

## REPORT BY THE PRESIDENT ROBERTO ANTONELLI

Authorities, dear Fellows, Ladies and Gentlemen,

About two weeks ago, on 27 October, a conference was held at the Academy in memory of the bombings of Hiroshima and Nagasaki, organised by Luciano Maiani and Alberto Quadrio Curzio in the tradition of the Amaldi Conferences and the activities of the Working Group for International Security and Arms Control (SICA) recognised internationally as points of reference.

Those tragic events opened up much discussion in the scientific community regarding the possible effects of a nuclear war. In 1955, the Manifesto published by Bertrand Russell, Albert Einstein and other scientists warned of the possibility that a war fought with nuclear fusion-based devices could threaten the very existence of humanity on our planet.

Scientific research up to the present day has confirmed this prediction, indicating with precision the effects of such a nuclear conflict, both globally and locally. A global nuclear war would destroy the population of the continents involved. Furthermore, it would also have a long-term impact on peoples not directly involved in the conflict. This would be caused both due to the radioactivity produced by nuclear explosions and as a result of the so-called "nuclear winter". The dust raised by the explosions would reach the stratosphere, spreading across the entire globe and reducing solar radiation with effects not unlike those that led to the mass extinction of the dinosaurs and numerous other animal and plant species at the end of the Cretaceous period.

This Conference highlighted how the danger of nuclear conflict has grown alarmingly in recent years, especially in the wake of the ongoing wars in Ukraine and the Middle East, with the repeated threat of Russia possibly resorting to using

nuclear-based tactical weapons more powerful than those of Hiroshima and Nagasaki.

In drawing the conference to a close, political authorities were once again strongly urged to resume dialogue and to draft treaties aimed at creating a world free of nuclear weapons, as requested in 2024 by the G7 of Academies held in Rome when, at the suggestion of the Lincei, the issue of nuclear arms control was included on the agenda for the first time.

A few days after the Hiroshima and Nagasaki conference, the United States announced its intention to resume nuclear tests, and Russia responded with retaliatory measures. Although widespread protests led to the withdrawal of President Trump's proposal, today's scenario is still not reassuring. Indeed, confusion seems to reign supreme even on such a sensitive and decisive issue, while conflicts in Ukraine and the Middle East continue, despite the fragile truce in Gaza. The behaviour of leaders of some major countries might seem either childish or more akin to the gaming table if issues of missiles and atomic bombs were not involved. In these tragic times, there is a general problem with the credibility of the international political class.

The current international unrest increases the possibility that regional powers will also want to arm themselves with nuclear weapons, increasing exponentially the risk for all. It now seems that diplomatic negotiations and dispute settlement through international organizations such as the UN have been ousted by the use of force, and the rule of law is no longer recognised. It is difficult to comprehend that reason and science are not able to exert sufficient influence in a scenario in which the lives of all humanity can be considered to be in jeopardy. To this effect, the G7 and G20 documents – to which we have made considerable contributions – have remained essentially unheeded, and the mass media itself seems impervious to the urgency of wider issues, among which nuclear arms is certainly of primary importance. In this situation, we can only reaffirm the pivotal role of scientific evidence, ethics and dialogue, hoping that in the end reason and the instinct for self-preservation will prevail, also with the current ongoing conflicts. The scenario is undoubtedly very complex but establishing a stable and widespread truce seems to us to be the only possible solution for lasting peace.

Regarding the Middle East, we denounced the massacre carried out by Hamas on Oct. 7, 2023, but we also felt the moral duty to request by means of a letter sent on Aug. 4 to the Israeli Academy of Sciences to share an appeal made to the Israeli government for an immediate ceasefire; we demanded that it change its strategy and recognize the non-negotiable sanctity of the lives of women, men, and children in the Gaza Strip. The Israeli Academy of Sciences responded in agreement with our letter, pointing out that a few days earlier they had already publicly expressed similar views to their own government. In light of the appalling tragedy in Gaza, we have decided – as already done for Ukraine and following the earthquakes in Central Italy and Emilia-Romagna – to announce an extraordinary

Antonio Feltrinelli Prize of 250,000 euros for an exceptional undertaking of high humanitarian value for an organization that has implemented or continues to implement activities to assist the population of Gaza. Convinced that dialogue – as demonstrated by the positive exchange with the Israeli Academy of Sciences – is the only possible way of conflict resolution, we did not consider positively any break in relations with Israeli scientific institutions, a policy maintained in comparable scenarios including the worst periods of the Cold War.

