

OF SOUTHERN AFRICA : WEDNESDAY 1 DECEMBER 1982

MR PRESIDENT, HONoured GUESTS, LADIES AND GENTLEMEN

IT IS MY GREAT PRIVILEGE AND PLEASURE TO BE ABLE TO WELCOME YOU OFFICIALLY TO RHODES UNIVERSITY AND TO INVITE YOU TO MAKE THE FULLEST POSSIBLE USE OF OUR FACILITIES DURING YOUR STAY HERE. WE ARE INDEED FLATTERED THAT YOU HAVE DECIDED TO SPEND YOUR 21ST BIRTHDAY CONFERENCE WITH US. MAZELTOV, AS OUR JEWISH FRIENDS WOULD SAY. IN ADDITION TO THE 130 OR SO DELEGATES I SHOULD LIKE TO COUPLE MY OWN WELCOME TO THAT OF YOURS, MR PRESIDENT, TO THE OVERSEAS VISITORS FROM THE UK AND USA

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WHO HAVE COME TO SHARE THEIR WISDOM AND EXPERTISE WITH US - DRS APPLETON, NEWBURY, WEAKLEY AND JEFFERSON AND PROFESSOR THOMAS. WE KNOW THAT THEY HAVE PROBABLY HAD TO BRAVE MORE THAN GEOGRAPHICAL OBSTACLES TO BE WITH US IN THIS REMOTE CORNER OF THE SOUTHERN AFRICAN SUB-CONTINENT.

YOUR SOCIETY (AND THEREFORE YOUR INSTRUMENTS ALSO, ONE PRESUMES), HAVE BEEN APPROXIMATELY AS LONG ON THE SOUTH AFRICAN SCENE AS THAT OTHER SYMBOL OF HIGH TECHNOLOGY, THE COMPUTER. I WELL REMEMBER RETURNING FROM THE US IN 1962 (IE ALMOST 20 YEARS AGO) TO TAKE CHARGE OF THE FIRST SA UNIVERSITY COMPUTER. BY TODAY'S STANDARDS, OF COURSE, IT WOULD BE CONSIDERED A MERE TOY, BUT AT THAT TIME IT OCCASIONED A GOOD DEAL OF EXCITEMENT, AND INDEED, ONE HAS TO SAY, APPREHENSION. I MIGHT

ALSO ADD, IN PARENTHESES, THAT I FOUND MYSELF FOR A WHILE DURING MY SOJOURN AT THE UNIVERSITY OF THE WITWATERSRAND, CHAIRMAN OF THE ELECTRON MICROSCOPE STEERING COMMITTEE, PRESUMABLY ON THE THEORY THAT THE MANAGEMENT OF ONE PIECE OF TECHNOLOGY WAS MUCH LIKE ANOTHER. I REALLY DID NOT KNOW WHAT SCANNING AND TRANSMISSION MICROSCOPES WERE, MUCH LESS THEIR DIFFERENCES. MIKE WITCOMBE, AS HE WILL WELL REMEMBER, HAD A CRASH EDUCATION JOB ON HIS HANDS. MICROSCOPE SALESMEN, I SOON DISCOVERED, WERE MUCH LIKE COMPUTER SALESMEN, ONLY NOT QUITE SO GENTLEMANLY - PERHAPS THEY COULD NOT AFFORD TO BE AT THAT STAGE.

IN ADDITION TO THEIR HIGH TECHNOLOGY, ELECTRON MICROSCOPES AND COMPUTERS HAVE ONE OTHER FACTOR IN COMMON - THEIR COST. THE GENERAL RULE SEEMS TO BE "THINK OF A NUMBER AND DOUBLE IT". ANY VICE-CHANCELLOR IS ENTITLED TO SHUDDER WHEN IN RAPID SUCCESSION HE IS

