

Academia Europaea | Barcelona Knowledge Hub

Annual Report 2016

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1. OVERVIEW

1.1 The Academia Europaea

Founded in 1988, the Academia Europaea (AE) is an international, nongovernmental, not-for-profit association of individual scientists and scholars from all disciplines, recognised by their peers as experts and leaders in the own subject areas. Our members are leading scientists and scholars who collectively promote research, learning and education. The AE recognises genuine international excellence and supports the culture of European research through dialogue and collaboration. Our membership now numbers well over 3000, including more than 75 Nobel laureates. The AE is pan-European, and its elected members are drawn from the whole European continent and also from non-European countries. The AE has currently 22 thematic sections. The current president of the AE is Prof. Sierd Cloetingh, from Utrecht University.

1.2 The Academia Europaea Barcelona Knowledge Hub

In 2012, the Catalan Government (Generalitat de Catalunya), the Barcelona City Council (Ajuntament de Barcelona) and the "la Caixa" Foundation launched the Southern European and Mediterranean office of the Academia Europaea, the Barcelona Knowledge Hub, from now on, AE-BKH. These three organizations have the condition of "partners" of the AE-BKH. The three partners count on the support of the Institute for Catalan Studies (IEC) to hold and maintain the hub's office.

Operational since January 2013, the AE-BKH focuses on the promotion of activities of interest for the Members of the Academy and the scientific community in general, with special emphasis on multidisciplinary activities that include the transversal perspectives of the natural and social sciences and the humanities. The field of action of the AE-BKH covers, especially, but not uniquely, the Mediterranean and Southern Europe.

Office: The AE-BKH office is located at the premises of the IEC, a mid-17th century historical building very conveniently sited in the centre of the city of Barcelona. Since August 2014, Prof. Ricard Guerrero, from the University of Barcelona, is the academic director of the AE-BKH. During 2016, the administrative assistants to the hub were Anna Wasmer (January to July) and Griselda Ribas (October to December).

During 2016, the management of the website, the digital coordination and the numerous audiovisual activities (AE-BKH "Barcelona in Action" video channel) have been externalized. Currently, the responsible person for the management of the AE-BKH new website is Jara Duro, and the responsible person for the digital coordination and the audio-visual section of the AE-BKH is Rubén Duro. There have been other external personnel collaborating for several activities, among them Carmen Chica, Mercè Piqueras, Mercedes Berlanga, Mitsi Ito and Wendy Ran. The administrative and technical support to the hub's office at the IEC building is excellent and an essential part in the efficient everyday running of the Academia Europaea Barcelona Knowledge Hub.

PARTNERS of the AE-BKH:







1.3 The Young Academy of Europe

Since 2007, the European Research Council (ERC) has been supporting excellent young scientists by awarding them with the ERC Starting Grants under the motto "Supporting the next generation of research leaders in Europe." In this context, the ERC has also manifested its support to the Young Academy of Europe (YAE) as a bottom-up initiative of a dynamic and innovative group of recognized European young scientists with outspoken views about science and science policy. The YAE shares the objective of the ERC to widen participation across Europe and across the research domains.

The AE-BKH provides administrative support to the YAE since 2013, by working closely with the persons occupying the Chair position during each period, as they have been Lynn Kamerlin, Stockholm (2014–2015), Nicole Grobert, Oxford (2015–2016), Hagit Amirav, Amsterdam (2016–2017) and the current Chair Marcel Swart, Girona (2017–).

1.4 The AE-BKH International Advisory Committee

During the 26th Annual Meeting of the AE (held in Barcelona on July 16–18, 2014), the Board and the Council of the AE nominated an International Advisory Committee (IAC) for the AE-BKH. Eleven academics, most of them Members of the Academia Europaea (MAE), from Mediterranean countries and with different fields of expertise were chosen.

In the IAC meeting of 2014 (Barcelona, 29th November) it was discussed the planning of part of the activities that were developed in the year 2015, and that were explained in the 2015 Annual Report. In the IAC meeting of 2015 (Barcelona, 10th December) it was discussed the planning of the activities to be developed in the year 2016, most of them already described in the present Report.

On April 17, 2015, José Mariano Gago, Member of the IAC, died in his home in Lisbon. From July 2015, Rosalia Vargas, president of *Ciência Viva*, the Portuguese Agency for the Scientific and Technological Culture, was incorporated to the IAC.

The members of the IAC are currently as follows:

Enric Banda, BSC, Barcelona, enric.banda@gmail.com

Pedro García-Barreno, Fellow of the RAE and RAMed, Madrid, pgbarreno@gmail.com

M. Dolors Garcia-Ramon, UAB, Bellaterra, mariadolors.garcia.ramon@uab.cat

Ramon Gomis, IDIBAPS, Barcelona, ramon.gomis@idibaps.org

Sergiu Hart, The Hebrew University, Jerusalem, Israel, hart@huji.ac.il

Yvon Le Maho, Natl. Centre for Sci. Res., CNRS, Strasburg, France, yvon.lemaho@iphc.cnrs.fr

Genoveva Martí, ICREA Professor UB, Barcelona, genoveva.marti@gmail.com

Marc Mayer, Faculty of Philology UB, Barcelona, mayerolive@yahoo.es

Maria Paradiso, University of Sannio, Benevento, Italy, paradiso@unisannio.it

Regina Revilla, Merck Sharp & Dohme Spain, Madrid, regina revilla@merck.com

Rosalia Vargas, Ciência Viva, Lisbon, Portugal, rvargas@cienciaviva.pt



2. FEATURE ACTIVITIES DURING 2016

2.1 WOMEN'S WEEK 2016 (3-6 MARCH)

From March 3 until March 6, the AE-BKH held its annual Women's Week (WW2016), in commemoration of the UN International Women's Day, celebrated each 8th of March. The programme of this AE-BKH WW2016 had the general title "Women and Migrations. Challenges and opportunities", and counted on the support of a grant from the AE 2016 Hubert Curien Fund.

On March 3, at the Prat de la Riba Room of the IEC, **Mary Ann Newman**, Ferragut Fund, NYC, pronounced a Distinguished Lecture under the title of "Women and cultural transmission. The essential role of translation." Afterwards, there was a session titled "Greater than Life. In remembrance of Lynn Margulis (1938–2011)." During this session, **Ricard Guerrero** gave the lecture "Lin in Espain. How she stood our Spanish-Catalan accent".



Mary Ann Newman and Ricard Guerrero

Finally, at the Royal Academy of Medicine of Catalonia (RAMC), the **Gani Mirzo Band** offered the concert "Music from Syria and the Kurdistan, a nation without a State". Gani Mirzo (ud, buzuk and composer) was accompanied by Neila BenBey (singer), Francesc Puig (clarinet) and Juan José Barreda (flamenco guitar).



The Gani Mirzo Band concert at the Royal Academy of Medicine of Catalonia



On March 4, at the IEC, it was held the Workshop "Women, migrations and war". The speakers were Mitsi Ito (NYC) who gave the lecture "How a New Yorker fell in love with Barcelona"; Maryam Ghafouri (Teheran) with the lecture "Opportunities of Muslim women in the Western World"; Pere Castaño (Sabadell), who gave his lecture "Walking with immigrants"; and Salvador Giner (MAE, Barcelona), who closed the Workshop with his lecture "Is war a male affair?"



