

# CIBSE ASHRAE 40th Anniversary Seminar

Defining, delivering and assuring building environments that are truly fit for use

**Session 1**, Chair Tim Dwyer, CIBSE ASHRAE Group chair and UCL

Introduction and Welcome - Tadj Oreszczyn - UCL and CIBSE Vice President

Dr Marcella Ucci - UCL - **Health, wellbeing and indoor environmental quality**

Dr Sung Min Hong - UCL - **Building energy benchmarks**

Prof Tim Wentz - ASHRAE President and UNL - **Energy labelling as an educational vehicle**

Refreshment break - Jeremy Bentham Room - **ground floor (2 floors down)**

*Please return swiftly for .....*

**Session 2**, Chair John Field - CIBSE President and Native Hue

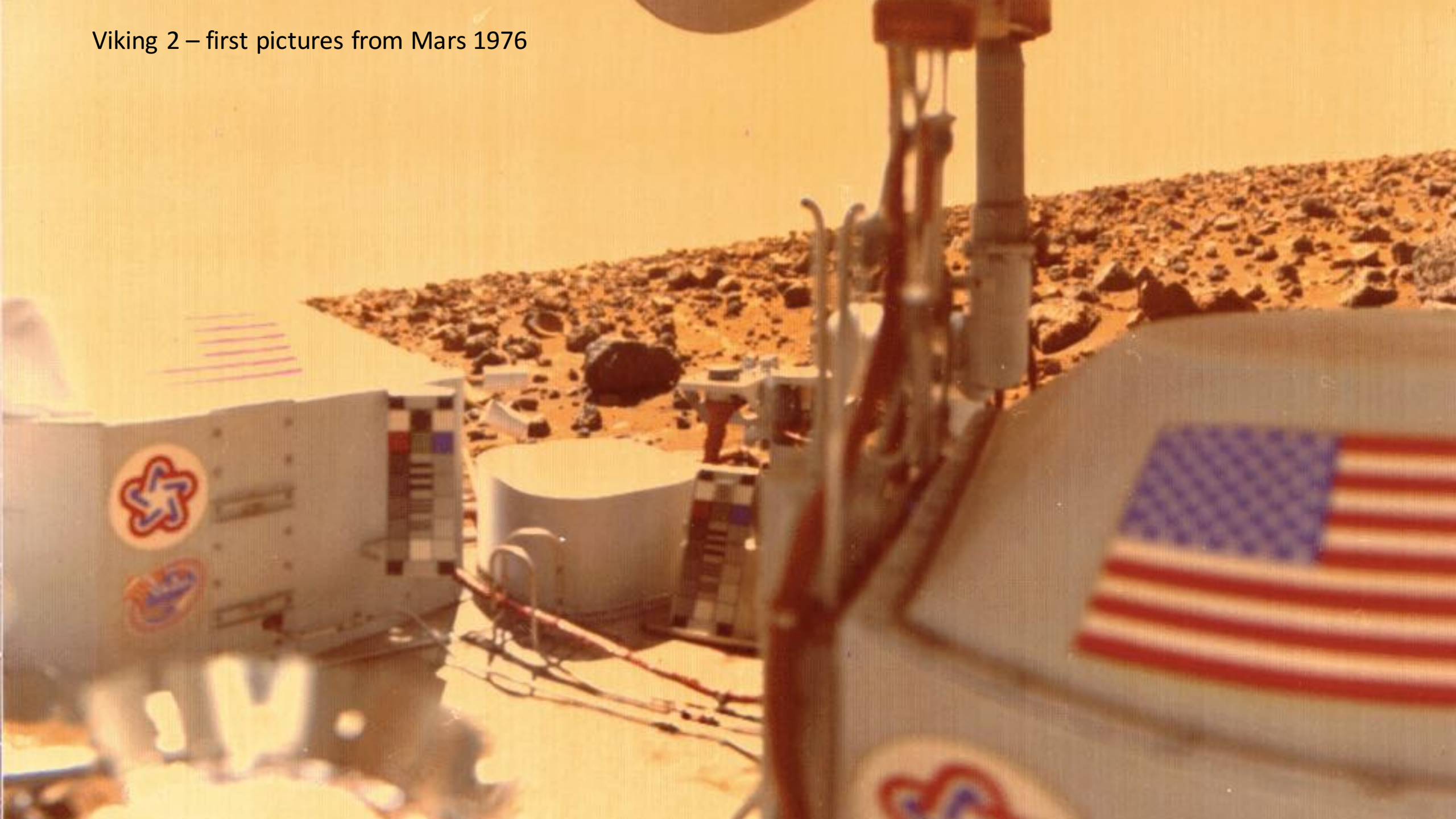
Frank Mills - Frank Mills Consulting - **Cold climate design**


