

THE PONTIFICAL ACADEMY OF SCIENCES

Working Group on

**On the road to humanity – *Via Humanitatis* –
The main stages of the morphological and cultural
evolution of Man. The emergence of the human being**

19-21 April 2013 • Casina Pio IV



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VATICAN CITY 2013

Creation of Adam, fresco
in the Vestibule of the Casina Pio IV,
Marco Marchetti da Faenza, c. 1558.



Francis is also the man of peace. That is how the name came into my heart: Francis of Assisi. For me, he is the man of poverty, the man of peace, the man who loves and protects creation.

(Audience to representatives of the communications media, Address of the Holy Father Pope Francis, Paul VI Audience Hall, Saturday, 16 March 2013)

*On the road to humanity – Via Humanitatis – The main stages
of the morphological and cultural evolution of Man.
The emergence of the human being*

INTRODUCTION

There is no doubt that, for the human being, the history of humanity (*via humanitatis*) is a primary path of the spirit and “teacher of life” (*magistra vitae*). In the course of history, through intellectual reflection and the commitment of will that matures thanks to philosophical self-reflection, man and woman have acquired the awareness of the absolute quality of their being, following the desire expressed by the Socratic Delphic imperative: *Know thyself – be yourself!*

For seven million years hominid evolution has been marked by major cultural leaps which have brought more freedom and more control over the environment, leading to the development of cognition and the progressive emergence of conscience.

Two and a half million years ago, when hominids manufactured stone tools, converting the hand in the tool of tools, and appeared to acquire articulated language, they were already fully human and capable of conceptual thought and moral decisions.

Nine billion years went by between the Big Bang and the formation of a primitive lifeless ocean on planet Earth, then another 4 billion years passed by between this primitive ocean and Man, with 100 billion brain cells and the ability to question his role in the History of the Universe and of Life and to reconstruct his own history.

This emerging quality of the human being becomes apparent in the progressive implementation and awareness of the *differences* between being and not being, good and evil, right and wrong, justice and injustice, love and hate; thus emerge the differences in the human practices that the philosopher attributes to the various theoretical, ethical and political sciences.

Indeed, since man has become a human being (*genus homo*), there is a sphere of being that each man finds in himself right from his

mother’s womb and in himself and out of himself starting from birth. It is the first environment of life itself in which man finds himself “thrown” or rather, and better, in which he finds himself gratified by God. Believers in Abrahamic religions know that the starting point is not amorphous chance or a twist of fate, as hypothesized by sceptics and materialists. Christians know they owe their origin to the Holy Trinity, who, with an act of love, granted them a privileged place to know and love God and to be the stewards of creation. This had already been glimpsed by religions in general and also by the pre-Christian philosophers, who considered human beings “the offspring of God”, as testified by St Paul to the philosophers of the Areopagus in Athens (Acts 17:22 ff.).

Although science is not in a position to prove directly the existence of God, it has not been able to come up with evidence to the contrary. It restricts itself to explaining how the facts of nature happen instead of why, i.e. the first and final causes.

Nonetheless, the laws of the Universe, the structure of the micro- and macrocosm, the evolution of the ever more complex living world and its marvellous mechanisms, reveal a continuous creative force named God by all peoples since the beginning. Man has progressed from being lost in a remote corner of the universe, to acquiring through palaeontology a pre-eminence he did not believe possible. With the human being, evolution has become conscious of itself in Man.

Is Man the culmination of evolution? Is he an incidental result of randomness? We are personally fascinated by the Evolution of the Universe, of Life, and by the appearance of the human being. We can only believe that this is a new proof of the existence of God the Creator.

ROGER CARDINAL ETCHEGARAY
HENRY DE LUMLEY
MARCELO SÁNCHEZ SORONDO



*Sul cammino dell'umanità – Via Humanitatis – Le fasi principali
dell'evoluzione morfologica e culturale dell'uomo.
L'emergere dell'essere umano*

INTRODUZIONE

Non c'è dubbio che la storia dell'umanità (*via humanitatis*) è, per l'essere umano, un itinerario primario dello spirito e "maestra di vita" (*magistra vitae*). Nel corso della storia, mediante la riflessione dell'intelletto e l'impegno della volontà che matura nell'auto-riflessione filosofica, l'uomo e la donna hanno acquisito la consapevolezza della qualità assoluta del proprio essere, seguendo il desiderio espresso nell'imperativo delfico socratico: *Cognosci te stesso – sii te stesso!*

Per sette milioni di anni l'evoluzione degli ominidi è stata segnata da grandi salti culturali che hanno dato loro sempre più libertà e controllo sull'ambiente, portando allo sviluppo della cognizione e al progressivo emergere della coscienza.

Due milioni e mezzo di anni fa, quando gli ominidi hanno iniziato a fabbricare utensili di pietra, trasformando la mano nello strumento degli strumenti, e hanno verosimilmente acquisito il linguaggio articolato, erano già umani pienamente realizzati e capaci di formulare pensieri concettuali e decisioni morali.

Nove miliardi di anni sono passati dal Big Bang all'oceano primitivo senza vita sul pianeta Terra, poi ancora 4 miliardi di anni per arrivare dall'oceano primitivo all'Uomo, che, grazie al suo cervello contenente oltre 100 miliardi di neuroni, è capace di interrogarsi sul suo posto nella Storia dell'Universo e della Vita e a ricostruire la sua storia.

Tale qualità emergente dell'essere umano si va manifestando nella progressiva attuazione e consapevolezza delle *differenze* tra l'essere e il non essere, tra il vero e il falso, tra il bene e il male, tra il giusto e l'ingiusto, tra l'amore e l'odio; così emergono le diversità delle prassi umane che l'uomo filosofo riferisce alle diverse scienze teoretiche, etiche e politiche.

Infatti, da quando l'uomo è essere umano (*genus homo*) c'è una sfera dell'essere che ciascun

uomo trova dentro di sé fin dal grembo materno e in sé e fuori di sé dalla nascita. È la prima atmosfera della vita stessa in cui l'uomo si trova "gettato" o piuttosto, e meglio, di cui si trova gratificato da Dio. Le religioni abramitiche sanno che il punto di partenza non è il caso amorfo e neppure il capriccio del destino come ipotizzano gli scettici e i materialisti. Il cristiano sa di dovere la sua origine alla Santissima Trinità la quale, con un atto d'amore, gli ha conferito un posto privilegiato per conoscere e amare Dio ed essere il custode del creato. Questo era stato già intravisto dalle religioni in generale e anche dai filosofi prima del Cristianesimo fino a considerare l'uomo "affine a Dio" come lo testimonia San Paolo ai filosofi dell'Areopago di Atene (*Atti* 17, 22 ss.).

Se la scienza non ha la possibilità diretta di provare l'esistenza di Dio, tuttavia, essa non ha la possibilità di dimostrare il contrario ma si limita a spiegare come si realizzino i fatti della natura, e non perché, cioè le loro Cause ultime o prime.

