of Curva is at least plausible”.

We have here many examples of the use of *Ilex Guayusa*. As to a possible use of guayusa taken nasally or rectally, I refer to professor Schultes’ paper in this volume. As far as I know there is no reference to its having been taken as an enema through a straw, which, however, is the case with *Datura*, “drunk or taken as an enema” (Steward and Métraux, 1948:626). In the Niño Korin collection there are, however, some objects (70.19.6,7,12c and 15c) which I take as syringes, complete or fragmentary, but they need of course not be connected with the collection of guayusa leaves in the same collection. “Bulbed enema syringes and straight clyster tubes have been found in numbers in Peruvian tombs” (Ackerknecht, 1949:637). From the
Highland region of Bolivia we have Bollaert’s (1834:35) notice that “clysters are recommended in cases of stoppage in the bowels, but of such dirty and useless substances that they need not to be mentioned here”, and, above all, Nordenskiöld’s find of two enema syringes in a grave in the Ollachea Valley, Peru (border region to Bolivia) during his expedition 1904–1905. These two objects have the catalogue numbers 06.1.489–490 in the Swedish Ethnographic Museum at Stockholm, and they were first mentioned by Nordenskiöld (1906:32). Number 06.1.490 was later published in Nordenskiöld 1930a, fig. 21, with the caption “Enema syringe, found in a grave at Ollachea, Peru. The tube is of reed, the bulb of leather, partly reconstruction”, and this figure, not being very similar to the original, was used by Heizer (1944:1691) and by Ackerknecht (1949, fig. 188, p. 630). Eric von Rosen (1924:46) translated Nordenskiöld’s Swedish text about the two enema syringes as follows: “They each consist of a tube, to which is attached a bladder of thin leather. That I have designated these objects as enema syringes is owing to my having been told by a very reliable Quichua Indian that in his tribe exactly similar syringes always were, and still are, used for the same purpose”. We find a translation into Spanish of this passage in Nordenskiöld 1953, p. 75.

By courtesy of the Ethnographic Museum in Stockholm, it has been possible for me to inspect the two Ollachea enema syringes collected by Nordenskiöld. They are shown in fig. 3 and the striking resemblance to the specimens from Niño Korin is immediately noted. The tubes of reed are, however, much shorter in the Ollachea specimens: only 6 cm. The reconstructed illustration by Nordenskiöld (later copied by Heizer and Ackerknecht) gives a somewhat exaggerated picture of the specimen 06.1.490.

Unfortunately, Nordenskiöld did not receive any information from his reliable Indian informant on what the Quichua used for the enemas. Could *vilca* or *Anadenanthera colubrina* be involved? I am asking, as we know from Brazilian tribes that the roasted seeds of *paricá* were taken either as a snuff or an enema (see Wassén, 1967:268, tribe listed as 32, Mura). Siri von Reis Altschul (1967) has, with several quotations, convincingly shown that *vilca* is used among the Callahuaylas “as a stimulant and aphrodisiac” (p. 308); she has referred to herbarium specimens labelled *vilca*, one from east of La Paz (p. 308); and she has quoted Nordenskiöld’s information (in his paper of 1907, *Recettes magiques*, etc.) that *colubrina* seeds and other items were buried, for magical purposes, under houses in the process of construction (p. 308). Dr. Altschul has also shown that
various forms of the word meant enema or clyster” (p. 311), and, with references to Heizer (1944), Nordenskiöld (1930b), and Vélez-López (1930), she continues on page 312: “Archaeological data suggest that the use of enemas was more widespread in pre-conquest times than it was when the Spaniards arrived. What was used in these enemas and in the tubes and tablets of the neighboring regions has not been determined, to my knowledge. Anadenanthera seeds have not been found at any Peruvian sites, as far as I know” (op.cit., p. 312). In this context the find of several enema syringes in Niño Korin is of absolute interest as the collection seems to fall within the Tiahuanaco period. The use of these instruments can thus be placed in that period, although the material in the various tubes and containers associated with the find has given no clue as to what remedy was employed.

As a comparative outlook, it is interesting to refer to Zuidema (1964:73), since this author has shown that “the words ayllu and vilca are synonymous and both mean lineage, descent, extended family”. Zuidema refers to Domingo de Santo Tomás’ linguistic works on Peruvian languages from 1560 (republished in 1951). “Santo Tomás gives pump, or purging syringe as an additional meaning of vilca. Purging by means of a clyster pipe was known to the South American Indians before the arrival of the Spanish. The sap of a particular tree was used for this purpose and both the tree and the sap itself were called vilca (Holguín 1608). According to Poma de Ayala, who called a purging syringe vilcachina, men had purges with the aid of syringes in order to be stronger in battle and in order to increase their health. I would think that the purging syringe and penis were conceived as associated with each other” (Zuidema, 1964:73). To understand this we must know that in Aymara, ayllu means penis (Carpio, 1918:15 and Zuidema, 1964:72). On page 26 of this Introduction I refer to the Quechua word ayllu as meaning the bola weapon.

Another lot in the Niño Korin collection is of outstanding scientific interest. I refer to the five snuff trays of wood (70.19.1,19, 21,23, and 33). They are interesting not only from the iconographic point of view but also for the discussion on the use of psychoactive drugs during the Tiahuanaco period.

When we find no less than five elaborately carved snuff trays, together with a number of containers and a straight tube evidently used for snuff inhaling, we must conclude that these instruments meant very much to the owner. The find presented to the National Museum in La Paz by Dr. Edgar Oblitas contained, as already stated, in addition to some snuff
trays and other objects a leaf of *Piptadenia grata* described to have been too fragmentary to be shown but replaced with one of the same botanical identity. If we add this find to other information about the use of this hallucinogenic plant or *Anadenanthera macrocarpa*, that is *Anadenanthera colubrina* var. *Cébil* (cf. Schultes 1967:300), among *e.g.*, the Mataco, Lule and Comechingones (Wassén, 1967:268–270), the credibility for an assumption that the snuff equipment found in June 1970, at Niño Korin has been used with seeds of an *Anadenanthera*, probably *A. colubrina*, seems to be acceptable. We may hope that Niño Korin some day in the near future will offer not only a fragmentary leaf but also seeds well enough preserved to afford a determination. To judge from the finds known to-day, the physical foundation for such a find seems to be within the bounds of possibility.

Regarding the leaf of wilca said to be found with the specimens from Niño Korin exhibited in the National Museum at La Paz, it was, according to the most interesting work of Albornoz of the 16th century, customary to bury a body with a vilca plant. I quote the whole description (Albornoz, 1967:22): “Tienen otro género de guacas que llaman vilcas, que aunque la vilca es un género de fruta ponçonosa que nasce y se da en los Andes (de) tierra caliente, de hechura de una blanca de cobre de Castilla, curanse y purganse con ella y se entierran con ella en las más provincias deste reino”, ... (italics by the author). Albornoz mentions also the mortars (*vilcana*) for the grinding of vilca. This word was likewise employed for many other medicines, “en especial de purgas”.

5. **Broken Arrows**

The two broken arrow-shafts of *Gynerium sagittatum*, without, and with feathering, are difficult to explain except that they are lowland in technical details (figs. 32-33). Broken bows and arrows are mentioned for death observances among the Bororo (Lowie, 1964:430), but this certainly can not explain the Niño Korin arrows. Furthermore, we do not know much about arrows from Tiahuanaco, where spear thrower and darts were the old weapons (Métraux, 1949a: 244–245), although Kidder II (1967:138) assures us that arrowheads were in use at Early Tiahuanaco. According to him, “there are thousands of arrowheads at Tiahuanaco, but hitherto they have been considered to be from the Decadent or later, post-Tiahuanaco periods.” According to Bennett (1946c:23) “in the pre-Inca periods there is no evidence that the bow and arrow was ever important in this area (Andean Highlands), in spite of the fact that it would seem like
a superior weapon for such open country”. A guess would be that the Niño Korin arrow shafts were placed there for magical reasons. Karsten (1926: 244-245) has looked upon so-called “grave-offerings” as charms or amulets, the object of which is to protect the remains of the departed against evil spirits. He found many of the objects Nordenskiöld discovered in Aymara and Quichua graves in Bolivia and Peru “significant from the same point of view”. “In these graves there were not only numerous fragments of pottery, but also other peculiar articles: a sort of long pin, called topo (tupu) in the native language, with which the Indian women are still wont to fasten the shawls over their breast, broken stone mortars, human images of wood, feathers, pieces of cows’ horns, beads, etc.” (Karsten 1926:245).

In the Niño Korin find there is a tupu (70.19.18). As regards the broken arrows, they might be a parallel to the intentionally broken pottery found in so many graves. When dealing here with the two broken arrows it is interesting to refer to the observation by Bandelier (1904:446) “that the Aymará Indians of the province of Pacajes, on the western slope of the cordillera in northwestern Bolivia, were among the few tribes that, in their primitive condition, used bows and arrows”. Whether or not these arrows were of the same type as those found at Niño Korin, I do not know.

6. A Bola Weapon

A weapon of particular interest in the collection is the bola, with three leather covered stone balls joined with fiber strings (Coll. No. 70.19.17 a–d). Métraux (1949a:253) discussing the occurrence of this weapon (effective in open country) among the South American Indians, writes that “in ancient Peru, bolas were used mainly by the Aymara, but also by the Quichua” and that “bolas have been found in the chullpas of Bolivia”. According to Métraux (p. 254) “the most common type of bolas consists of three stones; the one held in the hand is smaller and more elongated than the others. This is the bolas used by the Aymara, the Mojo, and the Chaco Indians, as today by the gauchos of Argentina and Uruguay”. In 1536, fighting the Spaniards at Cajamarca (kcaja-marca), the Indians are said to have used “bolas de piedra conectadas en tres ramales de nervios de llama que ellos llamaban aillus”, these bolas being thrown against the horses of the Spanish troop (Carpio, 1918:15).

Cristóbal de Albornoz refers to “un juego de ayllar que antiguamente jugava el inga” in which illos or bolas with “tres ramales de soga hecha de niervos de animales o de cueros dellos, y a los cavos unas pelotas de plomo”
were used (Albornoz, 1967:23). Zuidema (1967) has analyzed symbolism in the play of the ayllus and again he points out that the bola weapon, especially that with three bolas, was of phallic and masculine character (Zuidema, 1967:48). In his opus magnum of 1964 (p. 72) he refers to the Quichua word *ullu* for penis (related to Aymara *ayllu*). “In Quichua, however, the word *ayllu* is the name of a particular kind of weapon, called *bola*, or boleadora, in Spanish. In Peru, this weapon consisted of three metal or stone balls joined together by leather thongs. The connection between the three different meanings of the word *ayllu*: a social group, the male genitals, and the bolas, can be illustrated by a number of examples, as for instance a number of Aymara words from the stem *urco*” (Zuidema, 1964:72).

7. *A Human Skull and a Tuft of Hair*

The artificially deformed and trepanned skull (70.19.48) has been technically described by a skilled anatomist in this volume. Bandelier (1904:440) mentions specifically finds of trephined crania “from the eastern slope of the cordillera, near Pelechuco and Charassani”, adding that “at the latter places but few were found, for the reason that human remains are usually decayed beyond recovery on account of moisture”. Now we have, due to exceptionally favourable circumstances from Niño Korin, the skull of a man who died at 25 to 30 years of age. The lower jaw is missing, but otherwise the skull is very well preserved. A radiocarbon measurement with standard deviation has dated this skull to A.D. 755, but I must, however, for this result refer to my discussion (pp. 28–30) and to Dr. Hultin’s paper (p. 185).

“Trephining and artificial skull deformation was practiced in Early and Late periods” (Bennett, 1946c: 36). Bertónio gives the word *sircamana* for surgeon. La Barre (1948:223–224) equated *sirkaq’ amanî* with the Aymara surgeon and found it very probable that “it was this practitioner who in ancient times performed the trephinings for which this region is famous among physical anthropologists and archaeologists”. Paredes (1963:242) considers, however, the *yatiris* and *amanutas* to have been the trephining experts. Bandelier could write in 1904 that “trephining is today practised in Bolivia, and probably also in the Peruvian sierra, by Indian medicine-men” (Bandelier, 1904:441) and he mentions Paloma, a “shaman or medicine-man of the class called *Kolliri*” as having had a natural talent for surgery, “trephining with striking success although with the most ordinary cutting
tools” (Bandelier, 1904:441; cf. Buschan, 1941:453). Already to Bandelier (1904:446) it was a source of surprise that he “had not been able to find any mention of trephining in the early sources”. Ackerknecht (1949:638) stresses the same thing when writing that “strangely enough, no chronicle mentions trephining, though the operation was performed in Perú from pre-Inca times down to the beginning of the 20th century”. He also discusses the various supposed reasons for trephining. According to Stewart (1950:45–46), “the Paracas skulls furnish the earliest record of this custom. Elsewhere, the skulls are usually attributed to the Late cultural period.”