Emilia Targonska - Hoare Lea - **Delivering building services excellence**

Summary and closing remarks, John Field



Viking 2 – first pictures from Mars 1976



A photograph of Barack Obama speaking at a podium. He is wearing a dark suit, a white shirt, and a blue tie. He is gesturing with his right hand. The background is a large American flag. A microphone is visible in the foreground on the right.

**“We have set a clear goal ... sending humans to Mars by the 2030s and returning them safely to Earth”**

Barack Obama October 11<sup>th</sup> 2016







Richard Tully

# Past, Present and Future Trends in the Design of Engineering Services in Buildings

by R. E. Tully, CEng, FIMechE, FIHVE, MASHRAE, FIP, MC

## 1. INTRODUCTION

In a paper that has to take a span of some seventy years it is convenient to look at such statistics as are available for the first forty-five years up to 1975. From these trends in type of design and thus the future trends can be projected.

Comparison with other countries where statistics of future trends can be projected.

Gross National Product, type of fuel and percentage of housing having central heating and type of system are relevant to the projection. Hopefully, the author believes that the reduction in the engineering of surplus cash, there will be a reduction in the quantity and quality of the engineering services in the UK. Concentration will therefore be on reduction in labour and fuel economy, there will be an upturn, as there is undoubtedly a large backlog in when the economic situation improves, there will be an increase in standards, but it is doubtful whether there is likely to be any higher standard of design in the currently accepted standard.

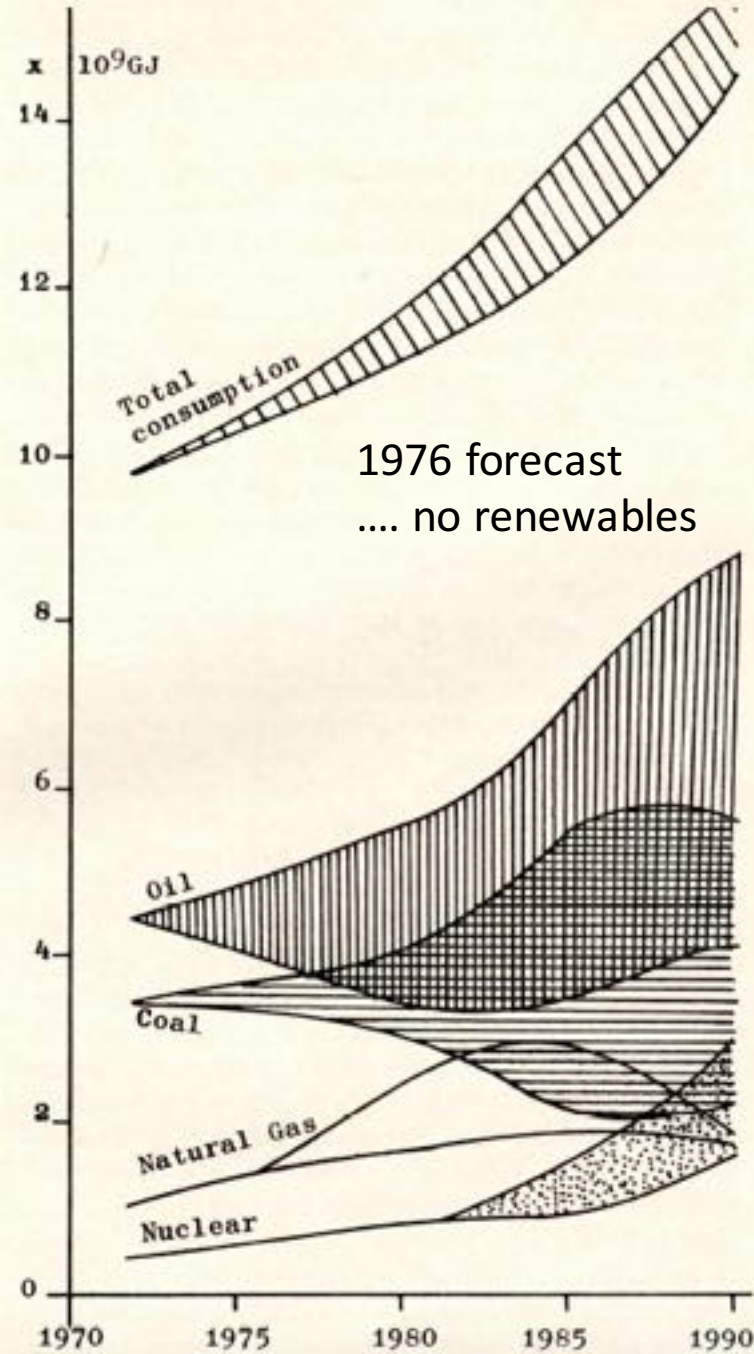
There is, in the author's opinion, a question-mark on the availability of fuel towards the end of the century and the early part of the 21st Century. Depending upon how this need is satisfied, there could be a significant change in the type of heating and air conditioning standards and possible areas of future development are indicated in this paper.

