PORTO, PORTUGAL

CONFERENCE PROCEEDINGS

EDITOR Vasco Cardoso

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- Svetoslav Kosev Araceli Liste M^a Dolores Vidal Alamar Roberto V. Giménez Morell Yvan Le Bozec Alec Howe Ülle Marks Marina Falco Inmaculada López Vílchez Erik Roger Carlos Gómez Jimeno Teresa Marasca Ana Seoane Luís Margues Espinheira

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^{DESIGN} Pedro Brochado









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Section I

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PARTNERS

Acknowledgements

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Rectorate of the University of Porto / Santander Universidades
i2ADS - Research Institute in Art, Design and Society
Faculty of Fine Arts of the University of Porto
Drawing Department of the Faculty of Fine Arts of the University of Porto
Junta de Freguesia do Bonfim
SASUP – Social Services of the University of Porto
Soares dos Reis School of Arts and Portuguese Ministry of Education
ISEP – Porto School of Engineering of Polytechnic of Porto
Museum of the ISEP – Porto School of Engineering of Polytechnic of Porto
Brotherhood of Clerics
Alicantina, Restaurant
Babybel
<u> Cruzeiros Douro - Douro Cruises</u>
Funicular of Guindais
Gaia Cable Car
Hotel Tryp Porto Centro (Meliá)
Eurostars Heroísmo
Hotel Vila Galé Porto
Turismo do Porto e Norte de Portugal. E.R.

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Acknowledgements

SCIENTIFIC COMMITTEE ANTÓNIO QUADROS FERREIRA, Emeritus Professor at the University of Porto, Academic Correspondent of the National Academy of Fine Arts and Artist MÁRIO BISMARCK Full Professor at the Faculty of Fine Arts of the University of Porto and Artist JOÃO PEDRO XAVIER Associated Professor at the Faculty of Architecture of the University of Porto and Architect LÚCIA ALMEIDA MATOS Associated Professor at the Faculty of Fine Arts of the University of Porto and Curator VASCO CARDOSO Assistant Professor at the Faculty of Fine Arts of the University of Porto VASCO CARDOSO ORGANIZING COMMITTEE and the Drawing Departement of the Faculty of Fine Arts of the University of Porto FERNANDA XAVIER and the International Office of the Faculty of Fine Arts of the University of Porto ROBERTO CORREIA, MARGARIDA DIAS and i2ADS - Faculty of Fine Arts of the University of Porto PEDRO BROCHADO and i2ADS - Faculty of Fine Arts of the University of Porto JOSÉ MANUEL DA FONSECA CARVALHO, HUGO PINHO, OLÍMPIA COSTA and the Junta de Freguesia do Bonfim LÚCIA ALMEIDA MATOS and the oMuseu of the Faculty of Fine Arts of the University of Porto PATRÍCIA ALMEIDA and the Interdepartmental Technical Service - Video **ISABEL BARROSO** and the Library of the Faculty of Fine Arts of the University of Porto SUSANA AFONSO, CLÁUDIA TOMÁS, ROBERTO ESTEVES and the Soares dos Reis School of Arts

> JOÃO LIMA, JOÃO BAPTISTA and the Interdepartmental Technical Service – Photography

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Acknowledgements

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ALEXANDRA GUIMARÃES
ÁLVARO OLIVEIRA
CATARINA DIAS
CATARINA RIO
DWAYNE HOLT
FILIPA JAQUES
FILIPE CAMPOS
GIL MONTEVERDE
IBRAHIM AL-TAIE
MARGARIDA SILVA
MARIANA CARVALHAIS
MIGUEL TEODORO
RODRIGO MACHADO
RUI MOTA
RUI PEDRO MIRANDA

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Editorial

Vasco Cardoso

The "Geometry at Fine Arts and Design Faculties - European Encounter of Erasmus Partner Faculties" [http://scaffolding.fba. up.pt/],May 7th - 9th, 2018, was produced by the i2ADS - Research Institute in Art, Design and Society, the Faculty of Fine Arts of the University of Porto and the Junta de Freguesia do Bonfim, Porto. It was an international event but involved the whole academic community, as well as the local community, since it convened for its organization a research centre, a faculty and a local government. Furthermore, it opened the Conferences to the general public.

