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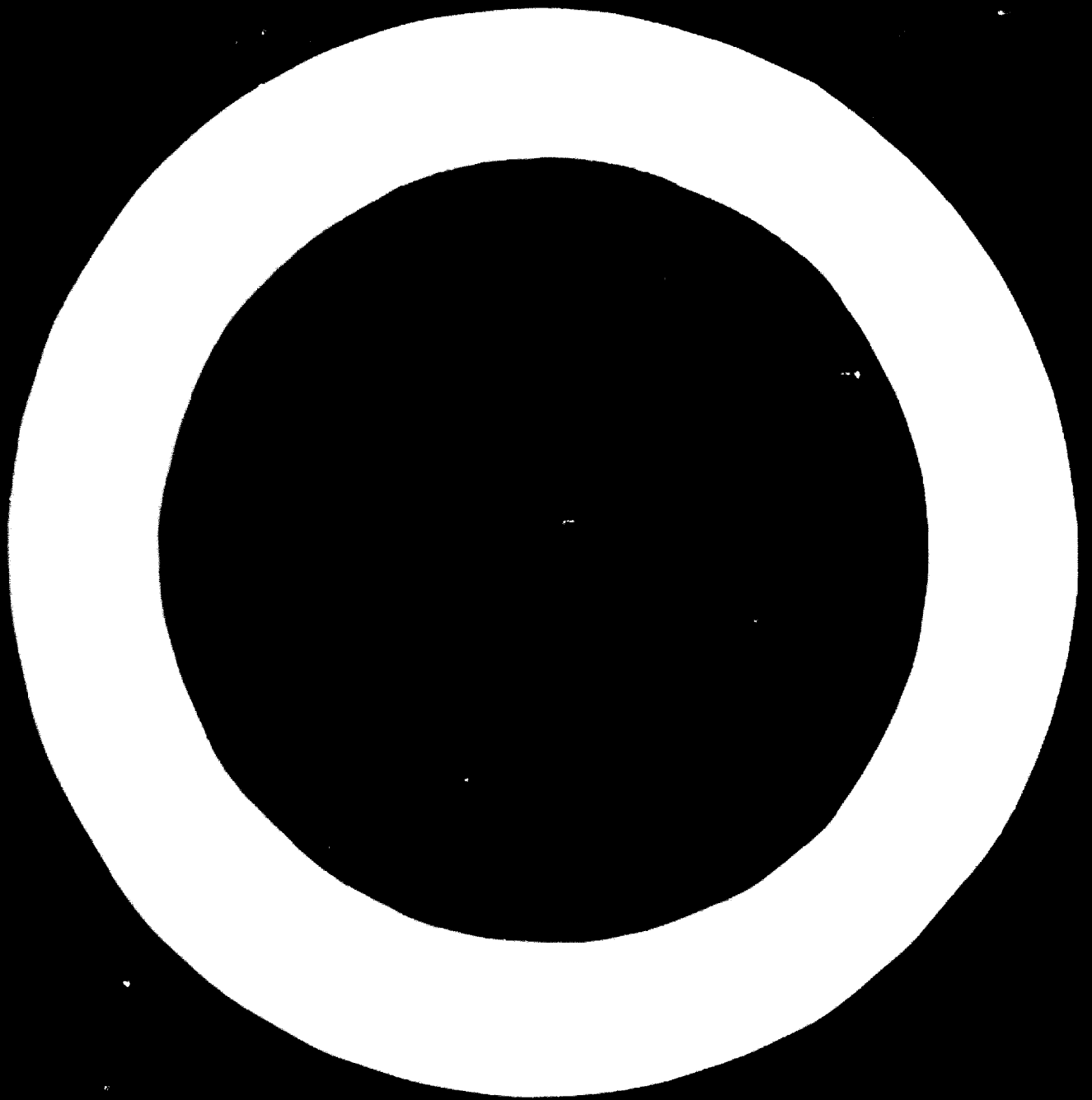
FURNITURE INDUSTRY IN TRINIDAD AND TOBAGO 1/

by

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Until the early 1950's, the making of wooden products in Trinidad & Tobago was still being processed by traditional hand crafted methods. The local craftsmen had been handed down over the centuries their skills in joinery and cabinet making by the French and British settlers.