Mitsi Ito, Maryam Ghafouri, Pere Castaño and Salvador Giner

Afterwards, the International Year of Global Understanding was commemorated, with a plenary lecture by **Silvia Pellicer** (YAE, University of Zaragoza) under the title "Women on the Move: The Transnational Era and the power of Art".



Silvia Pellicer, University of Zaragoza

During the celebration of the WW2016, the 1st floor of the cloister of the Institute for Catalan Studies (IEC), was the scenario for two art exhibitions curated by Anna Wasmer.

Núria López Ribalta, critic of art, introduced the digital art of "The Book of Beasts. Palmira 2015", a work with which ceramist and photographer **Teresa Gironès Villanua** (1941–2016)* translated the reflections of the dangers of power and the horrors of war into a wonderful photomontage.

*Unfortunately, Teresa Gironès died on September 6, 2016, only six months after her exhibit at the WW2016.

Eusebi Vila Delclòs, artist painter, introduced "Women/Dones/Mujeres. Reflections and aesthetics of female emotions", a collection of paintings by **Trini Sotos Bayarri**, full of sensitivity and delicacy.



Paintings by Trini Sotos

Excursion to the Natural Park of the Montnegre I el Corredor

On March 6, as the final act of the WW2016, and following a tradition of the AE's Annual Conferences, the speakers of the WW2016 made an excursion to the Natural Park of the Montnegre I el Corredor, about 35 km north of Barcelona. They explored the Mediterranean forest and visited sites of historical significance at the location.



Excursion to the Natural Park of the Montnegre i el Corredor of the participants in the AE-BKH Women's Week 2016, on March 6th, 2016

2.2 INTERNATIONAL SYMPOSIUM AT THE RAMÓN ARECES FOUNDATION, MADRID (1-2 JUNE)

International Symposium "Researching, educating, dialoguing. The lessons that we learnt from José Mariano Gago (1948–2015)", Madrid

On April 17, 2015, in Lisbon, the city where he was born in 1948, died José Mariano Gago, former Minister of Science and Technology (1995–2002) and Minister of Science, Technology and Higher Education (2005–2011) of Portugal. Gago played a crucial role in the design of plans for the development of science, technology and innovation, not only in his country but throughout Europe. He did it by designing and promoting several organisms that played major roles in the structure and organization of science in the European Union during the last thirty years, particularly in the creation and initial impulse of the Academia Europaea, the European Science Foundation and the European Research Council.

The International Symposium "Researching, educating, dialoguing. The lessons that we learnt from José Mariano Gago (1948–2015)" was coordinated by Federico Mayor Zaragoza (MAE, president of the Foundation for the Culture of Peace and president of the Scientific Council of the Ramón Areces Foundation) and Ricard Guerrero (MAE, academic director of the Academia Europaea Barcelona Knowledge Hub). The Symposium was held on July 1–2 at the Ramón Areces Foundation facilities in Madrid. The symposium remembered the huge task carried out by Gago, and his outstanding intellectual ability. Firstly, through his work as a physicist of elementary particles at CERN, Geneva, a centre to which he devoted many years of his professional career. Then, in the organization of science, technology and higher education in Portugal. And finally, in the organization of several European bodies that have been essential to develop the governance of science in the EU and, through this, contributing to improve of the organization of science around the world.

José Mariano Gago also played a crucial role to make that scientific culture were considered one of the main bases to achieve a free, democratic society, in which knowledge and education were highly appreciated values. One of his major achievements was the creation and early development of *Ciência Viva*, the Portuguese Agency for Scientific and Technological Culture, launched in 1996, that had its most direct manifestation in the organization of science centres around Portugal and made it possible to convey science and technology to the youngsters of the whole country.

Finally, we should not forget Gago's seminal role in the creation and organisation of the Academia Europaea, founded in London in 1988, one of whose objectives is to help in the development of European policy for research, education and training at the highest levels. Those objectives tried to harmonize and coordinate the traditionally diverse and particular cultures on science and education in different European countries. Through this "unity in diversity," the original aim of the founders of the Academia Europaea was to create a genuine area of intellectual excellence by recognizing the quality and relevance of all fields of knowledge, and leveraging the experience, culture and tradition of the huge conglomerate of cultures and traditions that make up Europe.

José Mariano Gago taught us many lessons. The Symposium remembered all those that he left to us and impulse us to follow his example, to achieve a more educated and better prepared society, able to face the new challenges that contemporary times are presenting to our old and young Continent. Only through knowledge, education and dialogue will we be able to deal with the melting pot of cultures and civilizations that have characterized Europe.

Recalling one fortunate yet shocking sentence by Federico Mayor, we could say that:

"Si vis pacem, para verbum"



The Symposium was divided into three sessions, two sessions on July 1 (morning and afternoon) and one session on July 2 (morning).

First session, July 1 (morning)

Opening lecture by **Manuel Heitor** (Minister of Science, Technology and Higher Education of Portugal): "Knowledge and the collective ambition for Europe: Learning from José Mariano Gago in policy making".

Sierd Cloetingh (president of the Academia Europaea) gave the lecture "The Academia Europaea, challenging the future".

Genoveva Martí (MAE, ICREA Professor of Logics, UB) read the lecture "The scientific career (the ICREA and Serra Hunter programs)"

María A. Blasco (Director of the National Centre for the Oncological Research (CNIO)) gave the lecture "Development of a research centre of excellence (CNIO) and its relation with the citizen".



Inaugural session, from left to right: Ricard Guerrero, Manuel Heitor, Federico Mayor, Carlos Andradas

Second session, July 1 (afternoon)

Andreu Mas-Colell (MAE, Pompeu Fabra University, Ex-minister of Economics and Knowledge of the Government of Catalonia) gave the lecture "Promotion and development of a science of excellence policy (the CERCA Institution)".

Enric Banda (MAE, General Secretary of the European Science Foundation, 1998-2003) gave the lecture "The European Science Foundation".

Julio E. Celis (Chair of the Science Policy Committee of the European Academy of Cancer Sciences. Danish Cancer Society Research Center) gave the lecture "Shaping EU cancer research policy: Towards a virtual European Cancer Institute".

Third session, July 2 (morning)

unreasons of research at the University".

Rosalia Vargas (president of *Ciência Viva*. Portugal) gave the lecture "José Mariano Gago. Who he was; what he did".

Carlos Andradas (Rector of the Complutense University. Madrid) gave the lecture "Science and research at and for the University".

Joan J. Guinovart (MAE, president of the International Union of Biochemistry and Molecular Biology (IUBMB) gave the lecture "Foundation and development of the Federation of Scientific Societies of Spain (COSCE)".

Núria Sebastián (MAE, Vice-president of the European Research Council) gave the lecture "The European Research Council and its role to promote excellence in research at the European scenario". **Salvador Giner** (MAE, Professor Emeritus, University of Barcelona) gave the lecture "Reasons and

Closing Lecture by **Sheldon L. Glashow** (Boston University. Nobel Prize on Physics, 1979): "Particle Physics and Cosmology. Useless but Essential!"





