

# GENERAL INTRODUCTION TO THE STUDY OF THE MECHANICS AND CRAFTS OF THE ANNAMITES

ARCHIVES DOCUMENTAIRES D'ART, D'ETHNOGRAPHIE ET DE SOCIOLOGIE  
DE LA CHINE ET DE L'INDO-CHINE

## I

INTRODUCTION GÉNÉRALE A L'ÉTUDE  
DE LA

# TECHNIQUE DU PEUPLE ANNAMITE

ESSAI SUR LA VIE MATÉRIELLE  
LES ARTS ET INDUSTRIES DU PEUPLE D'ANAM

PAR

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A

JEAN AJALBERT

*En souvenir de nos longues causeries de la Malmaison  
Au confidant des heures de doute.*

A

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M. LE CAPITAINE ROUX, de l'Artillerie Coloniale,

*leur ancien élève reconnaissant.*

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L'auteur se doit ici de les remercier de la grande sympathie et de  
la longue confiance qu'ils lui ont constamment témoignées.

*Elles le consolent plus qu'amplement des vicissitudes et des bas-  
sesses suscitées — infailliblement — dans ce pays par tout  
travailleur probe et indépendant.*

# GENERAL INTRODUCTION TO THE STUDY OF THE MECHANICS AND CRAFTS OF THE ANNAMITES

## I

### **INDUSTRIES WHICH EXTRACT RAW MATERIALS FROM NATURE**

(AGRICULTURE, FISHING, HUNTING, TRANSPORTATION, GATHERING.)

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### **INDUSTRIES WHICH PROCESS MATERIALS EXTRACTED FROM NATURE**

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FRUIT AND VEGETABLE PROCESSING, TEXTILES, SILK, FEATHERS, LEATHER, IRON, COPPER)

## III

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(PUBLIC LIFE, HOME LIFE, MUSICAL INSTRUMENTS, MAGIC AND DIVINATION, FOLK MEDICAL PRACTICES, CELEBRATIONS  
AND CEREMONIES, GAMES AND TOYS, GESTURES, STREET LIFE, ITINERANT TRADES, POPULAR IMAGERIE.)

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Documents collected in Hanoi, 1908-1909

By

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# INTRODUCTION

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*Right from the start, on the very threshold of this collection of archives documenting the Art, Ethnography and Sociology of China and Indo-China, a collection which will include no less than thirty volumes of text and plates, it is the author's judgment that he must beg forgiveness for his youth. For, in France and Indochina, many have not forgiven him this. A number of good friends have commented that this enterprise was easy to pull off. In their minds, no doubt, one had only to think of the project and it would be successfully completed. More inquisitive minds will understand, from this introduction, that "sweating buckets" is not a metaphor when used in the scorching lanes of the tropical boiler named Hanoi, the city in the middle of the river.*

*The author, a student of MM. Silvain Levi and Finot, professors at the Collège de France and the École Pratique des Hautes-Études of the Sorbonne, applied in 1907 to the Ministre des Colonies for permission to perform his two years of military service in Tonkin.*

*One of his research plans focused on a study of Annamite families, carried out according to the monographic method. It is well known that a key component of this approach requires the establishment of rigorous accounting for clothing, food, rent, salaries, furnishings, etc. But when the author prepared to write out his notes, he noticed that they could be only be understood by two or three old missionaries living their lives as Annamites, and that his work would be unintelligible for all others, especially for readers in Metropolitan France <sup>(1)</sup>*

*Thus, a preliminary piece of work imposed itself: To define the technical terms. Subsequently, what was meant simply to be a lexicon became, by force of circumstance, an enormous book. The Annamite language is flush with concrete, technical words. It seems that this people's faculty to abstract is poorly developed. So, as rich as the harvest has been, it will be even more so in the future. <sup>(2)</sup>*

## METHODOLOGY

*During one year the author traveled to workshops, work sites and shops accompanied by a draughtsman. He asked questions related to dimensions, specific names, and how implements or tools were constructed. The workers broke down their movements into slow motions while using their tools. A sketch was made on the spot delineating the movement in all its phases. The exposition is thus composed of two distinct parts: The study of the object or tool itself and the study of the tool's motion, in other words the instrument or tool as it is used. This methodology permits the work's organization as a series of sets. As such, tools made from wood, iron, tin, and bamboo explicate and compliment each other through these interconnections. A study of the techniques of a people is a study of its material culture. As well, the reader will not be surprised to find herein the notation and study of series of gestures and motions without any tools or implements. An example: games. This is where the human body is the implement as are the surroundings where the individual lives, such as earth, trees and water.*

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<sup>1</sup> Hence, the in-depth study of the techniques of the Annamite People will include five categories: 1<sup>st</sup> Those which are apart, which incorporate the study of primary materials furnished by the three realms which serve in the creation of all the products and objects essential for domestic and social life; 2<sup>nd</sup> Habitation, furnishings and clothing; 3<sup>rd</sup> Food, drink, hygiene and health care; 4<sup>th</sup> Lighting and heating; 5<sup>th</sup> Implements and tools.

<sup>2</sup> The Annamite People are classified among Semi-Civilized Peoples, with appreciable but slow progress, in which the conservatism of traditionalism predominates; societies of several thousand or million people; ideographique or phonetic writing: rudimentary literature. They fall into two categories: Farmers (ex. Chinese, Siamese, Abyssinians, Malays, Ancient Egyptians and Peruvians); Nomades (ex. Mongols and Arabs). (Deniker, Races et Peuples de la Terre, 1900 borrowed from the classifications of M. Vierkandt, Naturvaelker und Kulturvaelker, Leipzig, 1896.).

## PRESENTATION

*Nothing is more trying than to read descriptions of tools or gestures without having a diagram to look at. And there are not many writers whose prose brings these things to life. Moreover, for most people, their visual memory has greater impact. This is why the majority of this collection consists of drawings and sketches. But the inherent nature of the collection is to be well thought out and coherent. It is not a random product. There are more than 4000 documents depicted herein.*

*This visual presentation of the collected materials presents a great advantage as well as a serious weakness. It is an excellent method for verifying field notes made in the absence of the draftsman. Nevertheless, one must fear the distortions of ignorance or whimsy. So, here is the process which the author had to adopt: He dictated a framework to the draftsman, a framework that had already been submitted to other Annamites. The final drawing was subsequently shown to natives whose sense of judgment was quite alive. This gave us an excellent method of verification; and this series of discussions allowed us to continually find new things: we ascended from the known to the unknown.*

*Gestures and features of mores from the past, now done away with, could thus be saved.*

*The author's text was built in accordance with the same strictly objective methodology; first, every drawing was described, trait by trait, then broad reflections followed. No technical term was left aside. The author is not writing a work of popularization, he doesn't have the pluck. Subsequently, he had to sort his documents and observations into large groupings which would be subdivided later into an extensive series of monographs. It was in browsing the text volume that he recognized the opportunity to divide the work in two: a volume of plates; a volume of text. Thus, repetitions could be avoided. Furthermore, this procedure permits the subsequent inclusion of new observations while avoiding the necessity of re-typesetting the volume every five years. Indeed, the text volume is followed by a detailed index and analytical table which makes its use easy.*

## PRODUCTION AND PUBLICATION

*Tonkin printers and booksellers aren't publishers, that is a given. Also, the author could count on no one but himself. He had faith. He started with a round of subscriptions; later he will recount all of the silliness and bores he had to submit to.*

*Twenty fearless people put 200 piasters at his disposition. This was the start-up capital for the enterprise. In a cái đình (temple) on rue de Chanvre, and then in the Vũ Thạch pagoda, he set-up two workshops with 30 print makers. They were heavy peasants who needed thinning down. The author quickly noted that the Annamite is upstanding with the conscientiousness of the serious worker. For him, the European is the enemy one must dupe.*

*During two months there were endless struggles. Once the 4,000 plates were finished, summer had come and it was impossible to run the plates under the rollers of the presses. They had warped. One had to return to printing processes used by the Chinese and the Annamites. These methods consist in swabbing a sheet of paper against a printing plate; furthermore, it requires the use of Annamite paper, handmade in a mold. These methods are extremely slow, but the sharpness of the impression is extraordinary. This work reinforces the book's strong, local flavor. Everything is Annamite. The paper itself, meticulously made with Daphne bark, which insures its long endurance, is very special. The papermakers from the Paper Village (Làng-Bưởi) near Hanoi take absolutely extraordinary pains to make sheets of such large dimensions. The rudimentary nature of their equipment explains their difficulty.*

*The difficulties of a material nature were nothing. The author was mighty young, he had barely passed his twentieth year, and nobody spared him. A number of people merely affirmed that the notes, dropped from one day to the next in the newspaper, L'Avenir du Tonkin were taken from Dumoutier. Their excuse was that they had never opened the volumes by this worthy author. It is one of the merits of this work that it came from no one in Indo-China.*

*Since our success, there has been dictionary after dictionary. As to enquiries of a truly sociological or ethnographic type, they are easily counted. And the author, due to the nature of things, has had to work without the collaboration of any of the Scientific Establishments organized here to further a greater knowledge of the country of Annam. Likewise, the principal worthiness that he sees in his work is the satisfaction of an act of will.*

HENRI OGER.

SOME OVERALL INSIGHTS

INTO THE INDIGENOUS INDUSTRIES OF THE COUNTRY OF ANNAM

A NEW CURRICULUM FOR THE ANNAMITES

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Many observers who have lived in Annam write in their travel narratives that the country's industry is nearly non-existent or insignificant. Without a doubt, one cannot expect from an agricultural people like the Annamites a complex and advanced industry. Nevertheless, after two years of observations, after living side by side with Annamite craftsmen, the author of these few pages believes he can affirm that the role of the indigenous craftsman cannot be disregarded in the economic development which we wish to impress on this country. In effect, prior researchers only considered craftsmen in the cities, but one must not forget that very often a small enterprise will provide the peasant a range of resources that growing rice, especially Indo-Chinese rice, is powerless to provide him. During the long idle hours that farming leaves him, the peasant becomes a production worker in a "fabrique collective."

One will remember the definition of a "fabrique collective:" it is characterized by two principal components: the existence of an owner who concentrates the output and products, the existence of workers who work at home for this owner. At present, the preoccupation seems to be with the Annamite peasant as the most interesting class. Thus, vast irrigation projects are being planned. It would also be extremely useful to think of the peasant-worker. He is extremely worthy of consideration.

## THE LACQUERER

Annam is a large producer of lacquer. Every year, the big traders from Canton import a considerable amount of this product. The reason for this is that Tonkinese lacquer is extraordinarily inexpensive. Despite the enormous consumption by the Annamites, its production leaves an appreciable excess for exportation. The majority of implements used in daily life by the Annamites are lacquered. In this country, where temperature changes are so sudden from one moment the next in the day, where wood is subjected to rapid destructive forces, one should not be surprised to see that the largest part of the furnishings in a native house are lacquered. What strikes one when entering these houses is the soft light which seems to fall from everywhere. The dwellings of the Mandarins, where the lacquered furniture and polished, rare wood furniture glow, create a deep impression for the European eye.



Fig. 1. – Lacquer workshop

## TECHNIQUES OF THE LACQUERER

The work of the Annamite lacquerer is mediocre. It does not have the meticulous finish with assures the predominant place to the output of Japanese lacquerers. For the Annamite, let's be frank, lacquer seems only to be a coat of special varnish on an object. The preliminary steps in the process are, moreover, executed in a way that leaves a lot to be desired. Before spreading the first layer of lacquer on an object, generally an object of bamboo or wood, one must subject it to a careful sanding. Its objective is to remove all roughness. Then, one fills all the holes with finely ground clay. The native worker who is working for a poor clientele, who are accordingly not very demanding, bungles this step. Thus one has objects where the layer of lacquer is swollen and warped, in a word: sticky. It doesn't have the remarkable velvet of Japanese lacquers. Neither does the Annamite lacquerer go to much trouble searching for decorative patterns. These are gilded in gold or silver. They are borrowed from Sino-Annamite symbolism, symbolism which is intelligible for the non-believer as it is for the European. The decorative worker who lives in a lacquer workshop, moreover, does not know how to draw. Since childhood, he has learned to reproduce an object or ornament. He does it without giving the slightest thought to finding something new. In this, one has an example of the division of labor as it exists in Annamite industry. And, this division of labor is fatal because overseeing it there is no "captain of industry" capable of modifying it, of guiding it towards new objectives.

