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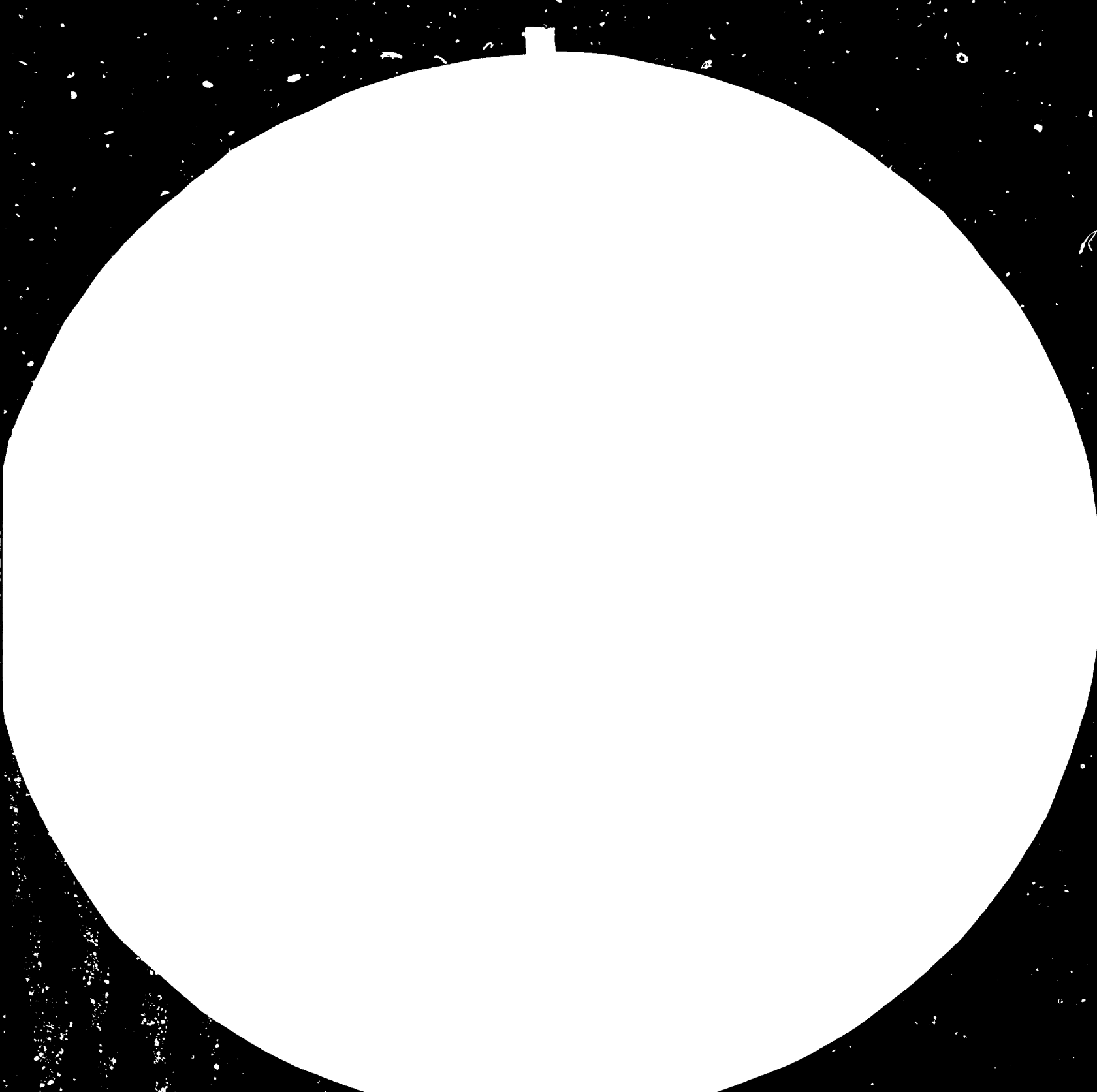
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Industrial Development and Co-operation among
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Developmental Experiences of "Zeljezara Sisak" and its Present *
Possibilities for Promoting the Co-operation with Developing
Countries.