Ciononostante, le leggi dell'Universo, la struttura del macro e del microcosmo, l'evoluzione del mondo vivente, che tende sempre verso una maggiore complessità, i suoi meccanismi meravigliosi, ci rivelano una forza creatrice continua chiamata Dio da tutti i popoli sin dall'inizio. L'Uomo è passato dall'essere sperduto in un angolo remoto dell'universo ad acquisire, grazie alla paleontologia, una preminenza che non credeva possibile. Con l'essere umano, l'evoluzione è diventata cosciente di se stessa nell'Uomo.

L'Uomo è il culmine dell'evoluzione? È un risultato incidentale del caso? Personalmente meravigliati dall'Evoluzione dell'Universo, della Vita, e dall'apparizione dell'essere umano, non possiamo che considerarla un'ulteriore prova dell'esistenza di Dio.

ROGER CARDINAL ETCHEGARAY
HENRY DE LUMLEY
MARCELO SÁNCHEZ SORONDO



*Sur la route de l'humanité – Via Humanitatis – Les principales étapes
de l'évolution morphologique et culturelle de l'Homme.
L'émergence de l'être humain*

INTRODUCTION

Il ne fait aucun doute que, pour l'être humain, l'histoire de l'humanité (*Via Humanitatis*) est la principale préoccupation de l'esprit. L'histoire est le maître de la vie (*magistra vitae*). Dans le cours de l'histoire, par la réflexion intellectuelle et l'engagement de la volonté qui mûrit grâce à l'auto-réflexion philosophique, l'homme et la femme ont acquis la conscience de la qualité absolue de leur être, suite à la volonté exprimée par l'impératif socratique delphique: *Connais-toi toi-même, Sois toi-même!*

Pendant 7 millions d'années l'évolution des hominidés a été marquée par de grands sauts culturels qui ont apporté plus de liberté et plus de contrôle sur l'environnement, conduisant au développement de la cognition et à l'émergence progressive de la conscience.

Il y a 2,5 millions d'années, lorsqu'un hominidé est devenu capable de fabriquer un outil manufacturé, de convertir la main en outil et a acquis vraisemblablement le langage articulé, il est déjà un homme, pleinement réalisé, capable de pensée conceptuelle et de choix moraux.

9 milliards d'années environ pour passer du Bing Bang à l'océan primitif sans vie sur la planète Terre, puis 4 autres milliards d'années pour passer de l'océan primitif à l'Homme avec un cerveau de plus 100 milliards de neurones, qui s'interroge sur sa place dans l'Histoire de l'Univers et de la Vie et qui est capable de reconstituer sa propre histoire.

Cette qualité émergente de l'être humain se manifeste dans la mise en œuvre progressive et dans la prise de conscience des différences entre être et ne pas être, entre le bien et le mal, entre le juste et l'injuste; ainsi émergent les différences dans les pratiques de l'homme que les philosophes attribuent aux diverses sciences théoriques, éthiques et politiques.

En effet, depuis que l'homme est devenu un être humain (*genus Homo*), il y a une sphère de l'être que chaque homme trouve en lui-même

dès le sein de sa mère et de lui-même et hors de lui-même à partir de la naissance. C'est le premier environnement de la vie elle-même dans laquelle l'homme se retrouve «jeté» ou plutôt, et mieux, dans lequel il se trouve gratifié par Dieu. Les croyants des religions abrahamiques savent que le point de départ n'est pas un hasard amorphe ou un coup du sort, comme présumé par les sceptiques et les matérialistes. Les chrétiens savent qu'ils doivent leur origine à la Sainte Trinité, qui, par un acte d'amour, leur a accordé une place privilégiée pour connaître et aimer Dieu et pour être les gardiens de la création. Cela avait déjà été entrevu par les religions en général, et aussi par les philosophes préchrétiens, qui considéraient les êtres humains comme «la progéniture de Dieu», ainsi qu'en témoigne Saint Paul aux philosophes de l'Aréopage à Athènes (Acts 17: 22 ff.)

Si la science n'a pas la possibilité de prouver directement l'existence de Dieu, à contrario, elle n'a pas celle de démontrer le contraire. Elle se borne à expliquer comment, avec évidence, les faits de la nature se sont déroulés et non pas le pourquoi c'est-à-dire, les causes premières et finales.

Néanmoins, les lois de l'Univers, la structure du microcosme et du macrocosme, l'évolution du monde vivant qui tend toujours vers de plus en plus de complexité et ses merveilleux mécanismes, nous révèlent une force créatrice continue nommée Dieu par tous les peuples depuis les origines. À travers l'acquisition de la paléontologie, l'homme a progressé de la condition d'un être perdu dans un coin reculé de l'univers, à une prééminence à laquelle il ne croyait plus.

L'Homme est-il l'aboutissement de l'évolution? Est-il le fruit du hasard? Nous sommes personnellement émerveillés par l'Evolution de l'Univers et de la Vie, et nous ne pouvons que croire qu'il s'agit d'une preuve de l'existence de Dieu Créateur.

ROGER CARDINAL ETCHEGARAY
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PROGRAMME

Jeudi 18 avril 2013

- 15:00 Conseil de l'Académie Pontificale des Sciences
- 18:00 Departure from the Domus Sanctae Marthae by bus to attend the reception at Villa Bonaparte, Via Piave 23, offered by the French Ambassador to the Holy See, Mr Bruno Joubert
- 21:00 Bus leaves Villa Bonaparte to take participants back to the Domus Sanctae Marthae

Vendredi 19 avril 2013

- 9:00 *Accueil* • **Monseigneur Marcelo Sánchez Sorondo**, Chancelier de l'Académie Pontificale des Sciences, Président du Colloque
- 9:10 *Introduction au colloque* • **Cardinal Roger Etchegaray**, Président du Colloque
- Werner Arber**
Président de l'Académie Pontificale des Sciences
- Henry de Lumley**
Directeur de l'Institut de Paléontologie Humaine

LES PREMIERS HOMINIDÉS 7 Ma — 2 Ma Acquisition de la station érigée bipède

Chair: **H. de Lumley**

- 9:30 *La station debout: étrange adaptation permanente au premier environnement mosaïque*
Yves Coppens
- 10:00 Discussion
- 10:15 *Bipedality: Why and how?*
Ian Tattersall
- 10:45 Discussion
- 11:00 Coffee Break
- 11:30 Discussion générale
- 12:30 Déjeuner

LES PREMIERS HOMMES FABRIQUANTS D'OUTILS 2,5 Ma — 1,5 Ma Invention de l'outil • Acquisition du langage articulé • Emergence de la pensée conceptuelle