One can see in Plate One, workers at work. The workshop, which is almost always a shop, is filled with camp beds. This furniture is destined to keep things away from the humidity of the floor. They serve at the same time as cabinets, for underneath one finds an inextricable heap of tools, debris, etc. The positions and postures of the native worker are such that European workers could never hold them. He sits, his knees drawn all the way up to his chest. A man is in the process of mixing lacquer in a semi-spherical basin. He is armed with a tool that reminds one pretty much of the pallets that were used by our {perissoire} drivers. Behind him, another worker equipped with a brush with a very fine point, is occupied decorating a box that will be used to hold plugs of betel. Across from him, a woman proceeds to the last of the steps: the spreading of the lacquer. She uses an altogether different brush: the wooden part is rectangular such that the hairs make a line that allows the lacquer to be spread in uniform coatings. At the back of the workshop one can see the different types of objects which the lacquerer is preparing: they are clothing trunks, larders, jewelry boxes, betel chests, etc.

## EMBROIDERY

Every European who lives in Tonkin, when he wishes to make a gift or to bring back souvenirs of his stay, never fails to bring back to France a few pieces of indigenous embroidery. Moreover, the wealth of the middle classes has increased considerably, whatever one says. One knows that embroidered silk plays a role of the first order in the furnishing of a rich Annamite house. In addition, during the last twenty-five years, the number of embroiderers has multiplied considerably. Sadly, the quality of production has reflected this. These workers, mouths watering at the elevated prices offered to them by a fairly rich and continuously, renewing clientele, work fast and frequently quite badly. Without a doubt, the rather mediocre silks of Annamite origin which they made use of before the French occupation were abandoned to make room for the sturdy silks manufactured by the Chinese from Canton. Thus, from a strictly technical point of view, it seems that no real progress was achieved. The design, one will see later, has remained as primitive as it was then. The decorative motifs are as rigid and as they are conventional.

It seems that, instead of leaving the training of these luxury artisans to the buyers whose taste is frequently, equally un-refined, the Protectorate of Tonkin should have intervened on behalf of an industry which could have enriched the country. One should have chosen the best workers and the sons of industry leaders, and given them professional training which would not have been wasted. Because, in this country, the transfer of acquired methods is made with care from generation to generation. Thus, the workers whom the Union Commerciale Indo-chinoise in Hanoi had trained to build mechanical toys from tin left it as soon as they had learned their trade. On the other hand, they completely transformed the tin industry in the places they came from. All of the objects in pewter, so numerous among Annamite furnishings before we arrived, have made room for tin objects, lighter and much less expensive, naturally.

### THE EMBROIDERER'S TECHNIQUES

The loom of the embroiderer is one of the simplest. It is made up of two trestles which support a bamboo rectangle (See figure 2). The rectangle is held in place by its weight alone. The piece of silk is placed inside the rectangle. It is stretched tight with fine cords that are wrapped around the bamboo frame. The design to be executed is drawn on a sheet of Annamite paper which is extremely thin and silky smooth. It is laid onto the piece of silk. The work of the artisan requires more patience and manual dexterity than intelligence. And, most often only very young men and women are used. Very frequently, these are children. The work consists of reproducing the outlines of the drawing with threads of various colors. One can see in Figure 2, the worker at work. He is sitting by his loom, legs spread underneath it. He has stuck his needle straight down into the piece of silk. He is pulling the thread taut so no part will be loose, which might shorten the life span of the embroidery. Next to him one can see the light he uses; demand for embroidery is such that the workshops run day and night. This particular light is made from a two penny ink bottle full of oil into which a wick is immersed. It is in this flickering glow, smoky and stinking that the Annamite artisan works. One realizes that in such a craft the use of old people, so frequent in other Annamite industries, is only rarely seen.

Embroidery offers us a good example of the mediocrity of the methods generally found in native industries. One works for, or rather, in other times, one worked for a poor clientele; in addition, the manufacturer has to limit, as much as possible, his production costs. Logic would indicate that the craft of embroidery requires some of the skills of a designer. And, according, for us, in our countries, these artisans are artists. In Tonkin this is not so. The embroiderer has no taste. He doesn't know how to design. In his workshop he has a supply of subjects which, most often, he blends clumsily. The decorative motifs are those which Chinese civilization has spread in this country. He makes no effort to reflect or create.

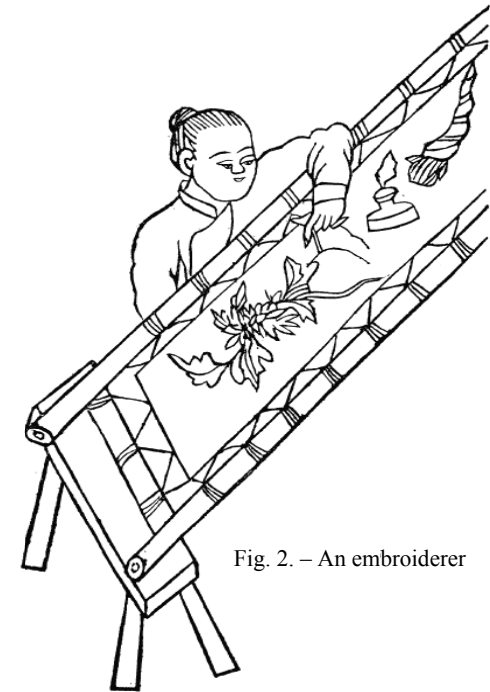


Fig. 2. — An embroiderer

The inventory of subjects is transmitted from father to son. These were, once upon a time, ordered from a designer. One can see in Figure 3, an ingenious device that permits reproducing them infinitely. The pattern is placed on a transversal support made of bamboo. Accordingly, it is brightly lit; on top of it is placed another sheet of Chinese paper, and sometimes, even the piece of silk itself. One knows that Chinese paper is transparent. The worker, with a brush, slavishly traces the subject. One will find in the monograph on the producer of traditional Annamite folk images the existence of such an ingenious procedure.

Fig. 3. – An embroiderer copying a pattern



Here we are in the presence of an industry which quickly made fortunes for many Annamites, like that of embroidery, for that matter. The inlay industry has the advantage of benefiting from a near monopoly in the Far East. In effect, these products are clearly superior to those of the workers established in Canton. In this case, as with embroidery, we can ask ourselves whether our contact has really been that beneficial for the industry. Certainly, we have been a rich clientele that has permitted it to rapidly develop its production. Sadly, most of the Europeans who have traveled across the Tonkin only had rudimentary ideas about art and beauty. The merest private from the occupation forces wanted to carry back to France a few of these objects that were offered to him for a few piastres. As well, the producer worked quickly; he was mostly preoccupied with the appearance of the object at the moment of sale. Upon their return to France, many Europeans noticed with horror that the luster of the mother-of-pearl had flown away. The productions of the Annamite inlay craftsman attest,

like those of the embroidery craftsman, to their insufficient professional training. Nothing is “finished” as we like things to be in France. The Annamite furniture pieces with inlays are unusable. The joining is badly done. After a bit of time, everything warps and goes out of kilter. So, some collectors have returned to France and taken an heroic course of action: they have their furniture pieces rebuilt by a furniture maker and all of the inlaid surfaces put back in place. Without this, all that remains is fire wood.



Fig. 4. – A woman worker filing a mother-of-pearl shell

#### THE TECHNIQUES OF INLAYING

The Annamite inlay industry is one where the division of labor has been pushed to the highest level. The Annamites, like all primitive and poor peoples only apply division of labor occasionally and almost only in the crafts with rich clients. The first step in fabrication starts, in a manner of speaking, with the hunt for shells. Certain fishermen in the Gulf of Tonkin specialize in this quite difficult hunt. They come to sell the products of their harvest in Hanoi or in Nam Định. The first process undergone by these shells is their refinement into very flat, very thin slivers without any defects. This labor requires considerable patience and manual dexterity, and is the work of women. As represented by Figure 4., it consists of filing the shells with little strokes. The slightest clumsiness risks breaking them. The piles of scraps and mistakes explain the reason



for the high cost of beautiful inlay. After this stage, the undertaking requires the joint work of two workshops: one is that of sculptors, the other that of the actual inlay artisans. It should be said that with the concentration of capital required by this industry, in which the materials command such a high price, the same owner has under his management the two workshops. The sculptors carve out the wood where the mother-of-pearl will be inlaid. As Figure 5 shows, this work is carried out according to the same methods as that of a usual wood sculptor. Thus, we send the reader back to the monograph on this worker. Figure 5 shows these workers in the process of making a “*câu đối*.” “*Câu đối*” are boards of rare woods. They bear, in Chinese characters, hymns of praise, wishes for prosperity or for long life. They are gifts for anniversaries during feast days. The oldest craftsman is busy carving the hollows into which will be laid the pieces of mother-of-pearl. He makes use of the very special tool of the shaping sculpture called, “*cái chàng*.”

Figure 6. shows us the last step of the process in which the actual inlay craftsman really goes to work. He is shown squatting on his knees in the usual posture of the natives. With one hand he presses a sliver of mother-of-pearl. With the other he wields a flat bladed knife that looks very much like the cutter used by our cobblers. His job is to fit the mother-of-pearl permanently into the slots carved by the wood sculptor, so that it will not move. It is set using a special mastic that must not exceed the layer in well crafted work. One can't imagine the patience and lightness of touch required by this procedure. The slightest false movement can break the mother-of-pearl sliver, and then the process must be started over. This craftsman is a true artist: it is he who must combine the blooms of mother-of-pearl so they flow together harmoniously without harsh contrasts in tone. Handsome mother-of-pearl works are worthwhile especially since their luminous symphony that can veritably light up a room. At the back of the illustration one can see samples of objects decorated by the Annamite inlay artist. First, there is a book cabinet. Next to it is a round box used for holding betel nut and under it a chest for clothes and valuable objects. The two principal centers of the inlay industry are in Hanoi and in Nam Định. The owners of this industry have all made considerable fortunes. One of the shrewdest and most right-minded is Hoa Ki, of Jules Ferry Street in Hanoi. His cleverness has permitted him to bring notable improvements to this truly national industry of the Annamite people.

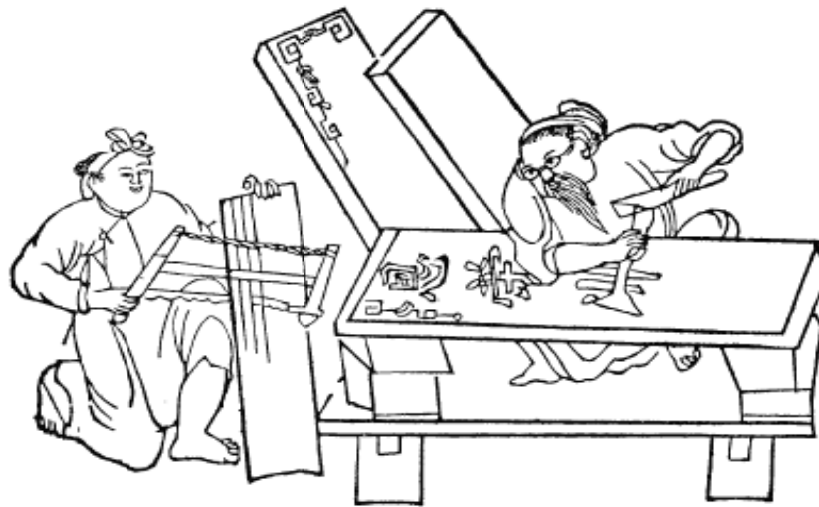


Fig. 5. – Preparing wood to inlay with mother-of-pearl



Fig. 6. – Inlay craftsman working a sliver of mother-of-pearl

## SCULPTORS

The significance of this industry is considerable in the country of Annam. The European who visits Hanoi will take note of it on his strolls. An entire city street, one of the most active and unusual is inhabited by these craftsmen; it is the street of fans (*phố Hàng Quạt*). Wood sculpture has many markets in this country. The furnishing of Pagodas and of the houses of wealthy individuals, and objects dedicated to the cults of ancestor worship depend on this industry. The Annamite craftsman shows himself to be genuinely superior, professionally speaking. Without a doubt, here as elsewhere, one does not notice any imaginative quest to enliven the work. Here once again the symbolic system brought by the Chinese conquerors spreads its designs, both insubstantial and by far too conventional.

One does not find in the Annamite sculptor the fullness of skills that make the European wood sculptor an artist. The native is only a practician. He knows nothing about design. Every workshop owner maintains a collection of patterns on very flat wooden slats. They are transferred with a brush onto the piece of wood to be carved and the craftsman goes to work, never looking to stray from the canon transmitted down the generations.

