SOME hand-processes produce a better article, usually in the sense that it is either more durable, or has a distinctive, individual appearance. These are the hand-processes worth further development, both because of the service which they render to the village-craftsmen's pride, and because there is a large group of snob-consumers outside the villages who will pay fancy prices for such products. On the margin earned by such marketing—which should be the specific function of the official development agencies, outside the villages, and abroad—extra money to compensate the hand-producers can provide for their economic advancement, as well. The commercial principle of crediting high profits to a special development fund should be followed.

With all the qualifications previously expressed in this paper, then, here is an outline of the specific areas for development in the supplementary village industries:

1. **Textiles**

From the villagers viewpoint, the production of cotton, wool and silk cloth (and mixtures) must be considered as a number of separate industries. These range from the first preparation of the raw fibres to the finishing of the cloth after it has left the loom. Compatible with the principle of supporting the artisans' pride, there is little room for part-time work by hand anywhere along this range. Some individual hand-spinners may be dexterous enough to produce first-class yarn seasonally; their product will go into cloth for the snob-consumers' market. The same market can be supplied by weavers of individual designs.

Many of these latter definitely prefer using mill yarn to achieve their effects. As a conservative wearer of expensive khadi for 25 years, the writer has a strong personal bias in favour of this material. But even the finest khadi must disappear sooner or later; and the coarse varieties which sentimentally compete with plain mill-cloth should be replaced as soon as possible. The Ambar Charaka may do the job of producing yarn which will compete with power-spun-yarn, in cotton only; it remains to be objectively seen how the weavers accept it. To the writer, this whole experiment seems to be a process of forcing choices on village people, which will not serve their self-development at all.

Apart from those hand-producers who can improve their output to serve the snob-market, the remainder of village textile industry can become competitive in quality, and thus advance further, by taking to power-production. In this context, provided the taxpayer bears the financial risk, Mr T T Krishnamachari's theory that village operators can compete in price also, on straight economic terms, with mill-products should be tested by experiment. This should only be done where there is a village-producer's co-operative which will select one or two members to make the power-experiment. In this way alone there can be a common interest and education for the remainder of the members, who carry on with hand processes while the experiment is in progress. These remaining members must be closely associated with the control of the experiment.

Such an experiment, would have the great advantage of introducing into village life a class of mechanic who is capable of servicing the power-machines; and such persons can also affect the farmers' attitudes to other machinery.

2. **Other Fibre Manufactures**

Exactly the same plan of development seems to be applicable to the end-products of coir, sisal, sann-hemp and perhaps jute. Village people should either be helped to make first class string, ropes and mats with machinery; or, if they make them more slowly by hand, they should cater for the snob-consumer and not for the utility buyer who an ops on prices.

3. **Foodstuff Processing**

The preparation of foodgrains, either for the kitchen, or for direct consumption, when puffed or perch ed, and by reduction to flour, are all essential village tasks in India, though they have long ago entirely passed over to factories in Western countries. But a preference e g for hand-pounded rice should not be permitted to condemn village ladies to this mechanical task; this instance is a cast? where engineering research applied in the villages may find a way of producing the same results of more nutritive rice by a more efficient process.

Many other foodstuffs which are produced raw in the villages, need to be made fit for long storage and marketing. Such village industries would seem to be particularly suitable for part time work by the ladies. Some nuts, root?, fruits and vegetables can be preserved by drying, others need cooking. All need packing, sometimes in airtight containers. Fish and meat where produced need more knowledge of preparatory hygienic processes. Eggs can be preserved, but even if marketed fresh will yield much better returns with proper packing. All these possibilities for rural industry depend not only on co-operative organization, but also on a new understanding of hygiene and cleanly appearance by the village people who undertake them. A mere acceptance of routinized processes will not serve the aim of the self-development of village people. Given such understanding of hygiene, a far greater production of milk and milk products is immediately possible, by canceling the wastage Involved today in plain dirt.

This whole situation seems to call for co-operatives which can be slowly mechanized, as understanding of market-needs grows. The processing of sugarcane, for example, does not have to start with a full scale factory for which the taxpayer has to advance the capital. There is no reason why the indigenous processes of making gur and khand'sari should not be much improved, through applied research. This may mean adding units of machinery, not at first power-driven. When a small sugar-factory is finally assembled, there is no reason why it should not manufacture gur, to any taste-requiring degree of impurity, though without waste. The prized pale colour is easily secured by simple processes. This depends on the "genuine consumer-demand for this traditional article. The same argument applies to...
the production of honey; let the real demand be registered through normal, commercial marketing procedures, adding the modern refinements of consumer-research.

Oil-extraction presents a similar case for gradual mechanization; but in the meantime there is plenty to be done to improve the primitive oil-press, so as to reduce waste and introduce some elementary cleanliness. At the same time experimental soap-making might be worth trying; or the manufacture of paints for that matter. But both such industries mean importing chemicals into the villages.

In this kind of industry, it cannot be sufficiently stressed that institutional research has proved valueless. Only when the technician is prepared to live and share discovery with village people is there any prospect of further development in the villages. The working skill is there, in villages; a village artisan in an institution always gives a false picture of his capacity in the village.

4. Leather Manufacture

As with food, so with leather; the raw material is available in rural areas, and should be processed there, if only to avoid waste. The question is how far beyond the improved flaying and salting of hides should the villager go. This can only be answered by starting the improvements with the above first processes, and slowly improving existing equipment, simultaneously with techniques. When quite different equipment has to be introduced, it is time to consider shifting such an industry out of the village, for social as well as economic reasons. There is no other reason why elaborate hand-sewn footwear and travel goods should not be produced for the snob-consumer market, as in textiles, provided aptitudes are there to develop all the intermediate processes in the village as well. Factories in the countryside seem to be the answer.

