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CH

05632

Distr.
LIMITED

ID/WG.183/11
25 July 1974

ORIGINAL: ENGLISH

United Nations Industrial Development Organization

Seminar on the Furniture
and Joinery Industries

Lahit, Finland

29 July - 17 August 1974

EXPORT POSSIBILITIES IN THE PHILIPPINE WOODEN FURNITURE INDUSTRY 1/

by

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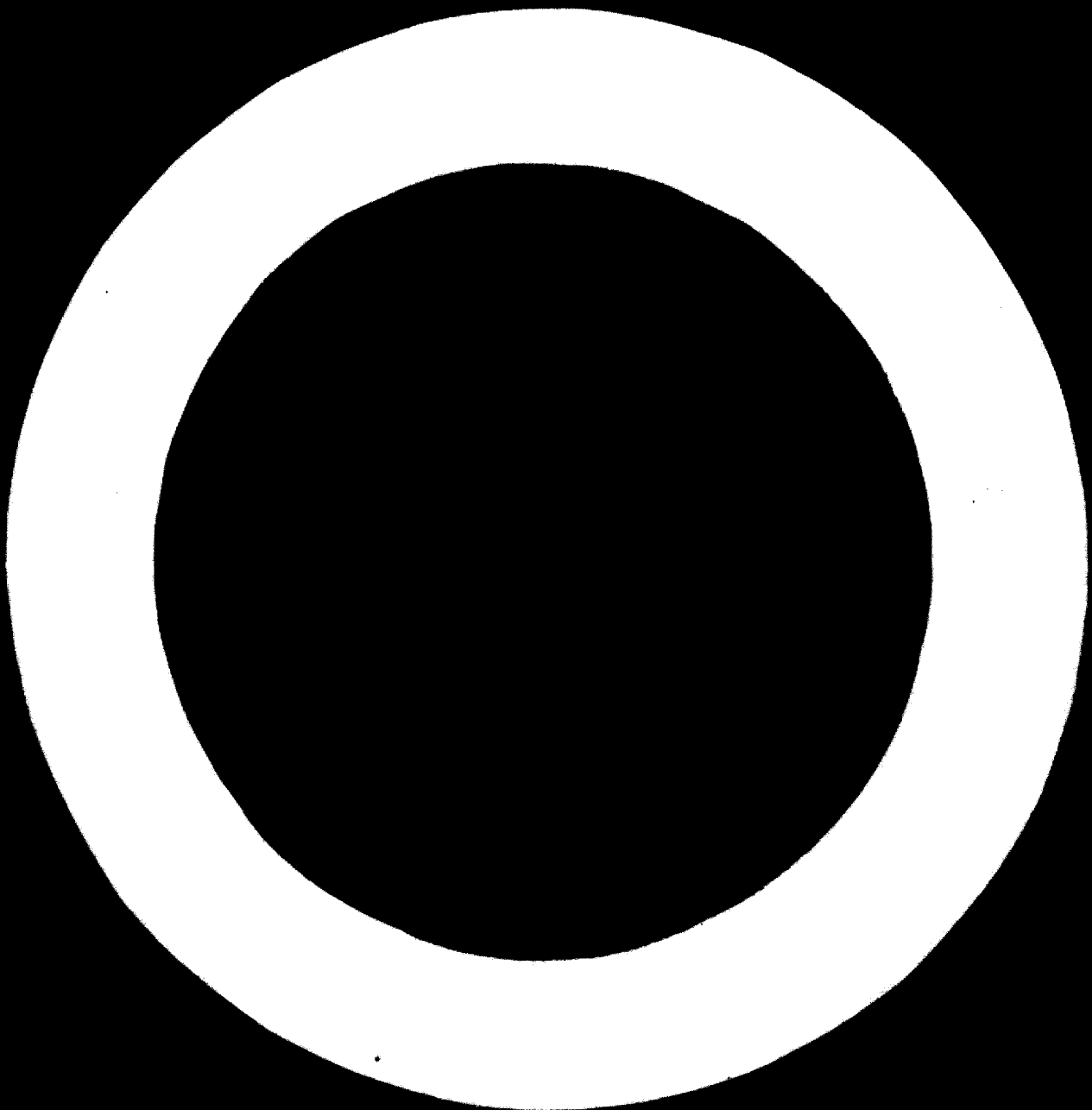
id.74-4951



PRESENT SITUATION OF THE FURNITURE & JOINERY INDUSTRIES

Still, the industry is among the most labor intensive in the Philippines. It is also characterized by a conglomeration of many cottage and small-scale family enterprises, a sprinkling of medium-sized ones that are somewhat mechanized, and a few organized large factories employing more mechanization.