Except for the production and refining of sugar from cane, and the mining and refining of petroleum, this lack of industrialisation was not confined to the woodworking sector only, but in fact was general to the country, which was in a state of relative underdevelopment. In an effort to alleviate this near total dependence on the agricultural and petroleum mining industries, the government at that time established an agency known as the Industrial Development Corporation (IDC) whose responsibility was to provide a framework for the establishment of manufacturing industries which would lead to the creation of the manufacturing sector, and ultimately would lead to a more balanced and diversified economy. In so far as the wood working industry is concerned, the following are the main areas of incentive for development of the industry and as formulated by the Industrial Development Corporation:-

- (1) Duty-free importation of raw materials for subsequent processing relevant to the industry.

- (iii) Duty-free importation of equipment, tools and machinery relevant to the industry and its production processes.
- (ii) Restriction on the importation of components/products/raw materials that are otherwise manufactured in Trinidad and Tobago.
- (iv) The availability of industrial buildings at nominal monthly rentals.
- (v) The availability of Government lands within approved industrial zones, on long term leases and at nominal annual rentals.

The intention of such a formula, then, is to allow the would-be entrepreneur to divert his available finance towards capital equipment, raw materials and finished goods inventory without having to incur the additional and otherwise restrictive expenditure of factory buildings and lands.

Whilst in no way attempting to underplay the foundation role of the Industrial Development Corporation, the subsequent development of the industry can be attributed to several economic factors. The most notable of these has been the coinciding of the IDC concessions with the entry of the country into its most significant period of economic growth. Following on this economic growth, the next probably

most significant factor was the introduction of hire purchase financing in 1957, which would later prove to have completely altered the buying habits of the consumer public.

Today the wood working industry, comprises an estimated 20 registered companies engaged in the manufacture of furniture and joinery components. These companies offer employment to approximately 1200 persons and account for nearly 4% in value of the total output of the manufacturing sector (as distinct from the petroleum and agricultural sectors). The industry produces a wide range of products which include hollow core and solid panel doors; window frames; sun breaker units; custom built reproduction furniture; prefabricated modular storage and shelving units for the kitchen, living room and bedroom; contemporary solid timber dining and living room suites; wood veneered and plastic laminated bedroom suites; contract furniture for offices and conference rooms, schools and churches.

Initially, the industry was more active in joinery manufacturing, due mainly, to the traditional use of joinery in both public and domestic buildings. However, the general industrialisation programme brought about the establishment of mild steel and aluminium building component industries. These products quickly replaced the traditional timber component for three main reasons:-

(1) Timber was readily attacked by termites and could not be

(3.)

effectively treated against this pest.

- (ii) Timber required constant maintenance when exposed to the hot, humid climate of the region.
- (iii) The architects and builders of the day were reluctant to cooperate and even refused to accept the locally manufactured standards, which were in accordance with the British Standards and Specifications.

Today, the joinery industry has gone into the decline and where in existence, the companies involved operate entirely on a contract basis. It is hoped, however, that with improved living standards, improved anti-termite treatment, the success of polyurethane lacquers for exterior finishing, and a more enlightened and accommodating body of architects and builders, that timber will soon find more wide-spread use as a joinery component.

According to the range of products indicated, it follows that the industry employs a variety of wood working technology. Cabinets are constructed of particle board with applied surface treatment. Surface treatments include the use of wood veneer, high pressure plastic laminate and P.V.C. foil. Of these, high pressure plastic laminates



are the most popular by virtue of low material and application costs. P.V.C. foil and high pressure plastic laminate is applied by automatic glue spreader, equipped with outfeed pressure rollers. Where this system is adopted, P.V.A. glues are used. Some factories have adopted the use of rubber-based contact adhesive, in which case the hot spray contact system is employed.

There is limited use of nitro-cellulose and acid-catalysed lacquers. However, the market demand for this type finish is very small. Lacquer finishes are applied in all cases by hand-controlled spray gun systems. Roller coating and curtain coating methods are yet to be adopted in this country.