The event came out of a strong will for knowledge about what has been taught, tutored and researched throughout Europe, particularly within the *Erasmus* + territory. It is widely accepted as common good sense that sharing experiences is a means to reflect over our own profiles as well as over our strategies and options. Although we live in the time of the *World Wide Web*, much of the opportunities for multilateral and face-to-face meetings must not be neglected.

The "Geometry at Fine Arts and Design Faculties - European Encounter of Erasmus Partner Faculties" was a fellow academics meeting regarding Geometry, Linear Perspective and Systems of Representation oriented towards Drawing. We challenged colleagues from 70 partner faculties to participate. Overcoming several bureaucratic, among other, constraints related to the call and the acceptance, it was possible to convene 18 partner faculties. Now, we are pleased to have received in Porto 29 fellow academics debating and divulging the Encounter themes. Furthermore, the Encounter was as privileged as it achieved the endorsement of the 3 well renowned Keynote Speakers.

scaffolding.fba.up.pt was a first meeting on Geometry oriented towards Drawing in which the participants partook. Thus, it was a time of discovering and learning with our peers, similarly a time to find personal and academic affinities. The participants could share their experiences and reflect upon them, readjusting their individual path. By the end of the event, they were able to delineate future collaborations.

The Encounter established three essential moments aiming at different ends and different audiences. The first and widest one was assigned to the peers' debates, as it was pointed above. Those discussions were largely and profoundly enriched by the contributions of Lino Cabezas, Navarro de Zuvillaga and Martin Kemp. They were present at all the meetings. The second moment refers to the open conferences, generously addressed to the whole community by our Keynote Speakers. The awareness and knowledge of the themes were widely divulged.

Finally, a cultural programme was held, guided by one very well-trained academic form the Faculty of Arts and Humanities, as well as animated by a folk group during the Encounter Dinner at the Main Hall of Junta de Freguesia do Bonfim.

Appreciatively, it is proper to registrate all the accomplishments successfully reached. Various didactics practices under different pedagogical profiles were debated. The significant cooperative role both held by Geometry and Drawing within the Fine Arts and Design context was clarified and disclosed. And, the Exhibition and the Open Conferences were of utter importance regarding the mentioned objectives.

Now, this Proceedings book fulfils the last of our more direct goal, as it unveils what was achieved by the Encounter. In this book the participants have decided and committed to produce and provide their documents to be assembled as one single object.

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(cont.)

Inside, you can appreciate the participants' presentations at the Encounter, the exhibited students' drawings, the participants' posters about their pedagogical and didactics profiles, and also optional texts, some brief projections of future developments, recommended books aiming at a future common bibliography, and the introduction of new colleagues to be challenged to participate in future events.

And about the future, the participants have decided to pursue five phases of development. Considering the Proceedings as the 1st phase, the list starts from there. So, the 2nd phase is planned to build a common body of themes on Geometry within the Fine Arts and Design Faculties, produced from our reflections on the Proceedings. During the 3rd phase it is expected that we organise workshops to spread and raise knowledge among students and other people interested, after the construction of the common body of themes. The 4th phase will be designated to promote Summer and Winter Schools, promoting debate and knowledge reinforcement among academics, students and interested people, upgrading the workshops. The long-term expectation is to open to other areas of knowledge and to try to submit to European funding for further future developments, and this is the 5th phase.

CONCLUSIONS

If Geometry may have been set aside from Fine Arts Academies in some countries and mostly since the 60s, this Encounter proved that Geometry is still present in several European Fine Art schools, and is also a highly considered subject in others. Assuming the role of technical support, a source for symbolic expression, or the role of conceptual frame, we can sum the role of Geometry in the field of Art as the science that provides one of its most important scaffoldings.