In his role as practitioner the Annamite sculptor's skills attests to astonishing energy and suppleness. The hollows and planes are shaped with satisfying sureness, this, inspite of the mediocrity of his techniques and instruments. Figure 7 shows him at work. He is crouched on a camp bed. He is in the process of carving the head of a statue. In keeping with native habits, he uses his feet as a clamp to hold the block of wood. The tool which he is holding vertically is the "*cái chàng*." It is comprised of two parts. The first is the round wooden handle. The second is the blade of which the bottom section reminds one of a crow bar. He works the tool, always slightly tilted, striking it with little blows with a rectangular block of wood called a "*cái dùi đục*." With this wretched equipment, heavy and crude, he succeeds in obtaining results that confound the European. Here again, as with embroidery, one finds oneself wondering whether it would not be advantageous to decentralize professional training. Four or five sons of owners sent to France would be able to regenerate this industry. As a compliment to all of the products that we ship to France in order to come back as bureaucrats, one could largely reimburse their costs of training.



Fig. 7. – Sculpting a Buddha head

## PAPERMAKING

Everyone knows that the Annamites, like the Chinese, use brushes to write the ideographic letters which they use. Their paper is also very special. It appears common, yellow, lightly coarse. It can be used as a blotter. It is very light and bends without breaking, unlike European papers. The paper made by the Annamites is composed of fibers from the bark of the “*Cây gió*” tree which is a variety of Daphne tree. The inherent durability of this paper is such that it can endure a hundred years in a country where the brutality of the climate and insects spare nothing.

The fabrication of this paper is very interesting to study. As in many other Annamite industries one finds the family workshop where women play a primary role, a function that travelers affirm as unique in the Far East. While the man takes on all of the jobs demanding a great expenditure of strength, the woman specializes in the procedures which require suppleness, patience and a lot of manual agility. Papermaking, as is natural in a country where the corporations remain very vibrant in spite of our destructive influence, is based in a big village which is divided into several hamlets (*áp*), located at the gates of Hanoi. It is the Village of Paper. Our arrival in this country and the establishment of official Franco-Annamite training have delivered a heavy blow to this industry. One can say that it is in decline. One has to regret that a French industrialist doesn't pop up to upgrade, for little expense, the tools of this group. He would find there an established city of workers where, all the while continuing production of native paper, he could undertake with an experienced workforce the production of cardboard boxes and cardboard for which the market is assured in Europe and even in the Far East.

Fig. 8. – Paper pestle

### TECHNIQUES OF PAPERMAKING

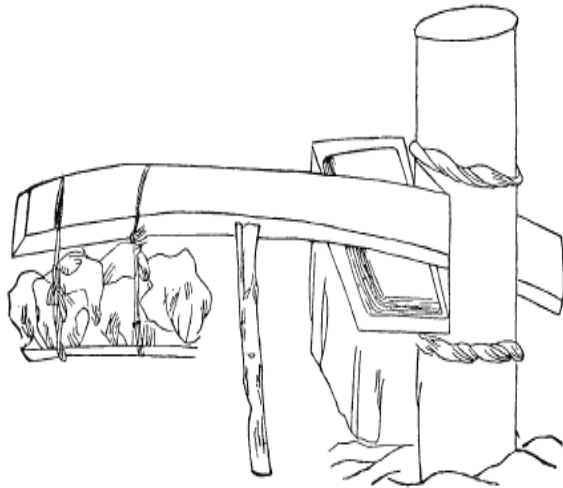
Its production is divided into two parts. In one, the man works alone. In the second, the woman plays the paramount role. The first process can be called preparing the pulp; the second, conditioning the pulp.

The bark of the Daphne is bought in the highland regions. It undergoes a series of preparations, of which the primary one consist of submerging it entirely in a lime bath and then placing it to rot in a hole where the temperature is constantly maintained. Once the bark has undergone this series of manipulations it is thrown into a mortar where it is pummeled with a pestle. Figure 8. Shows the worker at work. Considerable fatigue from this work always requires the presence of a man. The pestle is made from a cylindrical block of wood of which the diameter of the upper part is lesser than that of the bottom. This is what the worker grips with both hands. It is attached to a flexible piece of bamboo which often bears a counter-weight, made simply with a big stone. Without stopping, the worker raises the pestle, then lets it drop sharply.



Once the paper's bark has undergone the appropriate pummeling, it is thrown into a vat of water which the workers churn vigorously to mix it into the liquid. Essentially, it is this foaming substance which is used to make paper.

Here the woman's job begins. Armed with a screen of very fine bamboo placed on a rectangular form, she plunges it, one, two, three times into the vat according to the thickness of paper she wishes to produce. She makes her form go back and forth until she has one continuous layer without holes. The setting of the pulp starts with its contact with air. The concoction contains a special binding agent. The sheets of paper are piled one on top of the other to drain.



Finally, they are pressed. The Annamite uses an apparatus which demonstrates quite well to what degree of "primitiveness" this industry remains. Figure 9 portrays this. It is composed of a tree trunk solidly planted in the ground. In its center is a opening in which is braced a long beam. The pile of sheets of paper is placed under it, on a block of wood and covered by a wooden plank. The beam's support is removed. The pile of stones hanging on its extremity and, as required, the weight of one or two men, apply pressure. With this equipment, there is much waste. One can see how easy it would be, at little expense, to modify such an outfit.

Fig. 9. – Paper press

The drying of the sheets finishes the series of processes. It is done by women or young girls. In the houses of papermakers there is a compartment reserved for the drying oven. It is built of brick and carefully coated with very smooth cement. In the bottom, as one can see in figure 10., is located an opening in which a very low fire is maintained, made mostly from a bit of straw. It is to the upper part that the still humid sheets are adhered. They use a sort of brush made from the soft pine needles. This process creates a big number of damaged sheets.

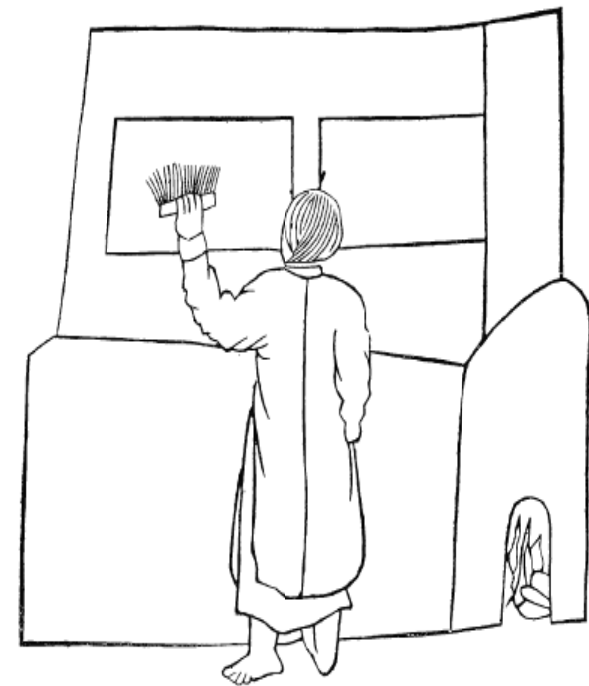


Fig. 10. – Oven drying sheets of paper

## PAPER BASED INDUSTRIES

The characteristics of native paper are of top quality despite its pliancy and yellowish appearance, which make a bad impression on Europeans unfamiliar with its qualities. It is the basis for a number of peculiar industries, especially the manufacture of parasols and fans.



Fig. 11. – Illuminating a parasol

### LES PARASOLS

Another of the industries which we have pushed into decline.

The massive importation of German, cotton umbrellas costing 1.25 Fr. apiece have nearly destroyed it. Even present day Mandarins, when they go out without pomp or processions, use the vulgar umbrella. The parasol is an emblem of rank. One can recognize the rank of a native official by the number of parasols which accompany him. A “*tổng đốc*” or Prefect is accompanied by four. The parasols have a bamboo frame like the ribs of our umbrellas. This bamboo framework is covered with paper is made water-proof with a fruit juice called “*quả cây cay*.” The parasols are painted with very bright colors, usually green. One can see in Figure 11., a worker decorating one. The ornamental designs that he draws are the classic rolling and spiral clouds (*vân mây*))



Fig. 12. – Fabricating a fan

### FANS

In Tonkin it seems that the natives are affected by the heat as much as we are. In summer, one never sees an Annamite without his fan. Coolies carry them in their belts or embedded in their turbans. The low cost of fans shows the degree to which this object is commonplace. It never costs more than two or three Annamite pennies, in other words, one-and-a-half French sous. Bamboo plays an important part in its fabrication. It constitutes the framework. Figure 12 Shows, very accurately, the making of a fan. Before the worker is the open frame. He is in process of laying a leaf of paper on the ribs. For this he uses school notebooks or disassembled books. Next to him one sees the paint brush or broad-brush with a wide head that he uses to apply glue. This brush is made from very supple needles of fir trees.

## PAINTER-ILLUMINATORS

Colored pictures are the focus of a fairly substantial industry in the country of Annam. And while Annamite “written literature” is impoverished and of a disheartening banality, illustrated popular literature is very lush. Naturally, here as everywhere, Chinese influence is easy to find; this influence, however, is in decline as in many other industries. The wealthy clientele of the populous towns of the Middle Kingdom cannot be found here. The poverty of the Annamite is age-old. It is a peasant population which can only afford the very inexpensive. And this greatly affects the quality popular Annamite imagery that is produced.

A surprising thing is that the painter-illuminators in this country don’t know how to draw. Here’s how they function: Their subjects are few and from them they have made a copy by a native draftsman. This copy is given to a wood engraver who produces a wood block plate. Ahead of time, the illuminator prints several dozen of his subjects in black. His work then consists of filling in the colors.

The popular Annamite illustration is a choppy combination of violent colors. And one finds this taste for rough, gaudy coloration appearing on many of the country’s edifices. Figure 13 shows the illuminator at work. He crouches on his heels, his knees raised up to his chest. He is accenting, with a brush, the features of the God of Old Age (Ông-Lão). Above him, in the process of drying, are hung the illustrations which he has just finished illuminating. The images are mostly used in worship. But, many of them are only used to decorate houses. One finds them even in the poorest dwellings.

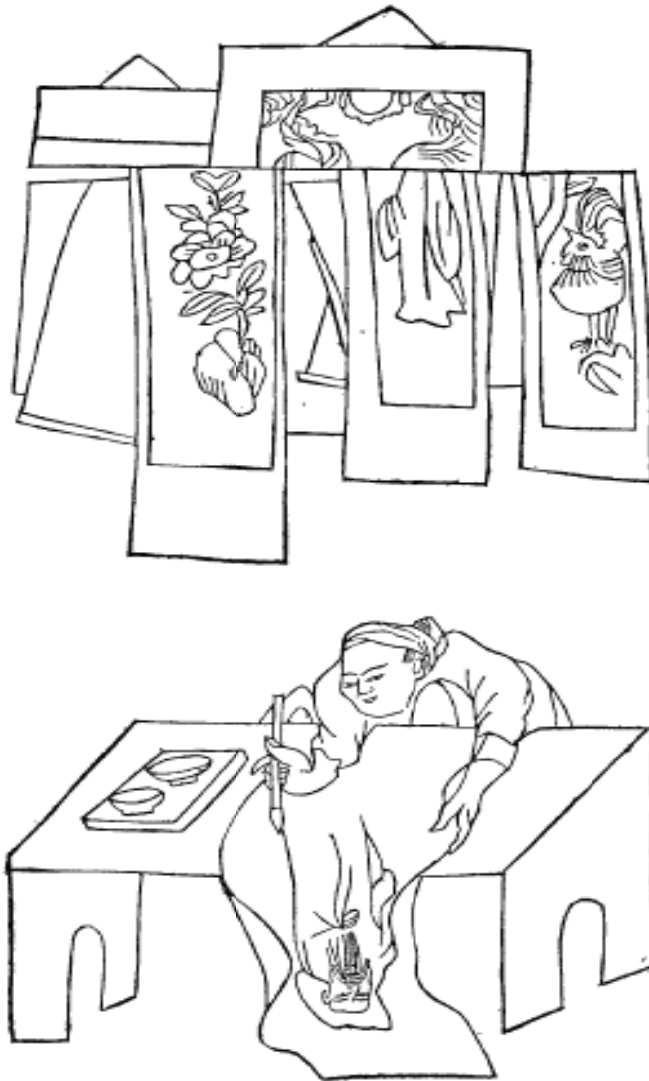


Fig. 13. – Decorator-illuminator

## NATIVE PRINTING



Fig. 14. – Women printing

Everyone knows that the writing of peoples whose civilization derives from Chinese civilization is ideographic. The Chinese do not use moveable characters to print their books. Only Chinese books printed in European print shops are published in this way. Here is how the Chinese and the Annamites go about printing their books. A good calligrapher inscribes the text of a sheet of native paper. This paper, as we have already seen, is transparent. These sheets are given to a wood engraver. He then glues them to a plate of very hard wood called “*gỗ thi*” (it is the diospros /persimmon, or Jacobs Tears). This very hard wood resists insects. It produces a clean impression with a sharp bite that is very beautiful. A bit of oil spread on the board bring out characters that are barely visible. Then his work of eliminating all the white sections of the board begins. Once finished, the board is delivered to the printer.

