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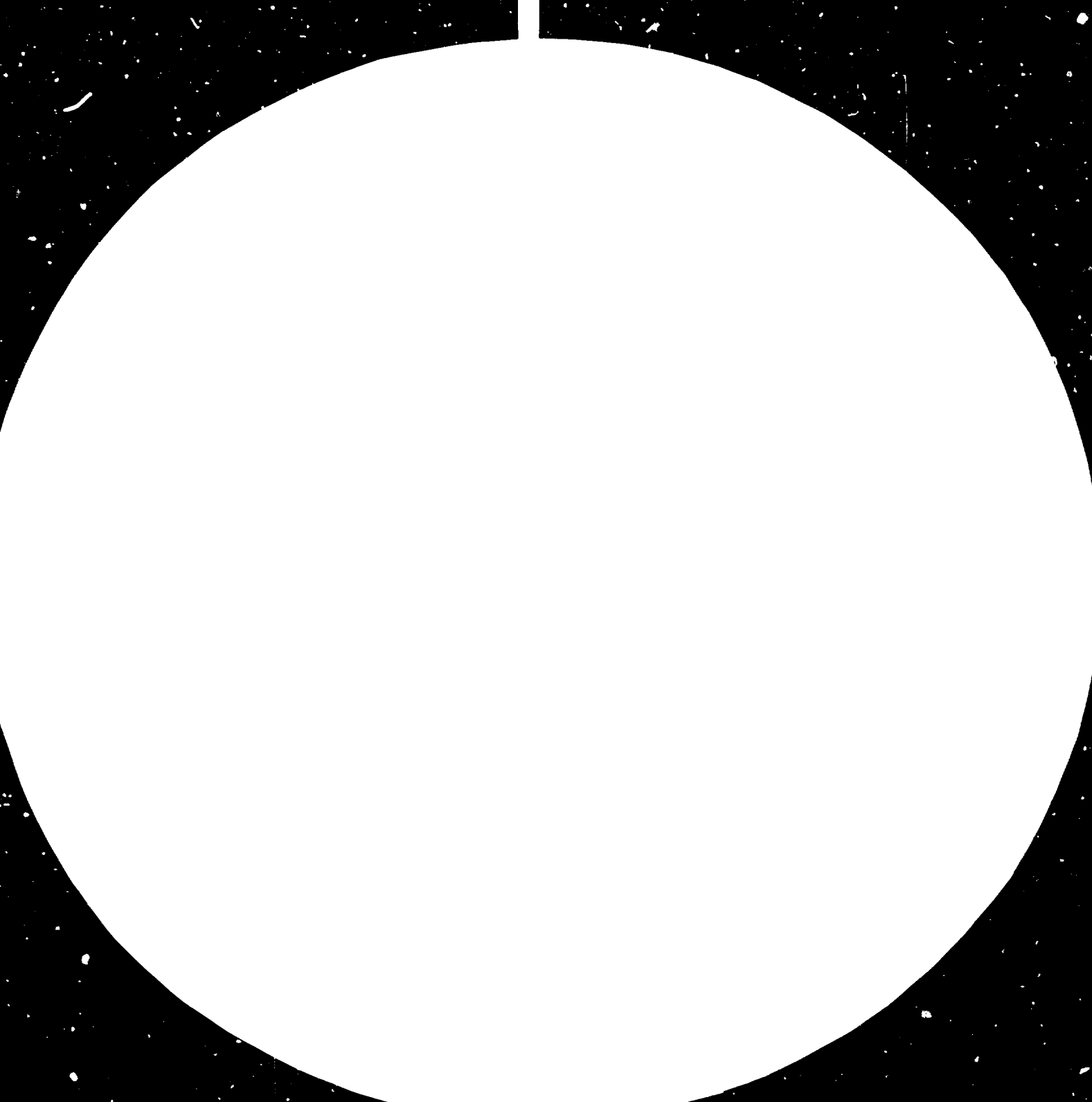
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Technical Course on Criteria for the  
Selection of Woodworking Machines  
Milan, Italy, 5 - 21 May 1980

THE FURNITURE INDUSTRY IN THAILAND\*

by

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### General Information

Thailand is blessed with rich forest resources especially of high value timber. The important forest resource is in the northern part of the country, where the major species includes Teak (Tectona grandis), Daeng (Xylia kerrii), Tabek (Lagerstroemia calyculata), Teng-Rang (Shorea obtusa), Fluang (Dipterocarpus obrusifolius), and Pradu (Pterocarpus macrocarpus).

Among the raw materials for furniture, the teak wood is still the most popular. It is extremely hard, termite resistant and lasts many generations if the furniture is well made.

Yangara wood (Rubber wood) furniture with a thick coat of paint is often passed off as teakwood to unwary customers. This wood is much cheaper and is now widely used in furniture making. After chemical treatment this wood is resistant to termite and fungal attack also.

At present, the problem which the local primary wood processing industries are facing is that most premier quality teak wood has become scarce and expensive. Even though an attempt is being made to use other species growing in abundance in the country's forests which are almost never touched, their natural qualities are not so attractive as those of the popular species. Moreover, waste of timber is a serious problem. Of the nearly 500 powered sawmills in Thailand, barely 10 per cent have modern equipment while all the rest use old-fashioned circular saws. These saws are responsible for at least 10 per cent extra waste in the sawmill and in this way even more valuable timber is lost as sawdust.

