

# Shaping A New Field

## Introduction

Formative projects of the 1950s will now be described--inevitably with hindsight--in terms of what happened and what did not happen. These projects led to a very large-scale development in Norway that began in the early 1960s and that still continues. A large parallel project began in Shell Refineries in England and added to the conceptual input. By the 1970s the field was set for significant progress to take place in most Western industrial countries. A small beginning was made in one or two Third World countries.

By 1981, when the second international conference was held in Toronto, Canada, many of the fundamental concepts and methods now used in the field had been established. Most of these were originated by Emery, who remained at Tavistock until 1969 when he returned to Australia. Important additional concepts were introduced by Herbst.

The first international conference in New York in 1972 was attended by some 200 people, almost all of whom were academics. Nine years later, the second conference attracted 1,700 to 1,800 participants, most of whom were managers and trade unionists. Though the presentations were by academics who had a working record of projects in the field, the "real world" people were taking over.

The immediate step in the 1950s was to make detailed and precise analyses of work situations in terms which brought out the constraining effects of psychological and social factors in the ways in which technology was being utilized; therefore the need for changing these ways. An illustrative example was the filling shift in semi-mechanized longwall coal-mining

studied by Trist and Bamforth. This was the first time such study was undertaken. Extracts from it are included here.

The next step was to ask about the implications of worker participation for organizational systems as a whole. This was examined in the Bolsover experiments in the East Midlands Division of the National Coal Board, where early experiments by Trist and his colleagues in continuous as distinct from cyclical mining were being carried out by an Area Manager, with union support.

Access to a different industry (textiles) was then found in India. Rice's project showed that the socio-technical approach could be transcultural. Though a follow-up study by Miller shows that the changes did not persist in nonautomatic looms, they were fully maintained in the automatic loom shed after 13 years.

In 1959, Emery made a general analysis of the characteristics of socio-technical systems that has remained the basis of a great deal in the field.