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Zeljezara Sisak

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** IDC: Institute for Developing Countries

The economic situation in the world becomes every day more difficult. Although it hits developed countries, its reflection on developing countries (DCs) is especially difficult. It imposes particular need of deeper and mansided mutual connecting of these countries in order to avoid or relieve, as much as possible these difficult consequences.

The problems developing countries, as well as their respective companies are facing now are, in a way, experienced by and, thus, familiar to Yugoslavia and its firms. In this way it seems to us that the experience Messrs "Željezara Sisak" has gone through might be interesting for our friends.

The metallurgical production at Sisak began in 1939, when 40 tons per day melting plant, which employed about 400 workers, was put into operation. The production lasted till 1944.

Immediately after the war, construction of new iron works of integral type has begun. The starting points were some essential elements, as for example: metallurgical tradition, admittedly short, but still existing; neighbourhood of rich quality iron ore deposits; navigability of the river Sava; relatively short way to sea-port; good location with

regard to railway and roads; and sufficient number of working population. Construction of "Željezara Sisak" was carried on in conformity with the federal plan of 1947. The first blast furnace was put into operation in 1949. The next year another blast furnace began to work. The erection of these plants, in spite of all post-war difficulties, was completed within the planned terms. In the fifties, only seven engineers, ten technicians and two economists were working in "Željezara Sisak".

Under such conditions, with self-reliant orientation of the society, the construction of other planned capacities was rounded up to the construction of seamless rolling mill, which was completed in 1956. In that year "Željezara Sisak" acquired acknowledgement of quality of seamless steel pipes production, that enabled it to include itself successfully into the international division of labour. Within the period of 1956 to 1973, a series of reconstructions and modernizations, and construction of new technological line for welded pipes production were carried out, by which the second stage of development of "Željezara Sisak" was completed.

The third stage of development started in 1973, by construction of our own coking plant at Bakar, the Adriatic port, (completed in 1978), and in 1982 a plant for cold processing of pipes was put into operation. The most important investment of the third stage - seamless tube rolling mill - is still at the stage of preparation for effective work, while the plants for pig steel and iron are at the stage of additional preparation activities.

"Željezara Sisak" has also locally dispersed production, that has been obtained through integral connecting of some existing production or through construction of new plants in the economically underdeveloped areas, which gravitate toward Sisak.

The qualification structure of the personnel is satisfactory. Out of the 12,500 employed, 350 are university graduates, 45 being masters or doctors of science. They mostly work at the Institute for Metallurgy and/or at the Metallurgical Faculty at Sisak and deal with the affairs of development and other researching, productional and administrative activities.

Also, it is established a specific way of connecting science and practice, reflecting in double connection of the Metallurgical Faculty. Namely, the faculty is connected with "Željezara Sisak" through the Institute for Metallurgy and, at the same time, it is included in the University of Zagreb as its integral science-educative unit.

"Željezara Sisak" exports its products on the markets of all continents, except Australia, it disposes also with its own engineering for the area of its basic activities, by means of well equipped laboratories of the Institute of Metallurgy, it realizes various requests upon the current production and research of further technology development.

Up to now the co-operation with DCs has been developing mostly through commercial arrangements, i.e. through trade in both directions. So, we have successfully co-operated with Algeria, Cyprus, Egypt, Ghana, Indonesia, Iraq, Iran, China, Malta, Lebanon, Libya, Peru, Syria and Tunisia.

"Željezara Sisak" has at its disposal important possibilities for enlargement of the co-operation with already mentioned and other DCs. Co-operational fields of special interest are: science and research activities, training of personnel in production, know-how, engineering in the field of erection industrial halls, gymnasium, construction of travelling and gantry cranes of big spans, aeral masts and other steel construction.