Chair: **J.-M. Le Trensorer**

- 14:00 *Invention de l'outil et acquisition du langage articulé*
Henry de Lumley
- 14:30 Discussion
- 14:45 *Biological and cultural aspects of the first humans out of Africa*
David Lordkipanidze
- 15:15 Discussion
- 15:30 *The early Acheulean technology and the emergence of Symmetry: Archaeological evidence from East Africa*
Yonas Beyene
- 16:00 Discussion
- 16:15 Coffee Break
- 16:45 Discussion générale
- 18:30 Departure from the Casina Pio IV by bus to attend the reception at Palazzo Farnese, Piazza Farnese 67, offered by the French Ambassador, Mr Alain Le Roy
- 21:00 Bus leaves Palazzo Farnese to take participants back to the Domus Sanctae Marthae



Samedi 20 avril 2013

LES PREMIERS PEUPLES CHASSEURS 1,5 Ma — 100 000 ans
Acquisition de la notion de symétrie • Émergence du sens de l'harmonie

Chair: Y. Coppens

- 8:30 *Aspect biologique de l'Homo erectus*
Marie-Antoinette de Lumley
- 9:00 Discussion
- 9:15 *Le façonnage symétrique des outils de pierre par Homo erectus: étape cruciale dans l'émergence du sens de l'harmonie*
Jean-Marie Le Tensorer
- 9:45 Discussion
- 10:15 Departure to the Apostolic Palace for a photo de famille with Pope Francis
- 12:30 Déjeuner
- 14:00 Discussion générale

LA DOMESTICATION DU FEU 400 000 ans
Naissance des identités culturelles

Chair: A. Vialet

- 15:00 *On the origin of human fire-use: an evaluation of earliest evidence and current hypotheses*
John Gowlett
- 15:30 Discussion
- 15:45 *Il y a 400 000 ans. La domestication du feu, un formidable moteur d'hominisation*
Henry de Lumley (tentative)
- 16:15 Discussion
- 16:30 Discussion générale
- 17:00 Coffee Break

**RACINES ET RÔLE DE L'ORIENTATION ÉTHIQUE
DANS L'ÉVOLUTION CULTURELLE PASSÉE ET FUTURE**
Round Table

Chair: N. Le Douarin

- 17:30 **Card. Roger Etchegaray**
- 17:40 **Werner Arber**
- 17:50 **Christian de Duve**
- 18:00 **Philippe Capelle-Dumont**
- 18:10 **Marcelo Sánchez Sorondo**
- 18:20 Discussion générale



Dimanche 21 avril 2013

8:00 Messe à l'attention de ceux qui le souhaitent dans la Chapelle de la Casina Pio IV

LES PREMIERS RITES FUNÉRAIRES 300 000 ans

Balbutiements de la pensée symbolique

Chair: I. Tattersall

9:00 *Les plus anciennes manifestations d'un rituel funéraire*
Henry de Lumley (tentative)

9:20 Discussion

9:30 *Symbolism in the emergence and development of man*
Fiorenzo Facchini

9:50 Discussion

10:00 Discussion générale

10:30 Coffee Break

LES PREMIÈRES SÉPULTURES 100 000 — 8 000 ans avant J.-C.

Naissance de l'angoisse métaphysique

11:00 *Les premières sépultures*
Amélie Vialet

11:20 Discussion

11:30 *Les sépultures de premiers Hommes modernes du Paléolithique supérieur*
Giacomo Giacobini

11:50 Discussion

12:00 Discussion générale

12:30 Déjeuner

LES PREMIERS HOMMES MODERNES 35 000 — 8 000 ans avant J.-C.

Parures, art pariétal, art mobilier, musique • Explosion de la pensée symbolique

Chair: G. Giacobini

14:00 *The Symbolic thought of Modern Man of the Upper Palaeolithic (40 000-8500 BP)*
Paul G. Bahn, Michel Lorblanchet

14:20 Discussion

14:30 *The first modern humans. Bringing genetics, epigenetics and the human sciences together*
Gennaro Auletta

14:50 Discussion

15:00 Discussion générale

LES PREMIERS PEUPLES PASTEURS ET AGRICULTEURS X^{ème} millénaire — 5 000 ans avant J.-C.

La sédentarisation

15:30 *The transformational consequences of sedentism in Europe and Western Asia from 10,000 to 5,000 BC*
Colin Renfrew

15:50 Discussion

16:00 *La conquête mégalithique de l'Europe atlantique*
Jean-Pierre Mohen

16:20 Discussion

16:30 Discussion générale

17:00 Coffee Break

EMERGENCE DE L'AUTOCOSCIENCE

17:30 *The emergence of consciousness: The interplay of genetic and epigenetic factors*
Wolf Singer

17:50 Discussion

18:00 *Conscience humaine et mondialisation. conceptions et interprétations*
Louis Sabourin

18:20 Discussion

18:30 Discussion générale

19:00 **Conclusion du colloque: Signification de l'Homme**

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LIST OF PARTICIPANTS

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Hull (Grande Bretagne)

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The University of Liverpool
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Archaeological Science, IPNA
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Pontificia Universidad Católica de Chile
Facultad de Ciencias Biológicas
Departamento de Genética Molecular y Microbiología
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PERSONNALITÉS

**ACCUEIL ET INTRODUCTION AU COLLOQUE
SUR LE CHEMIN DE L'HUMANITÉ**

Son Eminence,
Le Cardinal **Roger ETCHEGARAY**
Palazzo San Calisto (Cité du Vatican)

Son Eminence,
Le Cardinal **Georges COTTIER O.P.**
(Cité du Vatican)

Son Eminence,
Le Cardinal **Paul POUPARD**
(Cité du Vatican)

Monsieur Le Professeur **Werner ARBER**
Président de l'Académie Pontificale des Sciences
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Henry de LUMLEY
Directeur de l'Institut de Paléontologie Humaine
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Paris (France)

Son Excellence,
Monseigneur **Marcelo SÁNCHEZ SORONDO**
Chancelier de l'Académie Pontificale
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Casina Pio IV (Cité du Vatican)

AUDITEURS LIBRES

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Jeanne TATTERSALL
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BIOGRAPHIES OF PARTICIPANTS



Gennaro Auletta, born 1957, PhD in Philosophy (Rome “La Sapienza”), Aggregate Professor at the Pontifical Gregorian University and Scientific Director of the Specialization “Science and Philosophy”, Researcher at the University of Cassino, Visiting Fellow of the St Edmund’s College, University of Cambridge, Research Associate of the von Hügel Institute, University of Cambridge, former Scientific Director of the Vatican STOQ Project. Author of 8 books (among them *Quantum Mechanics* (with G. Parisi and M. Fortunato), Cambridge University Press, 2009; *Cognitive Biology: Dealing with Information from Bacteria to Minds*, Oxford University Press, 2011); Editor of 8 books, among them *Biological Evolution: Facts and Theories: A Critical Appraisal after 150 years after “The Origin of Species”* (Ed. with M. Leclerc and R. Martinez), Rome, G&B Press, 2011. Author of 70 papers, among them: “Top-Down Causation by Information Control: From a Philosophical Problem to a Scientific Research Program”, *Journal of the Royal Society: Interface* 5 (2008): 1159–72 (with G. Ellis e L. Jaeger); “Teleonomy: The Feedback Circuit involving Information and Thermodynamic Processes”, *Journal of Modern Physics* 2.3 (2011): 136-45; “Information and Metabolism in Bacterial Chemotaxis”, *Entropy* 15 (2013): 311-26. Director of several research projects: among them, *Biological Evolution, Emergence of New Biological Functionalities through Top-Down Causation and on Planarians’ Regeneration in Space*. Organizer and Director of 5 workshops and 2 conferences (Rome and Cambridge). Speaker at about 50 conferences and workshops. Areas of interest: Metaphysics, Philosophy of Nature, Logic, Foundations and Interpretation of Quantum Mechanics, Quantum Information, System Biology, Cognitive Biology, Top-Down Causation in Biology and Neurosciences, Mathematical Definition of Complexity.