In a time when Art, Science and Technique are establishing different and solid common working platforms, Geometry may very well be reinforced, or even rediscovered, as a privileged knowledge able to affirm reasoning thinking into Art. From the Keynote Speakers' lectures inside this Proceedings Book you will be able to confirm the importance of the mentioned platforms.

Likewise, it will be clear how polyhedral the approaches to the themes are, if we consider the students' drawings exhibited at the Faculty Museum - "Geometry didactics: The Théodore Olivier 19th Century Models for the Arts; The Contemporary Drawings from the Fine Arts" - that are reproduced inside. Alongside the Olivier's string models, drawings from the 18 schools of Fine Arts present at the Encounter were exhibited. It was possible to see 18 different mindsets, 36 different students' drawings regarding Geometry in the Fine Arts and Design context, nowadays.

In concluding this text, it must be publicly acknowledged the enthusiastic and committed work of Pedro Brochado, Graphic and Web Designer, and Patrícia Almeida, Video Director and Editor, to make this Proceedings Book possible.

Thank you!

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Introductions

Vasco Cardoso

Now, it is my honour to announce all the academics associated with the Encounter. In the first place, we are much obliged to our endorsers, our Senior Experts Advisers:

Martin Kemp Lino Cabezas Javier Navarro de Zuvillaga Philippe Comar (*introduced by* Vasco Cardoso)

After them, the group's participants are the following 29 together with the 19 newly introduced:

UNIVERSITY OF PORTO, PORTUGAL Vasco Cardoso and Luís Marques Espinheira, Introducing:

Ciprian Paleolog UNIVERSITATEA NATIONALA DE ARTE, BUCARESTE

COMPLUTENSE UNIVERSITY OF MADRID, SPAIN Miguel Angel Maure Rubio, Introducing:

Carlos Fernández Hoyos COMPLUTENSE UNIVERSITY OF MADRID Jorge Varas Álvarez COMPLUTENSE UNIVERSITY OF MADRID Carmen González Castro ARTIST

TARTU ART COLLEGE, ESTONIA Eve Eesmaa, Introducing:

> Anne Rudanovski TARTU ART COLLEGE Katrin Maask TARTU ART COLLEGE Madis Liplap TARTU ART COLLEGE

AALTO UNIVERSITY, FINLAND Marja Nurminen

SCHOOL OF DESIGN IN MADRID, SPAIN Margarita del Cerro Delgado and Carlos Gómez Jimeno, Introducing:

> M^a del Carmen Gomez Rebollo SCHOOL OF DESIGN IN MADRID

UNIVERSITY OF LJUBLJANA, SLOVENIA Uršula Berlot Pompe

ARTESIS PLANTIJN UNIVERSITY COLLEGE, BELGIUM Kris van 't Hof

ACADEMY OF FINE ARTS IN GDANSK, POLAND Mikołaj Harmoza, Boguslaw Oswiecimski, Marta Branicka, Mateusz Pek and Jarosław Bauc

UNIVERSITY OF VELIKO TARNOVO, BULGARIA Svetoslav Kossev, Introducina:

Hristo Nikolaev Dobarov NATIONAL ACADEMY OF FINE ART, SOFIA Plamen Nikolaev Kondov UNIVERSITY OF VELIKO TARNOVO Alexandra Kirilova Gogova NATIONAL ACADEMY OF FINE ART, SOFIA

UNIVERSITY OF VIGO, SPAIN Araceli Liste Fernández and Ana Seoane

VALENCIA POLYTECHNIC UNIVERSITY, SPAIN María Dolores Vidal Alamar and Roberto Vicente Giménez Morell

EUROPEAN ACADEMY OF ART IN BRITTANY -QUIMPER, FRANCE Yvan Le Bozec

OSLO NATIONAL ACADEMY OF THE ARTS, NORWAY Alec Howe

ESTONIAN ACADEMY OF ARTS, ESTONIA Ülle Marks

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(cont.)