The skull described in this work was found without any hair, but I found a tuft of human hair (Coll. 70.19.56a) well concealed in a long woven ribbon (Coll. 70.19.56). The ribbon was found with other objects (Coll. numbers 52–60) in a basket with a lid (Coll. 70.19.51), and these objects appeared not to have been opened before. Possibly the hair had some meaning. Karsten (1926:52) has dealt with human hair used by “Indian wizards for practising nefarious magic”. He has quoted Nordenskiöld’s Recettes magiques, etc., (1907) and writes: “Thus, among the Aymará of the present day, when an Indian wants to harm an enemy, he procures a lock of his hair or a piece of his nail, and inter them in a tomb, being sure that the chullpa or death-spirit residing in the tomb will take hold of the person to whom the hair or the nail belonged”. It is perhaps possible that the occurrence of the hair tuft in the Niño Korin grave might be explained in this way. Oblitas Poblete (1963:216) mentions human hair in Callahuaya love magic.

Through Arriaga we know that the Peruvian Indians venerated the hair of deceased important persons. He specifically describes one case as follows: “En casa de los padres de vn Indio principal, tenian escondidos vnos cabellos de vn gran Idólatra bisahuelo de quien los descubrió, respetavan, y adoravan los cabellos, y la memoria de este Indio, cuyo cuerpo quemó el sobredicho Fray Francisco, porque le avían respetado mucho en vida, por ser consultador del Inga” (Arriaga, 1920:98. Cf. Valdizán and Maldonado, 1922, vol. I:447).

8. Other Objects

In the collection we found, beyond the objects already treated in this Introduction, a group of bamboo tubes used as containers, fur pouches, baskets, textiles, a single shawl-pin, several spatulas, a wooden mortar, pestles, etc. For all of these specimens, I refer to the descriptive part of the volume.
9. Radiocarbon Measurements

Several portions of *Ilex Guayusa* leaves found in the collection as well as the human skull have been subject to radiocarbon measurements in Sweden. An evaluation of the results must, however, be preceded by the conclusions drawn from the facts related to the find and its general archaeological character. I first recall that the find was reported to have been made in June 1970 in a tomb where all of the items were found.

Regarding the general ornamental style of the specimens we seem to have some kind of Tiahuanacoid material in front of us. When inspecting a photograph of the snuff tray 70.19.1 (fig. 5) Dr. Dorothy Menzel, Berkeley, has, however, concluded that this tablet probably belongs to the Middle Horizon Epoch 1B in terms of sequence set up by her (Menzel, 1964). According to her work, "at a conservative estimate, subject to corrections when more radiocarbon determinations are available, the Middle Horizon dates from about A.D. 800 to about A.D. 1100" (Menzel, 1964:3). It has been possible for her to subdivide Epochs 1 and 2 "so that we can now distinguish Epochs 1A, 1B, 2A, and 2B". Dr. Menzel refers to a textile published by William J. Conklin (1970) and the amazing resemblances between it and some of the design details on the snuff tray 70.19.1. In a letter of October 13, 1971, she writes: "I think they must be exactly contemporary, and represent the strong religious movement that dominated the area at this time, and that linked the Tiahuanaco and Huari complexes."

Sawyer (1966:132) speaks of "highland Tiahuanaco people" who were establishing themselves at Wari, not far from Ayacucho". He considers the Wari to "have moved down from the mountains and overwhelmed the Nazca and other coastal people", around A.D. 700.

Bone from the skull 70.19.48 has as sample St. 3667 (according to a report from the Laboratory for Radioactive Dating in Stockholm of September 13, 1971) given a result of 1195±100 B.P., or A.D. 755. Dr. Eskil Hultin (see page 192 in this volume) has pointed out that this value does not actually represent the historical time scale but a radioactivity analysis result, the historical time equivalent of which can be obtained by comparison with results from radioactivity analyses of material with known age. Such calibration experiments with wood, the age of which has been determined by the tree-ring method, has been done by a few laboratories. Calibration curves, slightly different for each of these laboratories are thus available, however not yet from the Stockholm laboratory. Hence it remains to use an average calibration curve for which differences between laboratories is an additional source of variation, adding to the standard deviation.
originating from the limited number of radioactive disintegrations which can optimally be counted in the analysis. Obviously, results can be recalculated with greater accuracy as soon as a calibration curve for the Stockholm laboratory becomes available. The present estimate is given by Dr. Hultin as a 95% confidence interval of A.D. 400 to 1100; the 50% confidence interval (the same chance that the correct date is inside the interval as outside it) is at present given as A.D. 650 to 850 (rounded off to the nearest even 50 years).

Four portions of *Ilex Guayusa* leaves were found in the collection, of which until February 1972 three have been tested for radiocarbon determinations.

1. From the package of leaves 70.19.20 b, found in an embroidered bag 20 a, a sample which had been pulverized and extracted with metanol was submitted to the Laboratory for Radioactive Dating, Stockholm. This sample, *St. 3440*, has with standard deviation given the result 830±100 B.P., or A.D. 1120 (the Laboratory’s report of November 30, 1970).

2. From the quantity of *Ilex Guayusa* leaves found in the “ball” formed of a big *Duroia* leaf (70.19.41, p. 61), a sample was submitted to the same laboratory. This sample *St. 3439*, in the form of leaves, has been dated to 1557±100, or A.D. 375 (the Laboratory’s report of November 30, 1970).

3. In October 1971, a portion of *Ilex Guayusa* leaves weighing 7 gr., from the contents in a bag 70.19.52 a, was submitted to the same laboratory. This sample 70.19.52 a, could not be analyzed until the beginning of 1972. The date has been given as A.D. 355±200, according to the Laboratory’s report for *St. 3809* of February 17, 1972.

The age determinations A.D. 375 and A.D. 355 must be counted as contemporary and they coincide with the Tiahuanaco Epoch III radiocarbon dates presented by Ponce Sanginés (1969 b:102), by many archaeologists considered to be too early. The subterranean *Templete B* in Tiahuanaco is officially dated to Epoch III, 133–374 A.D. Kubler (1962:304) has given the ‘Classic’ phase of Tiahuanaco “a radiocarbon date about A.D. 300”.

The dates from Tiahuanaco referred to by Kidder II (1967:138) were published in the American Journal of Science, Radiocarbon Supplement, vol. 1,1959, pp. 54–56. The volume contains dates that Dr. Kidder had gotten from Chiripa and Pucara as well. In a letter to me of November 17, 1971, Dr. Kidder has, however, written that “frankly, I do not trust
the Tiahuanaco dates; some of them certainly seem to be contaminated and others undoubtedly involved disturbances. I think the same thing is true of the dates we ran for Carlos Ponce Sanginés. However, I would think that Classic Tiahuanaco to be about A.D. 200.” This latter statement coincides with that of Meggers and Evans (1963:96) who are placing Regional States Florescent from A.D. 200 to A.D. 600. According to them “about A.D. 200 the full agricultural potential of the coast had been reached and Classic Tiahuanaco was probably at its peak in the Titicaca Basin”. The City Builders period with “the styles of Wari (often referred to as Coast Tiahuanaco)” with a “vigorous cult, symbolized by an iconography of Tiahuanaco—via Wari” they place from A.D. 600 to 1000 (op. cit., p. 97).

It is evident from the Proceedings of the Twelfth Nobel Symposium (Olsson 1970), Plates I and IV, that there are systematic errors, varying with the age and originating from the time variation of the concentration of C14 in the atmosphere, and random errors, in radiocarbon dating. In the evaluation of the measurements written for this book by Dr. Eskil Hultin (p. 192) the systematic error for the period discussed here is estimated to have such a value that the objects should be dated about 75 years closer to our time than indicated by the radioactivity measurement.

The contents of the Niño Korin tomb, that is all the specimens described in my work (with a possible exception for the skull 70.19.48) must have been placed there in a given momento. As stated on page 61 it is, if we judge from the weft thread count for the four woven bags in the collection, possible that they have been woven by the same individual, and I cannot believe that the Indians during a time range of several hundred years went to a certain tomb and deposited leaves of Ilex Guayusa in it at irregular intervals. Hence I am disregarding the radiocarbon analysis of sample 1 above (A.D. 1120) as an accidentally outlying result, particularly as the sample sent for radiocarbon dating had been previously processed in an other laboratory for other purposes.
DESCRIPTION AND COMPARATIVE NOTES

CATEGORY A. *Five snuff trays of wood and a tube*

In the collection there are five snuff trays of wood (Coll. numbers 70.19., 1,19,21,23 and 33), all most remarkable and some excellently well preserved (figs. 5, 8–9, 11–12). Oblitas Poblete (1963) who uses the old term “tablillas de ofrenda” has in his pl. 88 published the wooden snuff tray redrawn and reproduced here in fig. 4. It was, as already stated in the Introduction, found by Dr. Edgar Oblitas in the region of Niño Korin and presented by him to the Museo Tiaguanacu de la ciudad de La Paz. Dr. Gregorio Cordero Miranda, who described this specimen in a newspaper article interprets the animal motif as being probably feline. The figure has been included here for comparative purposes and I find it appropriate to quote the description in Spanish as presented in Oblitas Poblete (1963:491–492) before I describe and give references to the snuff tablets in the collection 70.19.

“Tabla de madera de forma rectangular de fondo plano, curvado en su posición horizontal; una figura tallada, posiblemente de felino, orna un extremo de la pieza (sector de mayor anchura), muestra en la cabeza, delante de las orejas, una faja en relieve formando un arco que llega hasta el nacimiento del cuello semejando una corona, el cuerpo está en ligero relieve, en medio del cual se nota una cabeza antropomorfa, incisa, estilizada, la con- (should be que) está ornada con dos rectángulos y en su parte final con incisiones paralelas transversales, tiene cuatro patas claramente talladas que terminan en tres dedos cada una, en la parte inferior de esta figura zoomorfa existe un signo escalanado y en la superior de la misma existe un signo inciso semejando una faja con rectángulos en cuyos extremos figuran cabezas ornitomorfas (cóndor). La posición del felino da impresión de encontrarse recostada con la cabeza levantada; siguiente a esta ornamentación hay un cavado de forma rectangular en bajo relieve; mide la pieza 176 mm. de largo, 70 mm. de ancho, 53 mm. de ancho mínimo y 8 mm. de espesor.”
1. Snuff tray 70.19.1, fig. 5.

Material brown wood. Length 18.5 cm., slightly curved. Upper width 7 cm., lower width 6 cm., thickness 0.8–1.2 cm.

Similar in ornamental details is a snuff tray from San Pedro de Atacama, now in the National Museum of Chile, (No. 1164), originally published by Uhle (1912, fig. 4), later by Oyarzún (1931, fig. 9), Latcham (1938:46, fig. 2a) and recently by le Paige (1965, pl. 60). Father le Paige has in his work published several snuff tablets with angel drawings. In a letter of September 28, 1971, Dr. Dorothy Menzel, Berkeley, California, considers that they are “clearly of different style phases, in the same tradition, and probably span the entire Middle Horizon.”

The standing (or, if we turn the tray sideways, floating) feline deity figure 70.19.1 with a protruding tongue has on his head a crown (Posnansky, 1945–1958, vol. II, pl. XXXV), the base of which seems to be the same animal element as is clearly observed in the floating angels of the Calle Linares lintel. The ornaments surrounding the cavity for the powder (these signs stand according to Posnansky for “movement and joint”, 1945, fig. 16, p. 131) as well as other of symbolic importance are also common for the lintel and the snuff tray. Dr. Dorothy Menzel, has kindly called my attention to the fact that the motif on the stone fragment from Akapana published (upside down) by Créqui-Montfort (1906:540, fig. 11) is “also in the style of that lintel from the house in La Paz,” According to her calculations, it should be “contemporary with it (the lintel) and earlier than other carvings from Tiahuanaco. Well, at least it should predate Middle Horizon 2.” (Letter, Sept. 28, 1971).

Many details in the carving of the Akapana stone are of interest to a study of the snuff tray 70.19.1. The same could be said about many of the ornamental details on a 16 cm. long tubelike llama bone now in the Southwest Museum, Los Angeles. This specimen was purchased in Tiahuanaco in 1893 by Mr. Charles F. Lummis. (Information by Dr. Hasso von Winning, Hollywood, Calif., letter of October 31, 1971.)

