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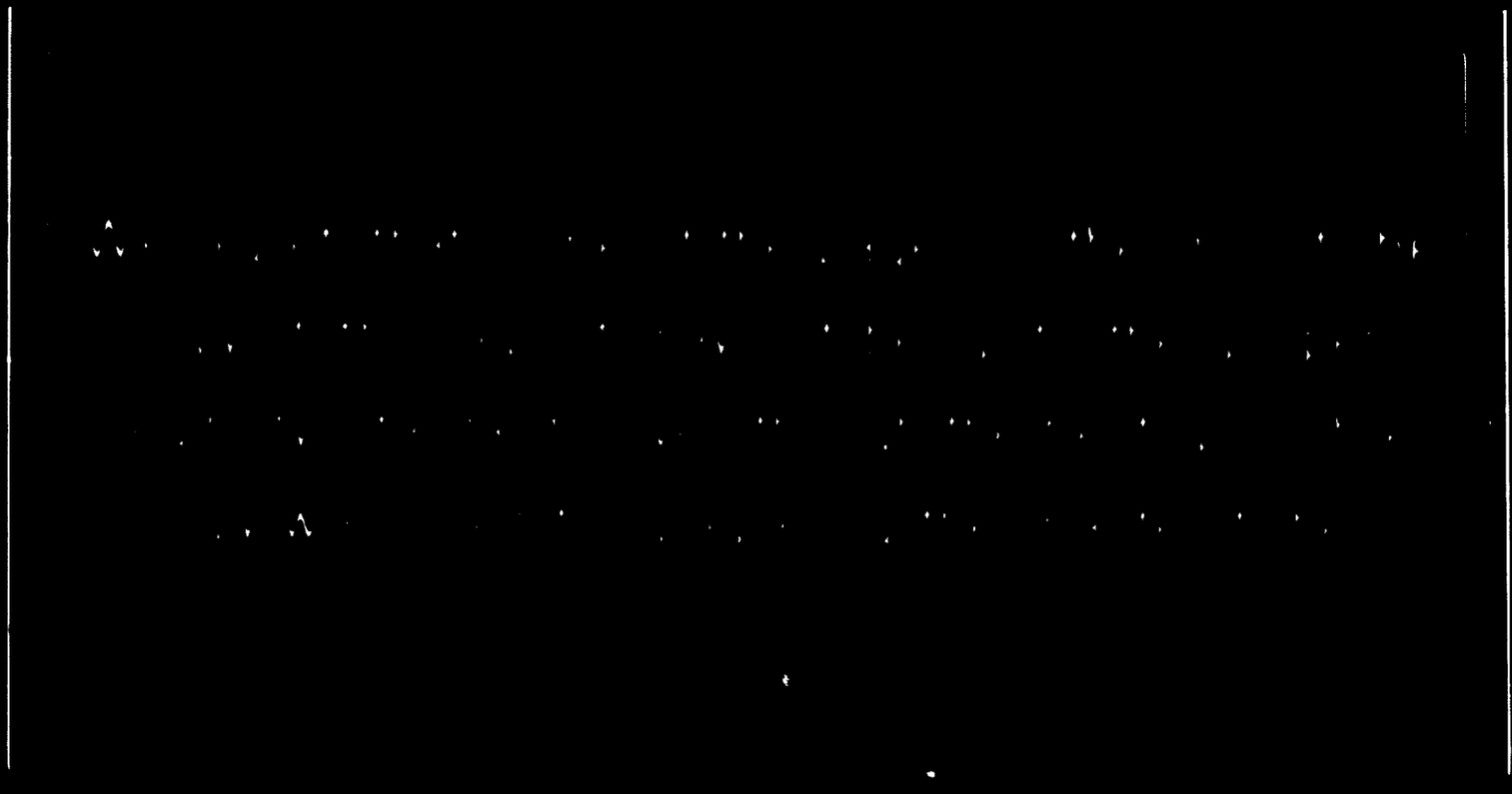

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THE WOOD PROCESSING INDUSTRY IN THE PHILIPPINES 1/

by

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THE WOOD PROCESSING INDUSTRY

IN THE PHILIPPINES

Among the Philippines major dollar earners, the wood industry is perhaps the sector that is undergoing the most intensive transformation. This sector has consistently been the country's top earner of foreign exchange from 1960 to 1973 when world-wide recession forced a slump in the construction sector affecting the Philippine wood exports in the process and relegating it to second place in exports receipts.

