

Erehwon, California
September 24, 1961

Memorandum To: Peninsula Peace Center

Subject: Proposal for a book on "Frontier Problems of
Engineering Sociology."

From the Engineers' Council for Professional Development we have the following definition of an engineer:

"The engineer may be regarded, therefore, as an interpreter of science in terms of human needs and a manager of men, money, and materials in satisfying these needs."

Considerable attention has been applied to the second part, namely the development of engineers as managers, but little attention has been focussed upon carrying the question of human needs. Therefore this book would concentrate upon the phase of "interpreter of science in terms of human needs."

The aim of producing such a book is to bring to the educated layman who is interested in peace and freedom, a grasp of the theoretical tools of engineering and science that might be useful as analogies in developing projects for peace.

The objective is to meet the challenge of the

Noosphere (Vernadsky)

without the "alienation" described by Pappenheim, Fromm, and Marx through expediting the "unitary principle" of L.L. Whyte, through utilization of the analogies of

Cybernetics (and Information Theory)

as foreseen by Wiener, and extended by Deutsch, without waiting for the present generation to die (Max Planck), and further salvaging the synthetic concepts of Comte and War as a guide to the process of transition to the third stage of Rosenstock-Huessy:

- credo Ut intelligam (Anslem) - truth is divine and has been divinely revealed
- cogito ergo sum (Descartes) - truth is pure and can be scientifically represented
- respondeo etsi mutabor (Rosenstock-Huessy) - truth is vital and must be socially represented.

I expect to soon give you a more detailed outline, but would appreciate any preliminary comments or criticisms you can make.

Very truly yours,


JOAQUIN MURRIETA

Frontier Problems of Engineering Sociology

Table of Contents (Proposed)

Preface: This will describe a series of experiences of the author from which these thoughts have developed.

Note: This material is organized so that it can be edited for production as a book or as a series of magazine articles.

Part I: INTRODUCTION

1. Introduction. This will be a short statement of the relationship of the different parts of the book. Diagrams based on extensions of the checking chart will be used.

2. The State of Western Civilization. The dilemma, challenges, and previews of the future of the following authors will be

reviewed: France Comte
Germany/England Marx "Philosophical manuscripts...
USA Ward "Sociology.....
France Simone Weil "The need for roots....

Germany Eugen Rosenstock-Huessy "Truth is vital and must
be socially represented...

Spain/France
G/USA Pappenheim "The alienation of modern man...

USSR Vernadsky "The noosphere.....

England Whyte "The unitary principle....

China/France deFeillard "The future of man..

G/ Mexico/USA Fromm "The Art of Loving,,,

Tables and charts representing the above ideas.

Part II: PROBLEMS OF SPECIALIZATION AND IRRESPONSIBILITY

3. The Dilemma of Specialization. Illustrated discussion of the problem.

4. A Checking Chart. A chart for use in developing social responsibility.

5. Partial Derivatives of History.

6. Examples of A Checking Chart. Chart used to develop unitary principle in science and life.

7. Social Responsibility of Engineers.

Part III: INFORMATION THEORY AND ENGINEERING SOCIOLOGY

8. Channel Capacity.

9. Ideology as a Coding Problem.

10. Distribution of Negentropy in Political Organization.

11. Balance of Obligation and Rights -- Organization and Freedom.

Part IV: CYBERNETICS AND GENERAL SYSTEMS THEORY.

12. Feedback Loops

13. Capitalist and Socialist Systems.

14. Social Planetaria

15. Computing Power as a Tool for Democracy.

16. Computer-Data Communication Systems and Economic Systems.

Part V: HUMAN VALUES AND ANALOGIES OF COMMUNICATION THEORY

17. Potentials of fruitful contact between competing economic and political systems using analogies from cybernetics and information theory.

18. Conservation of human values: Information Theory Provides theoretical principle and bounds; Cybernetics the form of institution to carry out the goals.

19. Summary: The Unitary Principle/The Next Development of Man