ACADEMY OF FINE ARTS OF BRERA, ITALY Marina Falco Introducing: Mauro Afro Borella ACADEMY OF FINE ARTS OF BRERA Davide Petullà ACADEMY OF FINE ARTS OF BRERA Lucia Amitrani ACADEMY OF FINE ARTS OF BRERA UNIVERSITY OF GRANADA, SPAIN Inmaculada López Vílchez, Introducing: Luz Marina Salas Acosta UNIVERSITY OF SEVILLE Fernando Saez Pradas UNIVERSITY OF SEVILLE José Antonio Soriano Colchero UNIVERSITY OF GRANADA Blanca Machuca Casares UNIVERSITY OF MÁLAGA LUCA SCHOOL OF ARTS. KU LEUVEN ASSOCIATION, BELGIUM Erik Roger ACADEMY OF FINE ARTS OF MACERATA, ITALY Teresa Marasca Introducing: Paolo Gobbi ACADEMY OF FINE ARTS OF MACERATA UNIVERSITY OF PORTO, PORTUGAL Former Professors for Geometry at Fine Arts João Athayde e Mello, Álvaro Meireles and Lucena Sampaio

Section II

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GRAPHIC DISPLAY **Poster #1**

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GRAPHIC DISPLAY **Roll up #2**



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Senior Expert Advisers

PROFESSOR	INSTITUTION	city	country
Javier Navarro de Zuvillaga	Complutense University of Madrid	Madrid	Spain
PROFESSOR	INSTITUTION	city	country
Lino Cabezas Gelabert	Facultad de Bellas Artes de Barcelona	Barcelona	Spain
professor	INSTITUTION	CITY	COUNTRY
Martin Kemp	Trinity College — Oxford University	Oxford	United Kingdom
PROFESSOR	INSTITUTION	city	country
Philippe Comar	École Nationale Supérieure des Beaux-Arts de Paris	Paris	France

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Participants

professor	INSTITUTION	city	COUNTRY
Vasco Cardoso	UNIVERSITY OF PORTO	Porto	Portuga
professor	INSTITUTION	city	country
Miguel Ángel Maure Rubio	COMPLUTENSE UNIVERSITY OF MADRID	Madrid	Spain
professor	INSTITUTION	city	country
Eve Eesmaa	TARTU ART COLLEGE	Tartu	Estonia
professor	INSTITUTION	city	country
Marja Nurminen	AALTO UNIVERSITY	Espoo	Finland
PROFESSOR	INSTITUTION	city	country
Margarita del Cerro Delgado	SCHOOL OF DESIGN IN MADRID	Madrid	Spain
professor	INSTITUTION	сттү	country
Uršula Berlot Pompe	UNIVERSITY OF LJUBLJANA	Ljubljana	Slovenia
professor	INSTITUTION	city	country
Kris Van t off	ARTESIS PLANTIJN UNIVERSITY COLLEGE	Antwerp	Belgium
professor	INSTITUTION	city	country
Mikołaj Harmoza	ACADEMY OF FINE ARTS IN GDANSK	Gdansk	Poland
professor	INSTITUTION	city	country
Boguslaw Oswiecimski	ACADEMY OF FINE ARTS IN GDANSK	Gdansk	Poland
professor	INSTITUTION	city	COUNTRY
Marta Branicka	ACADEMY OF FINE ARTS IN GDANSK	Gdansk	Poland
professor	INSTITUTION	city	country
Mateusz Pek	ACADEMY OF FINE ARTS IN GDANSK	Gdansk	Poland
PROFESSOR	INSTITUTION	city	COUNTRY
Jarosław Bauc	ACADEMY OF FINE ARTS IN GDANSK	Gdansk	Poland
professor	INSTITUTION	city	country
Svetoslav Kosev	UNIVERSITY OF VELIKO TARNOVO	Veliko Turnovo	Bulgari a
PROFESSOR	INSTITUTION	сітү	country
Araceli Liste	UNIVERSITY OF VIGO	Vigo	Spain
PROFESSOR	INSTITUTION	city	country
Mª Dolores Vidal Alamar	VALENCIA POLYTECHNIC UNIVERSITY	Valencia	Spain
PROFESSOR	INSTITUTION	сіту	country
Roberto V. Giménez Morell	VALENCIA POLYTECHNIC UNIVERSITY	Valencia	Spain