Sierd Cloetingh and Sheldon L. Glashow



2.3 DISPUTATIO OF BARCELONA WEEK 2016 (21–24 NOVEMBER)

About the *Disputationes*

In the scholastic system of education of the Middle Ages, the *Disputationes* offered a formalized method of debate designed to uncover and establish truths in theology and in sciences. Fixed rules governed the process: they demanded dependence on traditional written authorities and the thorough understanding of each argument on each side. The famous *Disputatio of Barcelona*, called in the summer of 1263 by King James I of Aragon, was the most important and well-known of the inter-faith *Disputationes* that took place between Christian and Jewish theologians in the late Middle Ages. In 1263, the disputants were Friar Paulus Christianus (Dominican, and a convert rabbi from Judaism) and rabbi Moses ben Nachman (also known as Nachmanides), from the Girona's community, the most important scholar of Judaism in his time. They discussed about theological questions in front of the king and his court, in the presence of the most important men of the prosperous and influent city of Barcelona.



Left: Sant Jordi Gothic Hall of the Palau de la Generalitat. Right: The Disputatio of Barelona, 1263. Original drawing made by Trini Sotos.

The modern *Disputatio of Barcelona* has been successfully recovered. In November 2013, the AE-BKH celebrated its inaugural event by commemorating the 750th anniversary of the medieval *Disputatio*, and organised a modern-day *Disputatio* on "Social and state-of-the-art Medicine", featuring philosopher **Thomas Pogge** (Yale University; he being the leader of the Health Impact Fund) and neuroscientist Mara Dierssen (Centre for Genomic Regulation, UPF, Barcelona; she being the president of the Spanish Society for Neuroscience).

After the success of the *Disputatio* of Barcelona 2013, the AE-BKH organised in November 2014, together with the United Nations University Institute on Globalization, Culture and Mobility (UNU-GCM), a second modern-day *Disputatio of Barcelona*, on the topic "The Mediterranean, bridge of cultures". The *Disputatio of Barcelona* 2014 was held on the 27th of November at the Saint Pau Historic Site, Barcelona, where the UNU-GCM is located. Two MAE, Maria Paradiso (geographer, Professor of Geography and Planning at the University of Sannio, Italy), and Enric Banda (geophysicist, Director of Science and Environment at the "la Caixa" Foundation, Barcelona), presented two views of the topic, covering many different aspects of the Mediterranean history, culture, opportunities and present difficulties.



On December 9, 2015, the third modern-day *Disputatio of Barcelona* was held in the Royal Chapel of Sainte Agatha, in the Gothic Quartier. This *Disputatio of Barcelona* 2015, was also a success as the two previous events. Two scholars, **Núria Sebastian** (vice-president of the European Research Council), and **Ulises Cortés** (from the Barcelona Computing Centre (supercomputer Mare Nostrum), discussed on "**Natural vs Artificial Intelligence**".

We can consider that the modern-day *Disputationes* are a distinctive feature of the BKH, and must be continued in future years.

Reception to the AE's Board and invitees by the M. Hon. Carles Puigdemont, president of the Generalitat de Catalunya

On Monday 21 November, 2016, the Board of the Academia Europaea and other MAE were received in a special audience by the president of the Government of Catalonia, M. Hon. Carles Puigdemont at the Palau de la Generalitat, the headquarters of the Government of Catalonia.



The Board of the AE during the audience with the president of the Government of Catalonia, 21 November 2017) From left to right: Xavier Costa-Guix, Ole Petersen, Genoveva Martí, Andreu Mas-Colell, Hagit Amirav, David Coates, Tadeusz Luty, Ricard Guerrero, John Feldman, Carles Puigdemont (president of the GC), Annia Domènech, Enric Banda, Sierd Cloetingh (president of the AE), Marie-Ange Thébaud, Arcadi Navarro (Secretary of Univ.&Research, GC), Christophe Thébaud, Balázs Gulyás, Nina Petersen, Miklós Maróth. (Photo courtesy of the Generalitat de Catalunya.)

Several aspects of the collaboration between the Barcelona Knowledge Hub of the AE (AE-BKH) and the Government of Catalonia were discussed in a warm and pleasant atmosphere. President Puigdemont encouraged the Board of the AE, and particularly the academic director of the Barcelona Knowledge Hub (AE-BKH), Ricard Guerrero, to continue the excellent work that they have done to promote and spread knowledge at the highest level, in both humanities and sciences, in the Mediterranean region. The audience was also attended by several of the participant lecturers in the *Disputatio* Week 2016, and enjoyed this special visit very much.

The 2016 Disputatio of Barcelona

The Debate

The fourth modern-day *Disputatio of Barcelona*, was held at the Palau de la Generalitat, under the presidency of the president of the Government of Catalonia, M. Hon. Carles Puigdemont. It was devoted to the topic: "Natural Life vs. Synthetic Life". Two scholars, Anna Veiga (Centre for Regenerative Medicine, Barcelona) and Ricard Solé (Complex Systems Lab, PRBB, Barcelona), debated on the new challenges that the current scientific advancements present to human societies.



Anna Veiga and Ricard Solé

The impressive knowledge in their respective fields of research allowed the two *disputantes* to clearly expose their ideas to the audience. An active debate among the public and the speakers helped to better understand several critical questions previously exposed by the *disputantes*.

Other activities of the Disputatio of Barcelona Week

In addition to the central act of the Debat of the *Disputatio of Barcelona*, the AE-BKH organized several activities for the attendants, especially for the members of the Board of the Academia Europaea. Among them were a concert by singer and author **Lídia Pujol**: "Iter Luminis, Works and Pleasures of Love", devoted to the life and work of Ramon Llull (1232–1316) in the 7th centenary of his death, a guided visit to the *Call* (Jewish Quarter) of Barcelona—including and the visit to Andreu Mas-Colell's home in the *Call*—, the InterSection Workshop devoted to "What is Life? In remembrance of Lynn Margulis (1938–2011)", the premiere of the film Symbiotic Earth: How Lynn Margulis rocked the boat and started a scientific revolution, directed by **John Feldman** (Hummingbird Films, New York), and, finally, a guided visit to the premises of the Industrial School of Catalonia, in Barcelona.

Concert by singer and author Lídia Pujol: "Iter Luminis, Works and Pleasures of Love".

At the Prat de la Riba Hall, in the Institute for Catalan Studies (IEC), singer-songwriter **Lídia Pujol** and her accompanying musicians and singers offered a concert devoted to the life and work of Ramon Llull (1232–1316) to commemorate the 7th centenary of his death. Lídia Pujol was accompanied by Mohamed Ayoub (voice), Miquel Àngel Cordero (double bass and voice), Pau Figueres (guitar), Mohamed Soulimane (violin, lute, kemanje, tambourines), Sandra Ballbè (movement/dance) and the Chorus of Vallferosa.



The public filled up the solemn Hall of the IEC and enjoyed* the music, the voices and the spectacular performance of light, sound and dance. At the end, the audience gave the artists a long, warm ovation.



Concert "Iter Luminis, Works and Pleasures of Love", by singer-songwriter Lidia Pujol and her musicians and singers.