The natural geographical configuration of the Philippine Islands, has prevented most furniture manufacturers from developing beyond the cottage stage level, and products are usually made-to-order type furniture catered only to the needs of the locality where they are established.

Based on estimates and considering an annual industry growth of 7 to 8%, the following table shows the Industry's Plant and Total Employment Distribution throughout the country:

Plant Size	% Distribution	Number of Plants	Average No. of Employees	Total Employment
200 workers & over	¼	14	250	3,500
100 to less than 200	½	28	150	4,200
50 " " " 100	1	56	75	4,200
20 " " " 50	2¼	126	35	4,410
10 " " " 20	4	224	15	3,360
Below 10	92	5,152*	5	25,760
	100	5,600		45,430

* Out of 5,152 small cottage industries, approximately 2,300 are unregistered and operated on a family basis involving 3 to 7 people.

THE ELUSIVE EXPORT MARKET

It is only in rattan-type furniture and some architectural products such as space dividers, carved and panelled doors, tabletops, and knocked down beds that the industry has made

some headway. With respect to conventional type wood furniture however, the initial growth of the industry has been stunted by the following problems:

1. Insufficient Sources of Basic Raw Materials:

Foremost is properly sawn and kiln dried lumber and plywood. Here, the distribution of lumber is presently alien controlled, placing Filipinos at a competitive disadvantage. The few reliable companies in the lumber and kiln drying industry export all their good grade products and sell their low grade products to established alien controlled distributors. To add insult to injury, this low grade lumber intended for resale in the local market is sometimes re-bundled and exported to nearby Hongkong and other neighboring countries.

In spite of all these raw material problems, the Joinery industries have managed to drag along using left-overs that are improperly processed. That is, lumber usually undersized, full of natural and mechanical defects, are mostly kiln dried in inefficient progressive kilns run on time schedules.

Since most of the kilns are [illegible] controlled and run for maximum profits to service the undemanding requirements of the local market, lumber sold as kiln dried are usually case-hardened, full of splits, honeycombed, and with moisture contents varying from a low 6% to as high as 20%.

In this regard, when it comes to lumber as raw material, the Industry has definitely profited because of the ban the government has on all log exports. At present, the ban is already effective by as much as 40% and come 1976 the total ban will take effect. While the Government has rightly earmarked about 30% of processed lumber and plywood to be sold locally for the joinery and construction industry, it still has to contend with the lumber processors' desire to maximize profits by exporting all exportable grades and leaving only the lower grades available to the local industry.

2. High Freight Charges by Foreign Shipping Companies:

Tables 1, 2, 3 & 4 (see Appendix 1) show rate charges levied by foreign shipping companies on Philippine wood exports to foreign countries. Philippine wood exporters are forced to patronized foreign shipping lines because no Filipino flag merchant marine has sufficient tonnage to move the country's wood exports.

We can see from the tables that Freight rates will be a major drawback when one thinks of exporting finished furniture due to the bulk problem.

As in shipping plywood, doors, and other architectural panels where full utilization of bulk is realised due to compactness in packing, we must likewise develop joinery products along the same lines. By this, we mean that in the meantime it would be sensible for us to gear the Furniture Industry into the manufacture of furniture parts and unfinished or prefinished knocked down furniture that can be packaged similarly.

3. Financial Problems:

It is indeed a sad fact that up to this time, the banking institutions in the Philippines are somewhat "collateral" oriented so that financing in general for all small and medium-sized businesses are wanting.

There has been talk about financing of projects or expansions based on the viability of the project but when one follows this through, he will find out that he has to pay yearly interests amounting to about 16 to 17% inclusive of all insurance, banking, and other pertinent charges, or on the other hand compete with what the "money market" can pay at the time, whichever is greater. Thus, the greater bulk of the joinery industry to whose fold belong the small and medium-sized businesses, will have to be satisfied with finances from internally generated funds or other usurious sources that do not require much red tape.