Paul G. Bahn M.A., Ph.D., F.S.A. I was born and raised in Hull, studied archaeology at the University of Cambridge, and did my Ph.D. thesis (1979) on the prehistory of the French Pyrenees. I then held post-doctoral fellowships, at Liverpool and London, plus a J. Paul Getty postdoctoral fellowship in the History of Art and the Humanities. I went freelance in the mid-80s, and since then have devoted myself to writing, editing and translating books on archaeology, plus occasional journalism and as much travel as possible. My main research interest is prehistoric art, especially rock art of the world, and most notably Palaeolithic art, as well as Easter Island. I led the team which, at my instigation, searched for and discovered the first Ice Age cave art in Britain in 2003 and 2004.



Yonas Beyene earned his PhD in Prehistory from France, Museum National d’Histoire Naturelle, Paris in 1991. He specializes in Early Stone Age Archaeology. His research interest includes Middle Stone Age, Late Prehistory and cultural landscapes. He has extensively worked and directed research projects in South, South West Ethiopia and in the Ethiopian Rift (in Konso, Middle Awash and Fejej). His research results are published, including in prominent scientific journals. He has served the Ethiopian Ministry of Culture and Tourism as Head,

Department of Archaeology and Paleoanthropology for more than fifteen years. He has also served as Director of Heritage Collection and Laboratory and Director of Conservation. He lectured ‘African Archaeology’ in the Department of Archaeology and Heritage Management Master’s Program at Addis Ababa University between 2004-2011. Dr. Yonas Beyene has also served as Academic and Research Vice President of Wolkite University in 2012. He is Member of the World Heritage Committee, UNESCO, representing Ethiopia since 2009. He is currently working for the “Association for Research and Conservation of Culture” (ARCC), Ethiopia, and affiliated with the French Center for Ethiopian Studies (CFEE), Addis Ababa.



Philippe Capelle-Dumont, né en 1954, prêtre catholique, Professeur des Universités, Doyen honoraire de la Faculté de philosophie de l’Institut Catholique de Paris. Président de l’Académie catholique de France (2008) et de la Société francophone de philosophie de la religion (2011). Docteur en philosophie (Sorbonne), docteur en théologie, Habilité à diriger des Recherches (Strasbourg), professeur de philosophie à l’Université de Strasbourg et à l’Institut catholique de Paris. Professeur docteur *honoris causa* de l’Université catholique d’Argentine. Président-fondateur de la Chaire de métaphysique Etienne-Gilson depuis 1995, Fondateur (avec Paul Ricœur+) du Fonds Jean-Nabert (2001), Directeur du laboratoire de recherche en philosophie de la religion (1999-2006), il a dirigé une trentaine de colloques scientifiques en France et à l’étranger. Auteur de 30 livres, de 220 articles scientifiques, notices de dictionnaires et d’encyclopédies, contributions et préfaces à des ouvrages de philosophie, il est également directeur-fondateur de deux collections éditoriales: Philosophie & Théologie (48 volumes), Cerf ; Collection de métaphysique Etienne-Gilson (12 volumes) PUF. Membre du «Cercle Castelli » (Rome) depuis 1998, ancien président de la Conférence mondiale des Facultés de philosophie des Universités catholiques (1999-2008). Titulaire de plusieurs Chaires et professeur invité dans de nombreuses universités européennes et américaines. Ses recherches l’ont conduit d’une thèse de doctorat en philosophie dirigée par Henri Birault, sur Heidegger et la théologie (trad. en italien, en espagnol, en lituanien et partiellement en arabe) à une spécialisation en philosophie de la religion. La relation philosophie-théologie constitue l’axe principal de ses travaux depuis le début des années 1990, (3 livres, une encyclopédie en 5 vol.). Il a organisé à Rome, en collaboration avec l’Académie pontificale, le colloque du 10 anniversaire de l’encyclique *Fides et ratio*, (*Fiducia nella ragione*, 2008). Phénoménologue, il s’inscrit dans l’histoire des problématiques développées par Husserl, Heidegger, Emmanuel Levinas et Paul Ricœur, (*Fenomenologia francesa actual*, 2009). Il prépare actuellement un livre qui rassemble ses recherches phénoménologiques ayant donné lieu à des conférences en Europe et en Amérique: «Phénoménologie de l’alliance ». Métaphysicien, il consacre ses travaux à la question du temps et à la question philosophique de Dieu en articulation avec sa recherche sur le concept «d’alliance ». Il a également publié plusieurs articles de théologie, notamment sur la question de la kénose, le problème de la vérité dans le dialogue interreligieux et la question théologico-politique. Il a reçu en 2009 à Rome la médaille *Ex corde ecclesiae* décernée chaque année à un universitaire catholique.