## SOCIAL TRENDS

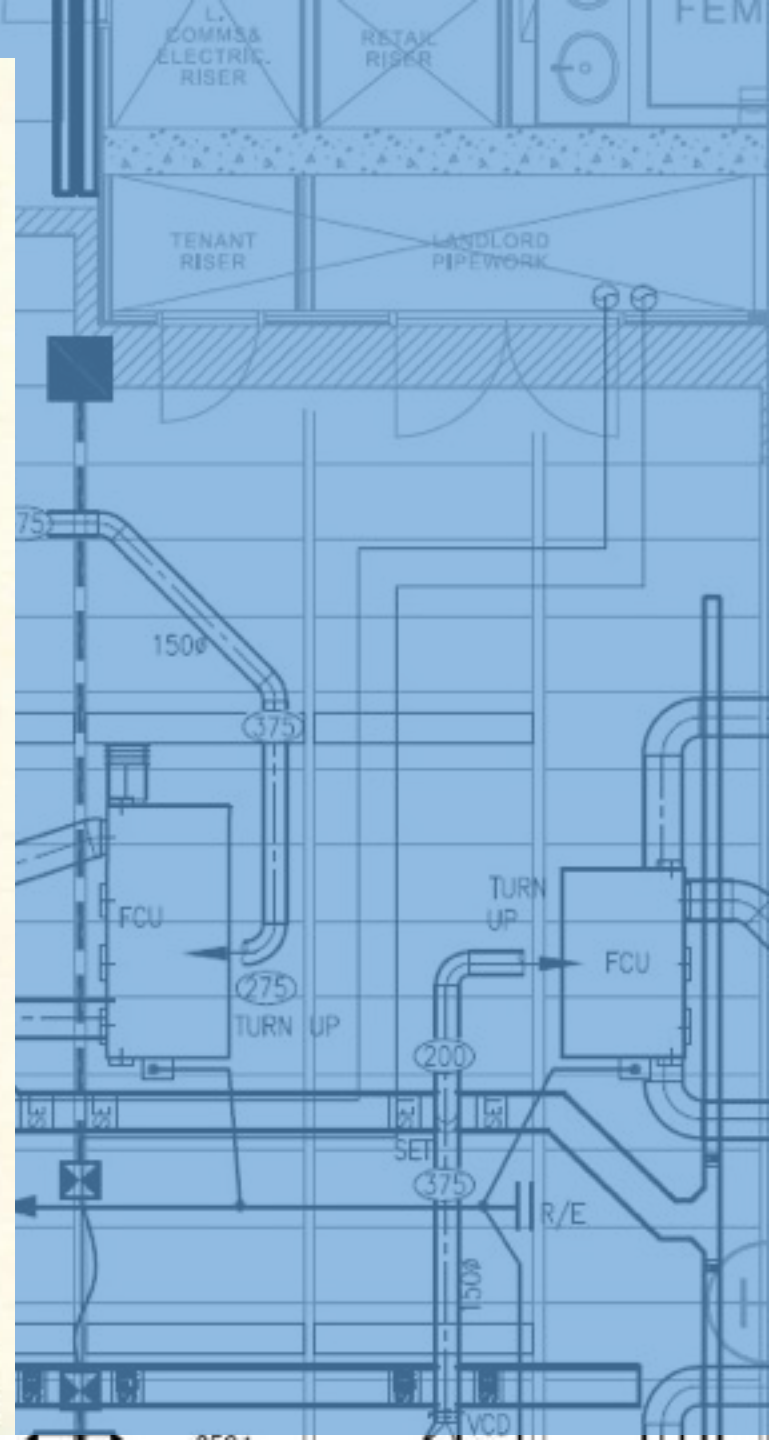
The past forty-five years have shown a dramatic change in the standard of environment services and expectancy in the UK. In this period of time, heating has changed from open fires and whole house heating in the upper classes to virtually full heating in council houses, and the generally accepted standard is certainly not less than the recommendations contained in the 1961 report 'Homes for Today and Tomorrow', chaired by Sir Parker Morris. The report called for a minimum provision of a heating installation to be capable of heating the area used for living and circulation to 13°C (55°F) and the outside temperature to 18°C (65°F), when the outside temperature is -1°C (30°F). Wherever family requirements will demand it, the report recommends expensive installation capable of heating better well to 18°C to allow greater use of half which was previously relegated for sleeping.