It is unanimously recognised that even in the darkest periods, cultural and scientific relations and Science Diplomacy have always played a positive role. Thus, the Academy has devoted and will continue to devote much effort to this, assisted by the efforts of its Foreign Commission, its Foreign Secretary, Maria Cristina Marcuzzo, and the Office of International Relations managed with great competency by Marco Zeppa and Pina Moliterno. Thanks to their work and to our Fellows Massimo Inguscio – the Academy's representative at 9th Berlin Joint Process Joint Science Conference, of strategic importance for the Balkans –, Roberto Zelli and Neri Salvadori, the operational presence of the Lincei is guaranteed at key international events. We are represented on the boards of IAP (InterAcademy Partnership) by Gianfranco Pacchioni; Centro Interdisciplinare Linceo Giovani CILG was invited to IAP Young Affiliates; ALLEA (All European Academies) by Neri Salvadori and the Fellows and colleagues of the new working groups (Guido Martinelli, Gabriella Santoro, Barbara Pozzo, Marco Ricolfi, Roberto Zoboli); EASAC (European Academies Advisory Council) by Andrea Rinaldo; EMAN (Euro Mediterranean Academic Network) by Francesco Priolo. These are important representations that we will strive to make even more synergistic and forwardlooking in our quest for new agreements.

Some days ago we were asked what the Accademia dei Lincei can do in such a difficult, complex and changing scenario. Perhaps too pessimistically we responded, "very little," despite so much effort. Very little when compared to the magnitude of the problems but precisely that "little" which dialogue and critical attention can transform into "a lot", hopefully in the not too distant future. I think this is also amply demonstrated by this year's programme of events.

For some time our desire to resume the series *The Future of Humanity* has become a reality with an international conference on the theme of *Guerra e Pace* [War and Peace], organised for December 1 and 2 in collaboration with Alessandro Roncaglia. Obviously, we do not intend to propose impossible solutions, but rather to address from multiple perspectives, the complexity of a phenomenon that has apparently accompanied human history since its origins, despite its obvious harmfulness, futility, and senselessness: technological advancement has made warfare increasingly tragic. We must strive so that the need to end wars becomes a constituent part of every human being's thoughts and that this underpin our mission through more incisive initiatives. If the money invested in weapons were devoted to scientific research and overcoming social and cultural inequalities, we

would all be safer and would not have to stand by helplessly witnessing mass killings and the daily demise of so many children and human beings from hunger or easily treatable diseases.

For this reason we will continue to monitor international relations and research funding in Italy and Europe, assisted by the intense work of our Research and Universities Commissions and their chairpersons, Annalisa Rosselli and Guido Martinelli. In addition to our albeit critical presence at the G7 (in Canada, with Francesca Matteucci) and the G20, we have consolidated our relations with major European and non-European national academies, particularly with Asia and China. Indeed, following several meetings and events with delegations from Chinese Academies and Universities, we established the Lincean Centre for Research and Scientific Cooperation with China, chaired by Luciano Maiani and Alberto Quadrio Curzio. This year's Lincean Conferences will conclude with meetings with other major European Academies (Sweden, Austria, Bulgaria), following on from last year's meetings on the theme of Le Accademie e il futuro dell'Europa [Academies and the Future of Europe]; the first proceedings have already been published. The entire series of Friday institutional lectures will again be dedicated to another key-topic, the impact of Artificial Intelligence in various disciplinary fields.

Europe will remain at the heart of our cultural, scientific and diplomatic mission. We have always affirmed the need for a federal Europe: the events of recent years and even months further confirm the importance of our commitment. President Draghi recently stated the need to move beyond unanimity of the 27 Member States in strategic decisions. In the absence of "political conditions that do not exist today," he has also proposed an empirically effective mechanism: "pragmatic federalism, based on specific issues, flexible and capable of acting outside the slower mechanisms of the EU decision-making process." This has pushed us to organize a series of high-level meetings on the future of the European Union and the international relations of Italy and Europe in the present dramatic scenario in conjunction with the Europe Commission chaired by Silvana Sciarra. This will also open the way towards our participation in the anniversary of the European Treaties signed in Rome in 1957, to which we will dedicate a specific conference.

