



27 April 1968

Address to the Plenary Session and to the Study Week on the Subject 'Organic Matter and Soil Fertility'

Paul VI affirms that the Academy was founded to provide 'proof of the love and respect' the Church felt for the scientific world. He restates the commitment of the Church to scientific inquiry and affirms that it can contribute to the 'religious and Christian progress of mankind'. The Pope thus echoes the teaching of the Second Vatican Council and declares that a synthesis of the knowledge of science and of faith is possible. He goes on to say that science must 'tend towards the good of all mankind' and thus warns against the dangers of nuclear and bacteriological warfare. The true purpose of science is constructive. It should seek, for example, to conquer world hunger.

Dear Gentlemen,

In your persons, Gentlemen, we are happy to greet the organisation of distinguished savants, both those present here today and those absent, constituting our Pontifical Academy of Sciences, headed by its new and learned President, the Reverend Daniel O'Connell; and we are glad to have this opportunity of rendering public homage to your high standing in the scientific domain. The various contributions you render to the progress of science do you great honour, and that honour reflects upon the Holy See which assembled your organisation in the first place. We begin, therefore, by greeting you and by thanking you.

Different circumstances, among them the sad death of your President, Monsignor Georges Lemaître, have prevented your Academy from abounding in external manifestations in recent times. Certainly, no one will be tempted to interpret this merely apparent and accidental decrease of activity as a sign of lessened vitality in an institution which has, by now, acquired throughout the world the fame and celebrity it merits. For our part, we desire here and now to give solemn confirmation to the esteem and confidence we feel for you.

As you are aware, the idea which inspired the foundation of the Pontifical Academy of Sciences was that of giving, by means of the persons composing it and the activities it promotes, a proof of the love and respect which the Catholic Church nourishes for the contemporary scientific world. We wish now to renew our assurance to you, that this initial purpose is more alive than ever in the conscience and plans of the Apostolic See. Its duty will be to preserve the full vigour of the Academy. Its intention is to give witness, in this way, to the veneration the Catholic Church professes for scientific research, the liberty she acknowledges in such research within its specific domain, the confidence with which she envisages its present and future achievements. In fact, if science, instead of being thought a sort of foreign body in the life of man, is properly inserted into his life, the Church believes that it can contribute to the progress, not only speculative and technical, but moral and even, without here having recourse to artificial processes, to the religious and Christian progress of mankind.

This should suffice to show that respectful attention with which the Church considers the mission of the scientist. In her eyes, you are the seekers and explorers of the mysterious realities of creation; in other words, those who fulfil in the highest degree the task which God entrusted to man when He created him: that of conquering the earth, of uncovering the secrets of nature. For nature is full of secrets, and it cannot be doubted that those who strive to discover them – and you know better than we do, what patient and painstaking research this entails! – are responding to the Creator's original purpose and clear will.

When we fix our attention upon your activity as scientists, it seems to us to develop from a twofold premise, which constitutes as it were the pedestal of that superior degree of human excellence to which you are raised by the exercise of your vocations as researchers.

First of all, there is the systematic and perfected use of your intelligence. If you are, in a way, more fully men than other men, it is in the first place because you have developed to a high degree the potentialities of what is noblest and likeliest to God in man: that is, thought, the ability to become all things – the '*fieri omnia*' described by classical philosophy – that unique and incomparable privilege of the human intellect, the thinking being's power to conquer reality, assimilate it into himself, to turn it into a truth which becomes his own possession even though by its universality it remains potentially the possession of all.

To this superior utilisation of the highest faculty of the human being, there is added in the scientist – and this is the second premise – his entry into the scientific tradition. He collects, assimilates, deepens and perfects all that is of value in the vast heritage of the study and reflection of those who preceded him; and he makes use of

this patrimony of human knowledge amassed before him as a point of departure, to leap boldly forth towards new conquests, for the profit of his own generation and of those that follow.

Verily, then, men of science deserve honour and gratitude, and it is a heartfelt need, as well as a duty, for us to pay homage to your persons, Gentlemen, to such highly qualified representatives of modern culture and of its inspiring genius. We are well aware that, in doing so, we are faithfully interpreting the mind of the Church concerning you, a mind which she has often expressed in recent years, especially by the voice of our predecessor Pope Pius XII, a mind which she proclaimed again and proudly on the occasion of the recent Ecumenical Council. How could we let pass an occasion like this, without recalling that the conciliar assembly wanted to lend the full weight of its authority to the reaffirmation of the Church's positive attitude towards science?

