



GAIA PRIZE
2016
PRESS KIT

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The Jury for the Gaïa Prize 2016 has nominated

Vianney Halter

laureate in the category **Craftsmanship-Creation**

for his contribution to the renewal of aesthetic and technical codes in contemporary watchmaking, showing a respect for craftsmanship, without ever making concessions to conformism.

Roger Smith

laureate in the category **History-Research**

for his major contribution to our knowledge of the watchmaking world of 18th-century London and Anglo-Swiss exchanges through his expert knowledge of timepieces.

Giovanni Busca et Pascal Rochat

laureates in the category **Entrepreneurship**

for the fundamental role which they have played in repositioning the Neuchâtel Observatory and in developing the industrial applications of their atomic clockmaking research.

The awards ceremony will be presided over by Mauro Dell'Ambrogio, Swiss State Secretary for education, research and innovation on

Tuesday 20th September 2016 at 18:30
Musée international d'horlogerie
La Chaux-de-Fonds

GAÏA PRIZE

2016

Musée international
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www.mih.ch - mih@ne.ch

A PRIZE SIMILAR TO NONE...THE GAÏA PRIZE

The Gaïa Prize was created in 1993 by the Musée international d'horlogerie with an aim to honour prominent figures who have contributed and who contribute to the reputation of watchmaking – through its history, its technology and its industry. The only one of its kind, this Prize has the particularity of honouring the best of the best. By awarding this Prize, the Musée international d'horlogerie, a worldwide recognised institution and leading museum of La Chaux-de-Fonds, a town whose economic and social history is closely linked to watchmaking, wished to express its appreciation to the spiritual heirs of the watchmaking culture which impregnates the collections of the museum, as well as the town.

A distinction rather than a Prize, therefore a spontaneous application is not possible; applications presented by third parties allow the members of the Jury, prominent figures from Switzerland and abroad from various fields - cultural, journalistic, scientific or economic - to assess each contribution on a neutral basis and to choose a winner, or several whenever certain applications are thought to be complementary to each other. The independence of the Jury is guaranteed by its President, the Curator of the Musée international d'horlogerie.



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JURY 2016

Musée international d'horlogerie

Régis Huguenin, conservateur, président du Jury

Rossella Baldi, conservatrice adjointe

Jean-Michel Piguet, conservateur adjoint

Representatives from watchmaking field

Henry John Belmont, consultant en horlogerie

Patrick Dubois, président, Laboratoire Dubois

Estelle Fallet, conservateur en chef, Musée d'art et d'histoire de Genève

Stephen Forsey, président, Greubel Forsey SA

Joël Grandjean, journaliste, rédacteur en chef Watchonista.com

Jean-Pascal Lüthi, vice-directeur, Secrétariat d'Etat à la formation, à la recherche et à l'innovation

Morghan Mootosamy, conservateur, Musée d'horlogerie du Locle, Château des Monts

Nicolas Rossé, journaliste économique, Radio Télévision Suisse

Nathalie Tissot, professeure de propriété intellectuelle, Université de Neuchâtel

Sylvain Varone, responsable secteur horlogerie, Centre interrégional de formation des Montagnes neuchâteloises

Janine Vuilleumier, head of information department, Fédération de l'industrie horlogère suisse



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Vianney Halter

ARTISANAT - CREATION

With his retro-futuristic creations, Vianney Halter can be considered the vanguard of a new era in watch design and display.

The jury of the Gaïa Prize recognised Vianney Halter's contribution to the renewal of aesthetic and technical codes in contemporary watchmaking, showing a respect for craftsmanship, without ever making concessions to conformism.

Career

Vianney Halter was born in the suburbs of Paris in 1963. He studied at the watchmaking school in Paris, whilst working in the workshop of watchmaker Philippe Baille. He received his diploma in 1980 and then spent several years restoring antique clocks, pocket watches and wristwatches. In 1989, he moved to Sainte-Croix, where he joined forces with François-Paul Journe and Denis Flageollet to form THA (Techniques Horlogères Appliquées). They developed complications and prototypes for several prestigious brands, including Breguet, Cartier, and Franck Muller.