The furniture industry is one of the oldest manufacturing activities in Thailand, early production was to supply only local demand. This furniture was produced entirely by hand. Since 1930 modern production of furniture has been developed due to the western style furniture, imported from European countries. However modern production was still

labour intensive. Nowadays, the wood-working machinery has been introduced into the furniture making i.e. lathes, planers, cutting machines, drilling machines, etc. It could be considered that quite a number of large and medium scale furniture makers are using both fully and semi-automatic machines while small scale makers are still using most of the hand tools in making furniture.

Thailand's furniture industry is divided into the following three main categories: wooden, rattan, and metal. The manufacturers totalled approximately 400 factories with a production of 1,500,000 units per year, but they actually have a capacity of 3 million units. Three-fourths of the total production is for local consumption and the rest for export. About one half of production is in the Bangkok area and the remaining is distributed throughout the country. The marketing opportunity of the furniture industry is still very good; the total demand has increased as the industry has been developing. The increasing population and rising income of individuals and changing attitude and taste of the Thai people towards the adoption of Western material is the reason why the local demand increased. This increase is the main factor that helped this industry's growth. Export capacity can be increased if there is a favourable demand.

#### Wooden Furniture Industry

The wooden furniture industry can be separated into 3 groups:

(1) The first group comprises those factories which can operate under a mass production system with capital investment of at least 5,000,000 Baht <sup>1/</sup> though 20,000,000 Baht is required for fully integrated plants. They are very modern and efficient factories. Fully and semi-automatic machines are very essential. Systematic planning and controlling have to be well organized. However, there are very few factories that can be considered to be in this group.

<sup>1/</sup> US\$ 1 = Baht 20.

(2) The second group is representative of the whole medium scale factories, employing 15-35 persons. The investment ranges from 250,000 to 1,650,000 Baht. The nature of their operation is the job order system. With limited amounts of working capital, they cannot provide enough machines to operate on a mass production basis. Semi-automatic machines are commonly used in this group.

(3) The third group is the largest group. All the small scale firms are included in this group, they are over 50 per cent of the total furniture factories. The majority of these small industries have capital investment of less than 100,000 baht. Their nature of operation is only to finish the furniture by hand or simple machines, their quality the lowest in Thailand with a correspondingly cheap price. The ones who succeed in their business will pass upwards to the second group.

The wooden furniture industry is still labour intensive. Fully and semi-automatic machines are used only in the first and second groups. Wood-working machines can be made locally but are mainly imported.

#### Rattan Furniture Industry

Thailand has a tropical rainy climate, it is green with trees of great variety among which Rattan is found in deep jungles all over Thailand. Most of the Rattan in Thailand comes from the southern part of the country and it is transported by rafts, which is the main way of transporting Rattan in tropical countries.

There are two kinds of Rattan: (1) The big size Rattan which is called "Wai Prong" and is used for the furniture frames and (2) the smaller size Rattan which is called "Wai Ka-long" and is used for weaving and binding parts of furniture.

There are approximately 70 Rattan factories in Thailand, including some cottage industries. The demand of raw materials is 3,000,000 ft. (900,000 metres) per month which employs a labour force of some 7,000 persons. The yearly income of the country is about Baht 300,000,000 which is divided into inland trade representing 60 per cent and exports overseas at 40 per cent. The markets are in the Middle East, the United States, Europe, and some in Australia.

### Metal Furniture Industry

In Thailand, the metal furniture industry has developed only in recent years. However, it comes to play an important part in the furniture industry. The metal furniture industry in Thailand can be divided into two categories:

- (1) Office furniture production, which is industrialized and is mostly produced under foreign licence (mainly Japanese). There are approximately no more than 10 factories.
- (2) Consumer production, such as tables and chairs, which is a small scale industry. This kind of production is supposed to be ornamental painted furniture, for example, garden furniture and play ground furniture.

As furniture manufacturing in Thailand is a small scale industry, problems that local furniture manufacturers normally have to confront are of numerous kinds, particularly, technical problems and management problems i.e. marketing problem, financial problem, problems related to the supply of: suitable raw materials, carpenters, and skilled labourers, technicians and the selection of wood-working machinery. These problems are experienced by manufacturers as well as by Government Authorities, therefore, the Furniture Industry Development Centre was established to give consultancy service, manpower training, and to extend technical aspects to local manufacturers in order to promote the furniture industry, to upgrade furniture standards and to increase productivity. Consequently, it is hoped that a brighter future of furniture industry in Thailand can be expected within a few years.

### Local manufacture and/or import of wood-working machines

Most of wood-working machines operating in local furniture industries are imported from abroad (mainly United Kingdom, Italy, and the Federal Republic of Germany). Some are imported from Asian countries such as Japan, China and Taiwan. As a matter of fact, there are also local factories



producing wood-working machines but they produce only simple machinery. Most of these machines are not as precise as of those imported: band saws, circular saws, planers, routers, spindle moulders, sanders, dry kilns, and all wood-working tools.