In the same vein, we sent a letter a few months ago to European Commission President Ursula von der Leyen and Executive Vice-President for Technological Sovereignty, Henna Virkkunen – in agreement with the Academies of France, Germany and Spain – in which we called for the establishment of a European Artificial Intelligence Centre. This initiative was actively promoted by our President Emeritus Giorgio Parisi. This is a decisive step for the future of Europe, and I might also add, for humanity. Ongoing developments in artificial intelligence will determine not only scientific research and the economic and social development of our communities, but also the cultural and ethical development of

our consciences. Thus, we must avoid that the orientation of news remain in the hands of a few private institutions which are above any form of control, which are unable to screen fake news and indeed may sometimes actively promoting it with grave consequences for electoral and democratic processes. We will work towards organising a European Conference in Rome on this theme.

The project of a European Centre based on the CERN model but distributed over several locations - similar to the centre for the study of gravitational phenomena - was both welcomed and promoted by the Minister of Scientific Research Anna Maria Bernini, who is also sensitive to other Lincean initiatives aimed at fostering research and the synergy between research institutions and industry. Following Round Table discussions promoted by Guido Martinelli and Marco Tavani, the reform of the universities and research institutes procurement system for scientific instrumentation – more restrictive for Italian researchers than their competitors – finally seems to be under discussion in parliament. At the same time, with other involved parties we are drafting a system whereby online universities – now a reality within the university system and backed by powerful financial and political interests – are brought back into line with certain functional and qualitative parameters to guarantee the education of students and also the Italian production system as denounced by the President of Confindustria. Online universities aimed solely at generating profits and without adequate checks and controls, must be marginalised and the supervisory tasks assigned to ANVUR [Italian Universities and Research Institutes Evaluation Agency] must be conducted with greater rigour and effectiveness. Valid online universities can offer an invaluable educational opportunity and should not be reduced to bland lucrative examination mills.

During a public event, Minister Bernini assured that the great financial effort from NRRP will not be lost, and that in 2026 research, institutions and research posts generated by NRRP funding will be safeguarded. This is obviously a key issue, and we trust that the spending cuts announced in the budget forecast will not undermine this commitment, confident that the continuous emigration of Italian researchers and not offset by the arrival of researchers from other countries will end. In the same vein, we presented our proposal for research funding drafted by Ugo Amaldi, Luigi Ambrosio, Luciano Maiani and Giorgio Parisi to the President of the Republic who expressed his interest. At the same time, we plan to further promote public awareness of scientific, natural and humanistic research by strengthening the Feltrinelli International Award – known as the Italian Nobel Prize – and generating a more effective programme of awareness and visibility in the general public.

With the *Il futuro dell'umanità* [The Future of Humanity] series, the Academy wants to discuss certain themes that will have a strong impact on the lives of human beings and the planet in the near future: After *Guerra e Pace* in December, May will host an event dedicated to *Il cibo del futuro* [The Food of the

Future]. The so-called "routine" activities of academic conferences have also continued intensively in recent months, addressing issues of primary importance, thanks in part to the initiatives of the Interdisciplinary Centre Beniamino Segre, directed this year by Ciro Ciliberto and previously by Michele Ciliberto, whom we thank for their hard work.