\*This paper was prepared at the Institution's Conference planned to be held at the HF April 1976, which regrettably had to be cancelled. Senior Partner, G. H. Buckle & Partners, 1

However, as we all know, the DoE has cost grounds, sub-Parker Morris recently completed local authority remains to be seen whether it remains to be seen whether an unusual site will experiment or the herald of a local authority house building in many towns and cities poor into old property which do form of central heating without central heating view from Fig 1 shows a speculative view 1867 by William Jack's original chimneys a partially blanked-off chimneys were installed.



1976 forecast  
.... no renewables





# Past, Present and Future Trends in the Design of Engineering Services in Buildings

by R. E. Tully, CEng, FIMechE, FIHVE, MASHRAE, FIP, MConsE†

## 1. INTRODUCTION

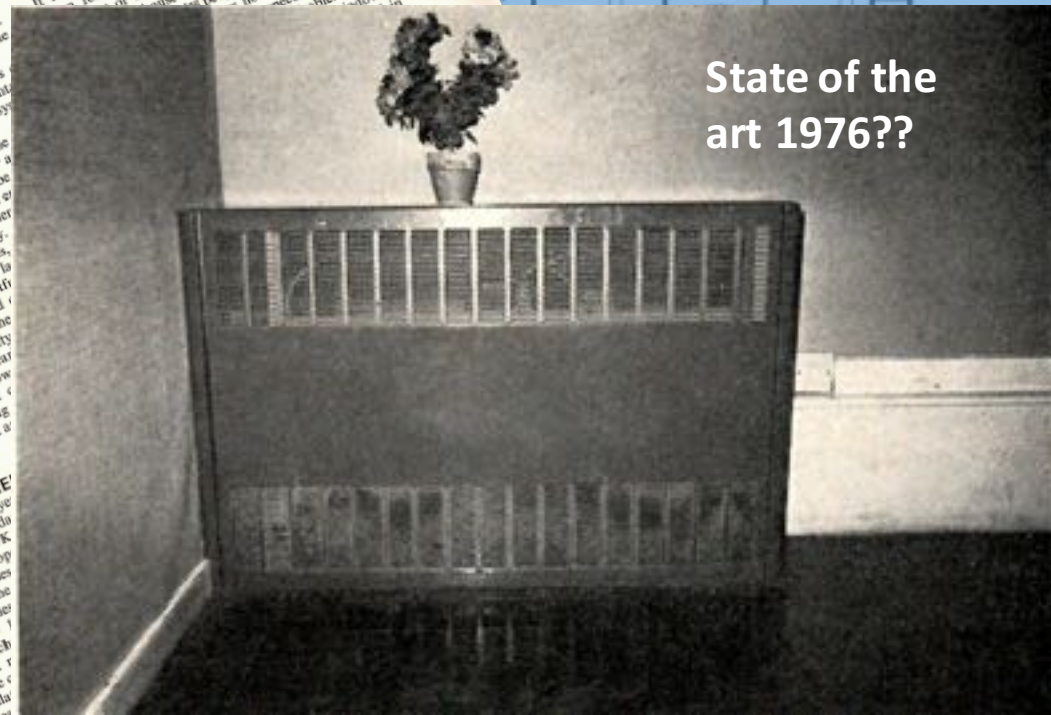
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## SOCIAL TREND

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However, as we all know, the DoE have permitted, on cost grounds, sub-Parker Morris standards for a recently completed local authority housing scheme. It remains to be seen whether this special dispensation is for an unusual site or the herald of more radical changes in housing building policy.