4. Manpower:

With regards to managerial skills in general, the Philippines is rich in this commodity, as long as the business can pay. With regards to managerial skills as applied to the wood and joinery industry however, there is much to be learned and we are here ready to learn in order to upgrade the industry.

With respect to labor and skills required in the industry, the Filipinos are noted for their natural ability to adapt, as well as their "knack" for improvisation when the situation so arises. It is easy to teach the Filipino new techniques and tricks in the game more so if he is a High School Graduate. Those in the wood and joinery industry however, are somewhat underpriviledged since this particular industry in its present stage of development, through no fault of theirs and their employers are still plagued with low wage scales that the industry can afford to pay.

WOOD MOISTURE RELATIONS FOR LOCAL & EXPORT PRODUCTS

From Table 1 (see Appendix 2), onemay be guided to arrive at the optimum values for seasoning lumber for the Joinery Industry:

1. Seasoned Lumber for Local Use:

   a. Outdoors - Lumber should be dried to a moisture content (M.C.) close to the mid-point of the range between the high and low extremes expected to be attained in service. In some cases, where moderate swelling is generally not objectionable, one or two percent below the midpoint value is advantageous.

b. Indoors - Wood for interior woodwork or wood which will be exposed to indoor atmosphere should also be seasoned to a M.C. value one or two percent lower than the mid-point between the minimum and maximum values attained throughout the year. Wood for use in air-conditioned rooms and offices in general however, should be definitely kiln dried down to 10% M.C. for best results.

2. Seasoned Lumber Used for Export:

Here we are faced with the problem of definitely kiln drying our wood down to the required M.C. of countries importing our products. A safe M.C. value we can economically approach to start with would be 10%. This arbitrary figure has been arrived at because of the following reasons:

a. In the U.S.A. for example, the average Equilibrium Moisture Content (E.M.C.) value for the southwestern Dry states is about 6%; for the Southern and Coastal states 11%; and for the remainder of the states 8%. While this is true for outdoor conditions and some unheated and not air-conditioned homes and offices at a certain time, the actual use of heating during winter months and air-conditioning during the summer months poses a problem.

b. It is also a fact that during the winter months the E.M.C. prevailing in heated rooms in the U.S. can go down to a low 4% and that during the Spring and Summer months while E.M.C. outdoors will vary from 6% (Southwestern Dry states) to 12% (Southern & Coastal states), all air-conditioned dwellings and offices are usually adjusted to obtain a confortable E.M.C. of say 6 to 10%. With these in mind, why should we dry our wood down to 6% M.C. or the ideal 8% M.C. since as we have seen, at some time or the other all these will also be subjected to E.M.C. values approaching 10% or even 12% in service.

c. In the Philippines, since the average E.M.C. for the whole region is approximately 16%, it would be practical to kiln dry wood down to 10% and not less. Increased cost of drying down further to 6% or even 8% would be impractical since to control the moisture pick-up thereafter would necessitate the storage and processing of wood under "humidified" conditions incuring more costs.

d. Taking the median therefore of the two extremes above, we more or less arrive at a M.C. on which to season our wood for export use. The M.C. should thus be pegged down to 10%, with a plus 2% M.C. tolerance as the uppermost limits acceptable. As long as all lumber intended for export are religiously kept within these limits, then on the average we are all right. The danger lies in the assembly of Furniture pieces here or abroad from "component" parts that have a wide range of M.C. because if this is so, the differential shrinkages or swellings within the assembled piece when ultimately put in service will give rise to some amount of warping and possibly open joints.

e. It has also been recommended in the past that we export our joinery products with M.C. approximating E.M.C. values of the particular region where they will be put in service. Also, that these goods should have been fabricated inside humidified or air-conditioned plants and subsequently packed in polyethelene-lined crates to minimize moisture pick-up while in storage and in transit. This is all good, but what would prevent the importer from selling these goods to other points of the country where the prevailing E.M.C. is lower or higher? Going further down the line, what would prevent the end user from exposing these goods while in service to heating (low E.M.C.) or to outdoor humidity because of rising power costs, (high E.M.C.)?

f. Since the bulk of exported goods as recommended in this paper will be knocked down parts and unfinished or

pre-finished knocked down sets intended to be assembled or reassembled in the importer's factory, the importer should stick to practical designs that will allow some tolerable dimensional movements and yet will not be too difficult to upgrade prior to final finishing.