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Participants

PROFESSOR	INSTITUTION	CITY	COUNTRY
Yvan Le Bozec	EUROPEAN ACADEMY OF ART IN BRITTANY - QUIMPER	Quimper	France
PROFESSOR	INSTITUTION	CITY	COUNTRY
Alec Howe	OSLO NATIONAL ACADEMY OF THE ARTS	Oslo	Norway
PROFESSOR	INSTITUTION	CITY	COUNTRY
Ülle Marks	ESTONIAN ACADEMY OF ARTS	Tallinn	Estonia
PROFESSOR	INSTITUTION	CITY	COUNTRY
Marina Falco	ACADEMY OF FINE ARTS OF BRERA	Milan	Italy
PROFESSOR	INSTITUTION	CITY	COUNTRY
Inmaculada López Vílchez	UNIVERSITY OF GRANADA	Granada	Spain
PROFESSOR	INSTITUTION	CITY	COUNTRY
Erik Roger	LUCA SCHOOL OF ARTS, KU LEUVEN ASSOCIATION	Brussels / Ghent	Belgium
PROFESSOR	INSTITUTION	CITY	COUNTRY
Carlos Gómez Jimeno	ACADEMY OF FINE ARTS OF MACERATA	Macerata	Italy
PROFESSOR	INSTITUTION	CITY	COUNTRY
Teresa Marasca	SCHOOL OF DESIGN IN MADRID	Madrid	Spain
PROFESSOR	INSTITUTION	CITY	COUNTRY
Ana Seoane	UNIVERSITY OF VIGO	Vigo	Spain
PROFESSOR	INSTITUTION	CITY	COUNTRY
Luís Marques Espinheira	UNIVERSITY OF PORTO	Porto	Portugal

PORTO, PORTUGAL



Welcoming Ceremony

OPENING SPEECH	INSTITUTION	сітү	COUNTRY
Paulo Luís Almeida	Faculty of Fine Arts of the University of Porto	Porto	Portugal
DRAWING DEPARTMENT DIRECTOR			
OPENING SPEECH	INSTITUTION	city	COUNTRY
José Carlos Paiva	Faculty of Fine Arts of the University of Porto	Porto	Portugal
FACULTY DIRECTOR	 見		
PICTURES	LOCATION	DATE	^{тіме}
Welcoming Cerimony	FBAUP Museum/ Junta de Freguesia do Bonfim Main Hall	May 7 th	10h00
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Section III

PORTO, PORTUGAL



GRAPHIC DISPLAY **Poster #3**



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About the Exhibition

SCAFFOLDING DRAWINGS Geometry didactics: The Théodore Olivier XIXth Century Models for the Arts; The Contemporary Drawings from the Fine Arts Near the end of the 18th Century, the opening of the Aula Nautica (1762) and then the Aula de Desenho e Debuxo (1779) came to answer important demands for the teaching of drawing, favouring the Nautical activities, as well as the Arts and the Fine Arts. They aim at the qualification either of the pilots and cartographers or the artists, artisans, and artifices. Drawing was a key element for knowledge.

Following the Liberal Constitution, in 1836, were born the Academia Politécnica and the Academia de Belas Artes inheriting from those others.

The coming of the industrialization brought initiatives for the instruction and knowledge of the youngsters, mainly those of lower incomes which were the majority. For that, first the Associação Industrial Portuense, in 1852, and then, in the same year, the Queen founded the Escola Industrial do Porto. Later in 1864, it will become the Instituto Industrial do Porto, an elementary and secondary school focusing on the industry's future workers.