I am unable to detail all the conferences held in recent months, but the list is available in the booklet that has been distributed. For Physical Sciences Malaria e sanità pubblica. Il contributo scientifico e sociale di Battista Grassi [Malaria and Public Health: the Scientific and Social Contribution of Battista Grassi] edited by Giorgio Manzi, Vincenzo Aquilanti and Corrado De Concini, Le reti di infrastrutture come motori delle innovazioni: il caso di I-PHOQS [Infrastructure Networks as Engines of Innovation: the case of I-PHOQS] edited by Massimo Inguscio and Orazio Svelto, New Directions in Complex Flows and Climate Change and Human Health, both edited by the Beniamino Segre Centre, New Frontiers in Algebra and Geometry, edited by Fabrizio Catanese; for the Humanities the conferences Canzonieri: Forms, Themes and Genres, edited by myself and Vicente Beltram, L'economia italiana negli anni 2020. Il lavoro in Italia. Quantità e qualità, [The Italian Economy in the 2020s: Work in Italy. Quantity and Quality], edited by Annalisa Rosselli, Storia dell'arte medievale: modelli di racconto [Medieval Art History: Models of Storytelling], edited by Arturo Carlo Ottaviano Quintavalle, Vi, claramente visto, International Congress for the 500th anniversary of the birth of Luis de Camões, together with Sapienza University of Rome and the Embassy of Portugal. As part of the three-year programme dedicated to "Jubilee Years: 1525-1626-1527,", an international conference Europa divisa. Il tempo della battaglia di Pavia, [Divided Europe. The Times of the Battle of Pavial, organised by Maria Antonietta Visceglia, accompanied by an exhibition of the same title in the Corsiniana Library, curated by M. A. Visceglia with Marco Guardo and Ebe Antetomaso. Again for the Jubilee, an exhibition, curated by Lucia Tomasi Tongiorgi, Marco Guardo and Ebe Antetomaso, Il tempo della devozione. Libri d'ore [The Time of Devotion: Books of Hours], in which more than 50 exceptional illuminated manuscripts from all over Italy are collated for the first time. The catalogue will be published by the Enciclopedia Treccani, now chaired by our Fellow Carlo Ossola, in a new series that marks the close and synergistic collaboration between the two leading Italian scientific and cultural institutions.

The Jubilee events actually began on July 2, after the Solemn Closing Session, with the exhibition, which is still ongoing, *Sulle vie del Giubileo*. *Pellegrini, treni, papi* [On the Roads of the Jubilee. Pilgrims, Trains, Popes], edited by Virginia Lapenta in collaboration with Italian State Railways. This will be the subject of a closing conference in January.

In recent months, the Lincei Foundation for Schools has continued its activities (conferences and lectures), having just reopened its annual courses, and the lectures by Lincei Fellows including the Corsiniana lectures, curated by

Annibale Mottana and inaugurated on October 5 by our Fellow Alessandro Roncaglia with *Bene pubblico, interesse personale e Servizio Sanitario Nazionale* [Public Good, Personal Interest and the National Health Service].

For this academic year, in addition to the interdisciplinary conferences in the series *Il futuro dell'umanità* [The Future of Humanity], seven conferences on Physical, Mathematical and Natural Sciences are planned from 18 November to 6 June, with two days dedicated to the theme Water and the Environment; eight conferences on Moral, Historical and Philological Sciences; one conference by the Fondazione Scuola, two conferences by the Linceo Giovani Interdisciplinary Centre, and a one-day conference dedicated to Women and Girls in Science, organised by the Equal Opportunities Commission. All this is addition to the scheduled conferences and lectures in Physical Sciences as part of the scheduled meetings (at least eight), starting on 14 November, and the seminars and mini conferences in Moral Sciences on Wednesdays and Thursdays for a total of 7 "Introductory sessions" and 7 "Insights". I have also included the conference of the Centro Interdisciplinare Linceo Giovani (CILG), directed by Carlotta Rinaldo as part of the Moral Sciences series: not an entirely arbitrary choice considering the virtuous collaboration between our Fellows and younger generations. Also very important for us is the first Annual CILG Symposium of Nov. 6 dedicated to the work of all its members, with the presentation of their research activities. I will not provide a complete list of all the initiatives, so as not to dwell too long on the subject, but I would like to emphasise that even now, including conferences, seminars, lectures and conferences, we have one or two events scheduled each week. In addition we also host events and exhibitions, as well as delivering the "Accademia Incontra" series, conceived by President Emeritus Lamberto Maffei, which we have enthusiastically resumed this year with our distinguished guest Renzo Arbore whom we hosted last night. Exhibitions and meetings with artists and intellectuals are evident and a public manifestation of our openness to the requests of both institutions and society in general which is now widely acknowledged, thanks also to the excellent work of our press office manager, Mariella Di Donna. "What do Lincei Fellows do?" was a question we were often asked in the past, partly because of our reservedness but now the answers are wellknown, even if there is always room for improvement. We have recently been considering how to further improve our communication, starting with our website and social media presence which still have some unresolved issues and for which we are once again seeking the advice of all our Fellows.