The fact that wood-based products have always been among the country's principal exports should, however, not lead one to believe that this sector has been doing creditably well. Beset with many problems, logs have remained to be its prime export. This can be seen from Table I which gives the breakdown of exports for the wood-based sector for the last two fiscal years at which time it had achieved a certain degree of industrialization.

T A B L E I

Fiscal Year	Log (,000$	Veneer (,000$)	Plywood (,000$)	Lumber (,000)
1973-1974	239.500	18.200	48.200	23.000
1974-1975	203.541	9.200	17.300	31.800

It can therefore be seen that this sector was not able to maximize its earnings from forest resources its principal source of foreign revenue still being unprocessed logs. Other major exports like sugar, coconut products

and mineral products have long before been exported under the highest degree of processing as is economically possible.

The government is not unaware of the slow pace at which the wood industry sector has grown. In recognition of the fact that government and the private sector are partners in progress, the government has taken much concern for this struggling industry and has, for quite sometime now, considered it a preferred area the development of which has been encouraged by granting various incentives like tax exemption benefits on imported machineries and equipment, income tax deductions for cost of direct labor and raw materials utilized in the manufacture of its products, tax credits equivalent to the sales, compensating and specific taxes and duties on supplies, raw materials used in the manufacture of its products and other substantial incentives.

While the private sector responded by setting up new wood processing plants, it was not considered adequate to effect a complete rationalization of the industry. Since the price of logs continued to be attractive, processing was kept at unsatisfactory levels. It was therefore imperative for government to take stemer measures and in 1973, the log export phase out was announced and immediately implemented.

An inter-agency committee was immediately constituted with the private sector represented to assess the impact of a total ban on log exports by the end of the year 1975 so that incidental problems can be anticipated and the basis for their rational solution spelled out. An inventory of the log supply

(actual production) by province or group of contiguous provinces was taken. At the same time, the status of existing processing plants was determined and studied if still viable to operate. Processing capabilities were then compared with log supply for the purpose of determining log excess and log deficient areas. With this information, areas where additional facilities would be economically viable were pinpointed.

It was during the log phase out period when recession caused by the oil crisis hit. The wood industry was not spared of its adverse effects. While the demand for logs remained more or less steady and that of plywood and veneer drastically went down, the log phase out program was implemented as programmed. Its extension for another year made under the most stringent conditions was principally dictated by the fact that the log phase out period was marked by recession which adversely affected the balance of payment position of the Philippines. As a consequence, most wood processing plants whose gestation period takes at least one and one-half years, could not be put up on time.

With the almost unrelenting posture taken on log exports, the message appears clear that the thrust in the sector should be towards exports that undergo the highest degree of processing as possible and that the Philippine forest resources must be conserved while wood industries are being developed. This seems to be a step in the right direction since unbridled logging resulting from the advantage and convenience of exporting logs can easily dissipate the country's forest reserves no matter how

rich it is.

The Philippines has a total land area of 30,000,000 hectares. Its total forest as of 1975 is about 17.9 million hectares of which 7.4 million hectares are commercial forest. The dipterocarp species covers over 7 million hectares of the commercial forests. The forest areas are concentrated in Mindanao and Luzon.

The total volume of standing trees from 15 cms. in diameter and up, DBH, is about 1,770 million cu. m. of which Mindanao accounts for 991 million cu. m. The dipterocarp forest is estimated to hold 1,750 million cu. m.

The species usually exported is the so-called Philippine Mahogany which includes mayapis, red lauan, tangile, almon, bagtikan, white lauan, tiaong and apitong. These species account for 683.4 million cu. m. Mindanao having 426.6 million cu. m. or 62.4%. Considering commercial sizes only (55 cms. and up, DBH), the Philippines has a total volume of 589.4 million cu. m. of commercial species.