REMARKS & CONCLUSIONS

The furniture industry must overcome the immediate problem of securing a continuous supply of good and properly seasoned raw materials to consistently produce better quality furniture for the growing demands of the local market, and to enable it to gain a solid foothold into the export market.

There are now a number of small, medium, and big furniture industries that have actually done some sizable exportation. Their biggest problem however, is how to maintain continuous repeat orders. We can only say here that using good and properly seasoned lumber will pay good dividends as they are the foundation of quality products.

There is no sense in knocking our heads regarding high freight rates. In the meantime, we should channel all our efforts in exhausting possibilities regarding the processing of furniture parts and knocked down unfinished or pre-finished products which can be packaged economically.

Here technology and design of knock down semi-finished goods together with new developments demanded by the knocked down system such as special hardware and connectors will play a great role in the success of such undertakings.

It should be mentioned here further that small business can join forces to pool services to increase their capacities and "know-how" to serve the burgeoning demands of the local market, whereas medium-sized industries lacking financing can

do likewise with increased capacities to service the export market. It would be ideal if a group of local small and medium-sized manufacturers would pool themselves into a group and tieup with a counterpart group in each foreign country. The latter group would assemble and finish the imported knocked down furniture parts.

Marketing of course will go through the regular channels of distribution.

With some success along this concept of approaching and attacking the export market, technologies, skills, and even financing can be made easily available. One might say here, that this approach is a long process, but mind you Rome wasn't built in a day!

When it comes to the development and establishemt of factories with real mass-production capacities, we leave that to the moneyed investors and the Government sector to pave the way. Here the Government must oversee and control the growth and prolification of establishment of purely material-intensive industries in order not to deplete our forests beyond the point of sustained yield.

Mechanization and mass-production in the Industry however, might in a sense be good for the country in its desire to generate more $ earnings. But then, these huge monsters have also the capacity to gulp and deplete large quantities of our natural resources in shorter time and with the least labor content involved.

What the country really needs, we believe, is the Development of more small and medium-sized labor intensive industries, each developing their own skills and unique products that may satisfy the standards and demands of both the local and export markets. This way, more returns will redoundto the greater masses from the use of less materials (natural resources)which rightly does belong to our people and more generations to come.

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APPENDIX I

FREIGHT RATES

Table 1 - Philippine North America Conference

From: Customs Ports in the Republic of the Philippines to:				
COMMODITY	Type	Rate Basis	West Coast	Gulf and East Coast
Furniture made of: Bamboo Buri Rattan Wrought Iron Alone or in combination, in bales or in crates	C*	40 cu. ft.	US$45.50	US$53.50
	NC		52.25	61.50
Furniture of Wood, Set-up Bowling alleys	C	40 cu. ft.	US$64.75	US$73.25
	NC		74.25	84.00
Furniture of wood, Knocked-down, Semi-finished	C	40 cu. ft.	US$50.25	US$58.50
	NC		57.75	67.25
Note: Furniture rates do not apply to household goods.				

Source: Philippine - U.S.A. Freight Tariff FMC No. 8

Table 2 - Philippine Asia Conference

From: Customs Ports in the Republic of the Philippines to:				
COMMODITY	Type	Rate Basis	Hongkong Taiwan	Japan Korea
Furniture	C	40 cu. ft.	US$18.00	US$24.00
	NC		21.00	28.00
Note: Furniture rates do not apply to household goods.				

Source: Philippine - Asia Conference Freight Tariff No. 6

Table 3 - Shipping to European Ports

From: Customs Ports in the Republic of the Philippines to:			
COMMODITY	Type	Rate Basis	Ports of Europe
Furniture	C	1 cu. m.	US$54.40
	NC		60.10
Note: All shipments subject to: Currency Adjustment Factor of 14.50%, and Bunker Surcharge Factor of 27.76%			

Source: Luzon Brokerage, Manila
* C - Conference
NC - Non-conference

Table 4 - Shipping to Australian Ports

From: Customs Ports in the Republic of the Philippines to:		
COMMODITY	Rate Basis	East and South Australia
Doors	1 cu. m.	A$40.40
Furniture		38.10
Note: Add A$4.40 per cu. m. Bunker Surcharge		

Source: Alliance Brokerage, Manila

APPENDIX 2

Climate Obtaining in the Philippines

According to the Weather Bureau, the Philippine archipelago is divided into four climatic regions based on the presence or absence of a dry season and the amount of rainfall. The location and characteristics of the four types are described as follows:

First Type: This type is characterized by two pronounced seasons. A dry season occurs during the months of November, December, January, February, March, and April. The wet season occurs during the months of May, June, July, August, September, and October. All regions on the western part of the Islands of Luzon, Mindoro, Palawan, and western Panay Island belong to this type.