Most of these businesses have been established in Pagodas. Thus, they have the benefit of not paying rent and can accumulate, without worrying about what will come next, their very heavy equipment. It is mostly women who are used to print inexpensive books. Men bide their time so they can work on canonical books, both very expensive and handsome, which are used in the Buddhist monasteries. Figure 14 shows how this procedure is carried out. The woman crouches on the ground. Before her is a sort of desk called a “*yên*”. With the help of a very thick brush made from rice stalks she spreads the ink on the plates onto which she gently lays down a sheet of paper. Then with a sort of brush-sponge made from fibers of the Cucurbitaceae (gourd family) called “*xơ mướp*” she rubs the paper lightly. Thus, when the worker uses beautiful Chinese ink he achieves, with slight skill, an indelible impression and a very beautiful inking. All of those who have worked on Chinese texts know that they are endowed with longevity that our wood pulp papers will never attain.

### THE BARBER

It is only since the French occupation that one has seen hairdresser's shops established. In effect, the Annamite people are so poor and have so little concern for appearances that the barber's trade was only that of someone who eked out a living going door-to-door to collect the few sapeques needed for subsistence.

Besides, one must remember that the Annamite until around forty years old is beardless. As one of their proverbs says: The appearance of hairs on the chin is the sign of old age. Also, all of the natives wear their hair in a chignon. They only consent to have it cut in the case of grave sickness, after a bout of fever, for example, or when they rise up, as they did for instance in the "Annam Affair" of 1907.

Nevertheless, the new generation is more advanced and the "*shorn*" proliferate as does European dress. Also, necessity forces most of the itinerant barbers to combine their profession with that of a *bone setter*. Thus, they also practice *massage* and ear cleaning.

As shows the illustration, regrettably they venture further. In a country where eye complaints are frequent, they want to clean the pupils. Nor are ophthalmias *infrequent*.XXX The number of blind is considerable in this country. It is also true that most of them set themselves up as *sorcerers* or *mediums* and thus have their livelihoods assured



Fig. 15. – A barber

Fig. 16. –*Tuong* merchant



### THE "TU'ONG" MERCHANT

The struggle for life is intense in the overpopulated Tonkin Delta. The flooding, the small yields and the extremely painful work in the rice paddies, and most of the time, the absolute necessity for woman to work, have caused a strange, phenomenon here: *a break-up, a scattering of all of the crafts, trades and commerce into an infinity of sub-crafts and sub-commerces.*

One can say that in Hanoi, each foodstuff, each fruit has its trader. One will remember that the crowd that lives in the streets of an Annamite city is considerable. Notably, the number of coolies that drag rickshaws, and also the workers on the docks have significantly increased since we arrived.

The figure shows one of those little itinerant sellers that from morning to night go door to door. She sells "*tuong*". It is a highly prized condiment by the Annamite. Let us say briefly that, like "*nước mắm*", it is a concoction based on fermented rice

Her gear is that used to carry light loads. It is made up of a long bamboo pole, most of the time, lightly curved. She places its point of equilibrium on her shoulder. At each end is attached a round base supported by four rattan or rope bands. The items to carry are placed on these round bases.

One can notice the characteristic posture of the woman. One of her hands rests on the pole, the other holds in place one of the supporting bands in back, to keep it from swinging too strongly.

Walking with this apparatus is quite special: it is bouncy and volatile, *hysterical* one might say



## THE REPAIRMAN OF BAMBOO OBJECTS

Some travelers say that the needs of the Annamite are very minimal. Such a clear-cut declaration is absolutely wrong. One should say, *the resources of the Annamite who is a member of a poor and overburdened society are minimal, and thus, necessity constrains him to reduce his needs to the minimum. In reality, he spends a lot.*

Sellers of European goods who live in the cities have perceived this. If there is a deficiency of the resource of money among the largest part of the Annamite population, one must say that he knows how to extract the most from the natural resources at his disposition.

Thus, bamboo is used admirably. On the banks of the Red River, not only are there houses built entirely of bamboo, but everyone of the furnishings is made from bamboo. To name a few: camp beds, containers cut from between knots, floor mats, etc., etc.

There are in Hanoi merchants whose specialty is to make and distribute objects made from bamboo. Such a business has created lots of small trades. The most interesting of these is the man who repairs bamboo objects. He reminds one of our own repairers of porcelain tableware. He too belongs to the category of itinerant trades.

His gear is among the leanest. It is made up of a bamboo, transport pole called the “*cái đòn ồng*”. He places it on his shoulder. At one end he hands his saw and straps of bamboo which he will use to compress bamboo buckets. At the other end he attaches a receptacle called a *cái bồ*. This receptacle is also made of woven strips of bamboo. In that he carries his tools



Fig. 17. – A repairman of bamboo objects

## THE TRANSPORTATION INDUSTRY

Even since our occupation one can say that roads don't exist in Tonkin. A number of things explain this deplorable state of affairs. Briefly one can state that the scarcity and high price of stone in the Delta, and the violence of rain storms in this country, where chronic flooding reigns, have a lot to do with it. To this one can add the river network which was perfectly adequate to the needs of Annamite industry before our arrival.

Also, the means of transport were few in this country. To mention three:

1<sup>st</sup>. The wheel barrow called a "*xe lộn*" because it is used to transport pigs.

2<sup>nd</sup>. The "*cái đòn gánh*." This is a long bamboo pole placed on the shoulder. At each end one hangs a load. Generally only one person handles it, but for heavy loads it is used differently. Two people place the ends of the pole on their shoulders with the load hung from the center of the pole, between them.

3<sup>rd</sup>. The main method of transport for heavy loads and long distances is the "*cái thuyền*" or *sampan*.

The illustration gives an adequate representation of the sampan. One can also see how it is maneuvered: Aft, the man propels the boat with a pole, running the length of the side while the woman is busy rowing at the other end of the craft. Most of the time, native boatmen row standing up. Thus, they can use their entire weight. The middle of the craft is equipped with a semi-cylindrical enclosure. This is a "*cái phen*." One will remember that the "*cái phen*" is made of extremely tightly woven bamboo slats. It is under this "*cái phen*" that the boatman lives with his family. It is there that he cooks his meals, that he eats and sleeps. It can be said that every boatman is also a fisherman. When he isn't engaged in transportation he spends his time fishing. Thus, he can always assure his family's subsistence. In this country, river bridges can practically be counted on one hand, so at the places where well-traveled roads are blocked by a river one can find encampments of fishermen. They live from the few sous that they pick-up ferrying passengers.



Fig. 18. – River transport

## THE CLOTHING INDUSTRY

### SILK

The silk industry is the type of family business that one can't encourage enough in this country. In fact, it folds neatly into bigger, industrial manufacturing. This type of family business is the sort that for the moment we should develop here. It alone doesn't tear man away from the land, nor does it disorganize the family, and consequently it doesn't disrupt the communal fabric. And beyond this, the distribution of its products are assured and at good prices. The Chinese have well understood this. As in many other industries, they play the role of owners of collective, industrial scale businesses. On certain days one sees the streets of Hanoi, notably Silk Street, full of people with rustic complexions. They carry in small bundles on their backs: the fortnight's production of rolls of silk. The majority of this silk is sent to China, especially to Canton from where it leaves for Europe designated as Chinese silk. Our exporters shouldn't ignore this scheme, they should learn and profit from it. The silk industry helped by the affluence which, in spite of all, is increasing in this country, is growing quite rapidly. Around Hanoi, notably, one notices every year a rise in the number of trades. This progression is not limited to one province. It is throughout Tonkin.

The government has understood the importance of this industry in the growth of the country's wealth. It lavishes encouragements. Notably, it has established in Phủ Láng Thượng a sericicole institution. It strives above all to regenerate native breeds of the silk worm. The distribution of spawns is free. A detailed description of this industry would be quite long even though the procedures are fairly primitive. One can see in Figure 19 a depiction of the weaving trade. It is quite complex. And, in this industry, as in many others of this country, the role of women is central. Notwithstanding, men's labor plays a preponderant role in the trade, though the heavy fatigue from the work requires that women relieve them.

Fig. 19. – Silk loom

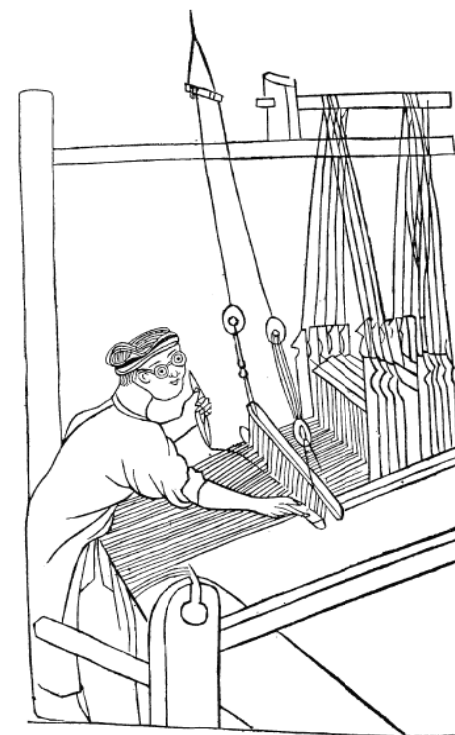


Fig. 20. – Dyeing worker beating a piece of cotton

#### DYEING

Many a French person, having landed in this country after numerous exotic readings, sparkling and colorful, have been quickly disabused of their preconceptions faced with the scenes of Tonkinese crowds before them. The working classes of this country are of an unforgettable poverty. Their taste for beauty has never existed and perhaps never will. Their taste is entirely utilitarian. The color of their clothes is sinister but practical. They are of a brownish color, which surpasses in awfulness the clothes of the English, loathed by Edmond de Goncourt. On the other hand, this dye made from *củ nâu* (a variety of tuber), is indestructible. It barely dirties, and even has, supposedly, superior waterproofness.

Most of the dyers are itinerant particularly those who dye individual pieces, especially deluxe pieces. On the other hand, dyers who have workshops, usually focus on dyeing pieces of common cotton cloth, the *áo củ nâu*. These shops are mostly concentrated in Hanoi. They are numerous in the Sinh Từ district. Their methods are extremely simple. They use mostly vegetable dyes and the pieces must be run through the dye several times. Between each soaking they are exposed to the sun. They are spread on the ground, tightly stretched. The last step, the outcome of which is to give the dye a solid bond with the fabric, is beating (*thợ nhuộm đập vải*). One sees this in figure 20. The roll of cotton is placed on a stone. The worker uses a mallet with a cylindrical head called a *võ tây*. Once finished, the roll is spread out. It is spread on the bamboo slats that one can see above the worker.

## WINTER CLOTHES

There is in Tonkin a “winter.” This period extends from November to March. During this season, fog and drizzle, a light penetrating rain lasting entire days, predominate. Temperatures drop to 8, 10, 12 degrees. It is the season when new immigrants arrive. And it gives the old colonials a feeling of cold. Some of them suffer from this and prefer the warmer climate of Cochinchina. Even the Annamites themselves complain about it. During this season, the scenes are very picturesque for the observer. Working people wear their entire wardrobes, most often comprised of up to a half dozen pieces of torn clothing, badly patched. Thus, in the streets there is a parade of quite pathetic Harlequins. The bourgeois classes wrap themselves in solid silk dresses, lined with cotton. The French sheet in wool is beginning to appear, but it remains the innovation of a few rich people with advanced tastes.

**TECHNIQUE.** The manufacturers of objects in which cotton plays a part are grouped together in Hanoi on Cotton Street (Phố Hàng Bông). They are all small scale capitalists who are quite well off as this business requires specialized labor and a series of fairly long procedures. Figures 21 and 22 give us a few examples. In figure 21 the worker is beating the cotton, the extremely long initial procedure. The worker is crouched on the ground. The cotton is placed on a rectangle of cloth. The tool being used by the worker is made of three parts. The first is a long, horizontal haft, slightly raised from the ground. A strong metal wire is attached to its center, the other end of the wire is connected to a bamboo shank implanted in a wooden platform on the ground. The worker whose head is covered with a rag to protect his hair from the thick dust crouches on the wooden platform. With one hand he holds the haft which permits him to “walk” the tool across the mass of cotton. With his other hand he taps the wire with a stick.

Under the vibrations, the cotton breaks up quickly. The procedure is called *Bật bông*.