Log production which reached its highest in fiscal year 1968-69 at 11,583,713 cu. m. has gradually decreased since then production being only 6,173,894 cu. m. in fiscal year 1974-75. Log production and export since 1966-67 is given in Table 2.

T A B L E 2

Production and Exports of Logs

Fiscal Year	Production (cu. m.)	Volume of Exports (cu. m.)	% Exported
1966-67	7,843,283	6,648,531	85%
1967-68	11,113,650	7,510,956	87
1968-69	11,583,713	8,649,021	74
1969-70	11,004,564	8,616,078	78
1970-71	10,879,519	8,443,256	79
1971-72	8,416,099	7,018,218	83
1972-73	10,445,620	6,943,312	66
1973-74	7,069,291	5,434,217	77
1974-75	6,173,894	4,966,308	80

The bulk of log production was exported as the above Table shows and this volume is what the wood processing plants should be able to take in after 1976 when the export of logs will finally be completely banned. These processing plants include veneer plants, plywood and blockboard plants and lumber and lumber products plants. The furniture industry should also be counted on to contribute in the maximization of economic benefits from the forest-based sector.

There are wood-based industries other than those enumerated which will not be considered here anymore because their processes do not involve working on round logs. These industries include the manufacture of pulp

and paper where three firms are already engaged in, particleboard and fiberboard production in which one firm is actually engaged and the manufacture of dissolving pulp in which a new firm will soon engage. The manufacture of match-sticks in which two firms are already engaged will likewise not be discussed here although its manufacture involves working on round logs because it uses as raw materials softwood species like gubas of which plantations have been developed.

The Veneer Industry

There are twenty-three existing veneer plants in the Philippines as of 1975 with a total daily capacity of 5,339,000 sq. ft. They are listed in Appendix 1 with their respective capacities indicated.

Veneer production is basically for export as shown in Table 3 below which shows that 67% of production has been exported from 1966 to 1975. The rest of the veneer production goes into the manufacture of plywood.

T A B L E 3

Production and Exports of Veneer

Fiscal Year	Production (,000 sq.ft.)	Volume of Export (,000 sq. ft.)	% Exported
1966-67	831,000	451,443	54%
1967-68	1,205,910	558,267	46
1968-69	627,221	541,150	86
1969-70	305,280	288,726	95
1970-71	820,331	319,230	39

1971-1972	793,291	601,227	76
1972-73	717,000	449,459	63
1973-74	580,096	439,979	76
1974-75	458,444	305,692	67

The United States has been the principal market of Philippine veneer. Japan is a far second. Israel and Australia havelately been importing veneer from the Philippines too. The United States is expected to remain a steady outlet of Philippine veneer inspite of increasing competition from Malaysia and Singapore mainly because of its high quality and its relatively lower price. As of 1975, the average price of veneer was $16.6 per thousand sq. ft., FOB.

Capacity utilization is reported to be only 56.5% as of 1973. The low capacity utilization is due to the fact that two of these plants are not operating for one reason or another. Moreover, installed capacities have often been found to be overstated.

The Plywood Industry

The capacities of plywood plants in the Philippines are smaller compared to counterparts plants in Korea, Japan and Taiwan. The capacities of many of these plants were mainly dictated by the sizes of the forest concessions from which the logs were to be drawn. The relatively smaller capacities of plywood plants put up in the Philippines has made it difficult for this sector to compete with plywood manufacturers in Taiwan and Korea even if it has abudant indigenous raw materials whereas its two principal competitors

import their log inputs. The lower production cost advantage that normally accompanies bigger scale operations such as those in Taiwan and Korea is somewhat offset by the cheaper cost of skilled labor in the Philippines and the relatively cheaper cost of log purchases here. However, the fact that many of these plants are located far from main ports has resulted in international shipping conferences charging higher freight rates on Philippine plywood shipments because in the shipping industry, freight rates depend to a large extent on volume concentration in just one port of call. The added cost of transporting plywood production from the mills to the main ports further compounds the shipping problem of this sector.