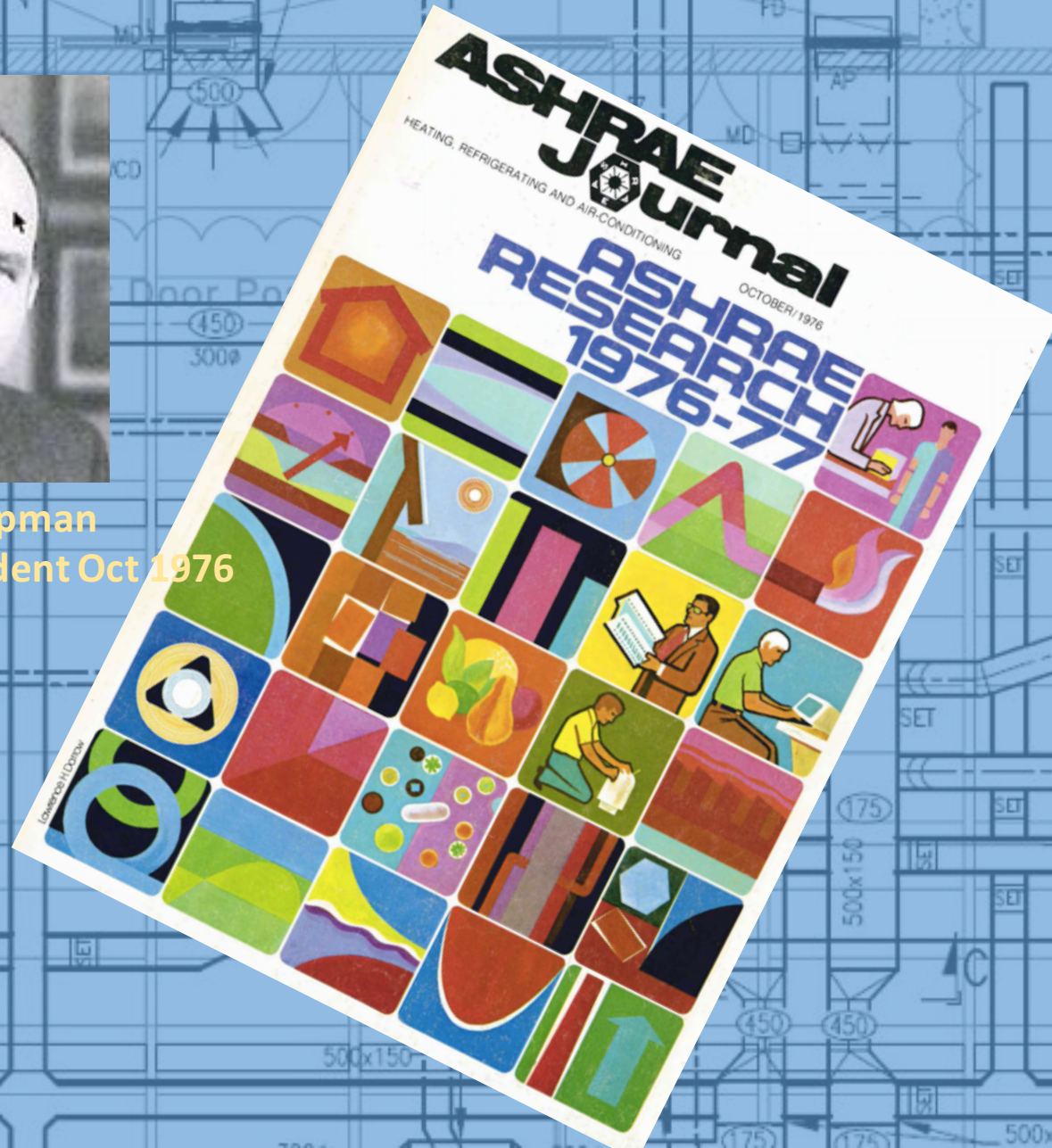
State of the art 1976??