Yves Coppens was born in 1934 in Brittany. He has been trained in geology, zoology, botany (University of Rennes) and paleontology (doctoral degrees University of Paris, Sorbonne). His career, starting in 1956, has been conducted in different institutions, all of them in Paris, successively at the National Scientific Research Center (in the department of Vertebrate Paleontology and Human Paleontology of the Sorbonne and in the Institute of Paleontology of the National Museum of Natural History), at the Museum of Man (professor and deputy director in 1969, Director in 1979) before being appointed Chair of Anthropology of the National Museum of Natural History in 1980 and Chair of Paleoanthropology and Prehistory of the College de France in 1983. Yves Coppens is a member of many scientific institutions all over the world, the French Academy of Sciences, the French Academy of Medicine, the Royal Academy of Sciences, Literature and Fine Arts of Belgium, the Royal Academy of Medicine of Belgium, the Academia Europaea, the national Academy of Sciences of Rome, the Royal Anthropological Institute of Great Britain and Ireland (honorary fellow), the Royal Society of South Africa (foreign associate), the Academy of Malagasy (associate) etc. Yves Coppens received numerous scientific awards from France (prix Edmond Hébert 1963 of the Academy of Sciences, prix André C. Bonnet 1969 of the Academy of Sciences, Grand prix Jaffé 1974 of the Academy of Sciences, Grand prix scientifique 1975 of the Foundation of France, silver medal 1982 of the Scientific Research Center, André Duveyrier medal 1989 of the society of Geography, prix 2008 of the Georges Pompidou Foundation, prix Agrippa d'Aubigné 2010), from Belgium (the Fourmarier medal 1975 of the Geological Society of Belgium, the Vandenbroeck medal 1987 of the Belgian society of geology, paleontology and hydrology, the Chaos award 2009 of the University of Liege), from Italy (the Fabio Frassetto prize 2005 of the Academia dei Lincei, the Nonino prize 2007, the Andersen prize 2008), from Sweden (the Carl Gustaf Bernhard medal 1997 of the royal Academy of Sciences), from UNESCO (the Kalinga prize 1984) and so on. He received honorary doctorates from the Universities of Chicago, Bologne, Liège, Mons, and honorary citizenships of 29 towns (France and Marocco). His name has been given to an asteroid, and to institutions, universities, colleges, school, libraries, labs, promotion, streets and a Chair at the University of Recife (Brazil). He is Commandeur de la Légion d'Honneur, Grand Officier du Mérite, Commandeur des Palmes Académiques, Commandeur des Arts et des Lettres, Commandeur de l'Ordre du Mérite de la Principauté de Monaco, Officier de l'Ordre National du Tchad, etc. Yves Coppens is a field paleontologist; he has organized, led or co-led many expeditions in tropical Africa (4 campaigns in Chad, 1960-1966, 10 campaigns in the lower Omo valley in Ethiopia, 1967-1976, 5 campaigns in the Afar desert in Ethiopia, 1972-1977), in Asia (Indonesia, the Philippines, China, Siberia, Mongolia), and many surveys in north and south Africa, the Middle East, south America as well as excavations in France etc. As a result of this field research, he collected tons of fossil vertebrates, hundreds of Hominids (he signed or co-signed 6 new Hominid taxa) and of course an impressive amount of data. His research focused on Vertebrate Paleontology (Proboscians, Hippos), their assemblages and their meaning in paleoenvironments, climates and biochronology, as well as on Paleoanthropology. He is renowned for his hypotheses showing the correlations between hominid evolution and the evolution of the environments (the *East side story* 10 million years ago was not geographically confirmed but the (*H*) *Omo event*, 2.7 million years ago was adopted worldwide). His lab has also pioneered important research on the functional anatomy of early hominid (demonstration of early double locomotion, bipedal and arboreal, of some of them, *Australopithecus afarensis* and *Orrorin tugenensis*). He authored or co-authored over a thousand of scientific papers and books. Professor Yves Coppens took part in workshops at the PAS in 1981 and 2010.



Fiorenzo Facchini, Professor of Anthropology in the University of Bologna from 1978 to 2005, was Responsible of the Unit of Anthropology in the Department of Evolutionistic and Experimental Biology and of the Museum of Anthropology in the same University. Now he is Emeritus Professor of the University of Bologna. Member of many scientific Societies, among them the Academy of Sciences of Bologna, the Italian Institute of Anthropology, the Academy of Natural Sciences of Kazakhstan, the New York Academy of Sciences. International Prize "Fabio Frassetto" of the Accademia Nazionale dei Lincei (2002). Coordinator of National Programs on the human peopling in Italy granted by the Ministry of University (1998, 2000, 2002). Fiorenzo Facchini developed researches in different fields: human growth, genetic human polymorphisms, ancient populations, prehistoric culture, palaeoanthropology, human adaptation and modernization in Kazakhstan. He organized two expeditions in Kazakhstan (1993) and Kirghizistan (1994) to study the human adaptation to high altitudes and co-ordinated a research on the effects of the modernization in Kazakhstan (2002-2005). He is author of about 400 papers published in national and international journals and of many books, among them: *Il cammino dell'evoluzione umana*, Jaca Book, Milano, 1985, 1995; Croatian edition); *L'uomo. Le origini*. Jaca Book, Milano 1991 (French, Germany, Spanish, Croatian, Japanese editions), *Dizionario enciclopedico di Paleoantropologia e preistoria* (in coll. con A. Broglio e A. Beltran), Jaca Book, Milano, 1993; *Antropologia*, Utet, Torino, 1988, 1995; *Evoluzione umana e cultura*, La Scuola, Brescia, 1999; *Origini dell'uomo ed evoluzione culturale. Profili scientifici, filosofici e religiosi*. Jaca Book, Milano, 2002; *E l'uomo venne sulla terra*, Ed. S. Paolo, 2005 (Spanish edition), *L'avventura dell'uomo*. Ed. S. Paolo, 2006; *Le origini dell'uomo e l'evoluzione della cultura*. Jaca Book, Milano, 2006 (French, German, Croatian, Spanish, Dutch editions); *Le sfide dell'evoluzione. In armonia tra scienza e fede*. Jaca Book, Milano, 2008; *Popoli della yurta. Il Kazakhstan tra preistoria e modernità* (a cura di), Jaca Book, Milano, 2008. *La lunga storia di Neandertal* (a cura di), Jaca Book, Milano, 2009. *Complessità, Evoluzione, Uomo* (a cura di) Jaca Book, Milano, 2011. *Evoluzione. Cinque questioni nell'attuale dibattito*. Jaca Book, Milano, 2012.



Giacomo Giacobini est professeur d'Anatomie Humaine et responsable du Laboratoire de Paléontologie Humaine du Département de Neurosciences de l'Université de Turin (Italie). Il est Directeur du Musée d'Anatomie Humaine de Turin. Il a organisé à Turin en 1987 le Deuxième Congrès International de Paléontologie Humaine. Il a été Président de l'Association italienne des musées scientifiques (Associazione Nazionale Musei Scientifici, 2005-2012) et de l'Association Italienne d'Archéozoologie (1996-2003). Il est membre du Comité de Perfectionnement de l'Institut de Paléontologie Humaine de Paris et a été membre du Conseil de Département du Musée de l'Homme. Son activité de recherche est concernée avec l'étude de restes humains néandertaliens, l'étude de sépultures du Paléolithique supérieur, l'analyse taphonomique des sites préhistoriques sur la base de l'identification des traces d'actions anthropiques et non anthropiques présentes sur les restes osseux, et l'étude au microscope électronique à balayage des modifications de surface des instruments préhistoriques en os (identification des techniques de fabrication et des modalités d'utilisation).



John A.J. Gowlett has been involved with research into the origins of human capabilities since his first experience with African archaeology at East Turkana in 1972. Through fieldwork on sites such as Chesowanja in Kenya and Beeches Pit in Britain he has developed a particular interest in the origins and nature of early human fire use. He is also concerned with study of design form as expressed in artefacts and its relationship with art and other aspects of intentionality. He was recently a co-director of the British Academy Centenary Project

'Lucy to Language' alongside Robin Dunbar and Clive Gamble, and is Professor in the Department of Archaeology, Classics and Egyptology, University of Liverpool.