The industry's yearly production and exports from fiscal year 1966-67 to 1974-75 is shown in Table 4 below:

T A B L E 4

Production and Exports of Plywood

Fiscal Year	Production	Volume	% Exported
1966-67	521,915	293,004	56%
1967-68	695,034	429,935	62
1968-69	572,366	330,498	58
1969-70	573,048	241,696	42
1970-71	1,106,325	999,534	90
1971-72	1,057,999	955,490	90
1972-73	1,240,539	1,173,288	95

1973-74	1,535,111	759,962	50
1974-75	469,605	227,502	48

Its best years were from fiscal year 1970-71 to 1972-73 when production doubled previous years' record, averaging 1,134,954 thousand sq. ft. and 92% of production was exported. Production picked up some more the following fiscal year but exports dropped by 47% from the three-year average export because of recession in the construction sector abroad.

Like veneer, the principal market of Philippine plywood is the United States which absorbs more than 90% of the country's exports. Ironically, however, the Philippines ranks third only behind Korea and Taiwan in the U.S. plywood market inspite of the fact that it supplies these countries with logs. The lack of logs source has, if closely analyzed, worked to the advantage of log importers because it is the best quality logs that are imported. The result is that wastage is reduced since logs can be veneered right from the fringes and better quality plywood, veneer or lumber is produced. Inspite of these, however, Philippine plywood is becoming competitive with Korean plywood in recent years but Taiwan prices are still the lowest. As of 1975, the average price of Philippine plywood was $62.2 per thousand sq. ft., FOB.

There are twenty six firms engaged in the manufacture of plywood in the Philippines as of 1975 with a daily capacity of 8,653,000 sq. ft. They are listed in Appendix 2 with their respective capacities indicated.

Capacity utilization as of 1973 was reported to be 66.4%. This has gone down in succeeding years because of poor market conditions. The low capacity utilization was due to the fact that five of these firms are not operating for one reason or another. Moreover, capacities are possibly over-stated there being a tendency to rate on the basis of the equipment along the line with the highest capacity without regard to whether the whole process line is balanced or not.

The manufacture of blockboard, a wood panel used for cabinet making, as a forward integration of the plywood industry is becoming popular in the Philippines. Its core is made of lumber strips taken from wood wastes and held firmly by adhesives. There are eight (8) plywood manufacturers that have either expanded already or about to expand into this line. The total production capacity of these firms is 525,470,000 bd. ft.

On the other hand, six veneer or lumber producers have either expanded already or about to expand into the production of blockboard core. The total production capacity of these six firms is 16,547,000 bd. ft.

Lumber and Lumber Products

There are 484 existing sawmills in the Philippines as of 1975 which are found all throughout the country. Only 163 of these have Timber Licensing Agreements. A substantial number of these sawmills are uneconomic size mills such as circular mills and bandmills with capacities below 10,000 bd. ft. per day. An estimated 174 of such sawmills

were no longer licensed to operate this year in line with the rationalization program for the industry . The aggregate capacity of the sawmills that were phased out is about 1,945 million bd. ft. per day and the logs required for these should be absorbed by other log processors.

The production and exports of lumber from fiscal year 1966-67 to 1974-75 is shown in Table 5 below.

T A B L E 5

Production and Exports of Lumber

Fiscal Year	Production (,000 bd. ft.)	Volume of Exports (,000 bd. ft.)	% Exported
1966-67	322,220	43,848	14%
1967-68	432,921	43,449	10
1968-69	620,976	71,017	11
1969-70	568,420	84,716	15
1970-71	364,827	85,454	23
1971-72	598,166	64,554	11
1972-73	449,404	76,033	17
1973-74	252,593	49,410	20
1974-75	662,586	142,738	21

Unlike logs, veneer and plywood, lumber production in the Philippines mostly goes to the domestic market. It is interesting to note, however, that the average of 16% of production that went to the export market found their way to all parts of the world with the United States, Japan, Australia France and other European countries and the Republic of South Africa sharing

the bulk of the imports in that order. It is also interesting to note that while the foreign trade on veneer, plywood and logs declined during the height of the recession, the export of lumber showed a significant increase in fiscal year 1974-75 over previous records. This is an indication of the growing demand for lumber and the increasing acceptance of the Philippine lumber in the international market. Competition comes from Malaysia and Taiwan but Philippine lumber still enjoys the advantage of having a comparatively lower price which, in 1975, averaged $241.2 per thousand bd. ft. The high cost of freight is, however, still the problem to be reckoned with.