In the assembly technique of these cabinets, the modern dowel jointing methods have found wide-spread acceptance, though the traditional dovetail methods still prevail, but to a lesser degree. There are as well instances where the European Knock-Down (K.D.) system is in use. In the production of solid timber furniture, specialised machines such as automatic shapers are non-existent, and hence, all shaping is effected by a series of make-snift operations involving the band saw, the router, the spindle moulder, and even specialised sanding equipment. This type procedure requires total dependence on the skilled joiner, who in turn is becoming a rare commodity in this region. Not only is he rare, but bitter experience has shown that he is extremely temperamental. Some industries rely on this type of operation,

however, the continuation of this type operation must be considered short-lived, and whilst there is a ready market for these type products on the North American continent, repeated frustration through not only unreliability in delivery, but also the inability to meet the market requirements, continues to stifle further expansion in this type of activity.

In broad perspective, the machines utilised in the industry are in the majority of a basic nature - e.g. the band saw, the dimension saw, tenonner, spindle moulder, cross-cut saw. Specialised equipment is used but mainly by about three of the companies. Specialised equipment includes the double ended dimensioning machines, edge-bander; foil laminating line; multiple borers. It is this ability to embrace the need and value of such equipment and technology that has separated these companies from the general.

It would appear that our manufacturers firmly believe that final accurate sizing can still be achieved from single sided bench saws; that numerical boring can still be performed accurately by the use of fence stops and single boring heads and that the application of wood veneer and plastic laminate edging can be applied by hand with the same strength and quality as the automatic machine.

The industry gives an impression of well-being, not only from the number of companies involved in manufacturing, but also in the great

number of retailing outlets serving the entire nation. One underlying factor which could be regarded as peculiar to the local situation is that the majority of the manufacturing companies are involved directly in the retailing of their own products. In some cases, the retailing activity is much larger and wider than the manufacturing activity, which in itself suggests that the manufacturing operation is secondary to the retailing operation. One effect of this situation is such that entrepreneurs solely dependent on manufacturing are forced to compete in their competitors' showrooms, with its attendant partiality. The country's strongest retail outlets are involved in this type of activity. This single factor has tended to stifle the rational growth of the manufacturing organisation.

Generally, the industry is without proper corporate structure which gives rise to enterprising organisation. There appears to be a reluctance to engage the services of qualified production managers, cost accountants, and designers. Product rationalisation is virtually non-existent. This is a latter area which needs intensive study, e.g. the majority of the manufacturers each produce coffee tables, yet there is not one single manufacturer in the country whose sole speciality is the manufacture of coffee tables. Again, in the making of turned wooden legs for furniture, every manufacturer produces his own legs. Surely there could be, say, not more than three manufacturers whose turning equipment could serve the entire needs of the industry. Mention was made earlier of the reliance of manufacturers on craftsmen for the hand-working of solid timber. No

single manufacturer has, as yet, purchased a copy-shaping type machine which, again, could supply the industry with shaped components. The industry is in dire need of imagination and direction.

The growth of the wood working industry has made possible a number of allied and supporting industries offering a number of materials that would have otherwise been imported. These include the manufacture of bagasse particle board which is now in its trial stages of production; synthetic contact adhesives; nitro cellulose lacquers, thinners, sealers, primers and stains; flexible polyurethane foam; zigzag type springs; letex foam. Solid timber products are manufactured out of locally available timbers, the more common and internationally recognizable of these being mahogany, teak, and a local species equivalent of oak known as "apomate".

There are no technical training facilities available for workers in the wood working industry. At present the industry selects its workers from applicants whose academic background rarely exceeds Primary education, and in very few cases, do some of these applicants possess the basis of a vocational training. The successful applicants then receive their skills through in-plant apprenticeship and trainee programmes. This scarcity in skilled workers and technicians is further compounded by continual emigration to the North American continent. The result of this situation is such as to create an inflated value of the worker's true skill and ability in relation to his actual responsibility and job specification.