In this fairly light industry, the role of the woman is considerable. One sees this in Figure 22. A woman is busy padding a cotton garment. On the ground, a cloth is extended, as above. The garment is spread on it. The cotton is thrown onto it.

The procedure consists of evenly packing, from one end to the other, the largest possible amount into the smallest possible space. The woman is equipped with a large wooden tray. The underside is very smooth. The top is mounted with a handle called *cái tay co*. She moves this heavy tray from spot to spot while pressing down with all of her weight. The procedure is called *là áo bông*

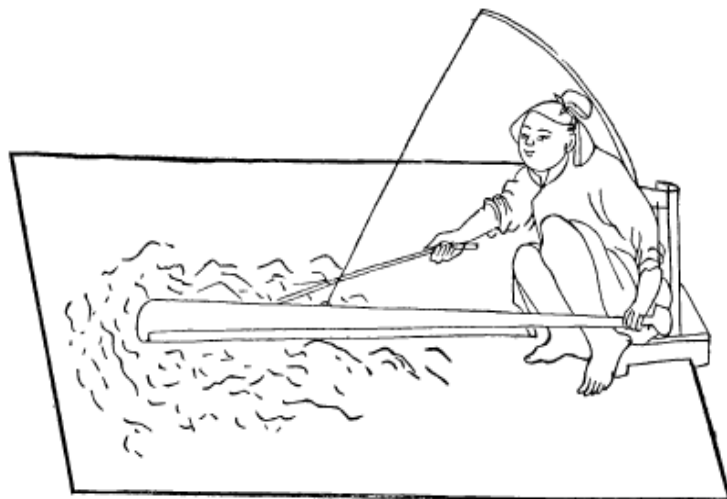


Fig. 21. – Beating cotton

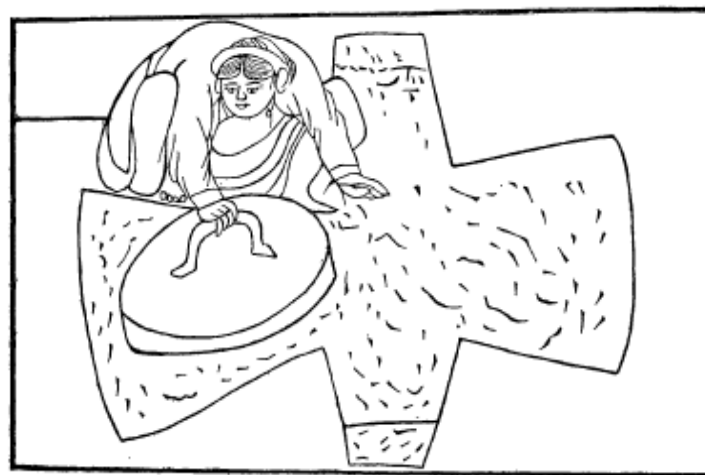


Fig. 22. – A woman compressing cotton

## FOOD INDUSTRIES

### BUTCHERS

In Annam as in China, the population is quite vegetarian. The fundamental food is rice. Meat really seems to be just a condiment for rice. This is absolutely true for the poor classes. In effect, the absence of livestock explains the relatively high cost of meat. But one should add that in the countryside this is compensated by pig-raising which is carried out casually and quite inexpensively. Generally meat is a luxury dish for the vast majority of the Annamite people. One has only to attend a festive meal to be fully convinced of this. Since our arrival the affluence and concentration of population that we have brought about in the cities has greatly developed the butcher's trade. One is also aware that the trade exists in the midst of Buddhist theories continuing to survive more or less in the souls of the Annamite population which hold that butchers will endure in hell, the evils to which they subjected living beings.

Be that as it may, the butcher's trade is divided into two principal specialties:

1. Butchers of beef and buffalos
2. Butchers of pork.

We can put aside dog butchers: this food is one for the gourmet with refined tastes, and, let us say it, depraved tastes. One of the greatest sins is to walk into a Pagoda having just eaten dog meat.



Fig. 23. – Slaughter of a buffalo

The means of slaughtering animals are most primitive. One can see in figure 23 the rather crude way a buffalo is slaughtered. It requires no less than four people. And this is only if the buffalo is of average strength. Moreover, this animal is of such central usefulness to the Annamite peasant that he only slaughters it in the case of sickness or the onset of decrepitude. Without it, working the muddy rice paddies would be physically impossible. The four legs of the animal are securely tied. It is laid on the ground. An assistant pulls the animals tail with all his might to prevent jerking. Another assistant does likewise with the horns. Another presses all of his weight on the hindquarters. The actual butcher pushes in a tub to catch the blood and without further ado drives in a special knife called a *con giao doi*, just under the ear of the animal. They ignore the process of knocking out the animal with a sledge.

The slaughter of a pig is really no different as is seen in figure 24. The pig raised by the Annamites is a veritable monster. Low on its legs, with an enormous belly nearly dragging on the ground, it is unable to walk. To transport it, the Annamites tie its legs. They place a long bamboo shaft under its stomach and between its legs as is shown in figure 24. This shaft is solidly positioned with straps that wrap around the body like hoops on a cask. Made fast in this way, the animal is incapable of the slightest movement. One can carry it to market like a common package. They are piled thus on wheel barrows and small boats. When the pig reaches the slaughterhouse, it is thrown onto a bamboo platform called a *cái chông che*. His snout has been carefully bound. The butcher approaches with a tub to collect the blood. Then he operates just as the buffalo butcher. The animal is not knocked unconscious

Fig. 24. – Slaughter of a pork



## WORKING RICE FOR FOOD

### GIÃ BÁNH GIÀY

Stomach ailments are not rare in the country of Annam. Europeans aren't the only ones affected. And, Annamite medicine incorporates a considerable number of remedies for this affliction. Well before us, the Annamites made use of a precaution which is currently being applied in Europe: to only eat foods which can be easily chewed and which, are immediately digested for all practical purposes. One knows that rice is easily digested. Steamed, as it is by the Annamites, it barely requires any effort to chew. Better yet, there are a bunch of "food trades" the objectives of which are the reduction of rice or meat into a paste or mush. Whether they involve rice or meat the processes are the same. There is a reproduction in figure 25.

First, the rice is steamed. Mostly, a special kind of rice, quite sought after, is used, called *gạo nếp* or, sticky rice. It is dumped onto straw mats spread on the ground. These mats are tightly stretched and secured by four pegs stuck in the ground. The worker is equipped with a special tool called a *cái chày*. It is a pestle made from very hard wood. The middle section is narrowed so that it can be manipulated with two hands. The two ends are rounded caps. In order to preserve them from wearing down, the ends are covered with banana leaves, tied with two bamboo strips. The workers, usually, work in pairs. They raise and drop their heavy pestles while singing. This takes place at night in order for the itinerant merchants to distribute their merchandise throughout the city as soon as day breaks.

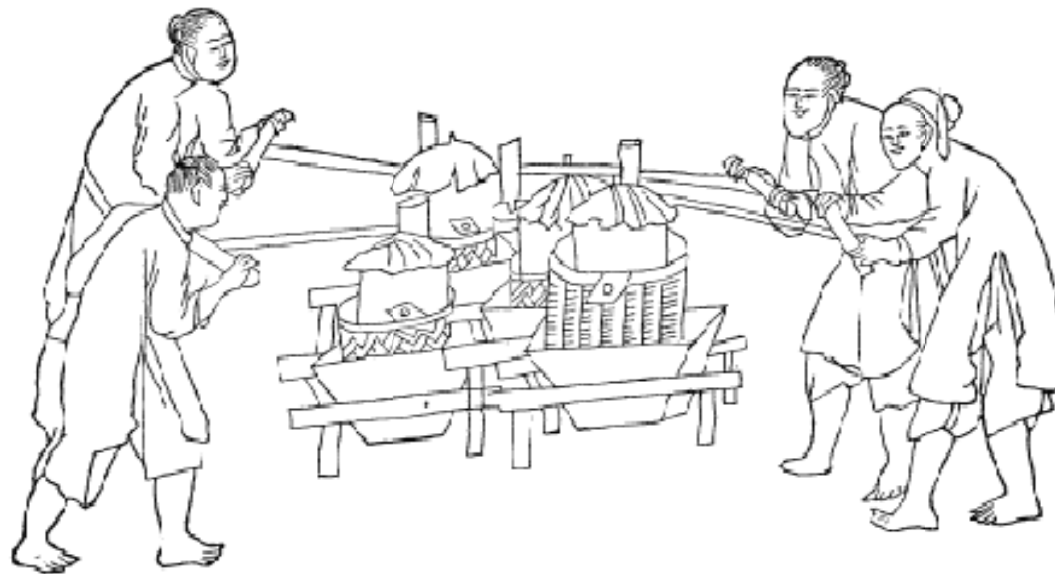
Fig. 25. – Grinding of steamed rice



## RICE FLOUR MAKING

Rice flour plays the central role in the confection of Annamite pastry which is quite mediocre. The Chinese who keep the fine restaurants are also, to tell the truth, the pastry chefs of the well-off, native clientele. They use wheat flour like we do at home. Annamite pastry has little variety and most of the time is only a rough mixture of powdered sugar and flour. Each Annamite pastry shop makes its own flour. Most frequently, the boy interrupts the preparation of cakes to work at the flour mill. But in prosperous pastry shops one comes across several of these mills. They are, peculiarly, operated by blind people. This is a case in which one sees the use of “social scrap” that characterizes the industriousness of this people. In effect, the struggle for life is so intense in this overpopulated delta, the sales price of products is so low in this milieu where the necessities of life are frequently reduced to a minimum, that there occurs an exploitation of the young and the old. To describe the mill is very complicated. Broadly, it is made up of a reservoir where the rice is deposited, the rice then falls onto crushers that are moved by a long handle operating a crank. It is this handle that the blind operators hold in two hands. A light press forward, from behind without much effort is enough. The flour falls into a wooden box located in the underside of the apparatus. (See figure 26.)

Fig. 26. – Rice flour being milled by the blind.



## FISHING

Working the rice paddies requires that the countryside be covered with water at least six months of the year. It suffices to pick up a map of the Tonkin delta to see how the countryside is literally covered with ponds. One can say that each village has its own. [This particularity explains the degree to which the conquest of the delta and its defense against piracy, in other words a defensible enemy, are difficult.] Without exaggeration one can say that the Annamite lives in water. It shouldn't surprise one that each peasant has a double who is a fisherman. All through the year, fish appears on the trays of native meals. It is the poor person's food. This explains the multitude of skin ailments that make the ignorant think that the Annamite is riddled with syphilis, when this disease hardly existed before us. In the fishing industry, the native has shown a spirit of observation and an elegance of method that are genuinely admirable. One can say that each species of fish is pursued with specialized devices. One can see in figures 27 and 28 those devices encountered consistently throughout the year. The fisherman enters the water only wearing a loincloth. It is a cloth rag wrapped around his waist and through his legs. It leaves his movements completely unencumbered. In figure 27 one assists at fishing called *dổ nom úp*. It takes place in shallow waters. Mostly, fish of an appreciable size are being sought. The fisherman uses a trap called a *cái nom*. It is made of a series of well spaced vertical slats. These are interwoven with solid horizontal ties. At the top there is a circular opening sufficient to allow an arm to pass through. The fisherman advances carefully in the water. With his feet he pokes in the grasses to make the fish spring up. With both hands he holds up the trap. As soon as the frightened critter comes out, he drops the trap down and then he thrusts his arm through the upper hole to grab it. This hunt requires a knowledge of the territory, a resistance to fatigue, and concentrated observation, all qualities marvelously present in the native.



Fig. 27. – Fishing in a pond

Another fishing technique which is widely used is that carried out with the *cái vó*. This is an enormous net the four corners of which are hung from a rattan frame formed from four, semi-circular, vertical stanchions. Where these come together, a long bamboo staff is attached. It serves to lift and cast the net. This method of fishing is used in fairly broad pools of water, especially to catch the small fish called *con cá rô* which proliferates in an extraordinary manner as soon as the paddies are recovered with water. In effect, its eggs, dried during the summer and mixed into the earth, revive at contact with water. This is the explanation of a phenomenon that many Europeans are unable to grasp. (See figure 28.)



Fig. 28. – Deep water fishing



## TOBACCO

It seems rash to place the tobacco industry among the food industries. Notwithstanding, those who have lived for awhile in Annamite country will soon notice how passionate the native is about tobacco. For him it is not a distraction but a necessity. Question an Annamite, he will answer you that for him tobacco is a stimulant, a restorative. This is why one finds a water pipe in every house. As soon as a guest comes in, he is handed the utensil and he never refuses. This would be tactless. A worker who goes out to work carries his pipe with him. One runs across tobacco sellers in every street. Unlike our tobacconists, theirs don't merely sell their product. In their hands it undergoes a real transformation, a whole separate industry.