Rowe (1971:117) has pointed out that “there are a number of conventions and ideas of Chavín religious art which are also found in the religious art of Huari and Tiahuanaco in the Middle Horizon. These conventions and ideas comprise the Staff God pose, winged or floating angels—sometimes with bird heads—and the use of crossed fangs in non-feline, non-snake faces to suggest a supernatural character. The Staff God pose is fullface with the arms outstretched and a staff or other ceremonial object in each hand. In Chavín it appears to have been used only for one particular deity,
but in Huarí and Tiahuanaco religious art it was used for a variety of deity figures, male and female. A floating angel is an attendant figure shown with the body more or less horizontal in the air." Later in the same context Dr. Rowe continues: "The use of crossed fangs in non-feline, non-snake faces is a common convention in the art of Huarí, but only one example of it is known from the Tiahuanaco area: a carved lintel from La Paz on which the angels are shown with crossed fangs. This lintel is in a slightly earlier style than other Tiahuanaco sculptures, judging from the development on the Huarí area."

The lintel mentioned by Rowe has the design shown in fig. 6 (Rowe’s fig. 23, p. 117, and originally in Posnansky, 1945–1958, vol. II, fig. 140a). I have quoted Rowe in detail and reproduced the motif from the stone lintel from the house in Calle Linares, La Paz, as there are so many similarities in the lintel motif and that of the snuff tray in my fig. 5. The figure on the snuff tray now in Gothenburg should, however, be referred to the type of specimens which Rowe (1971:117, footnote 11) describes in the following way: "A stepped-nose being, common in Tiahuanaco religious art, is also depicted with crossed fangs, but in this case the whole head may be intended to be a feline."

The figure has lost the inlays for a big eye and for one of the shoulders. On the breast is seen a human head, the eye of which also has been inlaid. Over the big eye is a snake, and snakes around the eyes are also seen on Paracas embroidered mantles (see Bird and Bellinger, 1954, pls. LIV–LV).

In his right hand the deity figure carries a human head in what supposedly should be two plaits, or, less probably, tubular textile braids as known from Paracas (Bird and Bellinger, 1954, pl. CXX). In the left hand we see a sceptre or staff of an "undulating form" which ends in "fingers" at the upper, and a head at the lower end. The "finger" element on the top could be explained as a simplification of the three element top of a staff as we see it on wooden spoons with carved handles from a Coast Tiahuanaco find published by Keleman (1956, pl. 275 c). On the figure seen in spoon 4 of Keleman’s plate 275 c, we also observe a human head at the lower end, and there are also other details of the incised spoon handle ornaments which we recognize in the snuff tray.

Two "undulating" staffs are shown on a bowl in the Pucara style with two running angels published by Posnansky (1945–1958, vol. III, pl. LVI B, text p. 89) and later by Rowe and Brandel (1969–1970, pls. II and XVI) and again by Rowe (1971, fig. 25), but we must consider that "between
the Pucara style and the styles of Huari and Tiahuanaco there is a long gap, and no style which might be transitional is now known” (Rowe, 1971:120), even if examples of Pucara-style sculpture have been found in Tiahuanaco (Rowe, 1971:118). It is difficult to understand why real staffs should be presented in an undulating form as in these cases. Upon inspection of the snuff tray in Gothenburg Dr. Tom Zuidema suggested that the “staff” be based on a textile element, and we find a support for this in the partly repeated ornaments on the figure’s girdle or skirt. Fingers are, as we know, found at the end of Paracas turbans (see e.g., Bird and Bellinger, 1954, pl. XIII), but they could hardly have been used pointing upwards.

At the lower end of the rectangular cavity are two fish signs separated by a groove (see Posnansky, 1945–1958, vol. I, p. 119, fig. 7:4, a side view of the Orestias or boga fish of Lake Titicaca).

On the head of the figure we find the “Winged Eye” motif (see Posnansky, 1945–1958, vol. I, p. 123, and pl. XXII) here in a somewhat primitive style and not as elegant as on, e.g., the low relief sculpture on a stone from S. Pedro de Tiquina, Bolivia, now in the Gothenburg Ethnographic Museum (Coll. 44.12.21, fig. 7 A), or the running figures from the “Gateway of the Sun” at Tiahuanaco (fig. 7 B).

Regarding the hands, we notice the thumb and only three more fingers on each of them. According to Posnansky’s theory (1945–1958, vol. I:132), the way of expressing a deity’s hand was by omitting the little finger, while a man was depicted with five fingers, as is the case in our snuff tray 70.19.33 (fig. 12).

The figure to the left of the deity’s right arm could possibly be a so-called Stair Case sign with a double wavy sign below.

It looks as if the Indian who once carved and incised this snuff tray had a feeling of *horror vacui* as practically the whole surface above the empty rectangular cavity was filled with symbolic carvings. This is also true for other trays in the collection.

I have discussed some motifs of the snuff tray with Dr. Dorothy Menzel, Berkeley. As already mentioned (p. 28), she has after inspecting a photograph of the specimen concluded that this tablet probably belongs in Middle Horizon Epoch 1B (letter of October 13, 1971). In her letter she also refers to a textile from Peru which she considers exactly contemporary (cf. p. 28). Among the design details which constitute an amazing resemblance between our snuff tray 70.19.1 and this textile, which has been published by Conklin (1970), she specifically mentions the symbolic “tail feather”
design at the top of the staff of the snuff tray “like the corresponding ones on the textile: narrow “feathers” in zigzag or wavy alignment.”

Dr. Menzel continues: “The zigzag pattern in the staff segments is a characteristic one for the highest ceremonial style of offering pottery in the Huari style of the sierra in Middle Horizon Epochs lA and lB . . . It is one of the variations of staff ornament. Solid circles are one of the designs used for garments in the ceremonial styles of Middle Horizon l in the Huari area and for Middle Horizon 2 in the Tiahuanaco area. In the Conchopata style, the offering pottery of the Huari style of Epoch 1A (near Ayacucho) there is one particular figure only that has it, one I call a “walking angel” or Angel D. It evidently signifies a tie-dyed garment . . . Small irregular outlines and unoutlined dots of the kind you have on your tablet, in single-row alignment as staff decoration and the decoration of staff equivalents, first appears to my knowledge in Middle Horizon 1B, where I have seen it on what I call the Robles Moqo style, the ceremonial offering pottery of this epoch.” (Dr. D. Menzel, letter of Oct. 13, 1971).

The textile published by Conklin “is reportedly from a site between Pisco and Ica” (Conklin, 1970:15). According to Conklin “it would seem clear that on several points the textile is stylistically closer to Tiahuanaco than to any known Peruvian textile or ceramic style. The absence of any comparable stylistic material from the Ica area and the reused condition in the burial suggests a non-local origin. There are at least two possible explanations. The first would be that the textile is, in fact, an imported piece, having been actually designed and woven in Tiahuanaco, Bolivia, and carried to the coast via Huari marking the beginning of the Middle Horizon in a way suggested by Bennett on the basis of other evidence. The second would be that the textile was woven in highland Peru by a local group which was so strongly connected to Tiahuanaco that the work is, for us, indistinguishable from what must have been the weaving tradition of that culture” (Conklin, 1970:23). Mr. Conklin’s textile, “probably a ceremonial cloth or wall hanging,” excellently published by the Textile Museum in Washington, is evidently of great interest to the iconography in the Niño Korin material. We can, e.g., identify the full-face deity represented in the center of the textile (Conklin’s fig. 10) with its split eyes and the surrounding ornamental details with the corresponding full-face deity on basket 70.19.50 described in this volume (see p. 51). From the drawing of this basket (plate I and figs. 41-42) we are able to conclude that Mr. Conklin’s reconstruction drawing of his Peruvian textile (Conklin’s fig. 6) is correct for this central part of tapestry weaving. A full-size deity with a
square, framed face with split eyes and the same kind of three ornamental
details above the head is observed in the Middle Horizon Epoch IB pottery
vessel in Robles Moqo style which was published by Menzel (1968, colour
plates III and IV). The conventionalized motif of the basket 70.19.39
(figs. 37–38) could possibly also be explained as a form of the full-face
deity with the three ornamental details above and below the head.

2. Snuff tray 70.19.19, fig. 8.

Material dark brown wood, partly carbonized and twisted. Length 16
cm., upper width 5.7 cm., thickness 0.5 cm.

The central motif of this specimen is a standing crowned left-turned
winged bird (condor) with a hooked beak. The surface is partly worn,
with many cracks, and so dark that a detailed study is difficult. For the
photography it has been necessary to chalk the major details.

The composition and general type of the figure reminds us very much of
Posnansky’s “Head of Kochama” (1945–1958, vol. II, fig. 100c) with the
same type of wing and crown. The last has been cut out from the sur­
rounding upper part of the left border, probably a staff, and the wing
at the right. The technique used with irregular cuttings in the tray gives
us an impression of a cutout, at the first glance misleading in such a way
that the back of the head seems to form a nose. Like some of the beaked
lateral figures of the “Sun Gate” in Tiahuanaco (a monument which ac­
cording to Vivante, 1963, should not carry this misleading name), the bird
carries something in his beak. The shallow rectangular cavity measures
3.5 x 7.5 cm.

A dominating trait in this and other representations of the falconiform
birds (including the condor) is the wing. Posnansky (1945–1958, vol.
I:140–141) observed the importance of the wing iconography and took
the sign as “an attribute of divinity.” In a representation of a wing he
found a “Condor” as a “carrying and executing” sign “of the will of the
main figure.” Even if Posnansky’s explanations in many cases are very
speculative and thus must be taken cum grano salis, he was perhaps here
on the right track, as it recently has been possible for Zuidema (1967:49)
to explain the importance of the Inca custom reported by Albornoz (1967)
of binding another reigning person by a contract to the ruling Inca. Ac­
cording to Albornoz and Zuidema, two wings of an halcón (in Quichua
huaman) were used, of which the Inca kept one and gave the second to the
other ruler or chief. Zuidema stresses in this context the importance of the
condor as the greatest of the Falconidae for the Andean world and its
religious and political concepts. In the play between the totality represented by the Sun or Viracocha, the Creator, and Pachamama (Mother Earth), one finds the huaman (condor) as the god of the mountains and heaven, together with the amaru (snakes coming from openings in the earth), representing subdivisions. I have tried to summarize this from Zuidema's text in Spanish (1967:50). Because of the time gap and the lack of text information from the remote Tiahuanaco we will perhaps not be able to prove a common identity shared by the condor motif in the Tiahuanaco culture and the Inca religious ideas analyzed by Zuidema. We can, however, certainly rely upon old pan-Andean conventions and religious concepts. These took their expression in the art executed not least of all on ceremonial objects like snuff trays, as it was by means of these tablets and the powders associated with them that a closer contact with the great deities was established.

3. Snuff tray 70.19.21, fig. 9.

Material light reddish brown wood. Length 14 cm., width 3.5 cm., thickness upper end 1 cm., lower end 1.2 cm. Length of rectangular cavity 9.5 cm. It has a groove at the lower end.

The incised decoration of this tray is limited to six bird heads and two four-sided figures one in each of the two upper fields. The ornamented area has namely been divided in two horizontal fields of which the upper has one dividing vertical line, and the lower two vertical lines. All the bird heads are pointing towards the upper edge of the ornamented field. In the upper left part we see two heads, one turned left, the other right. All other heads are turned right, and one has been placed in the upper right field; the other three are found one in each of the three lower fields.

We see the same kind of hooked beak in the painted figure of a condor found on a pottery vessel from Tiahuanaco once presented by Arthur Posnansky to the Gothenburg Ethnographic Museum (Coll. 28.3.23, fig. 10).

4. Snuff tray 70.19.23, fig. 11.

This wonderfully preserved and elegantly executed snuff tray has been made of brown wood. Length 17 cm., upper width 6.5 cm., lower width 5.5 cm., thickness 0.5–0.6 cm. Length of the rectangular cavity 7.5 cm.

The dominating motif is a standing winged bird looking left with uplifted head. On the neck there are two horizontal bars which probably mark the neck feathers or “drip-protection” of the condors. Between the wing we
see a human skull and a crossed circle or dot. The bird's tail feathers are presented horizontally, and just opposite them the ventral part is bulging. In the body is an angular sign, possibly of the type Posnansky first used to call "Sex", "since it was found sometimes in that part of the human or animal body which corresponded to the genitals" (Posnansky, 1945–1958, vol. 1:128) but later considered to be a sign for "earth and sky". The left part of the incised surface has three groups of what seems to be double "Staircase" signs or step blocks. The rest of the surface is filled with figures whose meanings are unknown but which appear to be highly symbolic. The whole tray is a masterfull example of Tiahuanaco wood carving.

5. Snuff tray 70.19.33 (fig. 12).

Material light brown, not heavy and comparatively soft wood. Length 10.5 cm., width 2.8–3 cm., thickness 0.6 cm. Length of cavity 6.5 cm.

This small and unusual snuff tray has been carved in the form of a right clenched hand or fist. The fact that all five fingers are seen suggests, according to Posnansky's theory referred to on page 34, that they belong to a human hand, not that of a deity. The nails and joints are indicated by shallow carvings, and—not seen in the photograph—the joints of the thumb and its nail are also carved in this way.