In 1994, Vianney Halter set up his own company, which he named La manufacture Janvier after one of greatest talents in the history of watchmaking, Antide Janvier (1751-1835). He initially focused on restoration, developing prototypes for a number of brands (Harry Winston, Breguet, Audemars Piguet) and special commissions for private customers.

The first creation released under his name, the Antiqua wristwatch with perpetual calendar, was unveiled at Basel in 1998 as part of the Académie Horlogère des Créateurs Indépendants (AHCI). The Antiqua watch can be perceived as a "relic of the future". Vianney Halter then started to develop a collection which now includes a dozen models, each produced in tiny quantities. To date, fewer than 500 pieces bear the Vianney Halter signature. Amongst his creations, the Trio Grande Date and, more recently, the Deep Space Tourbillon have been most widely recognised and praised.



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One of life's mavericks, Vianney Halter takes his inspiration from science fiction literature, the novels of Jules Verne, scientific instruments and the vintage cars he collects. He sees watchmaking as a means of expression; his watches mix the historic with futuristic elements, creating a cross-pollination that Halter has called "Past Future". Passionate about instrument panel counters and measuring instruments, Vianney Halter is clearly one of the first in the category of "independent" watchmakers, characterised by their own highly personal style. He is also considered to be amongst the vanguards of a new era which, by the year 2000, had led to the creation of designs and displays never before seen in the world of watchmaking.

Work

Opus 3, Harry Winston (2003)

The watch has six circular windows showing the hour, minutes and date. It breaks with classic watchmaking conventions by having no hands. Limited edition of 55 pieces.



Antiqua (1998) was the first piece produced by Vianney Halter under his own name. The retro-futuristic design of this perpetual calendar watch with a self-winding calibre caused a sensation, combining technical expertise with references to ships' chronometers and to Jules Verne.

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Trio Grande Date (2006), reflects Vianney Halter's "steampunk" vision of watchmaking.



Deep Space Tourbillon (2013). This model boasts a central triple-axis tourbillon. Vianney Halter describes this piece as a mechanical sculpture, a metaphor for the human condition. Its triple-axis represents the three spatial dimensions of width, length and height which, when combined with time, reflect the four dimensions of space-time.



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The jury of the Gaïa Prize paid tribute to Roger Smith for his major contribution to our knowledge of the watchmaking world of 18th-century London and Anglo-Swiss exchanges through his expert knowledge of timepieces.

Roger Smith

HISTOIRE - RECHERCHES

Roger Smith's research mainly focusses on the watchmaking world of 18th-century London and his work is characterised by his in-depth research on Anglo-Swiss exchanges and his expert knowledge of timepieces.

Career

After reading History at King's College London and International Relations at the London School of Economics, Roger Smith followed an unconventional career as a historian. He went on to research the world of the manufacture and sale of luxury goods in the Age of Enlightenment, focussing on watchmaking and the transfer of technical knowledge. He conducted in-depth research in the Anglo-Swiss watchmaking firm Vulliamy of London, active in the second half of the 18th century; at the same time, he worked on a major study of entrepreneur James Cox (1723-1800) and his competitors in the trade in clocks and watches from Europe to Asia. Focussing his research on the frequent exchanges of ideas and migration of craftsmen between Switzerland and England, Roger Smith's work has made a remarkable contribution to our understanding of the Pan-European context which characterised the manufacture of timepieces in that era. His work is thus an essential reference for any specialist in the history of 18th-century watchmaking; in recognition of this, in spring 2013, the University of Neuchâtel invited him as a guest speaker to give a series of lectures entitled "Manufacturers and Merchants: making and exporting clocks and other luxury goods in the 18th century".

Roger Smith's research artfully combines his expert knowledge of the archival sources and his exceptional technical and aesthetic watchmaking expertise. A Fellow of the Society of Antiquaries of London since 2006, this dual approach has led to his collaboration with many prestigious museums in London (the Victoria and Albert Museum; the British



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Museum; the Science Museum), and with auction houses, acting as an expert and adviser. Notably, he participated in the exhibition "SingSong: Treasures from the Forbidden City" at the Museum Speelklok, Utrecht in 2010-2011. Roger Smith has recently finished co-editing a publication entitled "The Life and Travels of James Upjohn" (the London clockmaker who lived from 1722-1795).