Jean-Marie Le Tensorer (born 1947 in France - PhD of Quaternary Geology 1970 and Habilitation in Prehistory 1979, University of Bordeaux) is Professor at the University of Basel (Switzerland). Former dean of the Faculty of Science, he is chairman of the department of prehistory and associated sciences since 1981. Fellow of the Swiss Academy of Humanities, he is involved in archaeological fieldwork and laboratory projects investigating the oldest prehistoric sites of Switzerland. At the head of an international project on the Palaeolithic in central Syria (excavations in the region of El Kowm) supported by the Swiss National Science Foundation, his research field is mainly focused on the first cultures out of Africa and the problem of the origin of modern humans. He is also particularly interested in developing a chronological framework of the Quaternary in Europe and the Middle East. He is currently working on a new project about the origin of Palaeolithic art. He is a member of several international scientific boards of international archaeological journals. Selected publications: Le Tensorer J.-M. (2012) *Faustkeile*. In: Harald Floss, Hrsg. *Steinartefakte - Vom Altpaläolithikum bis in die Neuzeit*. Tübingen Publications in Prehistory. 209-218, Kerns Verlag, Tübingen; Le Tensorer J.-M. (2012) *Le Biface, image des origines*. In: Sebastian Egenhofer, Inge Hinterwaldner, Christian Spies, Hrsg. *Was ist ein Bild? Antworten in Bildern*, 211-213, Wilhelm Fink GmbH & Co. Verlags-KG; Richter J., Hauck Th., Vogel-sanga R., Widlokb Th., Le Tensorer J.-M. and Schmid P. (2012) "Contextual areas" of early Homo sapiens and their significance for human dispersal from Africa into Eurasia between 200 ka and 70 ka. *Quaternary International*, Volume 274, 1, Pages 5-24.



Michel Lorblanchet, né le 7-2-1937 à Saint Denis Lès Martel (Lot-France) Docteur en préhistoire (université de Paris) Directeur de recherches au CNRS (retraité) spécialiste des grottes ornées paléolithiques; a travaillé également sur l'art rupestre en Australie et en Inde. Ancien Research Consultant à l'Australian National Institute of Aboriginal Studies (Canberra), ancien conservateur du musée de Pech-Merle-Cabrerets (Lot), ex membre de la commission supérieure des grottes ornées (Ministère de la culture); j'ai effectué 8 missions archéologiques en Inde souvent en collaboration avec l'Institut National des Arts Indira Gandhi (New Delhi). Publications principales: "Rock art in the Old World" 1992 (editor-New Delhi), "Les grottes ornées de la Préhistoire" 1995, "l'Origine de l'art" 2006, "Chamanismes et arts préhistoriques" (editor 2006) "L'Art pariétal, Grottes ornées du Quercy" 2010.



David Lordkipanidze is the first Director General of the National Museum of Georgia that unifies 10 major museums of the country and 2 research institutes. Under his leadership the Museum gradually transformed from a Soviet-type institution into a vibrant space for culture, education and science. Under Lordkipanidze's leadership discovered analyzed, and interpreted the earliest known hominid remains outside of Africa at Dmanisi in the republic of Georgia. This work thrust Georgia in to modern paleoanthropology and has transformed our comprehension of the biogeography of early hominids, revolutionizing understanding of their morphology, population, environment, culture, and dispersal. Prof. Lordkipanidze has authored over 100 scientific articles published in widely respected and well-known scientific journals such as *Nature*, *Science Magazine*, *Proceedings of US National Academy of Sciences*, *Journal of Human Evolution* and more. David Lordkipanidze was a visiting Professor at Harvard University and serves as a professor of European program Erasmus Mundus. He often is a guest speaker and the scholar in residence in foreign Universities and institutions as well as serves both as member and as chair of science committees for the exhibition concepts in the world's leading museums. He is regularly featured in

popular scientific magazines such as *National Geographic Magazine*, *GEO*, *Scientific American*, etc. and in TV-shows and documentaries such as National Geographic Channel, BBC, Nova, Discovery Channel, etc. In 2004 David Lordkipanidze received the Rolex Award for Enterprise. He was also given the National Decorations of Georgia (2001, 2011), Award of the Prince of Monaco (2001), the French decorations Palmes Académiques (2002) and L'Ordre du Mérite (2006), a Fulbright Scholarship (2002), the Georgian National Prize for Science and Technology (2004), Award of the Accademia Nazionale dei Lincei "Fabio Frassetto" (2008). Since 2007 David Lordkipanidze is a foreign associate member of the National Academy of Sciences (USA), corresponding member of German archaeological institute (2008), member of Georgian National Academy of Sciences (2009), member of the European Academy of Sciences and Arts (2010), Member of the Academy of Europe (Academia Europaea) (2011). He is a member of scientific committees of the Georgian National Science Foundation and the Foundation Duques de Soria (Spain) as well as a member of the European Cultural Parliament. He served as associate editor of the journals: *European Prehistory* (Belgium), *Archaeology, Ethnology & Anthropology of Eurasia* (Russia), *Journal of Human Evolution* (USA), *L'Anthropologie* (Paris).



Marie-Antoinette de Lumley, paléoanthropologue, est Directeur de recherche émérite au Centre National de la Recherche Scientifique, Docteur en médecine et Docteur es-sciences, elle consacre ses recherches à l'origine du premier peuplement de l'Europe, il y a 1,8 Ma, sa pièce sur l'arbre généalogique de l'humanité et son évolution entre 1,8 Ma et 100 000 ans. Création d'une nouvelle espèce: *Homo georgicus* intermédiaire entre *Homo habilis* et *Homo ergaster*. A ces premiers européens, dont elle a découvert avec son mari le plus vieux crâne humain en Roussillon: l'Homme de Taütavel, elle a donné le nom d'Anténéandertaliens. Ils appartiennent au groupe des *Homo erectus*, connus en Afrique et en Asie et peuvent être considérés comme les ancêtres des Néandertaliens européens. Pour mieux comprendre ces premiers européens, elle a entrepris plusieurs programmes de recherches sur le terrain et en laboratoire, en coopération: en Europe (Espagne, Italie, Grèce, Allemagne, Géorgie), en Asie (Inde, Indonésie, Chine), en Afrique (Ethiopie). Ces travaux sont pluridisciplinaires et font appel aux sciences naturelles, aux sciences biologiques, aux sciences de l'Homme et même aux sciences de la vie (travaux sur les maladies de ces hommes préhistoriques, analyse des acides aminés de collagène des os). L'étude de l'évolution humaine nécessite la prise en compte de ses interrelations avec l'environnement: climat, paysages, faunes, flores, d'où les liens privilégiés qui unissent le laboratoire avec les chercheurs-enseignants de divers organismes français et étrangers. Parmi ses travaux: Contribution à l'étude de la paléopathologie osseuse en Provence et Bas-Languedoc, thèse de médecine, 1961; *Anténéandertaliens et Néandertaliens du Bassin Méditerranéen Occidental*, 1973, Univ. Provence ed; *Première découverte d'un Homo erectus sur le continent indien à Hathnora, dans la moyenne vallée de la Narmada*, 1985, L'Anthropologie; *Découverte d'un nouvel hominidé à Dmanissi en Géorgie*, 2002, Palévol; *Les restes humains du Pliocène final et du début du Pléistocène inférieur de Dmanissi, Géorgie*, 2006, L'Anthropologie; *Les restes humains néandertaliens et Homo sapiens de la grotte de Boqueto de Zafarraya*, 2006, ed Consejería de Cultura de La Junte de Andalucía; *Les crânes d'Homo erectus du site de l'Homme de Yunxian*, 2008, ed. Recherches sur les Civilisations et CNRS.