Villa Farnesina has been and will obviously be central in our exhibition programme, thanks to its conservator, Virginia Lapenta. However, throughout all these years, the passion and expertise with which our dear colleague Antonio Sgamellotti led the activities of the Villa Farnesina Commission, together with Alessandro Zuccari, has been fundamental to reopening and redeveloping the Villa for scientific and exhibition purposes. His recent demise has opened an emotional and scientific void of enormous proportions: Antonio's work was

fundamental to that openness to society and citizens that has characterized the Academy's activities in past years. We will try to make up for his loss as much as possible through the affection and help of his colleagues, friends and collaborators, but above all with a commitment to continue the activities he promoted; from the scientific work of the Lincean Centre for Research on Cultural Heritage Villa (CERIF), which he founded, an extraordinary interdisciplinary research, to the opening of Villa Farnesina to contemporary art. In order not to dissipate his work, we know that we can count first and foremost on Vincenzo Aquilanti, our dear Fellow and his lifelong friend, despite the fact that he is already very busy as a member of the Presidential Council and President of the Accademia dei XL. We sincerely thank him. In addition to Antonio, we must remember the other Fellows who have left us recently, thanking them for their invaluable contribution to the Academy with their prestige and presence. The necessity for this type of contribution is constantly greater precisely due to the Academy's expanding undertakings, as we also reminded our new Fellows, whom we welcome this morning with great pleasure and high hopes.

Villa Farnesina is a virtuous example of the interpenetration between scientific activity and opening to a wider public, but the Academy – thanks to the work of the Museums Commission – has also played a significant role in the design of the Museum of Science in Rome, with Giorgio Manzi, and now in the proposal for a Metamuseum of Science, with Carlo Di Castro. This last project has already been presented to the Minister of Culture, Alessandro Giuli whose staunch support has been extended to other Academy projects discussed at the same meeting. Still on the subject of museums, it is noted that the Academy does not have a museum to house its centuries-old history. Together with Alberto Quadrio Curzio, President of the Academy's History Commission, we are working on an initial solution but in the meantime, our website will soon be enriched with the history of the Academy written by the Director of the Library, Marco Guardo, whom I would like to thank for his ongoing commitment to supporting our exhibition activities. In addition to the exhibitions already planned, another important moment for the initiative is the official unveiling of the Digital Library on March 12, 2026, accompanied by the display of some of the most valuable materials in our possession and an avant-garde art installation as a tangible representation of the project's interdisciplinarity. The activities related to the Digital Library were made possible by NRRP funds that also enabled the digitization and metadata of the Library's historical catalogues. Finally, our entire book collection has been classified in a unified catalogue.

These are activities that involve considerable commitment. Once again, we must thank our staff and collaborators for the expertise and dedication that they contribute to our programmes. Their work allows us to meet both our schedule of activities and the most significant external requests, including our publications, which, thanks to the work of our Editorial Office, are published rapidly including the "Rendiconti".

Our exhibitions also involve the Biblioteca Corsiniana: The Battle of Pavia, the Books of Hours, the Autographs of Italian writers. We are preparing an international conference and exhibition on Christina of Sweden (*The Queen of Culture*) together with the Corsini Gallery and its director Thomas Clemens Salomon for November and December 2026. This will almost be a celebration of identity for our Academy, since Queen Christina lived and died in our Palazzo Corsini – then known as Palazzo Riario – following her abdication and conversion to Catholicism. She made this *palazzo* the home of one of the most prestigious art and manuscript collections, as well as grand cultural events not only for Rome, but for all of Europe. Another initiative on the Sack of Rome which left so many important historical traces in the Villa Farnesina is in preparation for 2027.

The Academy has an extensive collection of drawings and prints, which are kept at the *Istituto Centrale della Grafica* [Central Institute of Graphic Arts]. This collection lends itself to numerous and significant thematic exhibitions of art, literature and science. Starting with the Physical, Mathematical and Natural Sciences, it is imperative that this collection be made readily available to scholars, students and a wider audience through targeted initiatives. Indeed, this has been successfully achieved – at minimal expense – with the exhibition on the Battle of Pavia currently underway, which I warmly invite you to visit.