The School was supported by the ministry of public works sector, and being so, its Director, Gustavo Adolfo Gonçalves de Souza, who happens to be the Head Planner of the Municipality, achieved funds to buy the Théodore Olivier's string models, as well as various other instruments to improve teaching. A few years after, the Director, who was also coordinating many public works in Porto, wrote about the huge boost provided by the help of the models in the Instituto Industrial do Porto students, when working in the mentioned public constructions.

In 1872, the Academia Politécnica, part of the Academia de Belas Artes and the Instituto Industrial do Porto shared the same building under construction and intended to stay in that common house after its conclusion. Although each one pointed to different graduations ends, the schools also share subjects and areas of interest as well as materials, instruments, and students. A clear example of those practices happened in Drawing and Geometry. Following that fact, it is very well admissible to believe in the usefulness of the Théodore Olivier's string models for students from both the Academia de Belas Artes and the Instituto Industrial do Porto.

Currently, higher levels of specialization can lead us to stay apart in terms of knowledge, but also in terms of physical space. The profound and structural wisdom and capability provided by Geometry and Drawing sometimes could tend to be neglected in favour of some rather superficial user-friendly technologies.

Drawing and Geometry always maintained the bonds between the Arts and the "Boas Artes", as Francisco de Holanda called, but also with Science. Promoting this exhibition and presenting our students' drawings we aim at highlighting the central importance of those matters to the Fine Arts and Design teaching. Furthermore, we hope to instate Science and Technology Faculties to be challenged to do the same or to benefit the study of Drawing and Geometry.

PORTO, PORTUGAL



Exhibition Video



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^{STUDENTS} Miguel Teodoro Mariana Carvalhais	DRAWING -A	PROFESSOR Vasco Cardoso Luís Marques Espinheira
	DRAWING -B	INSTITUTION University of Porto, Portugal
D	đ	
STUDENTS Michele del Campo Elena Carro Concepción	DRAWING -A	PROFESSOR Miguel Angel Maure Rubio
	đ	
	DRAWING -B	INSTITUTION Complutense University of Madrid Spain
D	đ	
students Katrin Maask Vitaly Makurin	DRAWING -A	PROFESSOR Eve Eesmaa
	đ	
	DRAWING -B	INSTITUTION Tartu Art College, Estonia
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PORTO, PORTUGAL

(3/6)

^{STUDENTS} Alicja Okrój Kateryna Podpova Elena Vertikova Kataryna M.	DRAWING -A	PROFESSOR Mikołaj Harmoza Boguslaw Oswiecimski Marta Branicka Mateusz Pek Jarosław Bauc
	DRAWING -B	INSTITUTION Academy of Fine Arts in Gdansk, Poland
	đ	
student Plamen Kondov	DRAWING -A	PROFESSOR Svetoslav Kossev
	đ	
	DRAWING -B	INSTITUTION University of Veliko
	đ	Taniovo, burgaria
STUDENTS Cristina Rodríguez Chiarroni Pobarto Conzólez Alves	DRAWING -A	PROFESSOR Araceli Liste Fernández Ana Senana
	đ	
	DRAWING -B	INSTITUTION University of Vigo, Spain
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PORTO, PORTUGAL

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^{STUDENTS} Concepción Rojas Almudena Goñi Ramos	DRAWING -A	PROFESSOR María Dolores Vidal Alamar Roberto Vicente Giménez Morell
	DRAWING -B	INSTITUTION Valencia Polytechnic University, Spain
	同	
STUDENTS Agust Gydemo Stine Bergo	DRAWING -A	PROFESSOR Alec Howe
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	DRAWING -B	INSTITUTION Oslo National Academy of The Arts. Norway
	đ	,
student Kevin Laus	DRAWING -A	PROFESSOR Ülle Marks
	đ	
	DRAWING -B	INSTITUTION Estonian Academy of Arts, Estonia
B	đ	