^{*}You can also enjoy some songs of the concert through this link to the "Barcelona in Action" Video channel



Guided visit to the Call (Jewish Quarter) of Barcelona

The Board of the AE, other MAE and accompanying persons visited the Jewish Quarter of Barcelona, the Call. The visit was guided by Victor Sorenssen, director of the Jewish Community of Barcelona. His explanations about the history of Jews in Catalonia, and their way of life in the city during the Middle Ages, accompanied by the visit to several of the related buildings and streets, made the walk through the narrow and old streets of the "old Barcelona" especially memorable*.



Several moments of the visit to the Call of Barcelona.

* You can see a video report of the visit to the *Call* through <u>this link</u> to the "Barcelona in Action" Video channel

Including in the visit to the *Call*, and as a special final act for it, the attendants were invited to pay a visit to Andreu and Esther Mas-Colell's home, a building of the 13th–14th century located in the middle of the *Call*, which has been accurately restored. Andreu Mas-Colell, MAE, and his wife offered the attendants a warm reception at their home with a wonderful appetizer to recover energy.

Afterwards, the attendants enjoyed a lunch at the restaurant of the Petit Palace Boqueria Garden Hotel, located in a 19th-century building at the heart of the city, and in the limits of the former *Call*. The president of the AE, Sierd Cloetingh, addressed a warm, friendly speech to the attendants.







Lunch at the patio of the Petit Palace Boqueria Garden, located at the edge of the former Jewish Quarter of Barcelona

InterSection Workshop

As in former editions of the *Disputatio of Barcelona* Week, an InterSection Workshop was held on a topic related to the topic of the *Disputatio* debate.

On Wednesday 23 November, the 2016 InterSection Workshop was coordinated by **Christophe Thébaud** (Chair of the Organismic and Evolutionary Section of the AE, Section C-4), and was devoted to the topic "What is Life?", on which the whole scientific career of Lynn Margulis focused. Prof. Margulis died on November 22, 2011, and the BKH decided to dedicate the Workshop to remember her work.

The lecturers for the Workshop were **Annia Domènech** (Out-of-Pluto, Paris), who imparted the lecture *Extraterrestrial life: a very human quest*, focused on the advancements on SETI (Search of ExtraTerrestrial Intelligence); **Gloria G. Cuadrado** (Barcelona) who talked about *A brief history of the Universe: from the Big Bang to the origin and evolution of life*, in which she described the main events in the history of the Cosmos, from this unique event known as the Big Bang to the origin of life; **David Jou** (Autonomous University of Barcelona) with his lecture about *Thermodynamics and Life* and explained life as a non-equilibrium physical system; **Ricard Guerrero** (AE-BKH) who talked about *Minimal Life* and discussed several aspects of the establishment of minimal ecosystems and the simplest conditions to be found in a planet to allow the biopoiesis, or origin of life; **Mavi Sánchez-Vives** (IDIBAPS, Barcelona), with her lecture *Intelligent Life*, in which discussed various issues related to neurobiology and to the study of the minimal neural connections, and, finally, **Javier Macia** (Complex Systems Lab, PRBB, Barcelona) who talked about *Artificial Life*, discussing the advancements on that specific field of research and complementing the talk given by Ricard Solé, from the same lab of the speaker, at the *Disputatio* debate of the day before.

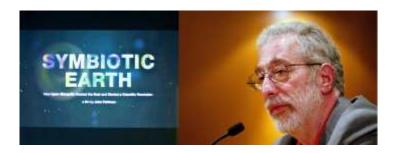


Ch. Thébaud, A. Domènech, G.G. Cuadrado, D. Jou, R. Guerrero, M. Sánchez and J. Macia



Premiere of the film "Symbiotic Earth: How Lynn Margulis rocked the boat and started a scientific revolution"

Also on Wednesday 23 November, in the afternoon, fifth anniversary of Lynn Margulis death, John Feldman presented his film at the Pere i Joan Coromines Room at the IEC.



John Feldman (Hummingbird Films, NY) introducing his film

The film (about 2 h, 30 min. in its present form), accurately produced and edited by the director, offered a ten-chapter journey, both throughout time and space, into John Feldman's personal view about the scientific and personal figure of Lynn Margulis. Through several interviews to various colleagues, collaborators and disciples of Lynn, Feldman has created a linear narration that deals with the main aspects of Lynn's scientific career and the impact of her research in the current state of the biological sciences. Lynn Margulis actively lectured and made research, both in the lab and in the field, in Spain since 1983 until her death. She especially collaborated with the microbial ecology group of the Autonomous University of Barcelona (1983–1988) and of the University of Barcelona (1989–2011), directed by Ricard Guerrero, first on the karstic system of Banyoles and afterwards on the microbial mats of the Ebro Delta.



Lynn Margulis (1938–2011). Some stills from the film

Guided visit to the premises of the Industrial School of Catalonia

On Thursday 24 November took place the last event of the *Disputatio* Week 2016. It was the visit to the Industrial School of Catalonia, in the geometrical quarter of the Eixample, an urbanistic design famous world-wide. The visit was guided by Jaume Rosell, from the School of Architecture of Barcelona (Technical University of Catalonia). The original building (1867) was Can Batlló, the textile factory of the Batlló brothers, built by the renowned architect Rafael Guastavino. Since 1889, when the factory ceased its activities, the building experienced many changes. New facilities and functions were added to the original, and now the large architectural ensemble is the home of different departments of the Diputació de Barcelona (Provincial Council), and of the Industrial School of Catalonia.

For the development of this activity, the Barcelona Knowledge Hub received the collaboration of the Catalan Society for the History of Science and Technology (SCHCT).

3. OTHER ACTIVITIES DURING 2016 (Activities and collaborations in chronological order)

January

3.1 DIAPHORA kick-off meeting

On January 15, Ricard Guerrero, Director of the Barcelona Knowledge Hub of the Academia Europaea (AE-BKH) attended the meeting held at the Puig i Cadafalch Hall of the Institute for Catalan Studies (IEC) as representative of the BKH, one of the five partners of this initiative.



The meeting was coordinated by Sven Rosenkranz (ICREA Research Professor; coordinator of the LOGOS Research Group in Analytic Philosophy, Department of Logic, History and Philosophy of Science, University of Barcelona) and joined sixteen participants from several European universities and academic institutions.

The Marie Skłodowska-Curie European Training Network DIAPHORA serves as a European research and training platform for collaborative research on the nature of philosophical problems, their resilience and the sources of persistent divergence of expert opinion about them, and their relation to conflicts in the practical sphere.

DIAPHORA undertakes to provide 14 Early Stage Researchers with the knowledge and skills necessary to meet the demands of top-level research within its remit, as well as professional complementary skills training in both the academic and non-academic sectors, with the goal of widening their potential societal contributions and improving their individual career prospects.

After the meeting, Ricard Guerrero informed the Network Coordinator that AE-BKH prefer the month of November, both in 2016 and in 2017, for hosting interns, as November is the month in which the hub has the most important activity of the year, the *Disputatio of Barcelona* Week. At this time of the year, AE-BKH can offer comfortable office space for the respective interns.

3.2 Collaboration with the 1st Conference of the UNU-GCM Migration Network

On January 28, the United Nations University-Globalization, Culture and Mobility Institute (UNU-GCM), organized the 1st Conference of the University Migration Network.