It is now well-known that the support of the Friends of the Lincei Association is essential in the development and implementation of our programmes. Under the presidency of Umberto Quadrino this has developed further to include many new Friends, whom I would like to thank, starting, of course, with a "historical" supporter, Intesa Sanpaolo which is also well represented in the programmes for the next three years. Indeed, Mr. Stefano Lucchini, Chief Institutional Affairs and External Communication Officer of Intesa, has agreed to become Vice President of the Association.

In conclusion, I would like to thank all twenty Commissions of the Academy, without whose contributions it would not be possible to carry the burden while maintaining the quality of our activities. In particular, I thank their Presidents. Without their efforts, our international and national presence would be much less significant. Allow me to mention them all at least during the opening ceremony rather than the formal closing ceremony as the presence of the President of the Republic makes timing more of an issue: Annalisa Rosselli for the Research Commission, Guido Martinelli for Universities, Bruno Carli for the Environment, Carlo Patrono for Health, Piero Giovanni Guzzo for Cultural Heritage, Antonino Cattaneo for Bioethics, Alberto Melloni for Human Rights, Silvana Sciarra for European Issues, Maurizio Masi for Innovation and Development, Carlo Di Castro for Museums, Marta Catellani for Equal Opportunity, Massimo Inguscio for Schools, Luciano Maiani for International Security and Arms Control (SICA), Roberto Scazzieri for Society and Economics, Alberto Quadrio Curzio for History of the Academy, and Alberto Tesei for the Lincei Foundation for Schools. The

latter, although an autonomous and not internal body, we all consider it *tota nostra* and now represents a national benchmark for teacher training. The Commission on Greek and Latin Classics and the Editorial Board of News and Excavations of Antiquity have always represented international excellence. Thus, I would like to underline their consistently discreet yet intense activity, thanking not only their presidents Guglielmo Cavallo and Paolo Sommella, but also Oronzo Pecere.

Obviously my personal gratitude – and I believe that of all of us – to the Auditors who have never been so involved in our work. Firstly, to the Council of Presidents, a body characterized by deep collegiality and sharing: to the President of the Physical Sciences Class and Vice-President of the Academy, Carlo Doglioni, for his constant assistance and ever invaluable advice, to the Academic Administrator Antonio Gambaro, who is as unobtrusive as he is fundamental on both a technical and cultural level, and to the Assistant Administrator, Paolo Costantino, who has also taken on the burden of implementing the *Future of Humanity* programme and that institutional communication, together with Alessandro Roncaglia, to whom I owe so much for his presence and advice, as well as to the other Secretaries of the two Classes: Vincenzo Aquilanti, who masterfully edits the "Rendiconti" of the Physical Sciences Class, Francesca Matteucci, who with Roncaglia edits the proposals for conferences and events, and Andrea Giardina who assists us all with his presence, wisdom and expertise.

The task of adjusting the Academy's structure and statutes has not ended due to the numerous innovations of recent years: we will have to return to this calmly with new ideas and proposals and being aware of our evolving needs. We are waiting for ratification of the recent amendments to the Statute by the Ministry of Culture, starting with the introduction of a new category and a new section in the Physical Sciences Class, but we will certainly have to reflect on how to increase the number of Fellows who are truly active in the Academy and how to finally comply with the resolutions passed by the joint meeting of the Classes, at least to balance gender representation in the election of Fellows and the conferment of awards.

To conclude, I can only reiterate my thanks to the President and to the Chancellor, Francesco Paolo Fazio, for his competence, velocity and truly "Lincean" spirit with which he tackles the various problems that arise daily. These are neither few nor insignificant and even involves finding solutions to resolve long-standing issues that have a major impact on the Academy's budget, exacerbated in the last two years by substantial reductions in ministerial funding. Due to an unfortunate delay by the Department of Public Administration caused by cuts in recruitment resources, we have not yet been given permission to announce the competition for Director of Administrative Services, the burden of which still falls on Mr. Fazio, with the support of Mr. Dramis. I would also like to thank both of you for this extraordinary effort.

And to all of you present today for your attention and patience.

I solemnly declare the four hundred and twenty-second Academic Year of the Accademia dei Lincei now open.