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Speech at Institution of Engineers dinner, Adelaide

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1979 (84A)

SPEECH BY THE PREMIER, MR. DUNSTAN, AT INSTITUTION OF ENGINEERS  
DINNER, ADELAIDE.

27/4/73.

MR. FARGHER, MY LORD MAYOR, LADIES AND GENTLEMEN.

THANK YOU VERY MUCH FOR INVITING ME HERE THIS EVENING AND FOR ASKING ME TO PROPOSE THIS TOAST TO THE INSTITUTION.

IT'S AN ABSURD SITUATION, BUT TRUE ALL THE SAME, THAT ENGINEERING IS STILL THE UNSUNG PROFESSION. I THINK THERE ARE TWO REASONS FOR THIS - ONE OF THEM COMMENDABLE AND THE OTHER INTOLERABLE.

FIRSTLY THERE IS WHAT SEEMS TO BE THE INGRAINED MODESTY OF THE PRACTITIONERS. IN VERY MANY CASES, PROFESSIONAL ENGINEERS HAVE BEEN CONTENT TO REMAIN STRICTLY BEHIND THE SCENES, GETTING LITTLE OR NO PUBLIC ACKNOWLEDGEMENT OF THEIR WORK. FOR EVERY MONASH OR BRADFIELD THERE ARE LITERALLY THOUSANDS OF ENGINEERS WHOSE ACHIEVEMENTS ARE KNOWN TO, AND APPRECIATED BY, ONLY THEIR PEERS. FOR INSTANCE, AS SIR MARK OLIPHANT HAS POINTED OUT, SOUTH

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AUSTRALIANS ARE GREATLY INDEBTED TO THE ITALIAN ENGINEER NERVI. HIS DEMONSTRATION THAT, IF A REINFORCED CONCRETE STRUCTURE IS PLANNED TO CARRY ITS LOAD WITH THE LEAST AMOUNT OF CONCRETE THEN THE RESULTING CURVED MEMBERS ARE INHERENTLY BEAUTIFUL, HAS GIVEN US AT KINGSTON A BRIDGE THAT IS BOTH USEFUL AND ELEGANT. YET HOW MANY PEOPLE IN SOUTH AUSTRALIA WILL HAVE HEARD OF NERVI?

THE SECOND REASON IS SERIOUS. WE ARE STILL SUFFERING FROM THE RELICS OF THE NINETEENTH CENTURY VIEW THAT ENGINEERS WERE THE 'OTHER RANKS' OF PROFESSIONAL MEN. THIS ATTITUDE HAD ITS HEYDAY IN VICTORIAN AND EDWARDIAN ENGLAND WHERE IT WAS HELD THAT THE WAY TO A PLACE IN THE FOREFRONT OF SOCIETY WAS THE MASTERY OF TWO LANGUAGES THAT HADN'T BEEN SPOKEN FOR A COUPLE OF THOUSAND YEARS. ACQUIRING KNOWLEDGE ABOUT HOW THINGS ACTUALLY WORKED AND HOW THEY COULD BE IMPROVED WAS NO OCCUPATION FOR A GENTLEMAN.

THE CAPTAIN ALOOF AND IMMACULATE UPON THE BRIDGE WAS HELD TO BE NECESSARILY SUPERIOR TO THE MAN TOILING IN THE ENGINE ROOM WHO WAS POPULARLY SUPPOSED TO BE GRIMY, PERPETUALLY HOLDING A SPANNER AND SPEAKING WITH A GLASWEGSAN ACCENT.

IT WAS A BELIEF THAT ENABLED BRITAIN TO LOSE AN EMPIRE WITH UNASSAILABLE APLOMB WHILE COUNTRIES THAT EDUCATED, ENCOURAGED AND HONOURED ENGINEERS, SUCH AS AMERICA AND RUSSIA, BECAME THE NEW SUPERPOWERS.

AUSTRALIA, UNFORTUNATELY, CHOSE TO PAY LIP SERVICE TO THE AMERICAN VIEW WHILE STUBBORNLY CLINGING TO THE BRITISH CONCEIT. THAT MAY BE AN EXAGGERATED GENERALISATION BUT THE RESULTS ARE REAL ENOUGH. THE ATTITUDE; 'WE WANTED JUNIOR TO BE A DOCTOR BUT HE COULDN'T GET A PLACE SO HE'S GOING TO BE AN ENGINEER INSTEAD', IS STILL FAR TOO PREVALENT. NO MODERN SOCIETY CAN AFFORD, LITERALLY OR METAPHORICALLY, TO TREAT ENGINEERING AS LESS THAN A PRESTIGE

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OCCUPATION DEMANDING AND PROVIDING EXCELLENCE.

AND THAT MEANS MUCH MORE THAN TURNING OUT MORE MEN FOR THE ENGINE ROOM. IN GOVERNMENT, FOR INSTANCE, THERE IS AN INCREASING NEED TO INVOLVE ENGINEERING SKILLS AND TALENTS AT EVERY LEVEL OF POLICY MAKING.

LET ME GIVE YOU ONE EXAMPLE, IN THE INVITATION YOU SENT ME YOUR SECRETARY NOTED THAT A PRINCIPAL CURRENT PREOCCUPATION OF THE INSTITUTION IS THE WHOLE AREA OF ENVIRONMENTAL POLLUTION.