Second Type: This type of climate has no dry season but has a very pronounced maximum rain period during the months of November, December and January. Catanduanes Island, Sorsogon, and the eastern part of Albay, the eastern and northern part of Camarines Norte and Camarines Sur, a great portion of the eastern part of Quezon, Samar, the eastern part of Leyte, and a large portion of eastern Mindanao belong to this climatic type.

Third Type: This climatic type has no very pronounced maximum rain period but has a short dry season which lasts only from one to three months. The regions with this type of climate are the western part of Cagayan (Luzon), Isabela, Nueva Viscaya, the eastern portion of the Mountain Province, southern Quezon, the Bontoc Peninsula, Masbate, Romblon, northern Panay, eastern Negros, central and southern Cebu, part of northern Mindanao, and most of eastern Palawan.

Fourth Type: This climatic type has no dry season and no very pronounced maximum rain period. The regions representing this climatic type are the Batanes province, northern Luzon, western Camarines Norte and Camarines Sur, Albay, eastern Mindoro, Marinduque, western Leyte, northern Cebu, northern Negros, and most of central, southeastern and southern Mindanao.

The difference in weather conditions throughout the year within and among these regions would cause a very wide variation in the equilibrium moisture content of wood in use in these regions. Bearing this in mind, and remembering too, that changes in equilibrium moisture content below the fiber saturation point is the main cause of dimensional changes in wood, it is not feasible to select a single moisture content value and to season all lumber accordingly. In order to minimize the shrinking and swelling of wood, due to its hygroscopic nature, it should be seasoned or dried to a moisture content value consistent with the climatic conditions of the region in which it shall be installed.

The accompanying table gives the EMC likely to be attained by wood in use in some parts of the Philippines as dictated by the four climatic regions of the country. (Source FPRI Tech. Note No. 31, May 1962/3)

Estimated Equilibrium Moisture Content of Wood in some parts of the Philippines

Location	Percent Equilibrium Moisture Content													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min.	Max.
1. Cagayan, Tuguegarao	17	15	14	13	13	14	15	16	16	17	18	18	13	18
2. Ilocos Sur, Vigan	13	14	14	14	14	16	17	18	18	16	15	14	13	18
3. Nueva Ecija Cabanatuan	13	13	12	12	13	16	17	17	17	16	15	14	12	17
4. Quezon, Casiguran	20	19	19	18	18	18	18	18	19	20	19	20	18	20
5. Zambales, Iba	15	15	14	14	15	17	18	19	18	17	16	15	14	19
6. Manila, M.W.A.	15	14	12	12	13	16	17	18	18	18	17	17	12	19
7. Quezon, Lucena	18	17	16	15	15	17	16	17	18	18	17	18	15	18
8. CamarinesNorte, Daet	18	18	17	17	17	17	15	17	18	18	18	18	15	18
9. Albay, Legaspi	17	17	16	15	16	17	17	17	19	18	17	18	15	18
10. Leyte, Tacloban	18	18	17	16	17	17	16	15	17	19	18	18	15	18
11. Cebu, Cebu	15	14	14	13	14	15	15	15	15	15	15	15	13	15
12. Iloilo, Iloilo	16	15	15	14	15	16	17	17	18	17	17	17	14	18
13. Oriental Misamis Cagayan de Oro	16	15	15	14	15	16	15	15	16	16	16	17	14	17
14. Cotabato, Cotabato	16	15	15	15	17	17	18	18	17	17	17	17	15	18
15. Davao, Davao	17	16	15	15	16	18	18	17	18	17	17	17	15	18
16. Zamboanga Zamboanga City	17	17	17	18	18	18	18	18	18	18	18	16	16	18
17. Palawan, P. Princesa	18	18	17	16	15	18	19	19	19	19	19	19	16	19

Values in the above table were calculated by means of (a) the average monthly temperatures and normal relative humidity values given in the Annual Climatological Review for 1956 of the Weather Bureau, and (b) wood equilibrium moisture content diagrams.