Starting from three thematic areas of concern, International Migration and Human Security, Gender Perspectives in Migration and Migration and Sustainable Development, researchers of the UNU Migration Network presented their core findings and exchanged their knowledge, expertise and views about approaches and terminologies in the field of migration. The aim was to give both stakeholders and experts, along with all those interested in the topic, a wide range of outlooks in order to contribute to developing new understandings and strategies to deal with future challenges in the field of international migration.

February

3.3 Meeting with CIMNE (International Center for Numerical Methods in Engineering)

On February 3, Ricard Guerrero and Anna Wasmer held a meeting with Francisca García-Sicilia (Director of International Relations of CIMNE) and Eugenio Oñate (president of the Executive Council of CIMNE). During the meeting it was discussed the possibilities of future collaboration between the Barcelona Knowledge Hub of the Academia Europaea and the CIMNE in the diffusion of science at the highest level.



3.4 Participation at the Fernando González Bernáldez Interuniversity Foundation Award

On February 5, Rubén Duro (Project Coordinator of the Barcelona Knowledge Hub)—representing Ricard Guerrero—attended the Fernando González Bernáldez Interuniversity Foundation award ceremony at the University of Alcalá (Alcalá de Henares, Madrid). Miguel Morey Andreu was awarded for his long life research on the ecology of insular ecosystems. The act included also the lecture "Creating conservationists social scenarios: the brown bear" given by Guillermo Palomero (president of the Brown Bear Foundation). The lecture was the inaugural act of the Master on Preserved Territories 2016. After the ceremony, Rubén Duro introduced the Barcelona Knowledge Hub activities to some members of the Fernando González Bernáldez Interuniversity Foundation with the aim of establish the contact for future institutional collaboration.

March

3.5 Meeting of the AE's hubs in London

On March 14, three of the four AE's hubs (Wrocław, Barcelona and Cardiff), plus the AE's Graz Information Centre, met for the first time in London. The hard-working meeting, held in the Senate House of the University of London, where the AE's central office is located, had a pleasant atmosphere, and many topics of interest for both the hubs and the AE's itself were discussed and agreed. The meeting was directed by Sierd Cloeting, AE president, and excellently coordinated by David Coates, Executive Secretary, and Teresa McGovern, Administrator of the office. Both the warm environment at the meeting room, and the mild, sunny weather in London contributed excellently to the efficiency of the meeting, which everybody considered necessary to hold again next year.

3.6 Meeting with the MICROPIA project, Amsterdam

Between March 23–28, Ricard Guerrero met Jasper Buiks (curator of the permanent exhibition) as MAE expert on both microbial ecology and microbial diversity, and as the responsible person for the permanent exhibition on the microbial world inside a museum (the Natural History Museum of Barcelona, the Blue Museum), directed by Anna Omedes Regàs.



April

3.7 Collaboration with the Seminar on Predictive Catalysis, Girona

The Girona Seminar on Predictive Catalysis have taken place in the historic city of Girona every two years since 1993, with the aim of bringing together young and senior scientists in a beautiful environment and in an informal and friendly atmosphere to discuss the Chemistry of everything.

The 2016 edition, held in Girona (Catalonia) between April 17–20, was focused on "Transition-Metal Reactivity by Design", and had front-line plenary and keynote speakers from all over the world. Young researchers opted for poster prizes and talked awards sponsored by Nature Chemistry, RSC Organic Chemistry Frontiers, and Wiley. The Seminar was chaired by Marcel Swart, ICREA, University of Girona, member of the Young Academy of Europe.

May

3.8 Presentation of the activities of the AE-BKH at Andorra

On May 12, 2016, the academic director of the BKH, Ricard Guerrero, was invited by the SAC (Societat Andorrana de Ciències, Andorran Society of Sciences) to present the activities of the BKH since the establishment of the hub, in January of 2013.

On May 12 and 13, 2016, Ricard Guerrero extensively discussed with the president of the SAC, Angels Mach, and with the Rector of the University of Andorra, Miquel Nicolau, the various possible collaborations between the two Andorran institutions and the Academia Europaea Barcelona Knowledge Hub.



The University of Andorra (UdA), founded in 1997, is the public state university of the Principality of Andorra. It has as a basic mission to meet the needs of the Andorran society, not only in those areas regarding higher education but also in relation to research and the transfer of technology and knowledge, each and every one with a high level of quality and adapted to the reality and the dimensions of the country. It is the aim of the UdA to maintain an open attitude, not only to our society, where the University looks for collaboration, and to which it serves, but also to international institutions, with criteria of flexibility and of optimization of resources. The University of Andorra focuses its activities on the student, not only from a scientific point of view but also from a humanist stand, developing creativity, critical analysis and the desire to continue learning autonomously.

June

3.9 Presentation of the activities of the AE-BKH at Boston and Amherst, MA, USA

Between June 9–21, Ricard Guerrero was in Cambridge and Amherst (Massachusetts., USA) introducing the activities of the Academia Europaea to some relevant academic personalities, among them Raymond Bradley (UMass-Amherst), Moselio Schachter (SDSU) and Roberto Kolter (Harvard Medical School).

3.10 Annual Conference of the AE, Cardiff

On June 27, Ricard Guerrero attended the 2016 Annual Business meeting at Cardiff, where jointly with other MAE decided to elect Xavier Costa-Guix as an Independent member of the Council of the Academia Europaea.

3.11 Collaboration with the IEEC Asteroid Day

The Barcelona initiative was born in the framework of the international Asteroid Day movement that wants to popularize the fall of Tunguska (on June 30th, 1908), the most energetic contemporary impact detected so far.

With that purpose, the Institute of Space Sciences (CSIC-IEEC), the Royal Academy of the Sciences and Arts of Barcelona (RACAB), the Barcelona Knowledge Hub of the Academia Europaea (AE-BKH), and the Astronomic Society of Sant Cugat-Valldoreix (AASCV), celebrated the Barcelona Asteroid Day 2016 at the facilities of the Royal Academy of the Sciences and Arts of Barcelona.

The invited lecturer was Michael Küppers (ESAC) who gave the lecture "Impacting asteroid Didymos: Testing asteroid deflection with the AIDA mission".

After the lecture it was organized a round table on "Reasons to care about asteroid impact hazard", with the participation of Jordi Llorca (UPC), Jorge Núñez (UB and RACAB), Mar Tapia (IGEF-IEC) and Josep M. Trigo-Rodríguez (moderator, CSIC-IEEC).

July

3.12 Collaboration with the "Art and Design in Barcelona" Summer 2016 Course. Northeastern University, Boston

Between July 4–24, Xavier Costa-Guix (MAE, Northeastern University, Boston) and Suzanne Strum (UPC) organized, with the collaboration of the Barcelona Knowledge Hub of the Academia Europaea, the "Art and design in Barcelona". Summer 2016 Course. Northeastern University, Boston.

The course is conceived as an introduction to the creativity, art and design of the city of Barcelona, focusing on the recent decades, yet keeping in mind its historical trajectory since classical times. We will focus on the role of creativity in today's economy, and will examine some cases of entrepreneurship and innovation resulting from applying design thinking to fashion, gastronomy, media, advertising, and other fields.