EXPECTED TO STRETCH HIS BUDGET BY R150 000 FOR A NEW ELECTRON MICROSCOPE AND R650 000 FOR A NEW COMPUTER. THAT WE AS A SMALL UNIVERSITY HAVE MANAGED TO ACHIEVE JUST THAT, IS INDICATIVE OF OUR COMMITMENT TO TAKING SCIENTIFIC RESEARCH SERIOUSLY. WE KNOW THAT THE LATEST SATELLITE PHOTOGRAPHIC TECHNIQUES ENABLE A CAR'S REGISTRATION NUMBER TO BE READ IN A PARKING LOT FROM 150 KM UP. I CAN PERHAPS BE FORGIVEN FOR THE WISTFUL THOUGHT THAT IF ONLY THOSE CHAPS COULD PERFECT THEIR TECHNIQUES BY ANOTHER FEW ORDERS OF MAGNITUDE WE COULD PUT OUR SPECIMENS OUT ON THE ROOF AND LEAVE THE REST TO THEM WITHOUT THE NECESSITY OF HAVING OUR OWN INSTRUMENTS!

NOW OF COURSE WE HAVE THE INEVITABLE MARRIAGE OF THE TWO TECHNOLOGIES, WITH WHAT IS PROMISING TO BE MOST ENCOURAGING RESULTS. IF ONE CAN

BELIEVE SOME OF THE ADVERTISING MATERIAL IN YOUR BROCHURE, ALWAYS A DEBATABLE ASSUMPTION OBVIOUSLY, THEN WE CAN FORESEE UNPRECEDENTED RESOLUTION CAPACITIES ALMOST DOWN TO THE ÅNGSTRÖM UNIT LEVEL, AUTOMATIC FOCUSING MAGIC AND MAGNIFICATION UP TO 1 000 000X. ALL THE OPERATOR HAS TO DO IS PRESS THE BUTTON. WE KNOW OF COURSE THAT IT IS NEVER AS SIMPLE AS THAT. I REALISE, MR PRESIDENT, THAT I AM VENTURING DANGEROUSLY OUT OF MY DEPTH, AND I MUST LEAVE IT TO THE REAL COGNOSCENTI LATER IN THE PROGRAMME TO INFORM YOU WHAT THE STATE OF THE ART ACTUALLY IS.

LORD ASHBY, THAT ALMOST UNIVERSAL COMMENTATOR ON THE EDUCATIONAL SCENE, ONCE CYNICALLY REMARKED THAT A GOOD DEAL OF WHAT PASSES FOR CONTEMPORARY SCIENTIFIC RESEARCH, IS "RATHER LIKE CRAWLING ALONG THE FRONTIERS OF SCIENCE WITH A HANDLENS". HE WAS OBVIOUSLY NOT TALKING

ABOUT THE TENDERS OF YOUR AWESOME INSTRUMENTS. ELECTRON MICROSCOPY, AS WE ALL KNOW, HAS MADE SOME IMPRESSIVE CONTRIBUTIONS TO THE EXTENSION OF KNOWLEDGE, AND WE ARE THUS TEMPTED FOR THE MOMENT TO BASK IN THE REFLECTED GLORY OF DR AARON KLUG'S NOBEL PRIZE, BOTH AS SOUTH AFRICANS AND MICROSCOPISTS. FOLLOWING HARD ON THE HEELS, AS IT DOES, OF THAT OF PROFESSOR CORMACK'S PRIZE, WE CAN ALL TAKE SOME PRIDE, AT ONE OR TWO REMOVES, IN THEIR ACHIEVEMENTS.

LADIES AND GENTLEMEN, ELECTRON MICROSCOPY IS A SERIOUS BUSINESS, AND I SEARCHED IN VAIN FOR SOME HUMOUR ON THE SUBJECT, UNTIL I CAME ACROSS A CARTOON BY THE INIMITABLE S HARRIS. IN THIS CARTOON TWO MICROBIAL LOOKING OBJECTS ARE DEEP IN CONVERSATION. ONE IS OVERHEARD TO SAY "MY

DEAR, IF YOU ARE TO APPEAR ON A 1 000 000 VOLT MICROSCOPE YOU REALLY DO WANT TO LOOK YOUR BEST".

ON THAT MILD NOTE OF LEVITY I HAVE MUCH PLEASURE IN DECLARING THIS 21ST ANNUAL CONFERENCE OF THE ELECTRON MICROSCOPY SOCIETY OF SOUTHERN AFRICA OFFICIALLY OPEN FOR BUSINESS.

DR D H HENDERSON

1/12/1982

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