Publications (selection)

Forthcoming - SMITH, Roger, « James's Cox Silver Swan. An eighteenth century automaton in the Bowes Museum », Artéfact. Techniques, histoire et sciences humaines.

Forthcoming - SMITH, Roger, « James Cox's foreign workers : eighteenth century entrepreneurs and the international migration of technical skills », in : Penser la technique au 18e siècle, actes de la journée d'Auvergnier, Fondation Maison Borel, 30 mars 2012, éd. par Rossella Baldi et Laurent Tissot, Neuchâtel : Alphil.

2016 - SMITH, Roger and LEOPOLD, John (ed. by), The Life and Travels of James Upjohn, London : Antiquarian Horological Society.

2008 - SMITH, Roger, « The sing-song Trade. Exporting clocks to China in the Eighteenth Century », Antiquarian Horology, March, p. 629-658.

2007 - SMITH, Roger and LEDGER, A.P., Benjamin Vulliamy and the Derby Porcelain Manufactory. 1784-1795, Derby : Derby Porcelain Archive Research, vol. 3.

2006 - SMITH Roger, « Mid-eighteenth Century Craftsmen Gray & Vulliamy Outworkers and Suppliers c. 1760 », Antiquarian Horology, vol. 29, n. 3, p. 348-358.

2005 - SMITH, Roger and ZEK, Yuna, « Hermitage Peacock. How an Eighteenth century automata reached St. Petersburg », Antiquarian Horology, vol 28, no 6, p. 699-715.

2004 - SMITH, Roger, « The Swiss Connection. International Networks in some Eighteenth-Century Luxury Trades », Journal of Design History, vol. 17, n. 2, p. 123-139.

2000 - SMITH, Roger, « James Cox (c.1723-1800) : A Revised Biography », The Burlington Magazine, vol. 142, n. 1167, p. 353-361.

1998 - SMITH, Roger, « The Devil Tavern Group », Antiquarian Horology,



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vol. 24, n. 5, p. 427.

1997 - SMITH, Roger, Thompson, David, « Vulliamy Musical Clocks », Antiquarian Horology, vol. 22, n. 1, p. 66.

1996 - SMITH, Roger, « Fire At Thwaites, », Antiquarian Horology, vol. 23, n. 2, p. 172

1995 - SMITH Roger and THOMSON, David, « Two Vulliamy Watches with Royal Associations », Antiquarian Horology, vol. 22, n. 3, p. 230.

1993 - SMITH, Roger, « Vulliamy Clock Numbering », Antiquarian Horology, vol. 21, n. 5, p. 427



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Giovanni Busca Pascal Rochat ESPRIT D'ENTREPRISE



The jury of the Gaïa Prize wanted to highlight the fundamental role played by Giovanni Busca and Pascal Rochat in enhancing the position of the Neuchâtel Observatory and in developing the industrial applications of their atomic clockmaking research.

Giovanni Busca, an independent consultant, was Professor and Director of the Neuchâtel Observatory from 1988-2001; Pascal Rochat is founder and CEO of the Neuchâtel-based company, SpectraTime.

The two award winners specialise in the field of atomic clocks and are particularly renowned for applying their expertise in an industrial context. Thanks to their passion and skills, Europe has become technologically independent in the field of satellite positioning and navigation: the clocks manufactured by SpectraTime are the core technology featured on the Galileo navigation system satellites ("European GPS").

Giovanni Busca

Giovanni Busca has a background in academia but is also passionate about industry; the Neuchâtel Observatory has enjoyed remarkable growth thanks to his entrepreneurial spirit and his vision. His success as a researcher at the Observatory also enabled him to realise one of his dreams in founding a spin-off company in 1995.