The values given are approximate, but they could be used to advantage until more adequate data, upon which more accurate values could be based, shall have been gathered from wood samples actually exposed in the localities mentioned. A study now being conducted by the FORPRIDECOM in 10 localities, representative of the four climatic regions of the country, will check the accuracy of the values in this table.

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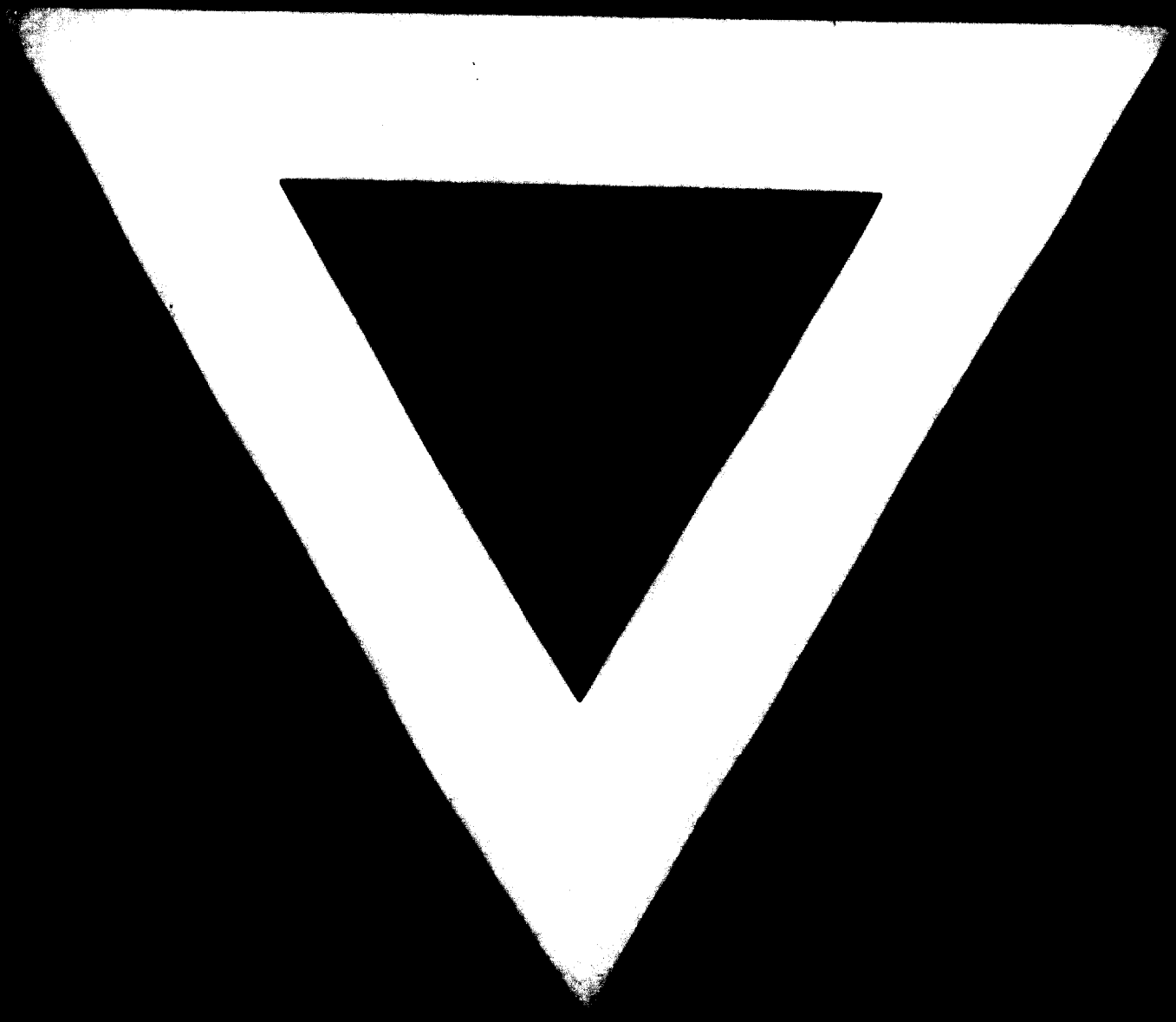

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