Through Bennett (1934:434 and fig. 25) and others we know of the great importance of hands in Tiahuanaco stone sculpture. What specific meaning a fist had for the Tiahuanaco Indians we cannot know, but we have much information from the Aymara on this topic. Bandelier (1910:105) mentions "clenched fists" among the Callahuaya white alabaster fetishes. Ponce Sanginés (1969:153) refers to the maki of the callahuaya; the maki is a talisman in the form of a human hand, which, with a circle indicating a coin, is considered to bring good luck and fortune. Tschopik (1946:563) says that "amulets the shape of a human hand prevent fatigue and give luck in weaving." For the two last references I also refer to Métraux (1949b: 582–583).

6. Bamboo tube 70.19.3 (fig. 13).

In Category A of this description I include a straight tube (70.19.3) which was found with the specimens 1–10 in the collection, together with the snuff tray number 1, and other objects.

The length of this tube, probably of Arthrostylidium sp. (personal com-
munication by Dr. R. E. Schultes), is 24.5 cm. It is oval with an outer diameter of 1 cm. and an inner diameter of 0.5 cm. Starting 0.3 cm from one of its ends there is a 1.7 cm. broad strand of wound Z-spun cotton which has been covered with wax. During my examination of the tube I found in the middle of its length a very small quantity of a fine grayish powder which was sent to the Department of Toxicology of the Karolinska Institutet for an analysis which, however, proved to be fully negative (letter of June 30, 1971).

The snuff tube discussed here is not the only one known from the region. In the Introduction I mentioned a fragmentary specimen in the Archaeologic Museum, La Paz, and I also quoted Oblitas Poblete (1963:493) who refers to tubes from the Niño Korin region in the following way: "Fragmentos de caña hueca que posiblemente sirvieron para inhalar polvos, muestra algunos incisos muy difíciles de identificar, pero son motivos tiaguanacotas, longitud 21 cms."

Straight tubes associated with finds of snuff trays seem to have had a long tradition in the Peruvian area. Dr. Frédéric Engel of the Instituto de Antropología y Agricultura Precolombina in Lima has kindly sent a photograph of a bone tube from the museum annexed to the Institute (letter of Sept. 15, 1970). This tube (Cat. No. B. 768, Photo 12201) comes from "a pre-Chavin shell mound filed 12b XI-300 in Asia, Omas basin, central coast of Peru, a mound probably belonging to the first maize eating settlers." He also provided me with a photo of a fragmentary but typical snuff tray of wood with a sitting human figure (headless) serving as a handle. This wooden tablet is said to have been found in "Puerto Nuevo de Paracas (site filed 14a VI-55), a village on the North shore of the bay of Paracas (middle South Coast of Peru). The village contains brown pre-Chavin pottery ware and also classic decorated Chavin." A third photo was received, namely of a bone tablet similar to that from Junius B. Bird's find in Huaca Prieta published by Wassén (1967:257, fig. 17). This tablet (Cat. No. B.260, Photo 5845) was found "in Chavin village 12b XI-5, Asia, mouth of the Omas basin, central coast of Peru." Dr. Engel further writes on this find: "A complex tube (lost before photographing) was found with the tablet (at No. B. 176)." For comparative purposes I herewith publish Dr. Engel's wooden tablet from Puerto Nuevo de Paracas and the bone tube from Asia, Omas basin (fig. 14–15).

From a much later and evidently strongly Tiahuanaco-influenced period are a straight snuff-inhaling tube of bone and one of wood with thread at its end, both from Chiu-Chiu, Province of Antofagasta, Chile,
now in the Gothenburg Ethnographic Museum (Coll. 42.4.194 and 192). These tubes were published by Holmstedt and Wassén (1963:19, fig. 7b and c, and they are also seen in Rydén, 1944, fig. 115C and D).

CATEGORY B. Bamboo tubes used as containers

In the collection from Niño Korin there are six bamboo tubes all of which evidently have been used as containers. The Coll. numbers for these specimens are:

79.19.2a: A single tube (fig. 16B).

12a: A tube containing two reeds 12b–c, see Category E (fig. 17A–C).

13a: A single tube (fig. 16A).

14a–b: A tube with a stopper (fig. 18A).

15a–b: A tube and a lid (fig. 19F). For the enema syringe 70.19.15c, found in this tube, see Category E (p. 44).

16a–b: A tube with a stopper, the tube covered with animal skin (fig. 18B).

All of these tubes contained minimal quantities of a powder-like material which, it was thought, might be either the remains of some kind of powder used in connection with the tubes or else only simple contaminants. The samples which could be prepared (Coll. Nos. 2b, 12d, 13b, 14c, 15d, and 16c) were submitted for analysis to the Department of Toxicology of the Karolinska Institutet, Stockholm, however, in all cases these powders proved to be devoid of alkaloids (see the report by Holmstedt and Lindgren in this volume).

A short description will now be given of the tubes.

1. No. 70.19.2a. Length 17.7 cm., diam. 1.9 cm. Without ornamentation. Found wrapped together with specimens 1, and 3–10 in the collection. Fig. 16B.

2. No. 70.19.12a. Length 16.5 cm., diam. 1 cm. Without ornamentation. In this bamboo tube were found two reeds, 70.19.12.b–c. For a study of these and other reeds in the collection see Category E. Fig. 17A–C.

3. No. 70.19.13a. Length 18.8 cm., diam. at the open end 2 cm. Without ornamentation. Fig. 16A.

4. No. 70.19.14a–b. The length of this tube is 18 cm., its diam. 3 cm. It has at the open end a 3 cm. wide lashing of thread which has been coated
black with pitch. To this tube belongs a stopper, 3.5 cm. in length. This stopper is covered with leather and has at its top a coil of leather strips. From the edge of the leather cover of the stopper are remnants of cotton strings forming a cord so that the stopper could be removed easily. Fig. 18 A.

5. No. 70.19.15a–b. Length 21 cm., diam. at the opening 2.3 cm. This tube was found with a thin lid of skin. The lid has been inspected by Dr. Johannes Lepiksaar, Museum of Natural History in Göteborg, who considers it to have come from a mammal. The material is very thin, and on the inside of the lid we found remaining hair, which means that the skin had been turned inside out. For the enema syringe 70.19.15c found in this tube see under Category E. Fig. 19F.

6. No. 70.19.16a–b. Length 19 cm., diam. 2.5 cm. To this bamboo tube belongs a 3 cm. long stopper of the same construction and type as that in the tube 70.19.14. The coil has been made of leather strips, but there are no cotton strings for removing the stopper.

The tube has, to a total length of 17 cm., a dark red-brown coating of what Dr. Johannes Lepiksaar considers to be howler skin. This covering has no lateral seam, and it has been drawn over the tube and sewed up at the end. At the upper end of the coating we find a cotton string which might have been fastened to the stopper. Fig. 18B.

**CATEGORY C. Containers made of fruits**

There are two containers made from fruits in the Niño Korin collection.

1. No. 70.19.31a–b. Fig. 20. This specimen consists of a 10.5 cm. long bottle-shaped container made from a fruit which professor Gunnar Harling of the Institution for Systematic Botany of the Gothenburg University recognized as lecithydaceous. It has been identified specifically as *Cariniana decandra* Ducke by Dr. R. E. Schultes, Cambridge, Mass., who also informs me that this fruit is found in the Rio Madeira basin. The fruit container has an animal skin coating on which some tufts of red-brown hair have been saved thanks to an outer skin covering. Both Dr. Sparre and Professor Asplund believe the coating of the container to be howler skin; Dr. Johannes Lepiksaar at the Natural History Museum of Göteborg agreed with them upon an inspection of the specimen. The coating has been applied in the same way as that used for the bamboo container 70.19.16,—that is, it has been drawn over the fruit and sewed up at the bottom.
When found, the container had, as already stated, an outer skin covering which was tightly secured around the rim of the fruit with cotton thread. This protective soft skin (length 15.5 cm) has a seam from the upper to the lower edge. Dr. Lepiksaar considers it possible that this prepared animal skin comes from a monkey. The total length of the container, including the outer skin, was 21 cm. when found. The container had never been opened until it got to Sweden, but unfortunately it was found empty except for only a very limited amount of powdered substance (70.19.31c) which has proved to be devoid of alkaloids (see the report by Holmstedt and Lindgren in this volume).

2. No. 70.19.32. Fig. 21. For this container (size 5 × 7 cm) the Indians used a *Lagenaria vulgaris*, which was polished. The botanical determination was made by Professor Gunnar Harling, Göteborg, and Dr. Benkt Sparre, Stockholm.

As is seen in fig. 21 this calabash has a horizontal and vertical winding of yarn, which is red and yellow. Mrs. Margareta Anker of the Gothenburg Ethnographic Museum has found that both the yellow and the red woolen yarns are two-ply Z-S-spun. Where the threads cross they are steadily secured to each other. From the neck goes a 25 cm. long Z-spun six-ply twist made of two yellow and four grayish-white S-spun threads. This twist has been fastened to the other side, and the container was carried in this twist.

The container was found empty with a dried bluebottle fly tightly squeezed in the opening.

In the find by Dr. Edgar Oblitas at Callijicho, now in the National Archaeologic Museum in La Paz, there is a pair of gourds of this kind (see fig. 1) but without the yarn winding. I have referred to the museum label in the Introduction. In Oblitas Poblete (1963:492) such a gourd is described as "calabaza o porro periforme con abertura circular en un extremo, sin decoración; mide, altura 50 mm., diámetro máximo 38 mm., boca 15 mm." The Highland Bolivian Indians might have received these gourds from warmer regions. Rowe (1946:245), following Cobo, reports how the Inca got them by trade from such areas.

**CATEGORY D. Fur and skin pouches**

Three pouches of animal skin were found in the collection. (Coll. Nos. 70.19.8a, 9a, and 57, figs. 22–23).
Two of these (8a and 9a) were found wrapped together with the specimens 70.19.1–7 in the blue ribbon catalogued as 70.19.10.

1. No. 70.19.8a. Fig. 22A. A 20.5 cm. long pouch of animal skin with hair. Dr. Johannes Lepiksaar, Göteborg, who inspected this specimen considers the skin to have been taken from an extremity of one of the species of llama animals. Wool from this pouch has been submitted as sample 5 to two experts of the Swedish Institute for Textile Research, TEO, Göteborg, research engineers Thomas Liljemark and Helge Hjalmarsson. According to their report published in this volume (p. 159), the material in question may be alpaca hair.

When the pouch was opened only a limited quantity of a “powder” was found (70.19.8b), which when analyzed in Stockholm proved to be devoid of alkaloids (see report of Holmstedt and Lindgren in this volume).

2. No. 70.19.9a. Fig. 23. A 17.5 cm. long pouch of skin, partly with remaining hair found together with the specimens 70.19.1–8 wrapped in a blue ribbon, No. 10.

Dr. Johannes Lepiksaar of the Museum of Natural History in Göteborg has inspected this pouch and believes that the skin possibly was taken from the ventral part of a South American deer.

This pouch was found tightly closed; when opened, we found it yielded a considerable amount of macerated vegetal material (70.19.9b). This material has been subjected to pharmacognostical research and analysis by Wolmar E. Bondeson, Dr. of pharmacy, Stockholm, and according to his paper published in this volume (p. 177), we have here a very early proof of the use of a *Nicotiana* in South American archaeological material.

3. No. 70.19.57. Fig. 22B. A 24 cm. long pouch of the same type as No. 8a in the collection. This pouch without any contents was found together with many other specimens in the basket, 70.19.51a. According to Dr. Johannes Lepiksaar, Göteborg, the skin comes from an extremity of a species of llama (cf. No. 8a).

**CATEGORY E. Reeds and putative enema syringes**

As already mentioned in the Introduction, we find in the collection a number of reeds and some specimens of enema syringes which make me believe that at least some of the reeds now without a bulb or with only the ligament left should be considered as shafts to such instruments. The collection numbers are 70.19.6, 7, 12b–c, 15c (a complete enema syringe), 25, 26, and 27.
1. No. 70.19.6. Fig. 19D. A 14 cm. long thin reed with a wiring of thread at one end. Some kind of a bulb probably has been attached to this end, as may be deduced from the other finds. Diam. 0.4 cm.

2. No. 70.19.7. Fig. 19E. A reed, length 12 cm., diam. 0.3 cm. At the end of this reed we see a wiring of cotton thread (see p. 171) which holds the completely dried remains of what can be said to have been a bulb of skin.

3. No. 70.19.12b–c. Fig. 17B–C. Two reeds, 13 and 12.5 cm. in length, both found in the bamboo tube 70.19.12a (fig. 17A). The reed 12b is just a simple thin straw, while No. 12c, has a wiring of cotton thread, as No. 6.