Giovanni Busca was born in Italy in 1939. After high school, he studied Physics at the University of Turin, where he obtained his PhD in Physics in 1964. Continuing his research activities, he then followed an academic career at the Laval University in Quebec, Canada, from 1970 to 1977, where he specialised in the field of atomic clocks. From 1977 to 1978, he worked on the hydrogen maser at the National Bureau of Standards in Boulder (Colorado, USA), and at Oscilloquartz SA in Neuchâtel. He continued his research at Oscilloquartz SA, filing several patents, and became Director of Research in Frequency Standards (GEF) at ASULAB SA; there he developed the first generation of terrestrial hydrogen masers

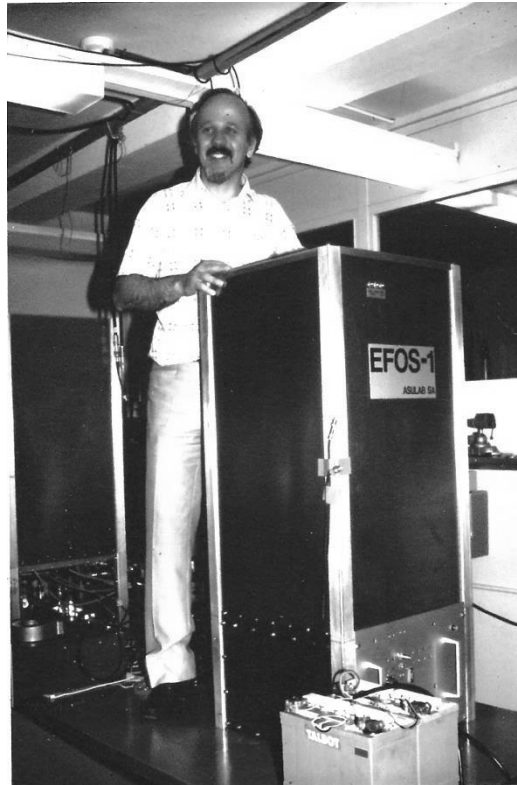


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which would be used worldwide in radio astronomy. He also pioneered R&D into clocks using rubidium and caesium under state-funded research contracts.



First Active H Maser produced by Oscilloquartz SA, 1982.

In 1988, he was appointed Director of the Neuchâtel Observatory and later became Associate Professor of the University of Neuchâtel. Giovanni Busca conducted intensive research, publishing over a hundred scientific articles and filing seven patents. His team gradually grew from 12 to 30 people; thanks to financing sourced 60% from contracts outside the Canton, Giovanni Busca has made a major contribution to R&D in atomic frequency standards:

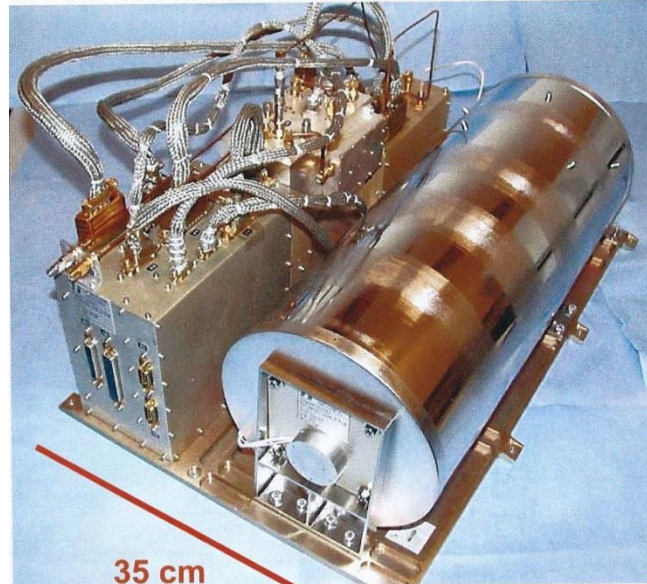
- miniature rubidium clocks for terrestrial and space applications
- high-performance active hydrogen masers for use in radio astronomy
- passive hydrogen masers for terrestrial and space applications (GALILEO)



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Passive H maser for Galileo

These three fields have been successfully applied in industry. The first of these fields led to the founding of a spin-off company in 1995 called TNT-Temex Neuchâtel Time (subsequently renamed SpectraTime) which employed two staff members from the Observatory (including Pascal Rochat, then Deputy Technical Director). SpectraTime later worked on the industrial development of the other two fields.