Here is the aspect under which the Council envisages your calling as researchers: 'Whoever labours to penetrate the secrets of reality with a humble and steady mind is, even unawares, being led by the hand of God, Who holds all things in existence, and gives them their identity'. These words occur in the *Constitution on the Church in the Modern World*, which dedicates a whole chapter to the problem of culture. Analysing the development of culture, the Council document does not hesitate to note with satisfaction the positive acquisitions made by the present progress of science and of technology, and makes explicit mention of 'scientific study and strict fidelity towards truth in scientific research, the necessity of working together with others in technical groups, a sense of international solidarity, an ever clearer awareness of the responsibility of experts to aid men and even to protect them, the desire to make the conditions of life more favourable for all, especially for those who are deprived of the opportunity to exercise responsibility or who are culturally poor'.¹ The conciliar document, of course, warns Christians against the perils of a purely earthly humanism; but at the same time shows them how the faith they profess 'in no way decreases, but rather increases, the weight of their obligation to work with all men in constructing a more human world'.²

As you see, Gentlemen, we are here far from the frequently petty and almost always sterile disputes which once gave pleasure to certain minds, inclined as they were to consider the Church, and the advance of human knowledge, as two openly struggling adversaries.

This does not mean that the ancient and ever reviving question of the relationship between science and faith has lost all meaning and interest. If the time at our disposal were less limited, we should have liked to profit by an occasion like this to meditate the matter further with you. We should have liked to describe to you the new illumination which seems to shine on it today: that, namely, of a clearer distinction of the levels on which, separately, science and faith follow their proper methods, develop their knowledge; while the encompassing complexity of thought makes a happy synthesis of both orders of knowledge possible.

In that case, you would undoubtedly have demonstrated to us, as having experienced it directly, how scientific research, by absorbing as it can all the knowing capacity of the seeker, can seem to provide sufficient satisfaction and repletion for the intellectual and spiritual activity of man; how it can succeed in annulling, not only the knowledge, but even the desire of knowledge of God; to such a degree that finally atheism appears to some scientists to be a logical position, satisfying thought and justifying reality.

Then we, in turn, would be tempted to overthrow this fragile edifice of modern intellectual progress by affirming – and by calling again on your experience but on a deeper level – that science prepares for and presupposes an order of thought which transcends and justifies it, for science cannot explain everything; it can only explore what exists, what some Other, infinitely greater than science, has prodigally delivered over to the study of the sons of men. For if science is faithful in restricting research and certitudes within its proper sphere, that of the observable and measurable, so much the more will it progress in its investigations, and so much the more will it feel the need, as it were the intuition, of the immensity of that divine world which dominates it, and bestows upon it some reflection of itself.

We shall instead limit ourselves to considering rather another aspect of the scientific world, to which your assembly so handsomely and laudably testifies, by asking: what use, what practical and useful employment should science, or rather men of science, and their brilliant pupils the technicians, make of the conquests of science? To this query only one reply is possible: everything must tend towards the good of all mankind.

It is certainly not necessary to remind you, Gentlemen, that the spectre of most terrible calamities, capable of overwhelming and razing to nothing the whole inhabited earth, rises in fact from the most advanced laboratories of modern physical science? Can we remain silent about such prospects? No matter how great is the responsibility of politicians in this regard, yet the full responsibility of men of science also remains. For this reason, we shall never cease to pray and implore, and you now provide us with a most propitious occasion to do. May necessary renunciations be made with courage! Let every measure be taken and every obligation assumed in order to prevent and avert the manufacture and use of nuclear arms, of bacteriological warfare, of every other means of deriving from scientific progress the diabolic power of inflicting upon entire nations, even those uninvolved in possible conflicts, the scourge of horrible devastation! May mankind return to its senses!

May men find in themselves, in their leaders, their teachers, the strength and the wisdom to forswear the evil use of destructive science! May they rather seek from science the secret of doing good to themselves!

This is what science is doing, indeed, to its own honour and for the advantage of all. You yourselves, Gentlemen, bear magnificent witness to this with the study week you are observing. Your subject, which is 'Organic Matter and Soil Fertility', is completely directed towards the good of men, nay rather, towards the integral and mutual development of mankind which we invoked, just a year ago, in our Encyclical Letter *Populorum Progressio*. To make the earth fruitful, producing bread for all its dwellers, to struggle against the sterility of desert wastes, to multiply agricultural products, to derive from man's labour easier and more abundant results, to make possible a victory over hunger which today still affects entire nations, to give hope and the means of subsistence to the ever increasing generations of men – such is your conquest, such your art, your mission, your crown!

We are proud of you, Gentlemen, and glad of your studies and your contributions to mankind's well-being. With all our heart do we express to you our praise and our good wishes. And, in the name of that God, so great and so mysterious, Whose works you explore; that God Who created the world and redeemed men; that God Whom in all humility but also in all truth we represent, we impart to you our Apostolic Blessing.

1 *Gaudium et Spes*, nn. 36 and 57.

2 *Ibid.*, n. 57.