4. No. 15c. Fig. 19F. This instrument is the most interesting in the collection of reeds as it was found intact in the tube 70.19.15a. The length of this reed is 13.5 cm., and at one of its ends we see a well preserved but dried bulb of skin, attached to the reed with a winding of cotton thread. This instrument, which I believe to be an enema syringe, is of the same type (but with a longer shaft) as the two enema syringes found by Erland Norden­skiöld in a chullpa grave in the Ollachea Valley (Etnografiska Museet, Stockholm, Coll. 06.1.489–490, see p. 22, fig. 3). After his inspection of 70.19.15c, has Dr. Johannes Lepiksaar of the Nat. Hist. Museum in Göteborg considered this “bulb” to be a section of an intestine rather than a bladder.

The instrument 70.19.15c, was later submitted to two dermatologists in Gothenburg, Alf Björnberg, M.D., and Håkan Gisslén, M.D., who in collaboration with pathologists performed a microscopic examination on a small piece of the dry bulb. The piece was incubated in water for 24 hours and stained with van Gieson.

According to their report “the specimen consisted of elongated cells in bundles which may correspond to smooth muscular tissue. It was not possible to identify the organ from which it originated.”

5. No. 70.19.25. Fig. 19B. A 14 cm. long thin reed.

6. No. 70.19.26. Fig. 19A. A 12 cm. long reed with a winding of cotton thread at one end (see p. 171). Cf. No. 70.19.6.

7. No. 70.19.27. Fig. 19C. A 14 cm. long reed with a winding of cotton thread at one end (see p. 171) which keeps a completely dried “bulb” of skin attached to the tube. Cf. No. 70.19.7.

CATEGORY F. Spatulas of wood and bone and a wooden probe (?)

In the Niño Korin collection we find four spatulas of wood (of which one is wonderfully well preserved) and one of bone. The collection numbers
for the wooden ones are 70.19.24,29,36, and 40. The specimen of bone is No. 70.19.34. As seen in fig. 1, there is spatula of the same type in the collection found by Edgar Oblitas at Callijicho (now in the Nat. Arch. Museum in La Paz), described by Oblitas Poblete (1963:492) as “espátula o eucharita de hueso de mango largo, sin ornamentación, mide largo 120 mm., ancho 14 mm., espesor 4 mm.” There also exists a beautiful spatula of stone with a jaguar handle published by Posnansky (1945–1958, vol. III, pl. LXXIA) and belonging to a snuff tray of stone also published by Posnansky and by Wassén (1967:280, fig. 30). The latter spatula now in the Museo Etnográfico in Buenos Aires has been redrawn for this volume after a photo in the Gothenburg Ethnographical Museum (fig. 24). One wooden spatula of a related type with a figure handle and found in Calama has been published by Boman (1908, vol. 2, fig. 173, pl. LXXIII). The spatulas mentioned here, including those from Niño Korin, all look like modern salt spoons, and one gets the impression that the Indians using them were measuring limited and defined quantities of certain substances.

1. No. 70.19.24. Fig. 25B. Spatula of wood. Length 11 cm. Partly carbonized. Handle destroyed but probably was of the same type as in 70.19.29.

2. No. 70.19.29. A beautifully preserved spatula of dark wood. Length 11.5 cm. Fig. 26.

This spatula has a handle in the form of the boga fish (see Posnansky, 1945–1958, vol. I:119, fig. 7), and evidently the same fish has been depicted on the snuff tray found by Dr. Edgar Oblitas Fernández and now in the Nat. Museum Tiahuanaco (see fig. 4). It is the fish named quesintuw or quesí by Bertonio (1879, vol. I:96), who relates (vol. 2:291) that Quesintuw, “otra especie de bogas”, had a sister named Umantu (from Aymara ‘uma’ ‘water’), and that Tunupa (‘God’) sinned with both of them, “according to what is told in the legends of the Indians”. The boga was thus a figure of mythological importance. The mythological motif with the two sisters has been treated more in detail by R. T. Zuidema (1972), and he points out that “similar data from Huarochiri refer to Pachacamac’s two daughters with whom Viracocha went to sleep in the Ocean”.

3. 70.19.36. Fig. 27. This 11.8 cm. long spatula of brown wood has at the upper end fragments of thread around the handle, evidently from a carrying string.

4. No. 70.19.40. Fig. 25A. This wooden spatula which was found broken and twisted has a length of 14.3 cm. Part of the handle is missing.

5. No. 70.19.34. Fig. 28. A 14 cm. long spatula of bone in the shape of a wavy fish with two big round eyes and fine incised ornamentation along
the dorsal side from head to tail. The ventral side has no ornaments, only a rounded depression and a shallow groove. The rounded depression has been made as deep as possible without breaking through the bone. A Pucara style stone sculpture which has ornamental features in common with this bone specimen has been published by Bennett (1946b: pl. 38).

6. No. 70.19.28. Fig. 30A. This specimen of light reddish brown wood, possibly a probe, is 15.5 cm. in length. It has a pointed end, now partly broken, and is now slightly bent, originally this object must have been straight. The upper end has circular carvings perhaps intended to facilitate the use of the possible probe when held between the fingers.

**CATEGORY G. Mortar and pestles, wooden parrot stick**

In the find from Niño Korin in the National Archaeologic Museum in La Paz there is also a wooden mortar (see Introduction), and in Oblitas Poblete’s Plate 87 in his book from 1963 there is a picture of a mortar from Callijicho described in the following way: “Mortero de madera con un hueco en su parte central, de base redondeada, se observa ligero desgaste en su interior, indudablemente por el uso que se hizo de él; paralela al borde exterior, una linea incisa horizontal rodea la pieza; mide altura 21 mm., diámetro máximo 53 mm., boca 32 mm.” (Oblitas Poblete, 1963:492).

In the Niño Korin find described in this volume we have one wooden mortar with carved ornaments, one pestle of wood, and one of bone. To this group I also attach a wooden stick with a parrot figure as a possible pestle.

1. No. 70.19.30. Fig. 29. Wooden mortar. This beautifully preserved object measures 5.5 cm. in height and it has an even, smooth bottom, with a 4 cm. diam. The upper diam. is 4.7 cm., the inner diam. 3.7 cm. The mortar has been hollowed out to a depth of 2.5 cm. The interior bottom is flat. Round the mortar we see a motif which has been repeated in five vertical sections with only minor differences in the circles and squares which are incised in these fields. The motif might possibly be a “winged eye”.

2. No. 70.19.38. Fig. 30B. A 15.5 cm. long wooden pestle with a series of seven incised circles at the thicker end. Dr. Edgar Oblitas found several pestles of this type (see fig. 1), described as follows: “Cuatro manos de mortero trabajadas en madera, tres de las cuales muestran en sus extremos gruesas incisiones circulares, posiblemente decorativas y en los extremos opuestos huellas de posible encasquilladuras metálicas o forros de cuero para darles mayor consistencia, su longitud es de 19 y 20 cms. con un grosor de 1 a 1.5 cms. de diámetro” (Oblitas Poblete, 1963:492–493).
3. No. 70.19.35. Fig. 30C. A pestle of bone, 13.8 cm. long. At the thicker end the bone has become darker, as if from use?
4. No. 70.19.37. Fig. 31. This stick of wood has a length of 21.5 cm. and a diam. of 2 cm. It is crowned with the figure of a parrot which has lost the inlays for the eyes. The stick might very well have served as a pestle, as it appears to be somewhat worn at the end. It might also have served as a ceremonial stick, as some of the scepters in the Tiahuanaco culture have borne bird figures (see Posnansky, 1945–1958, vol. I, pl. XXXVIII).

**CATEGORY H. Weapons**

Two broken arrows and a three-ball bola are the weapons found in this collection. For some views on the occurrence of the broken arrows and on the symbolism involved in the word for and use of the bolas, I refer to the Introduction (p. 24). Here some technical remarks will be made.

1–2. Nos. 70.19.4 and 5. Two arrow shafts. Figs. 32–33. Both found together with objects 1–3 and 6–9 wrapped in the blue ribbon No. 10. No. 4 is 27 cm. in length. This arrow shaft (fig. 32B) which like No. 5 (25.5 cm) might well be *Gynerus sagittatum*, has been broken at both ends. There are no feathers left, but the shaft has still a winding of vegetable fibers (see Report p. 171) where feathers could have been fastened as is the case with No. 5. This arrow shaft (figs. 32A and 33) still possesses its feathering, and the end of the shaft has been protected by cotton thread wrapped round it (cf. Nordenskiöld 1924:48 for the Atsahuaca and Tambo-pata-Guarayo, “as well as a number of Indians from the Ucayali area” for this method of protecting the end of the arrow). The fibers wound to keep the feathering in place are of some vegetable material (letter from TEFO, Göteborg, Helge Hjalmarsson, of July 30, 1971). The arrangement of the feathering seems to be of the type which Métraux (1949a:240) with a modification of terms used by Meyer (1898) and Nordenskiöld (1924:45–46) calls “flush”, with a subdivision: “wrapped feathering.” This method used to be called “arara”-feathering, and Nordenskiöld (1924:47) has mentioned the Huaynam, Movima, and Huari as using it.

3. No. 70.19.17a–d. Fig. 34. The three-stone bola was found with one stone connected to its cord of fibers (a), two lose stones (b–c) and another piece of the same cord (d). The stones are wrapped with skin. This kind of weapon is typical for and distributed throughout the region where it was found. For the importance of the bola weapon I refer to the Introduction (p. 25).
CATEGORY I. *A tupu or shawl-pin*

No. 70.19.18. Fig. 35. The only metal object in the collection is this *tupu*, 21 cm. in length. The flattened disk is 3 cm. broad. Thanks to the Manager of Laboratory, Tekn. lic. Staffan Andréasson of the SKF Göteborg, Nordic Region, the *tupu* was directed to Tekn. dr. Jan Fridberg, Manager of the Metallographic Laboratory, Hällefors Jernverk, Hällefors, Sweden, for a chemical analysis. According to his report of April 4, 1971, the investigation was performed with “an atomic absorption method which gives good precision even when very small quantities are analysed.” In this case a 10 mg. sample was weighed and tested. As can been seen from the *Analysis certificate* the *tupu* is made of very pure copper.

A metallographic investigation of the *tupu* in a lightmicroscope was also carried out (see photos in fig. 35). From the photos it can be seen that the *tupu* had been annealed after the last forging operation. The black round zones on the photos are copper oxide (Cu₂O).

**ANALYSIS CERTIFICATE**

Chemical analysis of a *tupu* from Dep. La Paz, Bolivia, No. 70.19.18.

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Hällefors, 7 April, 1971  
(signed) Jan Fridberg

The *tupu* belonged as we know to the women’s garments. Rowe (1946:235) summarizes the use as follows: “A large mantle, worn over the dress, was thrown over the shoulders and fastened on the chest with a large decorative metal pin (*tupu*),” adding that “these pins, made in a variety of sizes, are very common in archaeological collections.” Montell (1929:235) believes that some with large disks very likely may have served as mirrors as well. Nordenskiöld (1906:38) and in the posthumous translation to Spanish (1953:89–91) raised the question as to in what proportion objects found in the chullpa graves are contemporaneous with the dead individuals buried in the graves, since evidently and according to Bandelier “the cloth with which all the corpses (ancient and modern) were covered, was periodically renewed, as late as the middle of the seventeenth century.” Nordenskiöld drew the conclusion that the *tupus*, “los objetos más notables entre los
COLOUR PLATES
I. Motif of spitoon-shaped basket 70.19.50. See figs. 41–42. Drawing by Mrs. Margareta Anker.
II. A, Embroidery motif of bag 70.19.20a. B, Embroidery of bag 70.19.53. See fig. 52.
Drawing by Mrs. Margareta Anker.
exhumados de chullpas y que integran la vestimenta, son más o menos
cócteles con la colocación de los individuos fallecidos dentro de las casas
y grutas funerarias" (Nordenskiöld 1953:90). Whether or not the tupu
70.19.18. originally belonged to the buried Niño Korin Indian, probably
cannot, however, be decided. For Karsten’s idea of tupu used as grave
offerings I refer to the Introduction (p. 25).

CATEGORY J. A human skull and a tuft of hair

1. No. 70.19.48. Human skull. For a complete anatomical study of this
skull, I refer to professor C. H. Hjortsjö’s paper in this volume and its
corresponding photographs.

2. No. 70.19.56a. A tuft of human hair (fig. 36). For this hair and the
circumstances under which it was found in the woven ribbon 70.19.66,
see Introduction (p. 26).

There is one important problem regarding the find of the skull that it
has not been possible for me to elucidate, the question of whether the skull
formed part of a skeleton or was found together with the other objects
in the collection as part of the dead medicine man’s outfit. If the skull
belonged to a skeleton buried with all the specialized medicinal equip­
ment, it would mean that the occupant of the grave, if a medicine man—a
fact we have every reason to believe—had himself been trepanned when
alive. As my informants, however, never mentioned the skull as part of a
skeleton, there is reason to believe that the skull had been inserted in the
grave as part of the medicine man’s professional outfit. Under all circum­
stances the skull 70.19.48, has, as shown in professor Hjortsjö’s paper,
a high scientific value per se. For the C14 determination of the age of this
skull I refer to pages 28, 145, and 192 in this volume.