The quality and advancement of the Industry is dependent on the quality and ability of its workers who are entrusted by management with the responsible operation of costly equipment. There is no education establishment - comprehensive, vocational or technical, that has realistically attempted to understand and meet the requirements of the wood working Industry. There should be an immediate review and evaluation of this situation in an attempt to meaningfully equip the Industry with suitably qualified personnel. Any proposal in this direction must have the complete approval of the Industry itself. There are many such institutes throughout the world, for example - the Danish Technical Institute; the Furniture Industry Research Association of Great Britain whose services should be sought in the setting up of such a project, and whose experience in the conducting of such a programme would be invaluable.

At present there are no established standards or specifications adopted by any independent third party, in this instance, the newly formed Bureau of Standards, whereby the performance of both the raw material inputs and the finished product could be evaluated. The lack of this facility can only be an invitation to malpractice and could offer absolutely no protection to the consumer.

The specification of raw materials is particularly essential to the wood working manufacturer, since traditionally imported materials are increasingly being replaced by that of local manufacture and therefore, there must exist some basis for scientific and technological measurement. Whereas the finished product can be more readily amended in the

event of substandard performance, the implications and complexity of substandard raw material inputs is far reaching. Any compromise or continued encouragement of either of these two situations can only bring the industry into disrepute and any endeavour at export could be made futile from the outset.

The prime area that needs immediate and swift attention is in the timber industry. The timber industry is even less organised than the furniture industry. Methods of logging and retrieval are primitive and unreliable. There is no established or accepted standard for the grading of timbers and the local manufacturer must continue to resort to a system of compromise and barter, and probably worse, he is helpless in the hands of his purchaser, whose integrity must, of course, be of the highest. It is encouraging to note that the Forestry Department attached to the Ministry of Agriculture Lands and Fisheries is actively and constructively pursuing not only the cause of the conservation of forests in Trinidad and Tobago, and with the invaluable assistance of the United Nations, but also the timber industry and its role and supportive responsibility towards the sophisticated development of the wood working industry. Until their investigations are completed and proposals accepted and implemented, the manufacturing of products from solid timber will continue in its steady decline.

Already, the United Nations assisted and government sponsored CARIRI, in collaboration with the Forestry Department, have recently embarked on a project for the technological classification of the various timbers available in the region. In their initial investigations of the industry, they have identified the need for at least one saw doctor to serve the

needs of the industry.

In July 1973, the independent Caribbean Territories, which were formerly under British Colonial rule, signed an economic treaty which gave birth to the Caribbean Community and Common Market (CARICOM) - the Caribbean equivalent of the European Common Market. According to the agreement, all previous individual tariff structures operative in each member state is now removed in favour of free trade. This means that the IDC concessions, point (iii) is now widened to embrace the members of CARICOM and no longer Trinidad & Tobago alone.

The population of CARICOM is four million persons, and that of Trinidad & Tobago is one million persons. Whilst competition has been made keener, the market potential has proportionally increased. Certainly, the consumer is afforded greater selectivity.

The industry welcomes CARICOM as a major step towards potential increase in unit production, which in turn would reduce the high overhead costs that prevail. It is seen as r means to eventual product and production rationalisation; a means to improving the quality of the organisation.