Fig. 29. – Tobacco seller



Tobacco comes to them in rolls. The leaves are tightly compressed into a small bail with bamboo straps, like a fat sausage. Figure 29 portrays one of the main procedures that the tobacconist carries out. He uses a tool which makes one think of our guillotine made of a horizontal board with a vertical riser at one end. In the riser is a circular hole. The worker sits on the board. He sets the bail of tobacco against the hole so the end protrudes through. His work then consists in finely shredding the tobacco. For this he uses an enormous double handled cutter (*con giao thài*). He holds lower handle firmly in place with his toes.

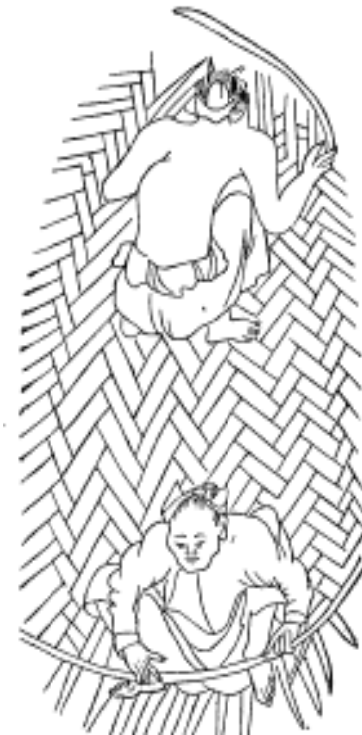
Then, with one hand he works the blade down across the tobacco while the other assures the position of the bail. The figure shows a tobacconist's shop. Like most it is set on a camp bed. The two cylindrical containers hold one and two sous packets. A horizontal bamboo rod is suspended with two ropes from the ceiling beams. On it are hung strips of cigarette paper and a scale.

## THE BUILDING INDUSTRY

### THE USE OF BAMBOO

To thoroughly describe the use of bamboo in Annamite territory would require a veritable monograph. Here we will limit ourselves to describing its use in the building industry where it is used especially in scaffoldings and in the building of hedges that protect the small garden surrounding a house. In the countryside, the frames of houses are made entirely from bamboo. The Annamite makes ingenious use of the cylindrical shape of bamboo and of its knots as pressure points. But the ubiquitousness of bamboo is especially demonstrated by the use of the *cái phên*. *Cái phêns* are made from interwoven bamboo strips. This is the basic idea, but one can understand that there are a myriad configurations and shapes. The work of creating a *cái phên* requires patience, but nothing is easier. Most often, one buys some bamboo and initiates the assembly right in front of the house where the *cái phên* will be used. Figure 30 gives an example. The use of *cái phêns* is infinitely varied. They are used to cover ceilings and as room dividers in houses. With them, in a few minutes one can create a veranda. River craft are covered with them. To backfill a dike or the banks of a canal, they are covered with *cái phên* which are held in place with bamboo pickets.

Fig. 30. – Weaving bamboo



## THE BRICKYARD

Stone is quite scarce in the Tonkin Delta. One comes across it in the construction of very special buildings, usually public or religious edifices. And, one can neatly divide a study of Annamite dwellings into two parts:

1. Brick houses.
2. Bamboo and dried earth houses.

The brick industry is waning. In former times, when emperors wished to build solid structures they had brick ovens constructed by carefully selected workers. The Vaubanesque citadels that we have built in this country were all made with this kind of brick, sometimes called “mandarin brick.” Today’s common brick is mediocre. The ambition of any Annamite who achieves some affluence is a brick house and people’s fortunes are measured by the number of brick houses which they own. The native, like most backward people seeks cheapness rather than quality. As well, the short life of buildings in this country with such a violent climate is a reason for astonishment for the visitor. There is no place for architectural archeology in Tonkin.



Annamite brickmaking techniques are very crude. As well, European factories can enter into competition with native production. For example, most of the buildings in Cochin-China have been built with bricks brought from Tonkin, where there are a number of factories. The native manufacturer locates himself in a place with red clay. He digs pits to hold water and special soils. The soil is kneaded with feet. Then women and children press it into rectangular wooden forms. The bricks are aligned in the sun to dry. Figure 31 shows this procedure.

Once the bricks have attained the right consistency, they are stacked above the kiln. They are all covered with a thick blanket of earth and then the fire underneath is lit. The firing takes several days.

Fig. 31. – Drying bricks in the sun



The majority of houses one sees in the countryside, except for religious edifices or the houses of mandarins are built with bamboo and earth. The frames are bamboo and the roofs, most often, are covered with rice thatch. To build walls, here is how it is done: (Fig. 32). The space between the posts is filled with a *cái phên* or interlacing of flat strips of bamboo. The worker kneads earth which he mixes with finely ground rice straw to give it more body.

Frequently, the particles remaining after rice has been husked are also used. This paste is spread on the bamboo mesh. This makes excellent walls which keep out the heat and, needless to say, the cost is minimal.

Fig. 32. – Construction of an earthen wall

#### EXCAVATION – EARTHWORKERS

A bit further on we will find a study of the itinerant trades, or better yet, the trades that live in the streets. The workers who do excavation and earthwork fall into this category. In addition they have an interesting characteristic. As with our “Limousins,” they come to Hanoi during dead seasons when they can’t work in the fields. They are migrant workers. One sees them pass by in the streets, two by two as shown in figure 33. They carry their equipment with them, which is quite basic. It comprises a combined shovel and pick ax called a *cái cuốc*. It comprises a handle of very hard wood fixed to a wooden blade. Its underside is fit with a metal blade that protects it. The other tool is called a *cái thuổng*. It is made up of a cylindrical handle to which is fitted a rectangular metal head which lengthens it. This tool is used vertically like a pry bar while the other is swung over the head in a semi-circle like our pick axe



Fig. 33. – Itinerant excavation and earthwork laborers in Hanoi

## CONCLUSION

### THE FUTURE OF ANNAMITE INDUSTRY

We have been in Cochinchina for fifty years and in Tonkin and Annam for twenty-five. We have spent millions to support schools which can be faulted at the least for furnishing us with embittered bureaucrats, but really we should use the word ‘revolutionaries’. Without a doubt this reproach cannot be made to admirable institutions like the Professional School of Hanoi, founded by the Chamber of Commerce and managed with such conscientiousness by the engineer, M. Barbotin. But similar schools located in the middle of cities only aim at producing artistic craftsmen and artisans with high salaries. They miss an important complement which one man has been able to identify.

It is M. Crevost, curator of the Industrial and Commercial Museum of Hanoi <sup>(1)</sup>

The solution is infinitely elegant. M. Crevost doesn’t seek to remove the worker from his milieu. He requests that the Résidence supérieure send him twenty children from each province. He houses them in the basement of the museum. A few balls of rice are sufficient to feed these peasants. There he trains them in easy trades with immediate returns. For instance, the production of panama hats, the production of Annamite noodles, called *cái bún*, or of Chinese noodles, called *cái miến*. After a few months these fellows are sufficiently polished. They are sent back to their lands and another batch replaces them. The reader should note: with another step we achieve a form of industry that we advocated earlier: the industry of collective manufacturing. So that a small scale, native capitalist can circulate in the villages to collect the products and a European capitalist can ship them to Europe and the circle is complete. It is to be hoped that in each provincial center such a school should open. We will have won over to our side the peasant classes that we have neglected up to now. We will have pushed into the shade from which so we so foolishly drew it out the rebellious petit bourgeois of the towns which is preparing eventual uprisings. <sup>(2)</sup>

#### APPRENTICESHIP SCHOOL

“The Protectorate establishes in Hanoi a school for apprentices that will be installed in the basement of the Agricultural, Commercial and Industrial Museum.

This school will replace the section dedicated to apprentices that was to be organized in the professional school. It is intended to encourage the introduction or diffusion in the Tonkin countryside of small family businesses *requiring only minimal capitalization and raw materials which are abundant in this country. It will contribute to the improvement of products produced by native trades by refining production processes.*

At first, the school will limit itself to teaching the Annamites to produce articles of hat and basket making appropriate for export. Tests have already been carried out in these two trades at the demonstration workshop installed in the museum which have produced good results. Additional trades can be introduced, little by little, once the first trainees will have been integrated into contemporary, day-to-day native practices.

The apprentices will be recruited among young people, *fourteen to eighteen years of age*, in various provinces of Tonkin and, as much as possible, in *different districts* in order to achieve a more rapid dispersion of the education which they will have been given. They should be preferably selected from *relatively poor families*, those having, nevertheless, the minimal means to buy raw materials. Well-to-do families may see apprenticeship as a pretext to send their children to the Capital at the Administration’s expense.

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<sup>(1)</sup> Crevost, *Considérations sommaires sur les industries indigènes au Tonkin*. Extract from the *Bulletin économique de l’Indochine*, juillet-août 1909, No79, 30 p. Hanoi-Haiphong, Imprimerie d’Extrême-Orient, 1909.

<sup>(2)</sup> Good news from Hanoi. M. Crevost’s endeavors have been noticed: they didn’t merely remain the expression of a creative spirit, aware of the real needs of this poor country. The protectorate’s administration stands with them. One should hope that this training system *that costs almost nothing, that doesn’t pull a man away from his land, that creates between him and the conqueror an economic solidarity, an obtainable one and the best sort*, will spread through the other sections of the Indochina Union.

The apprenticeship will last three months after which the young people will return to their place of origin. Thus, one will be able to *train four groups of apprentices per year*.

To start with, only five candidates by province will be admitted in each group. This quantity will be enough to determine by the end of the first trimester the real native aptitudes and whether they vary by region. After approximately an additional three months, the observations of the worker's accomplishments made by the provincial authorities will enable expense outlays to be stopped fairly quickly if worker incapacity and the lack of raw material or the lack of outlet shows that there is no productive interest in continuing the experiment.

Each apprentice when leaving his province must be furnished with a free booklet in which will be mentioned useful information to determine his identity. Upon his arrival in Hanoi, this booklet will be turned over to the curator of the Museum who, at the end of the apprenticeship, will return it to the interested party, having noted a short evaluation of the individual's capabilities shown while in the school.

The apprentices are compelled to work every day except holidays from 7:30 to 11 in the morning and from 1:30 until 5:30 in the evening. They will each be visited once a week by doctors from Public Assistance, and two hours a week will be devoted to explaining the benefits of hygiene.

Each province must provide its apprentices with 6 piastres a month that will be used to pay for room and board during their stay in Hanoi. To this end, an advance account, to be audited after use, in the amount of the whole trimester for all of the trainees sent from each province will be established in the name of the Curator of the Museum, in Hanoi, at the beginning of each school period. *The annual cost, thus supported by the provincial budget for the support of its regular contingent of five apprentices will be 360 piastres.*

Native families chosen from good members of Hanoi's population will provide the room and board of the apprentices. Frequent visits by the functionaries of the museum will be carried out too insure the quantity and quality of the food and the cleanliness of premises made available for the students. As much as possible, apprentices from the same province will be lodged and eat in the same home.

The highland provinces can reduce the number of students sent in each group if their budgets do not permit them to support the same sized contingents as the other provinces.

Thus is the proposal of the Resident Superior, M. Simoni, who plans to open a school the 15<sup>th</sup> of March, 1910, after Têt.

That which permits one to believe in the great success of this new means of training is that it is based on a spirit of imitation that seems to be a characteristic of the native mentality. One had a peculiar proof of the rapid spread of these methods in 1900 at the time of the Exposition.

*Hanoi Local Committee (Baskets, Hanoi).* – In the past basketry was imported from China and from Singapore. The Government of Indochina created workshops in the colony's prisons. Upon being freed, the convicts set themselves up on their own account and created an industry which currently satisfies consummation. Bamboo and rattan, the raw materials used, grow in abundance in the Indochinese forests. (*Amson, Rapport du Jury international, p. 113.*)

## SYNTHESIZING TABLES FOR THE 15 VOLUMES OF PLATES

*Note: The 45 fascicles of text as well as the lexicon of technical words that will end this work will follow the order established in these synthesizing tables*

### Industries Which Extract Raw Materials From Nature

#### Agriculture:

4, 6, 10, 13, 16, 18, 23, 26, 29, 30, 52, 60, 62, 63, 67, 71, 76, 81, 90, 92, 94, 95, 105, 108, 117, 138, 158, 166, 168, 172, 186, 194, 199, 224, 227, 231, 248, 250, 252, 257, 264, 272, 284, 295, 304, 308, 318, 354, 360, 371, 372, 373, 377, 380, 384, 385, 414, 422, 424, 428, 429, 432, 442, 447, 448, 459, 466, 467, 468, 472, 476, 482, 485, 488, 489, 491, 496, 498, 510, 515, 522, 525, 526, 534, 547, 549, 555, 562, 568, 573, 576, 580, 582, 583, 584, 589, 594, 595, 606, 608, 612, 615, 621, 624, 630, 633, 641, 642, 652, 659, 666, 667, 681.