The export of lumber has been the monopoly of the larger lumber producing firms like Insular Lumber, Nasipit Lumber Co., PICOP, Valderrama Lumber Co., and others. This underscores the fact that in the international market, ability to meet big orders is important. This is how Malaysia has been crowding the Philippines in the later's traditional markets like the United States and Australia.

Other Lumber Products

This is a forward integration of the lumber industry and is more commonly known in the Philippines as the woodworking industry. The trend in the Philippines is to have integrated lumber and woodworking plants which greatly increases the value added on wood products. Specific products being produced by this sub-industry include mouldings, drawer sides, jalousies and parts, window frames, door jambs, door stops,

door stiles, door rails, rafters, studdings and even coffins.

The emergence of this industry is expected to result in the expansion of wood drying facilities which in turn should accelerate the upgrading of the wood drying technology in the Philippines and in spurring the growth of other wood industries like furniture manufacturing. Moreover, this activity is expected to improve the profitability of firms engaged in the lumber industry since production will have more value added and will mostly be geared for export.

The big demand in the export market is being felt right now by firms already engaged in this activity which have been experiencing difficulties in meeting export commitments. In a short span of three years from 1973 to 1975, twenty-six firms have already been registered with the Board of Investments for integrated lumber and wood working projects.

The Furniture Industry

The furniture industry in the Philippines is favored with the abundance of superior quality raw materials and skilled Filipino craftsmen. Its growth has, however, been hampered by the lack of adequate wood drying facilities and modern wood-working machineries. The log ban and the use of more dry kilns by lumber and lumber products manufacturers should provide the needed impetus for the growth of this industry.

Records from the Bureau of Census and Statistics show that out of 414 furniture firms only 74 -- some 20% -- employ 20 or more workers. The rest employ only five to 19 workers. These small-scale manufacturers fall under the cottage industry category, operating on a each-man-to-his-own basis.

The Statistical Bulletin of the Central Bank and Statistics of the Foreign Trade Division of the Bureau of Census and Statistics give the following information:

Rattan or palasan furniture exports had shown a tremendous increase from 1969 to 1971. Total export amounted to P3,455,067 in 1969;

P5,801,245 in 1970 to P6,966,055 in 1971 or an increase of 100.6%.

Data on metal, plastic and bed are not available, but exports on these items were also made during the previous years.

Wood furniture exports moved from P534,000 in 1949 to P1 265 million in 1970, or 0.11% of total exports, experiencing a sharp downswing between 1955 and 1961.

Product Mix

The furniture industry produces a wide variety of products classified as follows:

1. Residential -- living room sets, dining sets, bedroom sets, cabinets.
2. Office -- desks, chairs, cabinets, tables, conference sets.
3. Institutional -- school desks, restaurant and hospital furniture.

Types of furniture produced by material are wood, rattan, plastic and metal. By quality, the classification is according to the socio-economic differences in the market, i.e., low middle and high-income group.

Distribution System

Generally, furniture manufacturers market their own products. Because of the bulkiness of the product and the high cost of transport, distribution is confined to the locality where the manufacturer holds shop. Mostly, sales take place directly through the manufacturer's salesmen or through interior decorators with whom the manufacturer has contracts or a tie-up. On the whole, personal selling, product design and quality, company reputation, price and service are considered major marketing factors. Because of this kind of distribution system, there is minimal advertising activity among furniture companies.

Production Practices

There is still very little mass-production in the local furniture industry. Besides the absence of technological modernization, this situation arises from the fact that furniture shops make money by catering to made-to-order buyers who comprise a majority of the market. The reason why customers buy made-to-order furniture is that standard-line furniture designs are so alike in style and narrow in variety that there is not enough choice to satisfy the wide-ranging tastes of the market.

