



ADDRESS BY THE MINISTER OF EDUCATION
AND CULTURE, R.I.

REPUBLIC OF INDONESIA
MINISTER OF EDUCATION AND CULTURE

Permit me first of all to bid a "Selamat Datang" to the participants of this congress and I hope that your stay in Bali will be sufficient to enjoy the tranquility and pleasures that can be found on the isle of the gods. Hopefully during your stay you will be introduced to the plethora of cosmic phenomena that is described in Bali's unique culture, including its perceptions on celestial objects, especially the stars.

Before continuing, I must be the first to admit that as a layman with very little knowledge of matters concerning astronomy, I should in fact not have been so bold as to accept to talk before this forum. I am certain that I will not be able to contribute any new ideas to this congress. Nevertheless, it is because I am a layman that I may be able to touch upon matters based on naive and innocent observations rather than based on a scientific framework. As one who enjoys the rapport of academic intercourse, I must admit that at times I am fascinated by naive observations which sometimes are accompanied by interesting interpretations on various phenomena and happenings, especially those relating to the cosmos.

Since prehistoric times man and nature have been so cognate that various natural phenomena have been given certain meanings which have been woven into his existence as part of the totality of life. No matter how naive that assumption is, it would be difficult to deny that mere perception and interpretation is in fact the element that gives comfort and stability to man. Man's preparedness to become one with nature - *i.e.* by giving special meaning to the various natural phenomena - makes him more sensitive to the many signs that it augurs. *Sympatheia* was a distinctive feature of man's comprehension of the world around him before he began to slowly distance himself and treat it as an opposing pole; the world slowly changed and became different from himself, and for that reason he had to dominate and control it to his advantage. The unity between man and his world slowly became a dichotomy with the poles further growing apart. In his development, man has come to realise himself as being the center of all things. Hominocentrism or anthropocentrism was a stage which in the end radically changed man's attitude towards the world around him, and finally towards the cosmos. Indeed, the various cosmic occurrences and phenomena - although still interesting - no longer arouse the same feelings as before. This is probably what differentiates the scientist from the layman in observing and comprehending the many occurrences and phenomena. Both may concur in trying to "transcend the real into the possible", nevertheless the meaning given to what is concealed behind reality may differ. Scientists may regard this as an unknown X factor, whereas the layman would very easily consider this as a mystery.

Indeed, so many cosmic occurrences and phenomena are regarded by the layman as a

sign or symptom which holds within it something mysterious, and for that reason is always viewed as *mysterium fascinosum*. This is valid whenever we talk about the moon and stars as a source of light in the obscurity of the night. In the darkness, the moon and stars are not merely a source of light, but rather a guide and a source of inspiration. The moon and stars are distinctive manifestations of the night; nevertheless, whereas there is only one moon, the stars are many, scattered across the sky. However, rather than being merely scattered, there is an order in its formation, brightness, distance, etc. It is therefore not surprising if people are fascinated by these natural phenomena which are most interesting to study.

In all cultures, stars have always held the symbolic meaning of excellence or transcendence. There is no single example which I know of that has disparaged the star as a symbol - except, of course, by those who would seek to disparage those who use that star as a symbol. The stars are considered superior because they are beyond the reach of man. The stars seem so distant, and yet their presence is clearly felt. They will always have a special appeal. This symbolic meaning has continued until today, when man is continuing forward in wanting to understand them by scientific research through astronomy.

Although astronomy does not have an image of eminence such as the other ancient disciplines, nevertheless people will always be attracted to it given the opportunity to observe the constellations. It is for this reason that astronomers should endeavour to create an interest and awareness amongst members of the lay community towards this science. With the rapid development of science and technology in the field of outer space today, knowledge of astronomy could also support the growing interest in outer space in general. I believe that astronomers will receive a positive response if they are able to present their knowledge in an understandable manner to the general public. Together with developments in space science and technology as well as the success of many space missions, astronomy can become an important source of information in future explorations. My great hope is that this forum - apart from discussing various scientific matters - will also find a mode in which to inform the general public on the achievements of modern astronomy. Indeed, the increased interest in astronomy will in turn attract the interest of the young to choose this subject as a field for research and study. Today, interest in astronomy is probably limited in comparison to other disciplines. Nevertheless, I believe that this is a result of lack of information concerning the study of astronomy. Therefore I believe that it is one of the responsibilities of this congress to enhance the interest of astronomy, especially among the young.

I hope that this congress will proceed smoothly and that the participants will also be able to enjoy the star-lit nights on the isle of the gods.

Prof. Dr. Fuad Hassan