#### Fishing:

10, 18, 30, 43, 115, 153, 163, 186, 187, 222, 233, 235, 260, 377, 380, 385, 397, 412, 421, 497, 523.

#### Hunting:

30, 35, 52, 58, 66, 160, 196, 210, 234, 299, 371, 373, 377, 380, 438, 439, 479, 559, 596, 607, 616, 679, 685.

#### Transportation:

5, 7, 11, 12, 14, 19, 23, 32, 41, 42, 43, 48, 50, 82, 96, 115, 151, 159, 169, 183, 193, 198, 203, 209, 213, 216, 220, 241, 259, 261, 268, 273, 276, 291, 304, 311, 339, 340, 359, 370, 371, 379, 392, 398, 409, 412, 424, 432, 445, 446, 448, 449, 456, 457, 462, 468, 489, 500, 526, 544, 561, 610, 612, 618, 636, 646, 656, 668, 692, 694.

#### Gathering:

6, 76, 112, 149, 150, 153, 158, 169, 184, 192, 193, 194, 195, 206, 217, 227, 230, 236, 252, 295, 307, 333, 349, 350, 352, 359, 277, 474, 512, 637, 644, 647.

### Industries Which Process Materials Extracted From Nature

#### Paper:

11, 15, 23, 24, 27, 28, 29, 30, 31, 32, 37, 39, 41, 45, 46, 48, 54, 56, 60, 64, 65, 68, 69, 70, 78, 81, 90, 92, 140, 143, 148, 151, 161, 167, 169, 172, 173, 175, 178, 184, 185, 186, 188, 190, 194, 216, 236, 238, 240, 243, 244, 245, 246, 247, 265, 267, 268, 270, 273, 276, 278, 279, 284, 285, 287, 290, 292, 299, 321, 331, 344, 350, 353, 373, 376, 377, 378, 382, 387, 388, 390, 391, 392, 393, 396, 397, 400, 403, 404, 406, 409, 410, 414, 418, 419, 421, 425, 427, 429, 433, 435, 437, 439, 441, 442, 445, 446, 453, 459, 460, 467, 468, 469, 473, 477, 479, 480, 485, 488, 489, 490, 492, 498, 499, 502, 504, 510, 512, 515, 516, 517, 522, 525, 535, 536, 537, 540, 542, 543, 548, 552, 554, 556, 563, 565, 567, 574, 576, 581, 586, 587, 593, 596, 599, 602, 603, 605, 607, 609, 625, 628, 631, 643, 649, 658, 662, 671, 676, 683, 687, 688.

#### Precious Metals:

10, 13, 21, 31, 33, 43, 44, 46, 50, 51, 68, 112, 114, 115, 163, 172, 175, 178, 187, 197, 223, 263, 267, 271, 274, 278, 290, 291, 293, 295, 314, 328, 334, 337, 371, 373, 386, 389, 402, 403, 405, 409, 411, 422, 423, 439, 445, 454, 456, 476, 477, 490, 492, 505, 515, 527, 530, 544, 561, 562, 564, 581, 598, 605, 610, 616, 628, 632, 635, 638, 640, 660, 661, 669, 671.

Pottery:

10, 11, 16, 17, 20, 23, 28, 31, 33, 39, 41, 45, 50, 55, 56, 64, 74, 78, 112, 118, 119, 126, 131, 135, 136, 146, 147, 149, 150, 156, 159, 164, 172, 173, 174, 175, 178, 179, 183, 188, 199, 207, 213, 216, 218, 219, 221, 231, 232, 233, 236, 239, 242, 243, 245, 247, 249, 253, 256, 266, 268, 270, 276, 291, 293, 297, 324, 350, 356, 359, 370, 371, 375, 376, 379, 382, 385, 389, 393, 394, 402, 403, 404, 405, 406, 407, 409, 411, 412, 415, 416, 419, 420, 421, 429, 430, 433, 434, 439, 442, 443, 446, 449, 450, 452, 453, 461, 464, 465, 466, 467, 489, 492, 500, 501, 502, 509, 416, 517, 520, 522, 532, 534, 539, 541, 546, 547, 558, 563, 566, 568, 590, 592, 593, 597, 598, 604, 613, 626, 630, 640, 647, 660, 664, 665, 667, 672, 673, 686, 689, 691.

Tin and Pewter:

5, 22, 39, 47, 48, 50, 58, 63, 70, 73, 92, 121, 160, 168, 172, 173, 175, 177, 185, 186, 235, 247, 254, 292, 293, 315, 335, 350, 351, 362, 372, 382, 393, 404, 408, 409, 411, 416, 417, 419, 421, 428, 430, 434, 440, 458, 464, 467, 471, 475, 482, 487, 488, 500, 551, 602, 619, 672, 690.

Wood:

2, 5, 8, 10, 11, 12, 16, 17, 18, 21, 23, 25, 33, 34, 35, 40, 41, 43, 46, 47, 49, 50, 56, 63, 70, 74, 75, 78, 100, 117, 120, 122, 127, 129, 131, 132, 146, 152, 159, 167, 168, 172, 173, 176, 177, 185, 187, 189, 201, 203, 207, 216, 228, 231, 233, 235, 241, 243, 245, 246, 249, 251, 270, 273, 274, 276, 277, 283, 287, 291, 296, 298, 311, 319, 324, 328, 341, 345, 361, 363, 365, 367, 370, 372, 375, 384, 385, 386, 387, 490, 391, 395, 397, 399, 402, 403, 404, 405, 408, 409, 413, 416, 417, 418, 434, 436, 443, 446, 449, 452, 456, 458, 464, 471, 472, 483, 487, 491, 507, 511, 544, 546, 553, 572, 580, 582, 583, 601, 641, 653.

Weapons:

2, 4, 7, 8, 11, 12, 16, 19, 45, 55, 83, 85, 100, 108, 121, 163, 170, 186, 188, 208, 216, 235, 285, 373, 376, 382, 398, 402, 404, 418, 426, 429, 450, 458, 505, 513, 567, 620, 624, 634, 694.

Bamboo:

5, 8, 9, 10, 13, 15, 17, 19, 21, 22, 25, 27, 28, 29, 30, 32, 33, 39, 41, 42, 43, 44, 45, 47, 48, 49, 50, 55, 63, 64, 68, 70, 75, 81, 87, 89, 93, 96, 104, 111, 117, 124, 126, 133, 142, 155, 156, 157, 164, 166, 168, 171, 176, 177, 178, 181, 183, 184, 186, 187, 191, 193, 197, 203, 205, 206, 213, 216, 219, 233, 238, 241, 242, 246, 248, 249, 252, 354, 260, 269, 270, 271, 272, 273, 276, 282, 283, 290, 291, 292, 293, 301, 303, 307, 308, 313, 314, 315, 317, 323, 331, 335, 338, 343, 346, 347, 351, 362, 363, 364, 374, 375, 378, 384, 385, 386, 387, 390, 391, 394, 395, 398, 399, 403, 405, 406, 408, 414, 415, 417, 421, 425, 426, 430, 437, 439, 440, 441, 442, 446, 452, 453, 459, 466, 468, 470, 482, 483, 487, 490, 493, 494, 497, 506, 530, 541, 544, 574, 575, 591, 592, 616, 620, 631, 641, 643, 652, 663, 675, 688, 692.

Rattan:

2, 56, 66, 78, 149, 159, 175, 208, 291, 392, 411, 412, 413, 425, 445.

Fruit and Vegetable Processing:

41, 48, 53, 65, 78, 109, 122, 124, 133, 143, 150, 156, 162, 168, 175, 177, 191, 199, 211, 215, 217, 220, 222, 238, 253, 255, 267, 278, 280, 305, 310, 322, 325, 335, 341, 342, 347, 364, 366, 382, 391, 395, 398, 404, 421, 459, 469, 478, 481, 486, 487, 489, 503, 507, 532, 590, 598, 630, 633, 645, 650, 683.

Textiles:

10, 17, 37, 38, 51, 55, 61, 63, 76, 78, 80, 95, 119, 178, 220, 237, 248, 278, 339, 346, 409, 425, 444, 484.

Silk:

5, 26, 27, 33, 47, 55, 66, 75, 89, 138, 179, 187, 196, 216, 217, 218, 234, 252, 268, 270, 273, 281, 287, 288, 292, 335, 357, 365, 371, 388, 392, 398, 399, 402, 404, 420, 425, 427, 456, 457, 458, 482, 485, 549, 554, 564, 576, 615, 648, 658, 662, 678, 682.

Feathers:

88, 106, 136, 147, 171, 262, 264, 357, 362, 375, 421, 440, 494, 615.

Leather:

2, 10, 21, 37, 56, 117, 135, 142, 173, 175, 186, 207, 219, 236, 242, 250, 254, 278, 292, 297, 320, 323, 330, 372, 399, 413, 450, 468, 510, 528, 530, 568, 579, 603, 635.

Iron:

8, 18, 19, 20, 21-23, 28, 33, 3, 50, 56, 63, 67, 69, 118, 125, 146, 147, 150, 173, 176, 184, 212, 236, 241, 248, 296, 372, 376, 392, 399, 402, 405, 406, 408, 409, 411, 418, 422, 423, 437, 441, 446, 459, 460, 462, 463, 467, 469, 474, 481, 482, 484, 489, 518, 524, 538, 543, 550, 585, 589, 592, 595, 600, 608, 614, 617, 661, 687.

Copper:

2, 5, 10, 11, 22, 31, 37, 41, 46, 48, 49, 55, 56, 63, 69, 77, 81, 97, 116, 124, 135, 138, 141, 144, 154, 174, 177, 186, 201, 204, 221, 243, 246, 254, 256, 263, 273, 274, 283, 291, 293, 342, 346, 365, 367, 370, 379, 388, 389, 390, 393, 394, 396, 406, 407, 409, 410, 411, 412, 413, 416, 417, 422, 427, 440, 441, 442, 449, 452, 458, 472, 474, 475, 476, 489, 491, 506, 510, 513, 523, 528, 533, 536, 537, 539, 543, 544, 548, 552, 553, 559, 562, 563, 566, 569, 578, 584, 588, 589, 590, 591, 601, 606, 613, 625, 626, 637, 638, 639, 642, 646, 653, 654, 655, 656, 663, 664, 669, 671, 675, 676, 678, 680, 694, 695.

**Industries Which Use Material Already Processed**

Commerce:

14, 19, 37, 40, 43, 47, 52, 56, 66, 78, 87, 90, 91, 100, 146, 162, 170, 186, 187, 190, 225, 228, 234, 243, 276, 282, 297, 299, 303, 310, 318, 328, 349, 365, 378, 408, 413, 429, 432, 443, 446, 471, 482, 484, 496, 539, 540, 614, 631, 634, 669, 673, 681, 682.

Stone:

11, 21, 40, 49, 50, 122, 147, 223, 235, 242, 248, 250, 271, 275, 278, 293, 297, 350, 386, 389, 394, 404, 408, 411, 412, 430, 450, 452, 459, 467, 482, 493, 516, 569, 577, 628, 668.

Decorative Objects and Designs:

8, 10, 16, 17, 19, 27, 31, 49, 50, 53, 55, 56, 63, 78, 100, 177, 178, 216, 223, 28, 231, 235, 239, 244, 245, 246, 248, 251, 266, 276, 277, 291, 298, 350, 375, 377, 384, 389, 390, 404, 416, 417, 418, 422, 428, 433, 459, 461, 464, 466, 469, 493, 557.

Painting and Lacquer:

8, 17, 22, 49, 57, 63, 70, 78, 109, 127, 146, 166, 167, 173, 177, 182, 186, 201, 212, 215, 234, 244, 246, 247, 249, 250, 255, 275, 299, 300, 354, 365, 376, 382, 395, 404, 409, 410, 413, 414, 424, 439, 444, 453, 457, 459, 462, 464, 473, 487, 489, 497, 527, 556, 600, 623, 627, 644, 654.

Sculpture and Statuary:

8, 16, 17, 18, 23, 25, 26, 28, 32, 33, 40, 41, 42, 43, 46, 55, 56, 118, 121, 127, 147, 157, 159, 173, 184, 189, 201, 229, 231, 536, 245, 247, 249, 251, 256, 261, 262, 271, 273, 280, 285, 289, 290, 291, 292, 300, 301, 331, 335, 350, 359, 372, 373, 375, 376, 385, 387, 389, 394, 395, 399, 41, 420, 423, 426, 434, 437, 450, 459, 460, 470, 483, 486, 403, 529, 535, 683.