CATEGORY K. Baskets

In the Introduction (p. 15) I referred to Bennett’s statement (1946b:117)
that baskets belong to the perishable material of which nothing is known
from Classic Tiwanaco. Rowe says about Inca basketry, cordage, and
matting that “abundant material for study exists in tombs near Cuzco,
a little of which has found its way into museums, but none of which has
been studied. From superficial observation, it seems that the Inca made
technically excellent baskets and mats, but took little trouble to decorate
them, reserving their best efforts for textiles, pottery, metalwork, and
wood” (Rowe, 1946:243). Here we have, in a find from a Tiahuanacoid culture no less than four excellently preserved baskets (Coll. Nos. 70.19.39, 49, 50, and 51a–b), three of them decorated, the fourth with a lid. All this makes the find from Niño Korin scientifically still more interesting.

It has not been yet possible for me to have an examination made to determine the kinds of grasses used in these baskets, but for those used by the modern Aymara in their finest works I refer to La Barre (1948:102–103), as ordinarily the use of excellent fibers does not disappear even though techniques and ornamentation may change with the cultural changes. The technical descriptions quoted here have been written by Mrs. Margareta Anker of the Gothenburg Ethnographic Museum.


   Technical description: “There are 31 coiled rows round the basket. The foundation is a small bundle of 4–5 straws, sewn with a plant fiber (about 0.1 cm. broad), dyed in the different colours, forming rows which are 0.4–0.5 cm. high. The row round the rim is thinner than the others, while the lowest eight rows and the seven rows forming the bottom are thicker than the others. The sewing consists of wrapping the foundation three times or more with the fiber and then catching this under the turns of the coil below by means of stitches. These stitches are made three or more after each other, as often as needed to keep the rows in the fabric very tight. On the border of the rim, each wrapping round the foundation is fastened by means of a stitch into the row below.” (M.A.).

   The motif is highly conventionalized, perhaps a climbing figure carrying an axe (cf. the Classic Tiahuanaco masked warrior figure with battle axe and trophy head in Bennett, 1934, fig. 15c). It reminds us closely, however, of a motif found by Posnansky on a Tiahuanaco facade of stone and taken by him to be a “Wing” sign (see Posnansky, 1945–1958, vol. II, closeup in fig. 141b), but most probably we see here a conventionalized full-face deity (cf. p. 36).

   It is noteworthy that because of the technique used the basket appears with the same stylized figures both inside and outside.


   Technical description: “There are 25 coiled rows round the basket. The row round the rim is thinner than the others, while the lowest eleven
rows and the seven rows forming the bottom are thicker than the others. Round the base is one extra row fastened in five places, sewn after the basket was made, probably to make it stand steadily. The technique is the same as in basket 70.19.39.” (M.A.).

This basket does not seem to have been used, and the decorative motifs appear with the same brightness both inside and outside.

The papers by Oyarzún (1930) and Latcham (1938) are of interest for some details, e.g., for the beaker forms, annular foot, and the coiled technique. Rydén (1944:150 and fig. 84 A) has dealt with the annular foot woven in basketry as on the cup-shaped basket published by him from a find in the Rio Loa region. The author concludes that “outside the Atacama region I know of no basket of this type, . . .” Now one of the gaps has been filled, and we can undoubtly trace the origin of the occurrence of these baskets in the Atacama and Rio Loa regions to Tiahuanaco.

The ornamentation of basket 70.19.49 forms a series of triangular fields arranged in three sections round the basket.

3. No. 70.19.50. Fig. 41–42 and Plate 1. Coiled basket. Height 8 cm., width diam. rim 15.5 cm., diam. base 13.5 cm. Colours: Brown-black, olive-green, straw-yellow. The base is circular, flat, with likewise flat sides. In analogy with the “flat-bottom spittoon-shaped bowls” observed in Early Tiahuanaco by Bennett and Bird (1960:171) this basket could be characterized as spittoon-shaped.

Technical description: “There are 23 coiled rows round the basket. The foundation is a small bundle of 4–5 straws, sewn with a plant fiber (about 0.1 cm. broad), dyed in the different colours and forming rows, 0.4–0.5 cm. high. The row round the rim is thinner than the others, while, the six lowest rows and the fifteen rows forming the bottom are thicker than the others. Of the baserows the middle three are red, the others straw-yellow coloured. Round the bottom an extra row was sewn on the basket after it was woven, probably to make it stand steadily. Only half of this row remains.

The sewing consists of wrapping the foundation 9–10 times with the sewing-fiber and then fastening the row thus formed with three or more stitches in the wrapping round the foundation on the row below. On the lowest rows there are three interlocking stitches between the wrappings round the foundation. In the middle rows there are four stitches, and, in the upper rows, five stitches to the row underneath. These interlocking stitches are repeated above the stitches underneath twentyfour times
round the basket. On the border rim each wrapping of the foundation is fastened by a stitch to the row below.” (M.A.).

The dominant repeated motif round the basket is a square head (or a compressed whole figure) with “crown”, and “scepters” as depicted on the monolithic gateway at Tiahuanaco. We are fully entitled to consider this head as a representation of a full-face deity, identical with the representation of such a head and its iconographic details in the textile fragment published by William J. Conklin (see discussion on p. 35).

4. No. 70.19.51 a-b. Fig. 43. Square coiled basket with lid. Height: basket (a) 14 cm., lid (b) 1 cm. Length: basket 15.5–16.5 cm., lid 16 cm. Width: basket 13.5–14 cm., lid 14–14.5 cm.

Nordenskiöld (1920, map 14) has an incomplete list of baskets with overlapping lids and baskets with lids “which are opened like an ordinary cigar-box.” None of his examples refer to Highland Bolivia. The map was without the later additions, as the Chocó, etc., republished by O’Neale (1949:87). As a “classic example of covered baskets” she counts “the oblong twilled container with hinged lid commonly used in ancient Peru to hold a woman’s weaving, spinning, sewing materials, and her small tools and spindles.”

In the basket were found the objects catalogued as 70.19.52–60, and 64.

Technical description: “Wrapping: Three-ply grass- or plantfiber braid. Foundation: Round bundle of grass- or plant-fiber, forming about 0.4 cm. high rows. Coiled basketry technique with open sewing enclosing parts of the foundation, 0.2–0.4 cm. space between the wrapping.—In the middle of the lid there is a leather strap, 16 cm. long and 0.7 cm. broad, pulled through the fabric, with a knot on the inside and another knot 3.5 cm. from the end. Between the top-rows on the basket there are, on two adjoining sides, about 4 cm. from the corners, leather straps forming handles 14.5 cm. long, fastened in the same way as the strap on the lid, with a knot on the inside. On the opposite sides there have been handles too, but they are torn and the longest parts of the straps; those on the left side, are fastened together with knots; the shorter, loose ends are left hanging.” (M.A.).

From the modern Aymara, Tschopik (1946:534) mentions coiled basketry “occasionally manufactured by women.” These baskets have like this old one from Classic Tiahuanaco times, “a grassbundle foundation sewed with a fine, three-ply grass braid.”
CATEGORY L. Textiles

The textiles found at Niño Korin consist of ribbons, textile fragments, and bags.

The strings belonging to the ribbon 70.19.10 and the bag 20a, are the only samples of cotton used in the whole textile part of the collection. The other material comes from animal fibers, according to the report from the Swedish Institute for Textile Research, TEFO, Göteborg (see p. 159).

For the following description the author owes the textile weaving analysis to Mrs. Margareta Anker of the Gothenburg Ethnographic Museum. Her analytical contributions will be signed M.A.

1. **Ribbons.** Nos. 70.19.10, 11, 55, 56, and 60. (Figs. 44–46).

   1. **No. 70.19.10.** Fig. 44A. Blue ribbon. Length 50.7 cm., width 7.4 cm. Found wrapped round the objects 1–9 in the collection.

      Fibers from this specimen were as sample 4 submitted to TEFO, Göteborg. See photos XII–XV in the report (p. 159). According to the report it is wool from either alpaca or llama, as the fibers from these two animals are nearly identical.

      **Technical description:** "Warp: Two-ply, Z-S-spun, hard-twisted wool-yarn, 21/cm. Weft: Two-ply, Z-S-spun, loose-twisted wool-yarn, 9/cm. **Technique:** Repp (warpfaced). **Colour:** Dark-blue.

      The ribbon has been cut off at both ends. One end is folded and the fold has been fastened with a Z-spun cord, made of four Z-S-spun, hard-twisted cotton-threads. The loose end of the cord measures 47 cm." (M.A.).

      Bertonio (1879, 1:472) gives the Aymara name *quesña* for "yerua que sirve de teñir azul."

2. **No. 70.19.11.** Fig. 44B. Red ribbon. Length 50.8 cm., width 7.5 cm. Pattern in negative painting.

      Fibers from this ribbon were as sample 3 submitted to TEFO, Göteborg, see photos VIII–IX in the report (p. 159). According to the report the material used should be fibers from alpaca plus vicuña.

      **Technical description:** "Warp: Two-ply, Z-S-spun, hard-twisted wool-yarn, 28/cm. Weft: Two-ply, Z-S-spun, loose-twisted wool-yarn, 9/cm. **Technique:** Repp (warpfaced). **Colours:** Dark-yellow ground colour, painted with red in a geometrical pattern. The pattern has been achieved through negative painting, by covering the parts of the ribbon wanted yellow and brushing over with the red colour, which partly has soaked through the fabric and can be seen on the other side. The ribbon has been cut off at both ends." (M.A.).
3. No. 70.19.55. Fig. 45A. Red ribbon. Length 200 cm., width 4.3–5.5 cm. Found in the basket 51a–b.

Technical description: “Warp: Two-ply, Z-S-spun, hard-twisted wool-yarn, 18/cm. Weft: Two-ply, Z-S-spun, loose-twisted wool-yarn, 7/cm. Technique: Repp (Warp-faced). Colour: Red.—The ribbon has been cut off at one end. At the other end there is a row of chain-stitches on each side of the ribbon, and 13 cm. of the warp-threads are left to form a fringe. This fringe is rather worn. On the worn parts of the ribbon the yarns are of light-brown colour indicating that the ribbon was woven before it was dyed.” (M.A.)

The latter observation, valid also for ribbon No. 56 (cf. the TEFO report, p. 171), is thus in contrast to Bandelier’s statement (1910:233) that “the colors were given to the wool before it was spun.” In this he has followed Cobo (quoted by Bandelier, p. 255: “La tinta dan á la lana y algodon en pelo, antes de hilarlo, y después de sacada del Telar la pieza no usan darle ninguna”). Rowe (1946:241) repeats that “the wool was always dyed before spinning according to Cobo.” He also points out that “wool was used both in its natural colors and dyed with vegetable dyes, an enormous variety of which were used by the Highland Indians.”

4. No. 70.19.56. Fig. 45B. Blue ribbon. Length 230 cm., width 7.5 cm. Found in the basket 51a–b.

Technical description: “Warp: Two-ply, Z-S-spun, hard-twisted wool-yarn, 22/cm. Weft: Two-ply, Z-S-spun, loose-twisted wool-yarn, 8/cm. Technique: Repp (warp-faced). Colour: Blue-back.—The ribbon has been cut off at one end. At the other end are remains of a chain-stitch row and a fringe about 3 cm. long. At the same end as the fringe, there are two cords, about 8 cm. long, each made of eight very hard-twisted threads of two-ply, Z-S-spun wool-yarn. They are pulled through the fabric and fastened with knots, one cord at one edge of the ribbon and the other 2 cm. from the other edge. Where the ribbon is much worn, the yarns show a grey-white colour, indicating that the ribbon was woven before it was dyed.” (M.A.)

The latter statement has been confirmed by research-engineer Helge Hjalmarssson, TEFO, Göteborg, in his report published in this volume (p. 171). He has also found the material to consist of animal fibers. Well concealed in this ribbon was found the human hair described as 56a (p. 49).

5. No. 70.19.60. Fig. 46. Ribbon. Length 64 cm., width about 5.5 cm. Found in the basket 51a–b.

Technical description: “Warp: Two-ply Z-S-spun, hard-twisted wool-yarn,
22/cm. Weft: Two-ply Z-S-spun, hard-twisted wool-yarn, 7/cm. Technique: Repp (warp-faced). Colours: Warp: blue, red, light-yellow, yellow, light-brown. Weft: dark-brown.—One end of the ribbon is the warp selvage, the other end is torn off. The ribbon is striped (warp-effect), one half of it in darker colours than the other. Two of the stripes are broader, on which vertical stripes alternate with irregular-appearing squares and staircase pattern.” (M.A.).

