

STS VOLII
THE SOCIO-TECHNICAL PERSPECTIVE ;VOL II.

F.Emery May 95.

The ordering of items in volume two on Socio-technical Systems makes it difficult for the reader to get a sense of the development. In ignoring the historical order it is reminiscent of the dreadful thing that Harvard University did to the first edition of Peirce's philosophical writings. Essentially they made him inaccessible for fifty years. First we will try a new order that more closely follows the time line.

I. IDENTIFYING POSSIBILITIES.

1. Trist & Bamforth (1951). 'Longwll coal mining'.
2. Trist et als (1963) "Alternative work organizations".
3. Rice (1953) 'Indian weaving shed'.
4. Miller (1975) "Ahmedabad revisited".
5. Emery (1959) "Some characteristics of STS".
6. Miller (1959) "Technology, territory & time".

II. ESTABLISHING PROBABILITIES.

7. Emery & Thorsrud (1969/76) "Norskhydro fertiliser plant".
8. Emery (1966) "Unit operations analysis".
9. Emery (1967) "The nine-step model".
10. Emery (1967) "The second design principle".
11. Emery (1969) "The historical validity..".
12. Hill & Emery (1972) "A new philosophy of management".
13. Emery (1974) "The assembly line".
14. Herbst (1978) "M/s Balboa".
15. Emery (1980) " Designing for green-field sites".

III. DIFFUSION - DEEPENING AND EXTENDING THE NEW PERSPECTIVE.

16. Emery & Emery (1974) "Participative design".
17. Herbst (1974) ".. minimal critical specification".
18. Cherns (1976) "Principles of STD".
19. Emery (1976) "Legislating for QWL".
20. Davis & Sullivan (1980) "A new type of contract'."
21. Murray (1993) 'Simulations for engineers'.

IV. OVERVIEWS.

22. Trist (1971) 'A S-T critique of scientific mgt".
23. Davis (1971) "Coming crisis for production mgt".
24. Trist (1974) "Work improvement & org. democracy".
25. Herbst (1976) "Alternatives to hierarchies".
26. Trist (1981) "S-t ideas at the end of the 70's".
27. Trist (1981) "QWL and the 80's".
28. Emery (1982) "S-t foundations for a new order".

Some of the overviews are probably redundant.

What is sorely missing from the above list is the paper by Emery and Marek, 1962, that is needed to round out the first period. Also the Tavistock Doc.176, 1963, "Some hypotheses about the way may be put together', the report on the Hunsfoss experiment and my 1974 paper on "Bureaucracy and beyond" (Org. Dynamics, 3, 3-13). They would have made all the difference to what I have suggested as section two. Section three should have opened with Merrelyn's potted history of participative design (pp13-18, PDPD, 1989) and closed with my paper on Public Policies for Healthy Workplaces, 1985). The latter goes into the cost for a society of submitting its adults to the humility of being treated as irresponsible children when at work. The final piece for the volume should have been the paper on "The Australian experience", May 1992. That was just within the publisher's deadline. I think that Eric was remiss to put the bowdlerized version of the search conference as his last piece.

When the items are ordered in this way I become very conscious of the fact that Trist and Emery drove this development, and that Trist was absent in the middle years. I do not like this but it seems to be a fact. [It is possible that Eric Trist saw this and mixed up the papers so that mine would be published. There would have probably been difficulties with publishing the list I have given].

If the readings are numbered 1 to 37 it will be seen that I have dropped readings 18,19,22,23,24,26,35,36 & 37. Items were dropped because they added nothing to the story. Some were irrelevant and some report studies that simply ignored past lessons. Ignoring the temporal order leads to confusion; these items only add further confusion

[I think the possibility has to be considered that the senior editor had, in his selection, to consider his interpersonal relations].

If the contents of Vol. II are re-ordered then the introductions need to be reconsidered. Hugh Murray, who was Trist's silent co-editor for the series, wrote in his guidelines for volume three that Trist had aimed at the same kind of section introductions as I had used for "Systems Thinking". They were concerned with setting a theoretical context. In the outcome Trist settled for describing the papers in the particular section. I think that the papers were so mixed up that he had no option. New introductions would have to be written for the sections as that I have identified. With the papers properly ordered it would be possible to write introductions that addressed the new problems that faced each new phase.

Thus the introduction for section two should have tried to recapture the heretical nature of our proposed re-design. Within this context we had to have closely controlled experiments, under our impartial control, and we had to have of top cover of the employer and union Joint Cttee. We were very adequately financed as neither of the parties wanted any mistakes in the experiments. The government joined as a silent financial partner when the unions felt that they could only afford a third of the costs. Our research strategy was necessarily to advance on narrow, critical fronts and minimize mistakes.

The introduction for section three would have to be based on Emery and Thorsrud, "Strategies for industrial change" (chap 9, 1976). It was clear by 1971 that the strategies appropriate for the Norwegian experimental program were not only inappropriate for diffusion but, in many ways were a barrier to diffusion. The former experimental sites were great for 'the tourist trade' (to their eventual embarrassment). For those living closer the experimental sites were a forbidding example to have to follow. Very few companies could afford the expense and time and very few could count on union-employer protection. Yet the experimental sites were

held up as the way to go, in principle. The qualification of 'in principle' meant nothing to the Norwegians who knew no other way to go. An appropriate strategy for diffusion had to stress a broad front advance that sought to reinforce success with support, where ever management and employees were prepared to cooperate. The critical condition is the willingness to cooperate at the enterprise level. Employees will not accept responsibilities without commensurate authority (no one in their right mind would do so) and managers are not going to abdicate their authorities without assurances that they will be used responsibly. Participative design assumes that some compromises can be found when managers and employees examine what restructuring can offer in their concrete circumstances. The task of 'experts' is to ensure that the principles of work design are understood but the detailed analysis of the particular socio-technical system draws on the pooled experience of the managers and employees.