Henry de Lumley, membre correspondant de l'Académie des Sciences et de l'Académie des Inscriptions et Belles Lettres, préhistorien et géologue du Quaternaire, est Directeur de l'Institut de Paléontologie Humaine, Fondation Albert 1^{er} Prince de Monaco, Professeur émérite et ex Directeur du Muséum National d'Histoire Naturelle, Paris. L'objectif essentiel de ses recherches, sur le terrain et en laboratoire, est consacré à l'étude de l'origine de l'Homme, de sa première

présence dans les grandes régions du monde, de son évolution morphologique et culturelle, de son comportement et de son mode de vie, au sein de ses paléoenvironnements (Ethiopie, Mauritanie, Inde, Turquie, Chine, Corée du Sud). Une approche toute particulière de ses recherches a pour but de suivre l'évolution des climats et de la biodiversité tout au long des temps quaternaires dans diverses régions du monde. Ces études sont conduites avec une approche interdisciplinaire: stratigraphie, sédimentologie, magnétostratigraphie et géochronologie, palynologie, paléontologie, paléanthropologie, paléolithologie, études technologiques et typologiques d'industries lithiques du Paléolithique inférieur et moyen. Publications de nombreux ouvrages et articles: *Le Paléolithique inférieur et moyen du Midi méditerranéen dans son cadre géologique*, 1969, Gallia Préhistoire- CNRS; *La Préhistoire Française. I Civilisation paléolithique et mésolithique*, 1976, CNRS Editions; *Le Grandiose et le Sacré. Gravures rupestres protohistoriques et historiques de la région du mont Bego*, 1995, Editions Edisud; *L'Homme premier. Préhistoire, évolution, culture*, 1998, Editions Odile Jacob; *Les sites préhistoriques de la région de Fejej, Sud-Orno, Ethiopie, dans leur contexte stratigraphique et paléontologique*, 2004, Editions du Ministère des Affaires Etrangères; *Le sol d'occupation acheuléen de l'unité archéostratigraphique UA 25 de la grotte du Lazaret, Nice, Alpes-Maritimes*, 2004, Editions Edisud; *Un campement de chasseurs, il y a 160 000 ans*, 2005, Editions Edisud; *Il y a 2,5 millions d'années... Un seuil majeur de l'homínisation. L'émergence de la pensée conceptuelle et des stratégies martrisées du débitage de la pierre*, 2006, Palévol; *La domestication du feu, un formidable moteur d'homínisation*, 2006, Palévol; *Le site de l'Homme de Yunxian, Province du Hubei, Chine*, 2007, CNRS Editions; *La grande histoire des premiers Hommes européens*, 2007, Editions Odile Jacob; *La montagne sacrée du Bego*, 2011, CNRS Editions; *L'atelier du préhistorien*, 2011, CNRS Editions; *L'Univers, la Vie, l'Homme. Emergence de la conscience*, 2012, CNRS Editions; Création de sept musées de préhistoire, avec laboratoire de recherche intégré, parmi les trois principaux: Terra Amata, Tautavel, Quinson dans le Sud de la France.



Mohen Jean-Pierre, Raymond, Marcel, Conservateur général du patrimoine. NÉ le 1er janvier 1944 à Arras (Pas-de-Calais). Fils de Pascal Mohen, Inspecteur de l'Education nationale, et de Mme, née Marie-Antoinette Sergent. Mar. le 1er avril 1966 à Mlle Jacqueline Moquette, Professeur de lettres (3 enf.: Odile, Alice, Gilles). Etudes: Lycée de Douai, Lycée Montaigne et Faculté des lettres et des sciences de Bordeaux, Université de Paris I-Sorbonne. Dipl.: Doctorat d'Etat de préhistoire. Carr.: Conservateur des musées de France (1967), Directeur des fouilles de Bougon (1972-87), des fouilles de Fort Harrouard (1984-88), Conservateur en chef du musée des antiquités nationales à Saint-Germain-en-Laye (depuis 1987), Conservateur général du patrimoine (1990), Adjoint au directeur des musées de France (1992-93), Directeur du laboratoire de recherche des Musées de France (depuis 1994), Commissaire de l'Année de l'archéologie (1989-90), Président de la Société préhistorique française (1988-89), Trésorier de l'International Council of Museums (1986-92), Directeur de l'unité mixte de recherche 171 du Centre national de la recherche scientifique. Œuvres: *l'Age du bronze dans la région de Paris* (1977), *l'Age du fer en Aquitaine* (1979), *la Vie quotidienne à l'âge du bronze* (1987), *le Monde des mégalithes* (1989), *Métallurgie préhistorique* (1990), *Vous avez tous 400.000 ans* (1991), *les Rites de l'au-delà* (1995), *The History of the Scientific and Cultural! Development of Humankind, Vol. 11, 3000-700 BC* (en coll., 1996), *l'Art et la science* (1996). Décor.: Officier des Arts et des Lettres. Dist.: Aigle d'argent de la Ville de Nice (1977). Distraction: musique. Adr.: prof., Direction des musées de France, 6 rue des Pyramides, 75001 Paris; privée, 47 rue de la Fontaine au roi, 75011 Paris.



Colin Renfrew (Lord Renfrew of Kaimsthorn), born 1937, is Emeritus Disney Professor at the University of Cambridge and Senior Research Fellow at the McDonald Institute for Archaeological Research. He is a Fellow of the British Academy and Foreign Research Associate of the National Academy of Sciences of the USA, and was awarded the Balzan Prize in 2004. He has worked on the prehistory of Europe, focussing on Aegean prehistory.