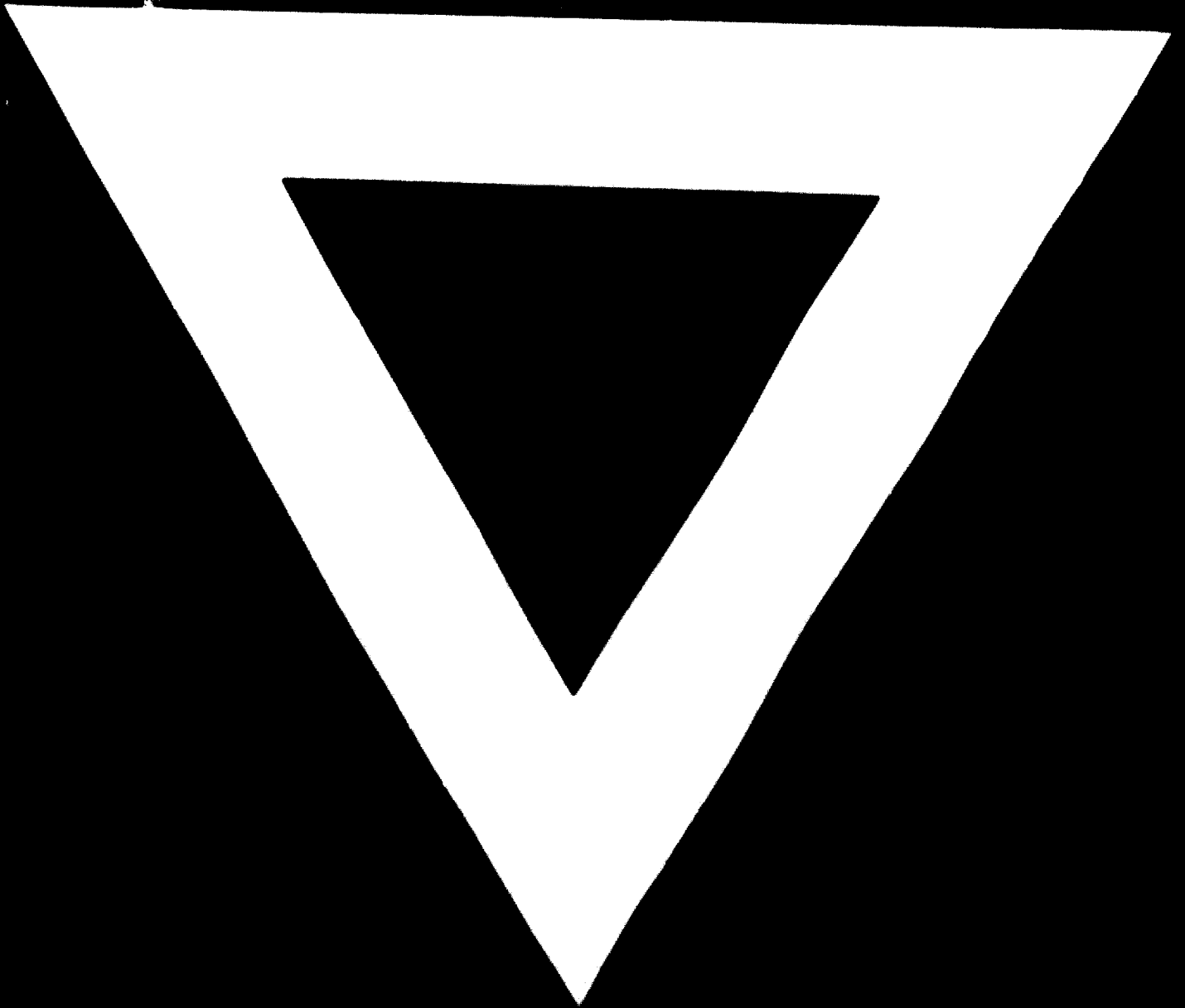
Teak forests in Trinidad & Tobago are reaching maturity and it is expected that within five to ten years the country will be a chief source of this valuable timber. It is intended that this material be worked as far as possible within the region rather than exporting the raw material

for subsequent processing. Not only will the material be used for solid timber components, but it is expected that a veneer plant would be established as well. With timber in such great world demand, the wood working industry looks forward to the total utilisation of its machinery and man power resources, whilst capitalising on newly found potential export markets.

One must not be too optimistic, however, that material and technology are sufficient without regard to good design, for otherwise, our aspirations would be futile, and certainly, the fact that there is only one designer in the entire industry illustrates only too clearly the shortcomings and lack of imagination of the entrepreneur. This point cannot be too strongly emphasised, as one has only to look to the example set by Finland and the Scandinavian countries, not only in their approach to furniture design, but in all industrial design, and the resounding international success that their philosophy has encountered.

The industry has a basis for sound development through the availability of good managers, a stable national economy, a relatively strong purchasing power, good industrial relations and attitudes between Union and Management, a framework of allied industries and at least a handful of leaders within the chaos. With urgent attention given to those problems of technical training facilities; the establishment of materials and product standards; the enlightening of our entrepreneurs in their attitudes towards sophisticated organisation and their rational approach to manufacturing programmes, then the outlook for the wood working industry in Trinidad & Tobago must be viewed with encouraging optimism.





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