The lecture sessions on July 4, 11, 18 and 19, held at the Pi i Sunyer Room of the IEC, addressed the transformed cultural, economic and technological status of design in the contemporary period, and

explored exchanges and intersections with architecture, urban identities and lifestyles. The course aimed to address the implications for cities of the ascendancy of design as a process, a transdisciplinary mode of creative thinking, and as a specialized field of study.

The city of Barcelona is considered as a case study for understanding the importance of design and cultural industries and heritage as a source of wealth. Cultural and creative industries including food, fashion, media, visual and performance arts are relevant fields of social, economic and technological innovation. The creation of Barcelona's cultural arts district in the Raval and the 22@ area for creative industries constitute two urban case studies that were explored during the program.

3.13 Collaboration with the International Conference on Feminist Geographies and Intersectionality: Places, Identities and Knowledges, UAB (Bellaterra) and IEC

Between July 14–16, The Geography and Gender Research Group of the UAB, chaired by Maria Dolors Garcia-Ramon (MAE, UAB and member of the IEC) hosted the International Conference on Feminist Geographies and Intersectionality: Places, Identities and Knowledges, sponsored by the Commission on Gender and Geography of the International Geographical Union (IGU).

There was a three-day Conference that sought to gather researchers working with gender as well as other identities that play a role in the experience of place: age, social class, ethnicity, sexuality, ability. The Conference brought together 76 participants from 21 countries (United States, United Kingdom, France, Israel, Argentina, Brazil, Turkey, Germany, Singapore, Canada, Sweden, The Netherlands, Belgium, New Zealand, Iceland, Czech Republic, India, Portugal, Italy, Greece and Spain) and was organised through three keynote lectures, twelve sessions of paper presentations, one panel and one walking tour through the old city of Barcelona.

The first keynote speaker, **Joos Drooglever Fortuijn** (University of Amsterdam) talked about *Gender and Intersectionality in geography teaching*. The second, **Hanna Hamdam Saliba** (Urban and Regional Planner, Palestine/Israel), focused on *The everyday spatial experiences, practices and behaviours of Arab women in Barcelona and Jaffa/Tel Aviv*. Finally, **Margarida Queirós do Vale** (University of Lisbon) talked about *Gendering smart cities: Time-spaces and places for feminism*. Under the umbrella of Feminist Geographies and Intersectionality, participants sent 51 abstracts that referred globally to 12 themes: Teaching and learning, Activism, Intersectional theory, Sexualities, Work and gender contract, Identities and representations, Planning and policies, Masculinities, Religions, Migrations, Methodologies and Mobilities.

Saturday morning was devoted to an important panel that took place at the old building of IEC on the topic of Intersectionality and Feminist Geography. The panellists were **Marianne Blidon** (Université Paris 1), **Peter Hopkins** (Newcastle University), **Lynda Johnston** (University of Waikato), **Dina Vaiou** (National Technical University of Athens). The convenor of the panel was **Dr. Maria Dolors Garcia-Ramon** (UAB and IEC) and the chair was **Maria Rodó-de-Zárate** (Universitat Oberta de Catalunya). The panel dealt with the intersectional dynamics of power structures and the central role of place within them; that is, situating space as a constituting part of intersectional dynamics. It contributed to contextualize the development of intersectional theory and to relate the theoretical developments on intersectionality with conceptualizations on spatiality.

October

3.14 Experts' visit to the ALBA Synchrotron, Bellaterra

On October 24, members of the Advisor Council on Science and Technology of the Catalan Parliament (CAPCIT)—among them Ricard Guerrero (academic director of the AE-BKH)—visited the facilities of the Consortium for the Building, Equipment and Exploitation of the Light Laboratory of the ALBA Synchrotron. During more than an hour, the group, accompanied by political representatives of Catalonia and different personalities of the science and technology field, were informed about the research, the experimental tasks developed by the installation. Caterina Biscari (director of the centre) and other members of the centre were responsible for the explanations about this installation that is unique in Spain.

November

3.15 Meeting of the AE Board of Trustees in Barcelona

On Sunday 20 November, several MAE arrived to Barcelona for the celebration of the *Disputatio* of *Barcelona* 2016, organized by the AE-BKH.

The accommodation site for the MAE was the Hotel Regina, located at Bergara Street, next to the Catalunya Square, at the core of the town. Established in 1917, the Hotel Regina has witnessed the most important events occurred in Barcelona, such as the urbanistic transformations of the first quarter of the 20th century or the terrible period of the Spanish Civil War (1936–1939). During that awful period of the history of Barcelona, the Hotel Regina was converted into an improvised hospital which helped to save the lives of many people. Behind a beautiful modernist door canopy, which is still conserved, the hotel has accommodated most of the Spanish celebrities who have come to Barcelona. Its Modernist façade precedes a beautiful interior, renovated in 2006 by the architect and interior designer Jordi Veciana.

On Monday 21 November, the AE Board's business meeting took place at the facilities of the Institute for Catalan Studies (IEC), headquarter of the Barcelona Knowledge Hub.



At the centre: AE's president Sierd Cloetingh. From his left side, clockwise: Balázs Gulyás, Ole Petersen, Andreu Mas-Colell, Tadeusz Luty, Xavier Costa-Guix, Miklós Maróth, Ricard Guerrero, and David Coates.

On the afternoon, the Board held the second session, in which **Tadeusz Luty** (Wroclaw hub) and **Ricard Guerrero** (Barcelona hub) made the presentations of their respective hubs to the rest of trustees. Afterwards **Balázs Gulyás** started the discussion about the Budapest Conference. (See ANNEXES 1 and 2 with different actions of the AE-BKH for the diffusion of its activities, presented by R. Guerrero.)

3.16 Collaboration with the 3rd FCIS (Founding Science and Social Innovation) meeting, Institute for the Promotion of Science and Research

On November 29, Ricard Guerrero attended the 3rd FCIS meeting devoted to "The new role of the Collaborative Economy on the Science and Research funding". With the presence of important personalities of the academic field: University of Barcelona (UB), Autonomous University of Barcelona (UAB), Confederation of Spanish Scientific Societies (COSCE), Spanish Foundation for Science and Technology (FECYT), Spanish Council for the Scientific Research (CSIC), among other, several lectures and round tables were organized with the aim of discussing the issue and establish the importance, incidence and perspectives of this new way of funding science.

December

3.17 Publication of a thematic issue of *Contributions to Science* on the activities of the AE-BKH during 2013–2016

The issue 12-2 (December 2016) of the journal *Contributions to Science*, published by the Science Sections of the IEC, includes nine articles, with the foreword written by Ricard Guerrero and Andreu Mas-Colell. (See ANNEX 3, for the contents of the thematic issue and Guerrero & Mas-Colell's article.)



4. ANNEXES

4.1 ANNEX 1

The AE-BKH bulletin BarceloNEWS

Currently without a defined periodicity (it varies in function of the amount of activities developed by the hub), the Barcelona Knowledge Hub of the Academia Europaea edited the electronic bulletin *BarceloNEWS*.

During 2016 it have been edited ten issues, some of them designed by the BKH itself and others designed through the AE application, than have been distributed to the MAE. The purpose of *BarceloNEWS* is to inform about the activities and events, both past and upcoming, organized by, coordinated by, participated by, or related in any way to the AE-BKH.

You can get access to all the *BarceloNEWS* from the AE-BKH through this link.