Many furniture shops still employ manual labor with the use of hand tools. Mechanization is yet the luxury of the very big manufacturers.

Raw Material Requirements

Wood, palasan poles, metal and fiberglass are the basic materials used in the manufacture of wood, rattan, metal and plastic furniture, respectively. During the last few years, there has been a critical shortage in narra lumber, the most highly-prized wood specie for the local market, and plywood, and in palasan poles because of the natural scarcity of narra trees and palasan vines in our forests, and the uncontrolled exportation and smuggling of narra logs and plywood, and palasan poles out of the country. However, several hundred species of wood suitable for furniture is available throughout the country.

A P P E N D I X-1

List of Veneer Plants Showing Location and Capacity

NAME OF FIRMS	Plant Site	Daily Capacity (,000 sq. ft)
1. Acme Plywood & Veneer Co., Inc.	Isabela	125
2. Aras Asan Timber Co., Inc.	Surigao del Sur	115
3. Butuan Logs, Inc.	Butuan	320
4. Cantilan Lumber Co., Inc.	Surigao del Sur	300
5. General Plywood & Veneer Corp.	Bataan	80
6. Gonzalo Puyat & Sons, Inc.	Surigao del Sur	160(existing 166(expansion
7. La Suerte Development Corp.	Cagayan de Oro	100
8. Lianga Bay Logging Co., Inc.	Surigao del Sur	700
9. M & S Company, Inc.	Cotabato	300
10. Maguindanao Timber Products	Cotabato	330
11. Mahogany Products (Phils.), Inc.	Bataan	200
12. Maranaw Timber Industries, Inc.	Lanao del Sur	305
13. Misamis Lumber Co., Inc.	Zamboanga del Norte	67
14. Nasipit Lumber Company, Inc.	Agusan	336
15. North Camarines Lumber Co., Inc.*	Davao	40
16. Pamplona Plywood Veneer, Inc.	Cagayan	160 (existing) 373 (expansion)

*Not Operating

17. P I C O P	Surigao del Sur	100
18. Rosales Veneer Corp. *	Butuan	120
19. Sta. Ines Plywood Corp.	Butuan	200
20. Talakag Lumber Co., Inc.	Cagayan de Oro	300
21. Taggat Industries, Inc,	Cagayan	00
22. Timber Exports, Inc.	Isabela	00
23. Weyerhaeueser Phils., Inc.	Cotabato	100

* Net Operating

A P P E N D I X - 1

List of Plywood Plants Showing Location and Capacity

NAME OF FIRMS	Plant Site	Daily Capacity (,000 sq. ft.)
1. Aguinaldo Development Corp. *	Davao	272
2. Araa-Asan Timber Co., Inc.	Surigao del Sur	160
3. C. Alcantara & Sons, Inc.	Davao	640
4. Davao Plywood Company, Inc.	Davao	160
5. D.O. Plaza Enterprises *	Butuan	320
6. Duraply Industries, Inc. *	Butuan	192
7. Findlay-Miller Timber Co.	Lanao del Norte	224
8. First Plywood Corp.	Zamboanga	144
9. Insular Veneer Co., Inc.	Manila	64
10. International Hardboard & Veneer Co.	Manila	256
11. L.S. Sarmiento & Co., Inc.	Davao	299
12. General Plywood & Veneer Corp.	Bulacan	176
13. Mindanao Plywood Corp.	Misamis Oriental	192
14. Misamis Lumber Company, Inc.	Zamboanga	160
15. Nasipit Lumber Company, Inc. **	Agusan	204

* Not Operating
** Not yet in operation

16. P I C O P	Surigao del Sur	806
17. Philippine Plywood Corp. *	Quezon	96
18. Sarmiento Industries	Cotabato	1,152
19. Sta. Clara Lumber Co., Inc.	Davao del Sur, Cotabato and Zamboanga	768
20. Sta. Ines Plywood Corp.	Butuan	700
21. Standard Plywood Corp.	Butuan	192
22. Taggat Industries, Inc.	Cagayan	304
23. R.C. Aquino Timber & Plywood Co. *	Butuan	188
24. Timber Exports, Inc.	Rizal	382
25. Tropical Philippines Wood Industries, Inc. **	Cagayan	304
26. Zamboanga Wood Products, Inc.	Zamboanga	100

