



8 November 2004



### Address to the Plenary Session on 'Paths of Discovery'

Ladies and Gentlemen,

Dear Friends,

1. It is with particular pleasure that I greet the distinguished members of the *Pontifical Academy of Sciences*. I thank your President, Professor Nicola Cabibbo, for the kind message of greetings and good wishes which he has offered me in your name.

The meetings of the Academy have always been an occasion of mutual enrichment and, in some cases, have resulted in studies of significant interest to the Church and the world of culture. These initiatives have contributed to a more fruitful dialogue between the Church and the scientific community. I trust that they will lead to an ever deeper investigation of the truths of science and the truths of faith, truths which ultimately converge in that one Truth which believers acknowledge in its fullness in the face of Jesus Christ.

2. This year's plenary session, devoted to science and creativity, raises important questions deeply connected with the spiritual dimension of man. Through culture and creative activity, human beings have the capacity to transcend material reality and to "humanize" the world around us. Revelation teaches that men and women are created in the "image and likeness of God" (cf. *Gen* 1:26) and thus possessed of a special dignity which enables them, by the work of their hands, to reflect God's own creative activity (cf. *Laborem Exercens*, 4). In real way, they are meant to be "co-creators" with God, using their knowledge and skill to shape a cosmos in which the divine plan constantly moves towards fulfilment (cf. *Gaudium et Spes*, 34). This human creativity finds privileged expression in the pursuit of knowledge and scientific research. As a spiritual reality, such creativity must be responsibly exercised; it demands respect for the natural order and, above all, for the nature of each human being, inasmuch as man is its subject and end.

The creativity which inspires scientific progress is seen especially in the capacity to confront and solve ever new issues and problems, many of which have planetary repercussions. Men and women of science are challenged to put this creativity more and more at the service of the human family, by working to improve the quality of life on our planet and by promoting an integral development of the human person, both materially and spiritually. If scientific creativity is to benefit authentic human progress, it must remain detached from every form of financial or ideological conditioning, so that it can be devoted solely to the dispassionate search for truth and the disinterested service of humanity. Creativity and new discoveries ought to bring both the scientific community and the world's peoples together, in a climate of cooperation which values the generous sharing of knowledge over competitiveness and individual interests.

3. The theme of your meeting invites renewed reflection on the "paths of discovery". There is in fact a profound inner logic to the process of discovery. Scientists approach nature with a conviction that they confront a reality

which they have not created but received, a reality which slowly reveals itself to their patient questioning. They sense – often only implicitly – that nature contains a *Logos* which invites dialogue. The scientist seeks to ask the right questions of nature, while at the same time maintaining an attitude of humble receptivity and even of contemplation in its regard. The "wonder" which sparked the earliest philosophical reflection on nature and which gave rise to science itself, has in no way been diminished by new discoveries; indeed, it constantly increases and often inspires awe at the distance which separates our knowledge of creation from the fullness of its mystery and grandeur.

Contemporary scientists, faced with the explosion of new knowledge and discoveries, frequently feel that they are standing before a vast and infinite horizon. Indeed, the inexhaustible bounty of nature, with its promise of ever new discoveries, can be seen as pointing beyond itself to the Creator who has given it to us as a gift whose secrets remain to be explored. In attempting to understand this gift and to use it wisely and well, science constantly encounters a reality which human beings "find". In every phase of scientific discovery, nature stands as something "given." For this reason, creativity and progress along the paths of discovery, as in all other human endeavours, are ultimately to be understood against the backdrop of the mystery of creation itself (cf. *Laborem Exercens*, 12).

**4.** Dear members of the Academy, once again this year I offer my prayerful good wishes for your work on behalf of the advancement of knowledge and the benefit of the human family. May these days of reflection and discussion be a source of spiritual enrichment for all of you. Despite the uncertainties and the labour which every attempt to interpret reality entails – not only in the sciences, but also in philosophy and theology – the paths of discovery are always paths towards truth. And every seeker after truth, whether aware of it or not, is following a path which ultimately leads to God, who is Truth itself (cf. *Fides et Ratio*, 16, 28). May your patient and humble dialogue with the world of nature bear fruit in ever new discoveries and in a reverent appreciation of its untold marvels. Upon you and your families I cordially invoke God's blessings of wisdom, joy and peace.