Ritual Objects:

2, 3, 5, 8, 11, 12, 15, 17, 20, 22, 23, 25, 27, 28, 30, 31, 34, 36, 37, 40, 41, 44, 46, 48, 49, 50, 56, 58, 64, 69, 85, 89, 90, 105, 112, 127, 137, 143, 147, 153, 160, 167, 171, 180, 187, 188, 195, 198, 203, 207, 229, 243, 244, 246, 247, 254, 261, 265, 271, 273, 275, 281, 284, 288, 289, 291, 298, 326, 330, 333, 337, 358, 365, 366, 370, 372, 379, 384, 385, 387, 389, 395, 397, 399, 407, 412, 415, 416, 417, 419, 420, 421, 422, 425, 426, 427, 431, 433, 435, 440, 442, 445, 447, 449, 458, 459, 464, 465, 466, 469, 480, 488, 494, 507, 510, 536, 546, 577, 609, 632, 633, 648, 671.



Culinary Arts:

10, 14, 21, 23, 26, 27, 29, 32, 38, 44, 46, 47, 48, 53, 65, 69, 70, 72, 73, 75, 77, 82, 87, 92, 97, 118, 126, 127, 135, 137, 149, 155, 165, 174, 184, 186, 204, 206, 224, 229, 235, 241, 250, 256, 259, 262, 265, 269, 281, 300, 302, 303, 311, 314, 315, 316, 319, 327, 328, 330, 339, 348, 352, 355, 366, 368, 376, 378, 399, 408, 412, 413, 424, 425, 437, 448, 457, 458, 460, 471, 494, 505, 508, 513, 520, 524, 529, 550, 577, 579, 585, 597, 602, 603, 608, 609, 630, 636, 657, 661, 677, 679, 690, 692, 693, 694, 697, 699, 700.

Clothing:

1, 2, 5, 9, 11, 16, 18, 19, 24, 25, 29, 30, 31, 32, 34, 37, 39, 40, 41, 42, 43, 44, 46, 47, 51, 53, 55, 56, 57, 58, 60, 65, 70, 71, 75, 79, 114, 116, 117, 118, 121, 125, 131, 145, 146, 153, 154, 160, 161, 165, 168, 177, 179, 183, 185, 188, 195, 198, 199, 200, 201, 203, 219, 223, 229, 239, 241, 242, 244, 249, 250, 252, 254, 258, 261, 268, 269, 270, 275, 276, 280, 283, 284, 286, 287, 289, 292, 293, 294, 295, 297, 298, 302, 308, 315, 324, 327, 333, 341, 344, 346, 355, 365, 372, 378, 385, 386, 388, 389, 390, 391, 392, 393, 394, 395, 399, 410, 412, 415, 420, 426, 429, 430, 431, 435, 440, 442, 446, 447, 449, 456, 457, 460, 461, 462, 464, 469, 470, 473, 475, 480, 482, 487, 494, 513, 518, 521, 528, 572, 583, 494, 596, 620, 674.

Building Industry:

5, 7, 8, 9, 11, 13, 16, 21, 22, 23, 25, 28, 31, 33, 45, 46, 48, 53, 55, 58, 60, 75, 78, 89, 91, 95, 97, 98, 101, 104, 105, 107, 111, 123, 136, 138, 142, 148, 149, 152, 153, 154, 157, 158, 160, 167, 175, 181, 187, 194, 201, 203, 204, 216, 219, 223, 226, 228, 229, 233, 240, 241, 242, 243, 244, 245, 250, 257, 261, 262, 263, 271, 275, 280, 283, 284, 287, 289, 290, 293, 296, 324, 350, 359, 368, 370, 376, 378, 379, 386, 391, 392, 393, 400, 403, 405, 406, 407, 408, 409, 410, 411, 414, 416, 417, 419, 427, 430, 434, 435, 439, 442, 443, 444, 458, 459, 460, 462, 464, 465, 467, 469, 481, 482, 483, 486, 488, 489, 500, 510, 526, 527, 548, 557, 565, 566, 586, 620, 637, 644, 665, 689, 691.

Furniture-making:

3, 5, 8, 16, 24, 25, 27, 31, 34, 35, 43, 45, 46, 48, 49, 55, 65, 93, 94, 99, 104, 107, 116, 118, 135, 144, 152, 156, 157, 159, 170, 174, 177, 178, 182, 183, 185, 186, 187, 198, 199, 201, 212, 216, 217, 218, 219, 224, 228, 233, 234, 235, 236, 237, 241, 242, 243, 245, 246, 247, 248, 249, 250, 251, 272, 277, 287, 291, 292, 293, 298, 309, 324, 348, 356, 359, 371, 375, 379, 385, 390, 391, 392, 395, 403, 405, 408, 409, 411, 413, 414, 415, 421, 422, 426, 429, 435, 436, 438, 441, 443, 453, 454, 456, 459, 460, 461, 462, 464, 466, 469, 479, 483, 486, 493, 494, 496, 498, 499, 501, 512, 513, 564, 573, 575, 579, 582, 584, 588, 599, 610, 614, 619, 629.

Tools:

1, 10, 21, 22, 25, 32, 45, 47, 53, 152, 159, 160, 172, 180, 182, 183, 184, 186, 187, 195, 236, 242, 274, 276, 278, 283, 293, 376, 385, 386, 389, 392, 395, 396, 402, 405, 407, 408, 413, 422, 427, 429, 457, 462, 466, 468, 488.

Implements:

4, 11, 16, 18, 27, 40, 41, 44, 46, 61, 69, 72, 79, 81, 100, 118, 120, 132, 139, 148, 157, 164, 165, 169, 170, 171, 184, 188, 200, 207, 208, 216, 225, 227, 241, 251, 338, 345, 356, 369, 386, 393, 395, 422, 427, 445, 460, 461, 466, 492, 493, 511, 557, 558, 574, 595, 621, 623, 626, 629, 636, 639, 642.

Machines:

21, 24, 29, 32, 37, 53, 55, 56, 154, 160, 161, 171, 173, 178, 184, 186, 192, 203, 245, 247, 262, 276, 293, 296, 324, 386, 295, 417, 420, 442, 458, 471, 567, 685.

Pastry and Confectionary Making:

2, 10, 15, 22, 29, 32, 33, 37, 39, 40, 51, 60, 87, 111, 135, 144, 155, 167, 178, 181, 184, 186, 193, 219, 222, 227, 233, 240, 241, 243, 244, 246, 258, 278, 283, 296, 306, 332, 364, 379, 382, 396, 407, 408, 413, 421, 431, 434, 453, 456, 463, 465, 466, 468, 470, 488, 524, 533, 549, 552, 553, 560, 569, 573, 578, 587, 606, 612, 632, 649, 680, 689.

## **The Private and Public Lives of the Annamite People**

### **Public life:**

39, 40, 54, 68, 73, 82, 91, 94, 105, 108, 117, 145, 148, 156, 469, 172, 197, 201, 205, 209, 212, 221, 226, 238, 253, 257, 279, 281, 290, 309, 312, 314, 316, 318, 335, 348, 351, 353, 355, 361, 364, 373, 376, 407, 415, 445, 450, 469, 472, 487, 508, 556, 561, 570, 581, 600, 650, 653, 657, 681, 691.

### **Home Life:**

32, 34, 38, 45, 46, 47, 48, 51, 53, 54, 58, 61, 63, 73, 96, 99, 104, 107, 114, 116, 124, 129, 136, 140, 144, 145, 146, 159, 162, 166, 172, 179, 185, 189, 190, 192, 196, 205, 206, 215, 216, 225, 231, 232, 235, 237, 239, 242, 246, 256, 274, 281, 283, 284, 285, 289, 293, 297, 301, 305, 313, 319, 322, 325, 326, 336, 338, 341, 352, 354, 357, 359, 370, 372, 375, 379, 387, 391, 399, 404, 406, 430, 443, 444, 445, 449, 454, 460, 463, 473, 477, 482, 494, 497, 509, 521, 627, 677, 696.

### **Musical Instruments:**

2, 3, 23, 24, 25, 27, 33, 46, 48, 49, 62, 74, 135, 164, 177, 178, 187, 268, 285, 289, 297, 298, 316, 321, 376, 428, 437, 450, 684, 695.

### **Magic and divination:**

1, 23, 26, 60, 61, 62, 63, 72, 80, 82, 85, 86, 108, 111, 124, 125, 139, 151, 188, 190, 196, 213, 219, 228, 237, 244, 247, 249, 258, 285, 289, 290, 291, 308, 310, 311, 312, 317, 330, 336, 343, 348, 350, 360, 361, 368, 373, 379, 387, 394, 413, 441, 458, 465, 488, 495, 551, 572, 578, 587, 618, 624, 639, 655, 659, 663, 666, 669, 696.

### **Folk Medical Practices:**

1, 5, 18, 26, 49, 53, 58, 106, 126, 133, 161, 163, 191, 219, 240, 255, 257, 264, 268, 298, 302, 304, 310, 319, 322, 327, 332, 333, 339, 373, 388, 390, 391, 392, 403, 421, 437, 448, 458, 496, 508, 521, 523, 550, 555, 575, 586, 601, 617, 650, 697.

### **Celebrations and Ceremonies:**

5, 7, 13, 15, 19, 28, 41, 49, 77, 101, 114, 170, 173, 175, 188, 212, 213, 226, 231, 232, 233, 234, 235, 236, 342, 346, 349, 254, 259, 267, 270, 287, 291, 302, 313, 318, 331, 336, 344, 346, 349, 370, 375, 376, 387, 389, 396, 401, 414, 416, 417, 419, 426, 428, 436, 437, 438, 441, 443, 451, 454, 462, 478, 481, 506, 513, 534, 538, 542, 565, 571, 604, 607, 611, 645, 664, 680, 695.

### **Games and Toys:**

3, 6, 9, 14, 15, 16, 17, 20, 26, 30, 34, 35, 38, 41, 43, 45, 49, 50, 52, 57, 58, 67, 71, 75, 76, 80, 82, 83, 88, 92, 96, 99, 101, 107, 109, 115, 118, 119, 120, 121, 129, 133, 139, 143, 147, 152, 162, 166, 170, 172, 173, 174, 179, 183, 201, 210, 215, 216, 218, 219, 220, 221, 222, 229, 230, 231, 232, 248, 249, 250, 251, 255, 269, 271, 275, 279, 280, 281, 285, 287, 293, 297, 300, 301, 305, 307, 312, 316, 321, 322, 323, 324, 325, 332, 334, 335, 337, 338, 340, 342, 344, 345, 347, 349, 359, 362, 363, 365, 367, 369, 370, 371, 374, 380, 382, 384, 387, 393, 398, 399, 403, 407, 409, 414, 417, 419, 424, 427, 431, 434, 436, 442, 445, 446, 456, 463, 467, 476, 480, 482, 483, 489, 491, 493, 503, 504, 511, 529, 532, 533, 580, 619, 635, 638, 649, 653, 655, 665, 674, 684, 685, 698.

### **Gestures:**

12, 14, 19, 26, 28, 31, 33, 43, 48, 49, 54, 75, 77, 106, 127, 172, 201, 203, 210, 213, 219, 264, 309, 310, 321, 342, 343, 357, 363, 369, 372, 384, 389, 429, 487, 489, 677.

### **Street Life:**

1, 4, 7, 8, 12, 14, 19, 21, 23, 26, 31, 43, 51, 61, 67, 75, 93, 95, 104, 106, 122, 132, 138, 140, 142, 151, 152, 155, 167, 170, 171, 172, 176, 180, 183, 201, 203, 204, 207, 208, 210, 211, 213, 214, 215, 223, 224, 226, 228, 232, 233, 238, 240, 244, 245, 248, 251, 254, 258, 259, 265, 268, 270, 272, 288, 290, 304, 307, 313, 326, 334, 336, 340, 347, 350, 353, 354, 355, 358, 359, 368, 372, 384, 386, 398, 415, 429, 432, 433, 436, 439, 443, 450, 454, 461, 483, 494, 499, 502, 509, 518, 531, 544, 555, 621, 625, 640, 651, 667, 686.

### **Itinerant Trades:**

1, 4, 5, 8, 12, 13, 16, 18, 19, 26, 27, 34, 39, 43, 51, 57, 62, 70, 71, 74, 75, 79, 83, 85, 91, 93, 94, 97, 109, 123, 125, 138, 139, 164, 186, 189, 197, 205, 210, 211, 218, 221, 230, 237, 253.