Header of the BarceloNEWS, the electronic bulletin of the AE-BKH

The AE-BKH "Barcelona in Action" video channel

One of the singularities of the Barcelona Knowledge Hub of the Academia Europaea is the audiovisual activity. The audiovisual team of the AE-BKH (Rubén and Jara Duro) is responsible for the development of this specific area, working not only on the activities organized by the hub but also as support of other institutions related to the Academia Europaea. In this field of actuation, the AE-BKH has offered technical support to the YAE for the production of several interviews included in the YAE Project "Dialog Project".

To show this works, the audiovisual team of the AE-BKH created the "Barcelona In Action" video channel, running on the YouTube and Vimeo platforms. Some of the videos produced by the BKH audiovisual team and included into the "Barcelona In Action" video channel are linked through the "Video" section at the bottom of each "BarceloNEWS" newsletter with the aim that all MAE can watch them.

During 2016, the AE-BKH has uploaded 14 videos to the Vimeo platform, all of them related to the activities of the hub. You can get access to the video channel through this link.



4.2 ANNEX 2. Diffusion of the activities of the AE-BKH

The AE-BKH office, with the purpose of informing about the activities developed by the hub, created the website barcelona.acadeuro.org and the corresponding accounts on the Facebook https://www.facebook.com/ae.bkh/and Twitter acebook.com/ae.bkh/and the social network information about the activities related to the AE-BKH.



Frontpage of the AE-BKH website



Frontpage of the AE-BKH Facebook page



Frontpage of the AE-BKH Twitter profile

4.3 ANNEX 3. Contributions to Science 12-2 (December 2016)

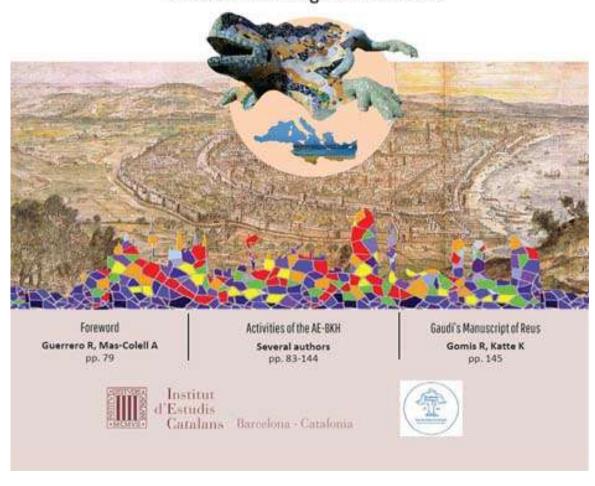
Cover and Contents of the thematic issue and article by R. Guerrero & A. Mas-Colell, as the presentation of the issue.

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"Spread eastwards along the old sea." The accomplishment of an idea: the AE-Barcelona Knowledge Hub*

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Summary. The Academia Europaea was founded in 1988 as an international non-governmental, not-for-profit association. Currently, it has over 4000 elected members from the whole European continent. Among its goals is to provide a pan-European multidisciplinary dimension spanning beyond the borders of the different nations and recognizing the excellence of learned societies and organizations. The Academy has four regional hubs in Wroclaw, Barcelona, Bergen and Cardiff. The Barcelona Knowledge Hub (AE-BKH) was set up in 2013 as the Academia Europaea's hub for the Mediterranean and Southern European region. It was born under the auspices of three Catalan institutions, the Government of Catalonia, the Barcelona City Council and the Foundation La Caixa. The Institute for Catalan Studies provided its facilities for the location of the headquarters of the AE-BKH. Since its creation, the AE-BKH has developed every year many activities, being the most important the Women's Week (in March) and the recovery of the Middle Ages' Disputatio of Barcelona (in November). In addition, other activities have been developed related to significant issues that society faces, always with a multidisciplinary perspective, and covering both sciences and humanities. [Contrib Sci 12(2):79-82 (2016)]

Keywords: Barcelona Knowledge Hub · Academia Europaea's hubs · Disputatio of Barcelona

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The Academia Europaea: promoting learning, education and research

The Academia Europaea (AE) [http://www.ae-info.org/], founded in 1988, is a pan-European, non-governmental, notfor-profit association of individual scientists and scholars who are elected by nomination and recognised by their peers as experts and leaders in their fields. The AE is independent of national governments. Its main goal is to support the culture of European research through dialogue and collaboration.

^{* &}quot;Estesa per llevant al llarg de la vella mar." From the poem M'han demanat que parli de la meva Europa ("I have been asked to talk of my Europe") by Salvador Espriu, 1959.

The AE has over 4000 elected members from 37 European countries, plus Turkey and Israel, including a substantial number of recipients of prestigious awards, medals and prizes. Fifty-four members are Nobel Prize winners and 13 of them are Fields Medal recipients. The AE publishes *European Review*, a peer-reviewed academic journal covering contemporary issues in Europe, including those related to economics, history, social science and other general sciences.

In its mission statement, the AE is committed to identifying topics of trans-European importance to science and scholarship, and to proposing appropriate action to ensure that these topics are adequately addressed. It promotes a wider appreciation of the value of European scholarship and of research and encourages interdisciplinary and international scholarship in all areas of learning of relevance to Europe. In addition, where appropriate to its expertise, it provides independent and impartial advice to European institutions, governments and international agencies concerning matters affecting science, scholarship and academic life in Europe.

The organisation of the Academia Europaea

The AE is run by a Board of Trustees, which acts as the executive management board. Currently, the President of the AE is Sierd Cloetingh (Professor of Tectonics, Vrije University, Amsterdam). Anne Buttimer (Emeritus Professor of Geography at University College Dublin) is Vice-President, and Roger Elliot (Professor of Theoretical Physics, University of Oxford) is the Honorary Treasurer. The Executive Secretary to the Board is David Coates. The remainder of the Board is composed of members of the AE elected by the AE Council. The Council comprises members of the Board of Trustees, the chairs of the academic sections (Statutory Council members) and a number of independent members (up to five) elected individually at the Annual General Meeting.

The scholarly interests of the AE are managed through a Section structure. On election, all members are assigned to a Section. Currently, there are twenty-two academic Sections. The AE has its headquarters in London, and it also has four regional hubs: the hub for central and Eastern Europe, located in Wroclaw and started in 2012; the hub for Southern Europe and the Mediterranean, located in Barcelona and started in 2013; the hub for the Northern European region, located in Bergen and started in 2015; and the hub for the United Kingdom and Central Europe, located in Cardiff and started in 2016.

Nations, countries, need experts to provide advice and

guidance to solve problems of many different issues—scientific, technological, economic, social—throughout its wide range of fields and topics areas. These experts can be local and national, but the formula that provides an assembly of people who share knowledge and experience, and with a view both basic and applied that crosses disciplinary and cultural boundaries, is the best capable of responding to issues of national and international scope. The members of the AE represent an effective means to provide a rigorous and independent perspective, whichs is something that governments in any country will indeed appreciate.

Another important aspect of the AE is its absolute independence, which is the key to the impartiality of the observations of its members whenever their opinions are requested—or voluntarily provided by themselves—about European science and knowledge.