Following his retirement in 2001, Giovanni Busca founded his own company, KYTIME Sarl, through which he offered consultancy services on time and frequency until 2014. He received the Marcel Ecabert Award from the European Frequency and Time Forum (EFTF) in 2011, and the Time Lord Award from the International Timing and Synchronisation Forum (ITSF) in 2012.

Even though his research was highly specialised, Giovanni Busca was always driven throughout his career to develop industrial applications for his work. In this confidential but prestigious field of work – the ultra-precise measurement of time – he successfully earned Switzerland an enviable position of influence.

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Pascal Rochat

Pascal Rochat was born in 1957. He studied in Lausanne and Yverdon and became an electrical engineer in 1978. He then joined the Institute of Microtechnology at the University of Neuchâtel as a researcher; in 1979, he began working for Oscilloquartz SA where he spent nearly a decade developing various electronic devices for high-precision chronometry. In 1989, he began working for Scientific Development Inc. in the United States and Switzerland, focussing on developing vehicle geo-location systems. In 1991, he was appointed Head of Electronic Development, then Deputy Technical Director at the Neuchâtel Observatory, heading the "miniature rubidium clock" project.

In 1995, Pascal Rochat left his post as Deputy Technical Director of the



Observatory to pursue a career in industry. He became CEO of one of the Observatory's spin-off companies – TNT-Temex Neuchâtel Time – subsequently renamed SpectraTime. Initially set up to industrialise the Observatory's miniature rubidium clock, the company expanded rapidly to industrialise and market several other products developed by the Observatory, including passive and active hydrogen masers for space, in particular. Pascal Rochat thus became the driving force behind the industrial development of the two types of clock currently integrated into Galileo navigation satellites.



H-clock

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Having started out with just one employee in 1995, Pascal Rochat successfully grew his business to a 70-strong team. He put Europe on the world map in terms of industrial atomic clocks, hitherto the preserve of the USA.

From 2006, he also ran the company T4Science, set up to produce and distribute the active hydrogen masers previously manufactured at the Observatory.



Pascal Rochat is known for finding cost-effective solutions to complex problems. His inventive and rigorous approach has a very successful track record. His company was the only one capable of providing the European Space Agency with the two types of clock it needed to equip the 30 satellites in the Galileo system. SpectraTime and T4Science currently produce some 4000 atomic clocks a year for worldwide export. In addition to supplying the atomic clocks for the European Galileo system, SpectraTime has also supplied similar navigation systems in India and China. Around one hundred SpectraTime atomic clocks have travelled through space to date.



SpectraTime's success lies in its rare combination of universally recognised skills, creativity, rigour and leadership. A humble and people-oriented manager, Pascal Rochat inspires the respect of his employees by his example.

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RULES

1. The Gaïa Prize is an honorary distinction bestowed annually, each autumn, by the International Watchmaking Museum (MIH), and consequently, by the Swiss town of La Chaux-de-Fonds.
2. The Gaïa Prize is awarded to individuals who have participated in developing and reinforcing knowledge of watchmaking through their work and achievements in 3 categories:
 - History and Research in watchmaking and timekeeping
 - Workmanship and Design in watchmaking
 - Entrepreneurship in watchmakingThe Awards Committee awards one prize in each of the three categories but reserves the right not to award a prize in one or more of the categories.
3. The Committee's decision on the prizewinner(s) is final.
4. The award nominees are chosen irrespective of their nationality.
5. All nominations, excluding personal ones, are taken into consideration. Only nominations submitted before 21st March will be included in the current year's selection process.
6. After validating the nominations, the Management of MIH submits the list of nominees to the Awards Committee.
7. Members of the Awards Committee are appointed by the Management of MIH.
8. The Awards Committee is chaired by the Curator and is composed of three members of the Management of MIH and figures from various fields relating to watchmaking. There are between 10 and 15 members on the Committee. In principle, three members will be replaced each year. The Committee can legitimately deliberate if at least five members are present. The Chair, the Curator of MIH, takes part in the voting. In the event of a tie in the voting, the Chair has the deciding vote.
9. In the event of dispute or doubt concerning the interpretation or application of these rules, the Chair of the Awards Committee shall decide.