Mrs. Margareta Anker has also produced the following warp-order for the ribbon 70.19.60:

<table>
<thead>
<tr>
<th>blue</th>
<th>red</th>
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<th>light</th>
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<td></td>
<td>18</td>
<td>9</td>
<td>3</td>
<td>5</td>
<td>10+10</td>
<td>5</td>
<td>4</td>
<td>8</td>
<td>9</td>
<td>4</td>
<td>10+10</td>
<td>4</td>
</tr>
</tbody>
</table>

We may guess that the ribbons (from about 50 cm. to 230 cm. in length) were used for applying a bandage during an act of trepanning.

B. Textile fragment
No. 70.19.59. Fig. 47. Length about 52 cm., width about 20 cm. Found in basket 70.19.51 a-b.

The fabric has been folded, from selvage to selvage, in about 1 cm. broad folds. The edges of the folds are very worn.

There are remains of two loop-stitch rows along the selvage, made with two-ply, Z-S-spun, hard-twisted wool-yarn. Colours of the embroideries: white, red, green, blue, dark-brown.” (M.A.).

C. Bags or bag-like pouches
To this collection belong no less than six textile bags (Nos. 70.19.20a, 22, 52a, 53, 54, and 58a). Of these no less than three, namely 20a, 52a, and 58a, contained leaves of Ilex Guayusa. All of them have been technically
analyzed by Mrs. Margareta Anker of the Gothenburg Ethnographical Museum, and in the following her descriptions for each of the bags have been signed M.A. No fewer than four of the bags were found in the basket with lid (No. 51a–b).

1. No. 70.19.20a. *Woven bag with embroideries.* Height 13.5 cm., width 18–20 cm. Fig. 48 and plate II A. For leaves of *Ilex Guayusa* (70.19.20b) found in this bag, see p. 61.


There are 11 rows of vertical-loop-stitch embroideries along the sides and 22 round the opening, sewn after the fabric (woven in one piece) was folded and sewn together. The finishing row is sewn on the inside of the rim. For the embroidery technique (fig. 49) see d'Harcourt's loop-stitch embroidery executed in vertical lines (1962:123, fig. 90C–D, and pl. 81 C,D). The embroideries are made with two-ply, Z-S-spun, hard-twisted wool-yarn in gray-white, yellow, rose, red, dark-blue, olive-green and gray-black.

On one side of the bag there are remains of a cord, made of five two-ply, Z-S-spun, hard-twisted cotton fibers. It is tied with a knot round the edge of the bag, 3.5 cm. from the right side.” (M.A.).

Samples of the fibers in the bag (sample 1) and its embroderies (sample 2) have been submitted for analysis to the Swedish Institute for Textile Research, Göteborg. The report (p. 159) indicates that the fibers in the bag (TEFO-photos I–IV) are hair from alpaca and that the embroidery fibers (TEFO-photos V–VII) are alpaca plus vicuña.

The cotton cord mentioned above together with the cord on the ribbon 70.19.10 are the only samples of cotton used in the textiles from Niño Korin described in this work. Cotton is also today less frequently used in the Highlands (see Goodell, 1968:3).

For the bird motif in the embroidery I refer to the illustrations, in plate II. The bags 20a and 53 have both a condor with outstretched wings and a "crown" in the embroidered motifs. In the bag 20a this motif is repeated in two different sets of colour, and this is also true for the bag 70.19.53.

During the beginning of my research, I asked two expert colleagues to give their opinions on the embroidered bag 70.19.20a. Dr. Junius B. Bird, of the American Museum of Natural History, who wrote to me on October 5, 1970, said that "in Paracas Necropolis fabrics, one finds many with the same stitch, used to cover the seams where fringes are sewn to mantles.
and other garments. While visibly similar to your specimen, it is different and I have never seen your type used on Paracas fabrics. It does occur commonly on late Nazca fabrics, which I believe antedate the appearance of Wari-Tiahuanaco style influence in that area by a relatively brief time.”

Dr. Bird further refers to three embroidered textiles found in the upper half of the Black Refuse deposit at Punta Pichalo, Chile (in the AMNH collections) and continues: “In all instances of the Chilean and the Nazca specimens, the embroidery is used to create bands bordering or framing plain areas, as it does on your pouch. I do not recall ever seeing any examples of this work on any central coast specimens, nor on any from further north.”

Mrs. Jane Powell Dwyer, Curator, Ethnic Arts, M.H. De Young Memorial Museum, San Francisco, California, answered in a letter of March 7, 1971: “I have been examining your drawing of the Tiahuanaco embroidered bag and have concluded that although there are some general features which could relate the design to Paracas, I do not recognize much in the highly schematized Paracas examples. The arrangements and orientation of the figures are not characteristic of Paracas. The eye composed of a black and white segment is also different. The same eye-like form occurring on the bird’s body is not found in Paracas although it does appear similar to Nazca usage. The beak of the bird is also unusual. On the other hand, there are some points of very general resemblance. The white ruff around the bird’s neck may indicate that the bird depicted is a condor, which, as a motif, is very significant in Paracas textiles, and as far as I know is not too prominent in sierra iconography. The appendages (?) on the head are curious and although they are completely different in shape from those of Paracas the latter might have been the source of inspiration for such a form.”

2. No. 70.19.22. Bag in several colours. Height 9 cm., width 9.5 cm. Plate III.B.

Technical description. “Colours: Blue, white, rose, yellow, green, red-brown, and dark-gray. Technique: The bag is coiled with two-ply, Z-S-spun, rather unevenly spun and twisted wool-yarn. It is sewn together at the bottom with dark-blue Z-S-spun wool-yarn. Round the rim there are remains of one vertical-loop-stitch row, sewn with red and yellow two-ply Z-S-spun hard-twisted wool-yarn. There are 37 coiled rows round the bag.

The pattern is made by wrapping the foundation with one colour, four to eight times (about 0.5 cm), the next colour about 0.5 cm., and so on.
The same colours are repeated on the second row, but on the third (the fifth, the seventh, etc.) the colours are shifted to the right, thus forming a diagonal pattern of squares.

The wrapping is very uneven and the colours are not repeated in any other fixed order than in the diagonal squares. Almost every wrapping is fastened with a stitch to the wrapping below. When one colour part is finished, the yarn is put inside the wrapping of the following colour, and in that way the foundation of wool-yarn in several colours is formed.” (M.A.).

Latcham (1938:300, fig. 127) has published a “tela de bolsa” from the Atacama region which reminds us of the specimen from Niño Korin. He describes it shortly (p. 284) as a “bolsa de tamaño mediano, tejida a cuadritos y rectángulos de diversos colores como el rojo obscuro, rojo vivo, azul, amarillo, etc.”

3. No. 70.19.52a. Light-brown woven bag. Height 17 cm., width 21 cm. Figs. 50–51. For leaves of Ilex Guayusa (70.19.52b) see p. 61. Found in the basket 70.19.51 a–b.

*Technical description:* “Warp: Two-ply Z-S-spun, hard-twisted wool-yarn, 34/cm. Weft: Two-ply Z-S-spun, loose-twisted wool-yarn, 10/cm. Technique: Repp (warp-faced).—There are remains of three rows of vertical-loop-stitch embroideries along the sides and round the rim, made after the fabric (woven in one piece) was folded and sewn together with dark-brown, Z-S-spun wool-yarn. The embroideries are made in blue, red, green, yellow and dark-brown. At the rim, on one side of the bag, there is a cord, 11.5 cm. long, pulled through the fabric and fastened with a knot on the inside. The cord is Z-twisted, made of six two-ply Z-S-spun, hard-twisted wool-yarns, three blue, one light-brown, and two green.” (M.A.).

4. No. 70.19.53. Light-brown woven bag with embroideries. Height 14.5 cm., width 21 cm. Found in basket 70.19.51 a–b. Motif: Outstretched flying bird (condor), see fig. 52, and plate II B.

*Technical description:* “Warp: Two-ply, Z-S-spun, hard-twisted wool-yarn, 36/cm. Weft: Two-ply, Z-S-spun loose-twisted wool-yarn, 10/cm. Technique: Repp (warp-faced). There are five rows of vertical-loop-stitch embroideries along the sides, and sixteen round the rim, made after the fabric (woven in one piece) was folded and sewn together. The finishing row is sewn on the inside of the rim. The embroideries are made in two-ply, Z-S-spun, hard-twisted wool-yarn in blue, red, white, green, yellow and gray-black.” (M.A.).

5. No. 70.19.54. Network bag. Fig. 53. Height about 16.5 cm., width at the opening 16–17 cm.
Technical description: "Network made with square knot, see fig. 54, after d'Harcourt (1962, fig. 76A-B, p. 107). Yarn: Two-ply, S-Z-spun, hard-twisted wool of undyed fibers in several colours, from black to light yellow, spun together without any fixed order.

The bag is shaped like a wide beaker. There is a hole, 2 cm. in diam., in the bottom, where the yarn-ring holding the beginning of the netting, is missing. At the rim, there are remains of a border of horizontal-loop-stitches, made of the same yarn as the bag." (M.A.).

Mrs. Margareta Anker has during her work with the textile material in the Niño Korin collection observed that this netbag is the only textile specimen in the collection where we find S-Z-spun yarn, as all the other textile specimens have been made with Z-S-spun yarn. This observation has been confirmed by research-engineer Helge Hjalmarsson of TEFO, Göteborg (see p. 171). According to him, the yarn consists of two-plied S singles doubled with a Z, and the yarn has darker and lighter components and consists of variously sized fibers of animal origin.

This is all most interesting in light of the fact that Bertonio (1879,1:315) already has cited the Aymara terms mithathapitahas mithathasa for "mesclar vna lana con otra." Frödin and Nordenskiöld (1918, map 4) squaremarked the Aymara (number 86 on the map) for "teils rechts-, teils linkgesponnen" (for one thing clock-wise, S-twist, for another thing counter-clockwise, Z-twist). Regarding the direction of the spin or twist of the yarn, or the change of the direction, a reference should here be made to Goodell's fascinating study of the modern Indian spinning in the Cuzco region. In her study she points out that many distinctions govern the twist of the yarn. "These are based on faith in the magical properties of yarn spun 'clockwise' (with an S twist), called lloq'e, in contrast to the normal everyday product made with a Z twist. The Quechua word lloq'e means left and also 'something different'. In this case it would mean 'the left-spun yarn.' In almost every Indian community visited, including villages on the main valley roads, some superstitions about lloq'e yarn still survive; everywhere in the mountains the medicinal and religious lore employing lloq'e is rich, diverse and very strong. Sometimes only brujos (medicine men) can spin lloq'e, ..." Goodell, 1968:7). The italics in the last part of the quotation are mine, as the network bag was found in a medicine man's grave.

For the question of S and/or Z twist yarns a reference should also be made to Bennett and Bird (1960:264). According to these authors, "some-
times S and Z twist yarns are combined in a single fabric, perhaps intentionally."

Regarding the blending of fibers as we have found them in the network bag, I also quote Miss Goodell (1968:4) as she points out that "wool, llama or alpaca yarns will commonly be combined in a single woven product, yet, if the fibers are ever blended or combined in a single yarn, this must be rare."

6. No. 70.19.58a. Striped bag. Height 10 cm., width about 14 cm. Fig. 55 and plate IIIA. Found in the basket with lid, 70.19.51a–b. For leaves of *Ilex Guayusa* (70.19.52b) found in this bag, see p. 61. The bag was found turned inside out (fig. 55).


The bag is striped in two colours. It is badly damaged, in some parts the warp-yarns are hanging loose with no weft left, and there are square holes on both sides.

There are remains of seven rows of vertical-loop-stitch embroideries round the rim, and three along the sides, made after the fabric (woven in one piece) was folded and sewn together. The finishing row is sewn on the inside of the rim.

The embroideries are made of two-ply Z-S-spun, hard-twisted wool-yarn in rose, green, blue, dark-blue, brown, white and yellow. At the edge of the bag, four cm. from one side, there is a ribbon woven with the warp-yarns fastened, on the bag, after the embroideries were made. The ribbon is 0.9 cm. broad and 5.6 cm. long. It is white to a length of 2.3 cm. nearest the edge of the bag, the rest of the ribbon, which is torn at the end, is blue. The yarn in the ribbon, Z-S-spun, hard-twisted wool-yarn, is coarser than the yarn in the bag. Warp: 18/cm., weft: 6/cm. The weft is dark-brown in the blue part and white in the white part." (M.A.).

Mrs. M. Anker has also drawn the following warp-order for the striped bag 70.19.58a.

<table>
<thead>
<tr>
<th>brown</th>
<th>beige</th>
<th>brown</th>
<th>beige</th>
<th>brown</th>
<th>beige</th>
<th>brown</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 x</td>
<td>22</td>
<td>4</td>
<td>4</td>
<td>22</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
During her technical work with bag-like pouches, Mrs. M. Anker drew some conclusions which she summarizes as follows: "In the bag 70.19.20a the wool is a shade darker than that in the bags 70.19.52a and 53.