THIS IS A MATTER THAT SHOULD CONCERN US ALL WHETHER AS PRIVATE CITIZENS, MEMBERS OF INSTITUTIONS AND LEARNED SOCIETIES OR GOVERNMENTS. IT IS NOT JUST A FASHION OR A FAD, OUR VERY SURVIVAL MAY BE AT STAKE.

IN A NEW BOOK ARTHUR KOESTLER PUTS IN THE MOUTH OF ONE OF HIS CHARACTERS A DOOM-LADEN CATALOGUE OF OUR PRESENT WOES. THIS IS PART OF THE LIST:

"THE ANNIHILATION OF DISTANCE THROUGH THE INCREASING SPEED OF COMMUNICATIONS WAS IN MATHEMATICAL TERMS EQUIVALENT TO A CONTRACTION OF THE PLANET'S SURFACE TO AN AREA SMALLER THAN ENGLAND, MEASURED BY STEAM-AGE STANDARDS.

"THIS SHRINKING OF THE PLANET RELATIVE TO THE TRAVELLING SPEED OF MISSILES AND MAN WAS PARALLELED BY A SIMULTANEOUS CONTRACTION OF THE AVAILABLE LIVING SPACE WHICH WAS NOW DOUBLING EVERY THIRTY THREE YEARS AND QUADRUPLING WITHIN THE LIFETIME OF A SINGLE GENERATION.

"THE WORLDWIDE MIGRATION FROM RURAL TO URBAN AREAS RESULTED IN THE CANCEROUS GROWTH OF CITIES WHERE MORE AND MORE PEOPLE WERE PILING UP IN LESS AND LESS SPACE. AN INEVITABLE BYPRODUCT OF THESE RUNAWAY PROCESSES WAS THE PHYSICAL POISONING AND AESTHETIC POLLUTION OF LAND, WATER AND AIR, RESULTING IN A DEGRADATION OF HUMAN EXISTENCE."

EVEN IF ONE DOESN'T ACCEPT THE FULL DIRENESS OF THAT SUMMARY IT'S OBVIOUS THAT THE PROBLEMS WITH WHICH WE HAVE TO DEAL ARE UNPRECEDENTED AND PERILOUS. AS WE HEAD FOR THE LAST QUARTER OF THIS CENTURY WE SEEM TO BE IN A PERMANENT STATE OF CRISIS.

IT WOULD BE ABSURD TO BELIEVE THAT ENGINEERS ALONE CAN PROVIDE THE ANSWERS. IT IS JUST AS ABSURD TO BELIEVE THAT SOLUTIONS CAN BE FOUND WITHOUT FULL USE OF ENGINEERING EXPERTISE AND ADVICE. THE VERY NATURE OF AN ENGINEERING EDUCATION LENDS ITSELF TO AN INSIGHT INTO CERTAIN ASPECTS OF ENVIRONMENTAL PROBLEMS. ENGINEERS ARE TRAINED TO THINK IN TERMS OF STRESSES AND TOLERANCES.

ASSESSMENTS OF THAT TYPE ARE FUNDAMENTAL TO THE SORT OF ENVIRONMENTAL AND CONSERVATION WORK INCREASINGLY BEING UNDERTAKEN BY GOVERNMENTS. FOR INSTANCE, OUR PROJECTED ENVIRONMENTAL IMPACT STATEMENTS WILL REQUIRE JUST SUCH A PROCESS. I BELIEVE TOO THAT OUR PROPOSED ENVIRONMENTAL RESEARCH INSTITUTE WILL HAVE TO BE AN INTERDISCIPLINARY BODY INVOLVING ENGINEERS IN ITS WORK AS WELL

ECOLOGISTS.

THIS IS JUST ONE AREA IN WHICH I BELIEVE WE MUST FOSTER CLOSER INVOLVEMENT OF ENGINEERS IN IDENTIFYING PROBLEMS BESETTING A SOCIETY AND IN FINDING WAYS TO OVERCOME THEM. THERE ARE MANY OTHERS, FOR EXAMPLE IN SOUTH AUSTRALIA I HOPE SHORTLY WE WILL SEE CLOSER LIASON BETWEEN GOVERNMENT, INDUSTRY AND THE PROFESSIONS, INCLUDING ENGINEERING, IN PRODUCT RESEARCH AND DESIGN. OUR NEW INDUSTRIES RESEARCH INSTITUTE HAS BEEN SET UP TO PROVIDE THIS KIND OF LIASON.

AS A COMMUNITY WE REALISE THAT ADVANCES IN TECHNOLOGY MUST BE USED FOR THE BENEFIT OF THE COMMUNITY AS A WHOLE - PRESENT AND FUTURE. THIS CAN ONLY COME ABOUT IF WE MAKE THE VERY FULLEST USE OF ENGINEERING SKILLS AND FULLY INVOLVE ENGINEERS IN OUR PLANNING.

IN THIS, OBVIOUSLY, THE INSTITUTION OF ENGINEERS WILL HAVE A LEADING PART TO PLAY. FOR MORE THAN 50 YEARS IT HAS EARNED

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ITSELF A VERY HIGH REPUTATION FOR RESEARCH ACHIEVEMENT AND PUBLIC SERVICE.

IT HAS SERVED BOTH THE PROFESSION AND THE PUBLIC AS A WHOLE. I AM SURE THAT IN FUTURE YEARS IT WILL CONTINUE TO DO SO AND THAT ITS WORK WILL BECOME STILL MORE IMPORTANT, SO IT IS WITH MUCH PLEASURE THAT I ASK YOU NOW TO DRINK TO "THE INSTITUTION OF ENGINEERS.

THANK YOU.