* Not Operating

** Not yet in operation

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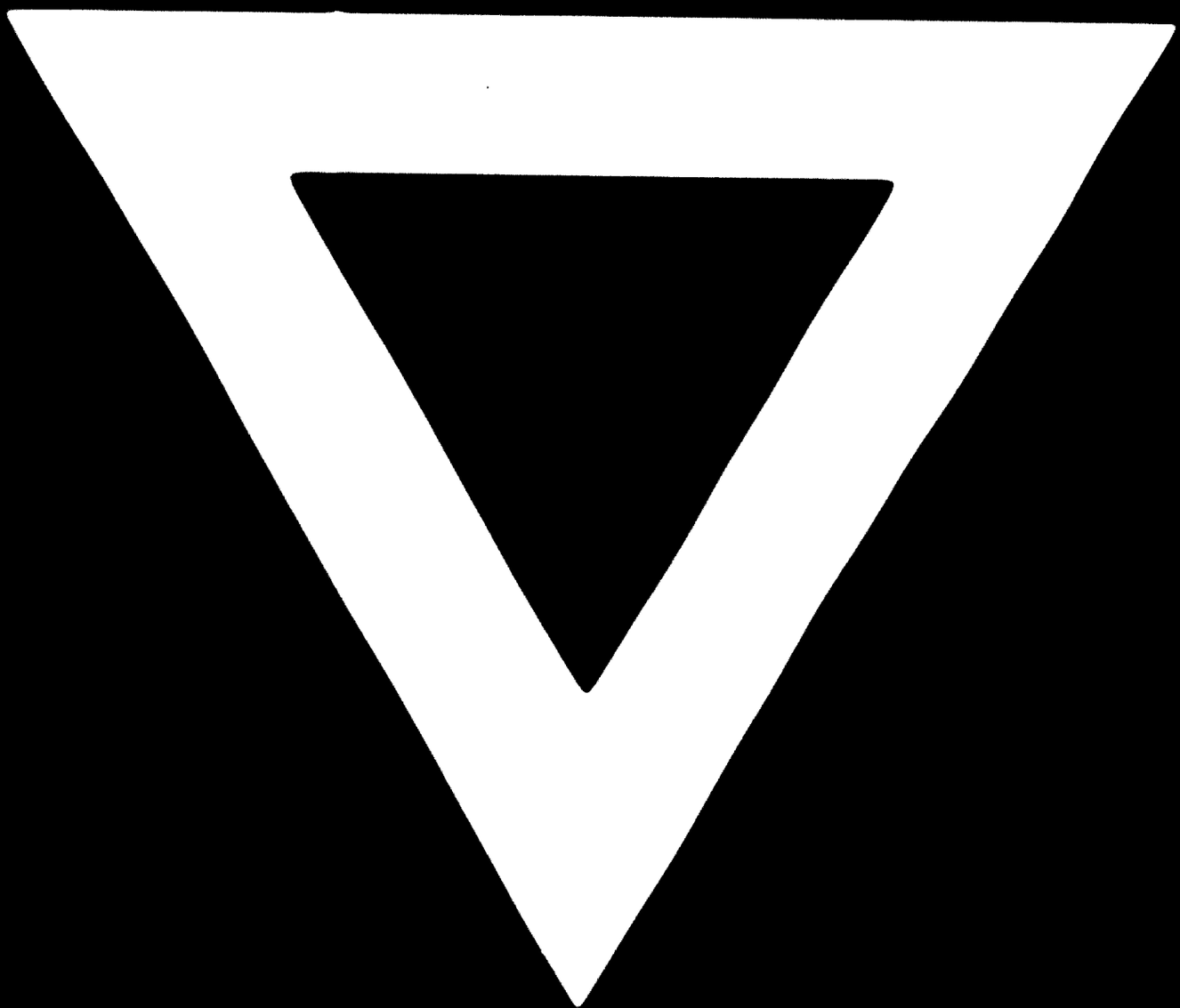

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