The Barcelona Knowledge Hub

The Barcelona Knowledge Hub (AE-BKH) is the office of the Academia Europaea for the Mediterranean and Southern European region. Its main focus is the promotion of activities of interest for the members of the Academy and for the scientific community in general, with special emphasis on multidisciplinary scientific activities that include the perspective of the natural, biomedical and social sciences and the humanities. According with the general goals of the AE, the Barcelona hub organizes itself to contribute to the promotion and consolidation of a European area in which innovation, research, education achieve the best results that surely will contribute to the wellness of people.

The AE-BKH office is located in the building of the Institute for Catalan Studies (IEC). The IEC is an academic, scientific and cultural corporation whose purpose is scientific research and its dissemination, principally that involving all elements of Catalan culture. It was founded in 1907 and has been a member of the Union Académique Internationale (UAI) since 1922, and of ALLEA since 2014.

The creation of the Barcelona hub was a long matured idea in order to take a further step in the consolidation and recognition of Barcelona as a city with a long history in the scientific, technological and social development. Barcelona is fitted with the institutions and the physical and human resources to promote the advancement of knowledge in all fields by understanding the benefits it poses to society.

The idea and progression of this project was discussed with different persons from the Academy and various institutions.



Catalan Atlas of the Mediterranean, by Abraham Cresques. Abraham Cresques (1325–1387) was a 14th-century Jewish cartographer from the city of Palma Majorca. (The Balearic Islands were in that time part of the Crown of Aragon.) In collaboration with his son, Jehuda, Abraham Cresques is credited with the authorship of the celebrated Atlas, made circa 1375. The original of the Atlas is in the National Library of France, in Paris. Since 2014, a copy facsimile, on parchment and illustrated by hand, is exposed at the Sala Puig i Cadafalch of the Institute for Catalan Studies, in Barcelona, where the AE-BKH is located.

The final decision, that had to be approved by the Academia Europaea, was taken after the visit of its representatives, Lars Walloe (President), Roger Elliot (Treasurer) and David Coates (Executive Secretary), invited by the three institutions that would become partners: the Government of Catalonia, the Barcelona City Council and the Foundation La Caixa. The visit, which followed a ceremonial agenda, was crucial to determine the suitability of Barcelona as the new headquarters hub.

The Barcelona Knowledge Hub was established in 2013 through a joint agreement between the Academia Europaea and the three aforementioned partners in Catalonia, it being set up as the Academia Europaea's office for the Mediterranean and Southern Europe region. The AE-BKH focuses on the promotion of activities of interest for the members of Academy and the scientific community in general, with special emphasis on multidisciplinary scientific activities that include the perspectives of the natural, biomedical and social sciences and the humanities.

The AE-BKH has an International Advisory Committee (IAC) that meets annually. Currently the IAC is formed by Enric Banda, Pedro García-Barreno, M. Dolores Garcia Ramon, Ramon Gomis, Sergiu Hart, Yvon Le Maho, Genoveva

Martí, Marc Mayer Olivé, Maria Paradiso, Regina Revilla, and Rosalia Vargas. We will never forget an initial member of the IAC, Prof. Jose Mariano Gago (1948–1915). Gago, former Minister of Science and Technology (1995–2002) and Minister of Science, Technology and Higher Education (2005–2011) of Portugal, played a crucial role in the design of plans for the development of science, technology and innovation, not only in his country but throughout Europe. He did it by designing and promoting several organisms that have played major roles in the structure and organization of science in the European Union during the last thirty years, particularly in the creation and initial impulse of the Academia Europaea, the European Science Foundation and the European Research Council.

About the Disputatio of Barcelona

In the scholastic system of education of the Middle Ages, the *Disputationes* were formal ordered debates designed to uncover and establish truths in theology and in sciences. Fixed rules governed the process: they demanded dependence on traditional written authorities and the thorough understand-



The Academia Europaea-Barcelona Knowledge Hub is located in the building of the Institute for Catalan Studies, in Barcelona.

ing of each argument on each side. The famous *Disputatio of Barcelona*, called in the summer of 1263 by King James I of Aragon and Catalonia, was the most important and well-known of the inter-faith *Disputationes* that took place between Christian and Jewish theologians in the late Middle Ages. In the *Disputatio of Barcelona* the *disputantes* were Friar Paulus Christianus, a Dominican (and a former rabbi converted from Judaism to Christianity) and rabbi Moshe ben Nachman (also known as Nahmanides), the most important scholar of Judaism at his time, from the Girona's community. The discussion focused on theological questions with the presence of the king and his court, and of the most significant men of Barcelona, then a prosperous and influent city.

Since its creation, the AE-BKH has developed four *Disputationes*, in 2013 (coinciding with the commemoration of the 750th anniversary of the medieval *Disputatio of Barcelona*), in 2014, 2015 and 2016. The success achieved in those editions is the best cultural manifestation of AE-BKH and consequently continuing them has been considered most suitable.

About the Young Academy of Europe

Institutions devoted to all fields of knowledge are committed to defending the planet. Leaders must continually remind of it both to governments and the citizenship. The younger generations have much to do about it. The combination of the experi-

ence of senior researchers and the real possibilities of younger generations are the guarantee for the future. The Young Academy of Europe (YAE) was created to respond to this need. It was born as a pan-European initiative of outstanding young scientists to create a platform for networking, scientific exchange and science policy. The AE and the YAE signed an agreement in December 2012, establishing that "both organizations shall actively explore the potential for, and development of, a wide range of initiatives and activities, that would provide for a mutual benefit to both organizations and to the wider scholars' community across Europe." The AE-BKH is responsible for giving the necessary administrative support to the YAE and collaborating in the YAE's Interviews Project.

Several major issues affect the activity and objectives of the AE-BKH, the main being (a) attention to global social problems (displacement by conflict, migration, poverty, scientific development), (b) promotion of the women in all aspects of BKH organization, activities and development in all activities and in the area of influence of the hub, (c) interdisciplinarity in the treatment of the discussed topics, (d) collaboration with the related entities both national and international, and (e) involvement in the expansion and dissemination of the Young Academy of Europe.

To conclude, the Barcelona Knowledge Hub has tried to make a significant contribution to the aims and activities of the whole Academia Europaea, especially those related with Southern Europe and the Mediterranean.

About the images on the first page of the articles in this issue. Articles of this thematic issue of CONTRIBUTIONS TO SCIENCE, devoted to the activities of the Barcelona Knowledge Hub of the Academia Europaea (AE-BKH), show in their first page a reproduction of a *trencadis*, a type of mosaic used in Catalan Modernism, made from broken pieces of ceramics, like tiles and dinnerware. Those nine "broken tiles," designed by the architect from Reus Antoni Gaudí, show multiple angles and views, reflecting the ever-changing reality around us. The AE-BKH believes that those images, created more than a century ago, represent appropriately the multiple aspects of the present academic world, both in science and humanities, which constitute one of the main objectives of the activities of the Barcelona hub. See also the article "Antoni Gaudí (1852–1926): The Manuscript of Reus," by R. Gomis and K. Katte, on pages 145-149 of this issue. This issue can be downloaded in ISSUU format and individual articles can be found at the journals' repository of the Institute for Catalan Studies [www.cat-science.cat; http://revistes.iec.cat/contributions].