†This paper was prepared at the Institution's Contribution to the Conference planned to be held at the HEVAC Exhibition in April 1976, which regrettably had to be cancelled.  
‡Senior Partner, G. H. Buckle & Partners, Consulting Engineers



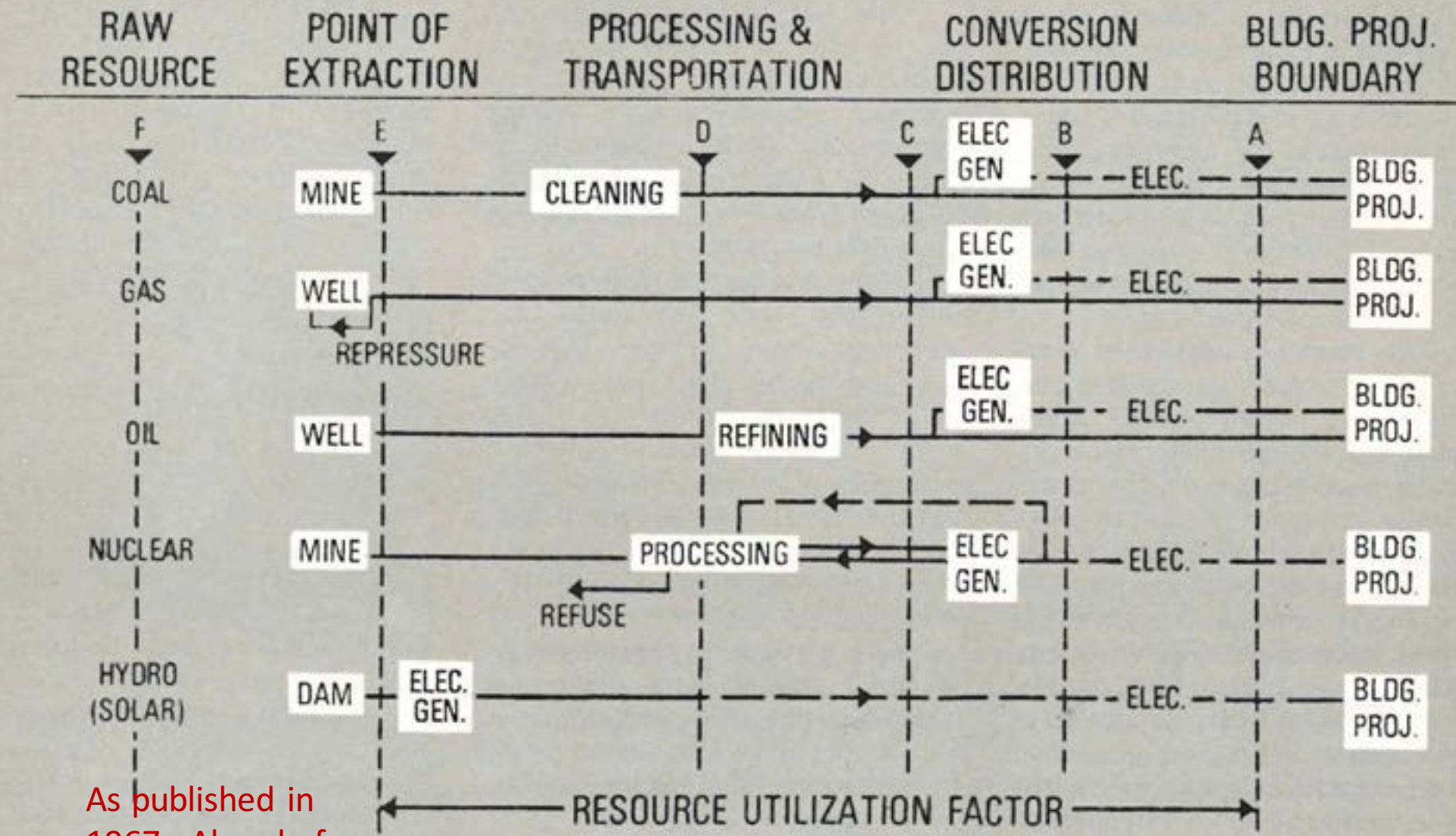


**William P Chapman**  
**ASHRAE President Oct 1976**





Robert Jones  
ASHRAE Member



As published in  
1967 - Ahead of  
its time??

Fig. 1 Energy resource flow path



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Slides will be available at

<http://bit.ly/CIBSEASHRAE40th>