The motifs of the embroideries are different in all the woven bags, but the technique in weaving, embroidery as well as material is equal. The warp thread count can vary about two threads per cm.

In the striped bag 70.19.58a the yarn in the weft is the same as in bag 20a, and the warp thread count the same as in bag 52a.

The weft thread count is the same in the four bags, ten threads per cm. It is therefore possible that these specimens have been woven by the same person."

**CATEGORY M. Leaves**

A. Material found in bags

As already mentioned for the bags 70.19.20a, 52a, and 58a in the preceding Category L, bunches of *Ilex Guayusa* leaves were found in these bags. For these bunches of leaves (Nos. 70.19.20b, 52b, and 58b) I here refer only to the illustrations in figs. 50, 55, 56, and 57, and the special contributions by Schultes, Holmstedt and Lindgren in this volume. For the results obtained when two portions of these leaves as well as those found in the *Duroia* cover (see below) were submitted to radiocarbon dating, I refer to my *Introduction*, p. 29 and to Dr. Hultin's contribution to this volume (p. 185).

B. *Duroia* and *Ilex Guayusa* leaves. No. 70.19.41-47. Figs. 58-60.

In the Niño Korin material was found a hard-dried and shriveled "ball" of a leaf, which unfortunately did not get photographed before it was opened to determine whether or not it contained something. When Professor Gunnar Harling of the Institution for Systematic Botany of Gothenburg University succeeded in steaming and opening the "ball" (big as a large fist), several leaves of *Ilex Guayusa* were found in it. Some of the leaves were given to the collections of the Botanical Museum in Göteborg, others to professor Bo Holmstedt of the Karolinska Institutet, Stockholm, for his special research on the material. The remaining leaves from the shrunked package now have coll. numbers 70.19.42-47 (see fig. 58-59).

Regarding the big covering leaf (70.19.41), measuring 17×52 cm., it later was possible for Dr. Benkt Sparre of the Department of Botany of the Swedish Natural History Museum at Stockholm to identify it as *Duroia aff. saccifera*, of the Rubiaceae. A comparative picture of such a leaf from a botanical collection is seen in fig. 60.
Figures

Abbreviations:
GEM. = Göteborgs Etnografiska Museum.
M.A. = Mrs. Margareta Anker, GEM.
G.H. = Mr. Gunnar Hedman, GEM.
T.I. = Mr. Tage Ingvar Johansson, Göteborg.
B.T. = Mr. Björn Thörnberg, GEM.

Fig. 1. Archaeological objects from the region of Niño Korin, now in the Muséo Tiaguanacu, La Paz. After Oblitas Poblete 1963. Drawing G.H.
Fig. 2. Map showing location of Curva. After Wrigley 1917. Courtesy by The Geographical Review, American Geographical Society, New York.
Fig. 3. Archaeological enema syringes found by Erland Nordenskiöld in a grave in the Ollachea Valley, Peru. Length of tubes 6 cm. Coll. Ethnographic Museum, Stockholm, 06.1.489 and 490. Photo B.T.

Fig. 4. Snuff tablet from the region of Niño Korin, now in the Museo Tiaguanacu, La Paz. After Oblitas Poblete, 1963. Drawing G.H.
Fig. 5. Wooden snuff tray from Niño Korin. L. 18.5 cm. Coll. 70.19.1. Photo B.T.

Fig. 6. Detail of design in the Tiahuanaco style of a deity figure in Staff God pose and one of the floating angels. From the incised design on the edge of the Calle Linares lintel, La Paz. After Posnansky, 1945-58, vol. II: Fig. 140a, and Rowe, 1971, fig. 23, p. 117.
Fig. 7. A. One of two opposed jaguar figures in Tiahuanaco style on a block of stone found in S. Pedro de Tiquina, Bolivia. Length of the animal in low relief sculpture 27.5 cm. Coll. GEM. 44.12.21. After Göteborgs Museum, Årstryck 1945.

Fig. 7. B. Falcon-headed, staff-bearing figure with wings from the "Gateway of the Sun" at Tiahuanaco. After Sawyer, 1963.
Fig. 8. Snuff tray of wood from Niño Korin. L. 16 cm. Coll. 70.19.19. Major details chalked for photography purposes. Photo B.T.
Fig. 9. Wooden snuff tablet with bird heads. Niño Korin. L. 14 cm.
Coll. 70.19.21. Photo B.T.
Fig. 10. Painted motif on a pottery vessel from Tiahuanaco. 1:2. Coll. GEM. 28.3.23. Drawing M.A.
Fig. 11. Snuff tablet of wood. Niño Korin. L. 17 cm. Coll. 70.19.23. Details chalked for photography purposes. Photo B.T.
Fig. 12. Snuff tablet of soft wood in the form of a fist. Niño Korin. L. 10.5 cm. Coll. 70.19.33. Photo Sörvik.

Fig. 13. Bamboo tube. Niño Korin. L. 24.5 cm. Coll. 70.19.3. Drawing G.H.
Fig. 14. Wooden snuff tablet from Puerto Nuevo de Paracas, Peru. L. 13.5 cm. Courtesy by the Instituto de Antropología y Agricultura Precolombina, Lima. Coll. No. B.260.
Fig. 15. Bone tube, length 24 cm., from a pre-Chavin shell mound in Asia, Omas basin, central coast of Peru. Courtesy by the Instituto de Antropología y Agricultura Precolombina, Lima. Coll. No. B 768.
Fig. 16. Bamboo tubes, Niño Korin. A, Coll. 70.19.13a, length 18.8 cm. B, Coll. 70.19.2a, length 17.7 cm. Drawing G.H.

Fig. 17. A, Bamboo tube from Niño Korin, length 16.5 cm. Found with two reeds, B, length 13 cm. and C, length 12.5 cm. Drawing G.H.
Fig. 18. Bamboo tubes with stoppers, Niño Korin. A, Coll. 70.19.14a-b, length 18 cm., B, Coll. 70.19.16a-b, length 17.7 cm. Photo B.T.
Fig. 19. A–B, Reeds, 12 and 14 cm. in length. Coll. 70.19.26 and 25. C and E, supposed enema syringes with dried bulbs, length 14 and 12 cm. Coll. 70.19.27 and 7. D, Reed, length 14 cm., Coll. 70.19.6. F, Bamboo tube with lid, Coll. 70.19.15 a–b, length 21 cm. The complete enema syringe, Coll. 70.19.15c, seen in the figure, was found in this tube. Length of its reed shaft 13.5 cm. All specimens Niño Korin. Drawing G.H.
Fig. 20. A–B, skin-covered bottle-shaped container of a lecithyaceous fruit, *Cari­niana decandra* Ducke. Length of the fruit container 10.5 cm., the protecting cover of soft skin 15.5 cm. Niño Korin. Coll. 70.19.31a–b. Photo A: Karolinska Institutet, Stockholm. Photo B: B.T.
Fig. 21. Container of *Lagenaria vulgaris*, h. 7 cm. Niño Korin. Coll. 70.19.32
Photo B.T.
Fig. 22. Fur pouches. A, Coll. 70.19.8a, length 20.5 cm. B, Coll. 70.19.57, length 24 cm. Niño Korin. A, Photo Karolinska Institutet, Stockholm. B, Photo Sörvik.
Fig. 23. Skin pouch, Coll. 70.19.9a, length 17.5 cm. Niño Korin. Photo Karolinska Institutet, Stockholm.

Fig. 24. Spatula of stone belonging to a snuff tray of the same material, originally published by Posnansky. Tiwanaco. Coll. Museo Etnográfico, Buenos Aires. After a photo in the Gothenburg Ethnographical Museum. Drawing G.H.
Fig. 25. Wooden spatulas from Niño Korin. A, Coll. 70.19.40, L. 14.3 cm. B, Coll. 70.19.24, L. 11 cm. Photo B.T.

Fig. 26. Spatula of wood with boga fish handle. Niño Korin. Coll. 70.19.29, L. 11.5 cm. Photo B.T.
Fig. 27. Spatula of brown wood. Niño Korir. Coll. 70.19.36. L. 11.8 cm. Drawing G.H.

Fig. 28. Spatula of bone in the form of a fish. Niño Korir. Coll. 70.19.34. L. 14 cm. Photo B.T.
Fig. 29. Wooden mortar and its motif. Niño Korin. Coll. 70.19.30. H. 5.5 cm. Photo Sörvik. Drawing G.H.
Fig. 30. A, Wooden probe (?). Coll. 70.19.28. L. 15.5 cm.
B, Pestle of wood. Coll. 70.19.38. L. 15.5 cm.
C, Pestle of bone. Coll. 70.19.35. L. 13.8 cm.
All specimens Niño Korin. Drawing G.H.

Fig. 31. Parrot stick of wood. Pestle or ceremonial stick? Niño Korin. Coll. 70.19.37. L. 21.5 cm. Drawing G.H.
Fig. 32. Broken arrow shafts. Niño Korin. A, Coll. 70.19.5. L. 25.5 cm. B, Coll. 70.19.4. L. 27 cm. Cf. fig. 33. Drawing G.H. See fig. 33.
Fig. 33. The feathering of arrow 70.19.5. Photo B.T.
Fig. 34. Three-stone bola, Niño Korin. Coll. 70.19.17a–d. Drawing G.H.
Fig. 35. Metal shawl-pin, *tupu*. Nino Korin. Coll. 70.19.18. L. 21 cm. Photo SKF Stål, Hellefors Jernverk.
Fig. 36. Tuft of human hair. Niño Korin. Coll. 70.19.56a. Photo B.T.
Photo Sörvik. Drawing M.A.
Figs. 41-42. Spittoon-shaped, coiled basket, side-view and base. Niño Korin. Coll. 70.19.50. H. 8 cm., diam. of base 13.5 cm. For the outrolled motif see Pl. I. Photo Sørvik.
Fig. 43. Square, coiled basket with lid. Niño Korin. Coll. 70.19.51a–b. H. basket and lid. 15 cm. Photo Sörvik.
Fig. 44. Woven ribbons from Niño Korin. A, Blue, L. 50.7 cm. Coll. 70.19.10. B, Dark-yellow, painted in red, L. 50.8 cm. Coll. 70.19.11. Photo T.I.
Fig. 45. Ribbons, Niño Korin. A, Red, L. 200 cm. Coll. 70.19.55. B, Blue, L. 230 cm. Coll. 70.19.56. Photo B.T.
Fig. 46. Ribbon from Niño Korin. Coll. 79.19.60. L. 64 cm. Photo Sörvik.
Fig. 47. Textile fragment, Niño Korin. L. about 52 cm. Coll. 70.19.59. Photo Sörvik.
Fig. 48. Woven bag with embroideries, after mending. Size $13.5 \times 18-20$ cm. Niño Korin. Coll. 70.19.20a. Contained leaves of *Ilex Guayusa*. See Pl. II, A. Photo T.I.
Fig. 49. Embroidery technique in the bag 70.19.20a. After d'Harcourt.

Fig. 50. Light-brown woven bag from Niño Korin with leaves of *Ilex Guayusa* found in this bag. Coll. 70.19.52a, before cleaning. Photo B.T. See fig. 51.
Fig. 51. The bag 70.19.52a, having been cleaned. Size 17 x 21 cm. Photo B.T.
Fig. 52. Bag with embroideries from Niño Korin. Size 14.5 × 21 cm. Coll. 70.19.53.
See Pl. II, B, for the motif. Photo Sørvik.
Fig. 53. Network bag from Niño Korin. H. about 16.5 cm. Coll. 70.19.54. Photo Sörvik. See fig. 54.
Fig. 54. Technique in the bag 70.19.54. After d'Harcourt.

Fig. 55. Striped bag as found turned inside out. Niño Korin. Coll. 70.19.58a. Bundle of *Ilex Guayusa* leaves as found in this bag. For a colour photo see Pl. IIIA. Photo T.I.
Fig. 56. Leaves of *Ilex Guayusa* found in the bag 70.19.20a. Photo B.T.
Fig. 57. Single leaf taken from the bunch found in bag 70.19.20a, fig. 56. Photo Karolinska Institutet, Stockholm.
Figs. 58–59. Big leaf of *Duroia aff. saccifera* and several leaves of *Ilex Guayusa* which were found wrapped in the *Duroia* leaf. Niño Korin. Coll. 70.19.41 and 42–47. The *Duroia* leaf (41) measures $17 \times 52$ cm. Photo T.I.
Fig. 60. Leaves of *Duroia saccifera* (Mart.) Hook, from Venezuela. Coll. Botanical Dep., Museum of Natural History, Stockholm. Courtesy by Dr. Benkt Sparre.
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