5. Plantation Crops' Processing

For some reason, probably puritanism, the essential processing of several important crops is omitted from the Khadi Board's lists (while a triviality like bee-keeping is included). Tobacco, for example can be carried to the stage of making bids or huqa-cut with the present implements and skill in villages; it can be a part-time job. Coffee, pepper, cardamom and coconut can be processed to a stable condition for marketing by village people. Tea and rubber are more difficult; but where factory-machines are necessary, there seems nothing to stop the gradual acquisition of plant in a rural area by a sound co-operative.

6. Working with Wood and Leaves

Cane, Bam woo and me more sound woods, some leaves, reeds and grasses which make decorative articles, furnish excellent handicraft materials, again for the consumer to whom price is no object. An essential to the nourishing of such hand-industries is a strong co-operative system, with skillful marketing. Utility products from these raw materials may well be allowed to pass over to mechanized industry in the towns, unless there be capital to build factories for the co-operatives in rural areas. In such cases, such industries become full-time and need not be in the village unless it be to save transport costs on the materials.

There is of course a possibility that demand on such craftsmen may rise from village people as soon as economic conditions improve, and comfort becomes a desired value. This is not so today; yet there is some demand for furniture as prestige, which must be met, in consistency to the need to serve village people's legitimate pride.

Workers in cane, bamboo and leaves or reeds must appear as members of the essential industries which are ancillary to farming in areas where the preferred type of village house is made of these materials.

7. Glass & Ceramics

There is little reason to keep this group of hand-industries in the villages. The cost of transporting the finished goods to market is always greater than the cost of transporting the raw materials to the potter; the glass-worker is not quite so heavily handicapped. These are cases for the improvement of techniques and gradual mechanization. In co-operatives, which will almost certainly have to require resettlement of village-potters so as to form larger groups. It is not uneconomical to produce glazed pottery in very small units. The occupation is seasonal, and its high-priced market is proportionately small. Without glazing, the wastage is very heavy. Glass Bangles are a highly skilled product, which would probably benefit from the same treatment of grouping. Again, factories in rural areas are probably the answer.

8. Brick & Tile-making, Thatching

It looks as if all three of these industries, which are quite separate, must meet with more demand as villages improve. Bricks can apparently be made almost anywhere; but they seem to call for applied research, so that the work may be made in every way more rewarding to the labourers. In some regions, even now, brick-making must be considered as much an ancillary to improved farming as is improved masonry work of all kinds.

Tiles seem to be a product specialized to regions which have the right clay. Research might find more such regions, associated with brick-making. But often rammed earth houses are very suitable, with a good roof, which may be of tiles. Both these industries seem to call for co-operatives, and as rapid advance as is financially practicable towards installation of better plant. The superior clay needed for tiles may also help to produce low-cost methods of improved storage for grains.

Where thatch is considered to be a good roof, it may pay to develop specialized services in the best techniques possible, instead of leaving it to neighbours to help each other. The selection and preparation of the reeds of grasses for thatching certainly seems to be worth further development through both research and horizontal dispersion of village-experience.

9. Paper Products

The market for handmade paper is on exactly the same footing as that for textiles; much greater skill and better implements are required, which can be paid for by selective marketing to snob-consumers.

10. Matches, Metal Work Etc

The industries considered in this group are those for which the raw material has to be imported into the village. There seems to be no reason why this should continue; such industries have to be mechanized in time, and might as well be pursued in urban areas. But it will always be better, from all points of view that the writer can see, to plant industrial colonies in rural areas adjacent both to the sources of raw materials, and to good transport facilities for marketing. These industries are not successful as part-time occupations; in particular match-making becomes an unbearable drudgery, and is done with
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work in the factory, engineering or other production-techniques will enter the scope of the work. However, this is social adjustment rather than Extension work; it can be most readily done by the same type of person.

But in all other aspects of rural industrialization, specifically Extension, technicians are required in large numbers. Part of the work of such personnel will be research into Improvements of existing tools and skills, which will have to be pursued along with the skilled villagers. Part of the Extension work will be the two-way communication job of teaching village artisans about new tools and processes, and new skills. This will frequently require communication over the barriers of illiteracy. If anything new is to be made, for example, it must be possible for the designer to make it clear by drawing and dimensioning, however simplified, so that the artisan of village origins can work to paper specification. This skill of communication has yet to be developed in a country which has not yet accepted audio-visual teaching methods as necessary forms of communications at any educational level.

There is no doubt that the job can be done. It has been done locally by many pioneers of Industry in rural areas. And no country has historically shown such skill in teaching millions through visual aids as India of the myriad sculptures. But there are signs that economic debate must end, and the administrative jungle of promotion must get down to agreement on principles. Whatever be the sector of industrial development for which each promoting agency is responsible, its personnel must all see the scope of development required by village people as a whole. Only then can the limited numbers of Extension technicians be used to the best advantage of village people. If the most efficient development agency, or that which has been longest established, gets a start on the others. Industrial development in India can only be lopsided, one way or the other.

It must always be remembered that village people are not concerned with which development agency they are to work, any more than they are concerned with scientific categories of analysis. They are just as likely to take a specialist on textile machinery and tax him with questions about how to build a school as they are to look for the right PWD overseer to help them. Consequently every technician must know what is the structure of the whole of the aid in industrialization that can be offered to village folk, whether it be within his particular All-India Board or Corporation, or in some other.

A broader knowledge of the whole plan for development and the official means of excelling it have to be possessed by every field-worker in contact with village people. This suggests that the administrative jungle must somehow turn itself into a civilized park, with clear signboards so that even painstaking dunderheads like this writer can find the way among the mysteries of official, and semi-official, executive administration.

There now, probably that last bit of secretariates jargon is all wrong!