Ian Tattersall is Curator Emeritus in the Division of Anthropology of the American Museum of Natural History in New York City. Trained in archaeology and anthropology at Cambridge, and in geology and vertebrate paleontology at Yale, Ian has concentrated his research since the 1960s in two main areas: the analysis of the human fossil record and its integration with evolutionary theory, and the study of the ecology and systematics of the lemurs of Madagascar. Most recently, he has been concerned with trying to understand how a non-linguistic and non-symbolic ancestor gave rise to the cognitively unprecedented *Homo sapiens*, and what drove the exceptionally fast evolution of the human lineage over the course of the Pleistocene. He has carried out both primatological and paleontological fieldwork in countries as diverse as Madagascar, Vietnam, Surinam, Yemen and Mauritius. In collaboration with Jeffrey Schwartz, he wrote three volumes of *The Hominid Fossil Record* (2002-2005), a documentation in standardized descriptive and illustrative format of a large proportion of the most significant fossils that tell the human evolutionary story. Ian is also a prominent interpreter of human paleontology to the public, with several trade books to his credit, among them *The Brain: Big Bangs, Behaviors, and Beliefs* (2012, with Rob deSalle), *Masters of the Planet* (2012), *Race? Debunking a Scientific Myth* (2011, with Rob DeSalle), *The World from Beginnings to 4000 BCE* (2008), *Becoming Human: Evolution and Human Uniqueness* (1998) and *The Fossil Trail: How We Know What We Think We Know About Human Evolution* (1995, 2nd ed. 2009), as well as many articles in *Scientific American* and *Natural History*, and the co-editorship of the definitive *Encyclopedia of Human Evolution and Prehistory*. He lectures widely, and, as curator, has also been responsible for several major exhibits at the American Museum of Natural History, including *Ancestors: Four Million Years of Humanity* (1984); *Dark Caves, Bright Visions: Life In Ice Age Europe* (1986); *Madagascar: Island of the Ancestors* (1989); *The First Europeans: Treasures from the Hills of Atapuerca* (2003); and the highly acclaimed *Hall of Human Biology and Evolution* (1993) and its successor *Hall of Human Origins* (2007).



Amélie Vialet is paleoanthropologist. She is specialized in the evolution of *Homo erectus*, a human specie known in Africa (also called *Homo ergaster*) and in Asia since around 2 million years. For the purpose of her research, she applies 3D imaging techniques to reconstruct the crushed or fragmentary fossils and to study their inner anatomical features inaccessible by a classic way. She has reconstructed one of the two *Homo erectus* damaged skulls discovered in the Yunxian site in China dated to 1 million years. She published the results of her research in different chapters of books and articles in international reviews. She is also interested in the history of sciences and works on some archives of the first prehistorians. With Arnaud Hurel from the French National Museum of Natural History, they published all the letters written by Father Pierre Teilhard de Chardin when he was in China, from 1923, leading to the discovery of main prehistoric sites in North China such as the Zhoukoudian cave, near Beijing. At the *Institut de Paléontologie Humaine* (IPH), she is in charge of the rich prehistoric collection stored in a prestigious building and she manages the international scientific program developed between the IPH and other institutions, above all, in Europe and in Asia. In this context and to disseminate knowledge on Prehistory, she carried out exhibitions in South Korea and Turkey.

For the biographies of the other Academicians of the PAS and PASS see www.pas.va and www.pass.va

MEMORANDUM

1) From 19 to 21 April 2013 a bus will leave the Domus Sanctae Marthae for the Academy, 15 minutes before the beginning of the morning session (8.45 am). **On 18 April**, at hrs 18.00 a bus will take the participants from the Casina Pio IV to Villa Bonaparte (see programme) and then back to the Domus Sanctae Marthae after the reception. The same service will be available on 19 April to reach Palazzo Farnese and to come back to the Domus Sanctae Marthae.

2) Lunch and dinner for the participants will be served at the Academy except dinner on 18 and 19 April, that will be respectively served at Villa Bonaparte and at Palazzo Farnese.

If you are a vegetarian, please let us know as soon as possible.

3) Wifi is available in the Casina Pio IV's Conference hall. Please log in to the network called WLAN_PADS using "guest" as the username and "password" as the password.

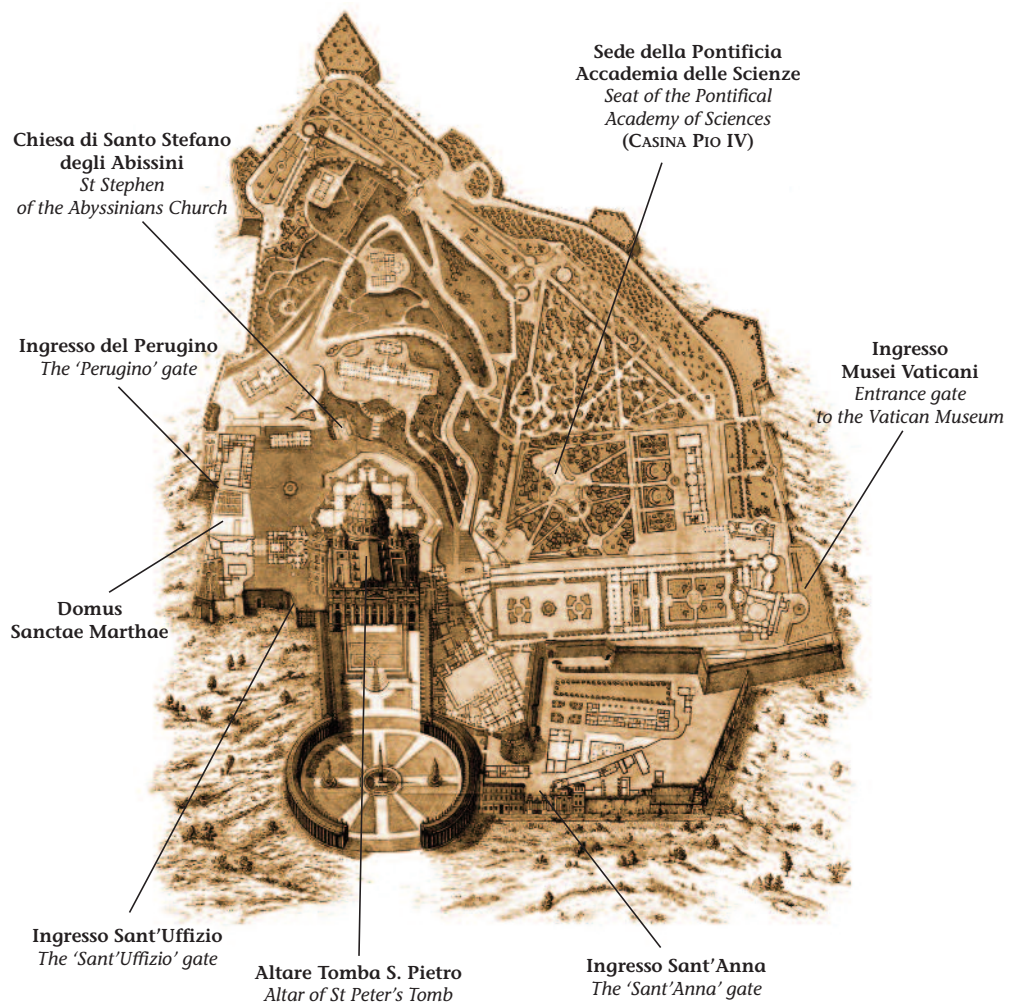
4) Cable internet access is available at the Domus Sanctae Marthae at 7.50€ per day.

5) A visit to the Vatican Museums can be arranged for accompanying persons. Please leave your name with the secretariat in order to form a group.

Note

Please give your form for the refunding of expenses to the secretariat as soon as possible so that you can be refunded immediately.





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