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AWARD CATEGORIES

Craftsmanship and Creation

It is without any doubt the desire to honour the bold, creative watchmakers that in some cases work in relative anonymity, with their names unobtrusively associated with big businesses, which urged the prize's founders to see them honoured in the first instance.

Ten years ago, the work of these profound, inventive and determined individuals was not as well recognised by the general public, not specialising or passionate about watchmaking, as it is today. We like to think that the Gaïa Prize has made a modest contribution to revealing the work of some of its ingenious craftsmen.

History and Research

The individuals honoured for their contribution to watchmaking history, techniques or more generally time measurement, by way of their writings or museum activities, come from a very wide variety of training backgrounds. Watchmakers, sales personnel or university students, their passion, learning and culture have led them to carry out research, historical studies or other work that has enabled them to contribute to the dissemination of watchmaking culture. This prize is also related to a wish to recognise historians and researchers who have at times worked unseen on the development of knowledge.

Entrepreneurship

What would watchmaking be without the entrepreneurship that has enabled this art to take root and grow over the centuries. It evolved from craftsmanship to industry, with all the implications from production to product distribution. Over the past centuries, ingenious watchmakers have been able to instil this will to promote their works, and it is now only right to recognise and honour the men and women who have now pursued the same goals, ensuring that the quality of their products is recognised here and worldwide, and above all that new research is still constantly undertaken to improve timekeepers.



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PRIZE WINNERS 1993 – 2015

1993

Jean-Claude Nicolet
† Henry Louis Belmont
† André Margot

Craftsmanship – Creation
History – Research
Entrepreneurship

1994

François-Paul Journe
François Mercier
Anton Bally

Craftsmanship – Creation
History – Research
Entrepreneurship

1995

Michel Parmigiani
Ludwig Oechslin
Antoine Simonin

Craftsmanship – Creation
History – Research
Entrepreneurship

1996

Vincent Calabrese
Jean-Luc Mayaud
† Günter Blümlein

Craftsmanship – Creation
History – Research
Entrepreneurship

1997

Richard Daners
† Jean-Claude Sabrier
Jean-Pierre Musy

Craftsmanship – Creation
History – Research
Entrepreneurship

1998

Philippe Dufour
Yves Droz et Joseph Flores
† Luigi Macaluso

Craftsmanship – Creation
History – Research
Entrepreneurship

1999

† Derek Pratt
Estelle Fallet
Gabriel Feuvrier

Craftsmanship – Creation
History – Research
Entrepreneurship

2000

† René Bannwart
† Kathleen Pritschard
† Simone Bédat

Craftsmanship – Creation
History – Research
Entrepreneurship

2001

† George Daniels
Catherine Cardinal
† Rolf Schnyder

Craftsmanship – Creation
History – Research
Entrepreneurship

2003

Anthony G. Randall

Craftsmanship – Creation



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2004

André Beyner

Entrepreneurship

2006

† John H. Leopold

History – Research

† Luigi Pippa

Craftsmanship – Creation

2007

Paul Gerber

Craftsmanship – Creation

2008

† Nicolas G. Hayek

Entrepreneurship

2009

Robert Greubel et Stephen Forsey

Entrepreneurship

Beat Haldimann

Craftsmanship – Creation

2010

Jean-Claude Biver

Entrepreneurship

Jacques Mueller et Elmar Mock

Craftsmanship – Creation

2011

François Junod

Craftsmanship – Creation

Pierre-Yves Donzé

History – Research

Philippe Stern

Entrepreneurship

2012

Eric Coudray

Craftsmanship – Creation

Francesco Garufo

History – Research

Franco Cologni

Entrepreneurship

2013

Andreas Strehler

Craftsmanship – Creation

Günther Oestmann

History – Research

Ernst Thomke

Entrepreneurship

2014

Kari Voutilainen

Craftsmanship – Creation

Pierre Thomann

History – Research

Henri Dubois

Entrepreneurship

2015

Anita Porchet

Craftsmanship – Creation

Jonathan Betts

History – Research

Giulio Papi

Entrepreneurship