PORTO, PORTUGAL

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^{STUDENTS} Lucia Amitrani Federico Montesano	DRAWING -A	PROFESSOR Marina Falco
Đ	DRAWING -B	INSTITUTION Academy of Fine Arts of Brera, Italy
^{STUDENTS} Pablo García José Antonio Soriano	DRAWING -A	professor Inmaculada López Vílchez
	DRAWING -B	INSTITUTION University of Granada, Spain
STUDENT Laure-Anne Dumortier	DRAWING -A	PROFESSOR Erik Roger
D	drawing -в	INSTITUTION Luca School of Arts, Ku Leuven Association, Belgium

PORTO, PORTUGAL



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Section IV

PORTO, PORTUGAL

Poster

INSTITUTION		сттү	COUNTRY
UNIVERSITY OF PORTO		Porto	Portugal
INSTITUTION	RID	city	country
COMPLUTENSE UNIVERSITY OF MAD		Madrid	Spain
INSTITUTION		сітү	country
TARTU ART COLLEGE		Tartu	Estonia
INSTITUTION		city	country
AALTO UNIVERSITY		Espoo	Finland
INSTITUTION		city	country
SCHOOL OF DESIGN IN MADRID		Madrid	Spain
INSTITUTION		city	country
UNIVERSITY OF LJUBLJANA		Ljubljana	Slovenia

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INSTITUTION	JLGARIA	сітү	COUNTRY
UNIVERSITY OF VELIKO TARNOVO, BU		Veliko Tarnovo	Bulgaria
INSTITUTION		city	country
UNIVERSITY OF VIGO		Vigo	Spain
INSTITUTION	Y	city	country
VALENCIA POLYTECHNIC UNIVERSIT		Valencia	Spain
INSTITUTION	TS	city	country
OSLO NATIONAL ACADEMY OF THE AR		Oslo	Norway
D			
INSTITUTION		city	country
ACADEMY OF FINE ARTS OF BRERA		Milan	Italy
INSTITUTION		city	country
UNIVERSITY OF GRANADA		Granada	Spain
D	A		

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Poster

(3/3)

INSTITUTION LUCA SCHOOL OF ARTS, KU LEUVEN ASSOCIATION	CITY Brussels Ghent	country Belgium
INSTITUTION ACADEMY OF FINE ARTS OF MACERATA	сіту Macerata	country Italy

Section V

PORTO, PORTUGAL

Communication

INSTITUTION		city	COUNTRY
UNIVERSITY OF PORTO		Porto	Portugal
INSTITUTION	RID	city	country
COMPLUTENSE UNIVERSITY OF MAD		Madrid	Spain
INSTITUTION		city	country
TARTU ART COLLEGE		Tartu	Estonia
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INSTITUTION		city	country
AALTO UNIVERSITY		Espoo	Finland
	PDF		
INSTITUTION		city	country
SCHOOL OF DESIGN IN MADRID		Madrid	Spain
INSTITUTION		city	country
UNIVERSITY OF LJUBLJANA		Ljubljana	Slovenia
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PORTO, PORTUGAL

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INSTITUTION	CITY	country
ARTESIS PLANTIJN UNIVERSITY COLLEGE	Antwerp	Belgium
INSTITUTION	city	COUNTRY
UNIVERSITY OF VELIKO TARNOVO	Veliko Turnovo	Bulgaria
INSTITUTION	city	country
UNIVERSITY OF VIGO	Vigo	Spain
INSTITUTION	city	country
VALENCIA POLYTECHNIC UNIVERSITY	Valencia	Spain
INSTITUTION	city	country
EUROPEAN ACADEMY OF ART IN BRITTANY - QUIMPER	Quimper	France
INSTITUTION	city	country
OSLO NATIONAL ACADEMY OF THE ARTS	Oslo	Norway

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PORTO, PORTUGAL

Communication

INSTITUTION ACADEMY OF FINE ARTS OF BRERA		city Milan	country Italy
INSTITUTION UNIVERSITY OF GRANADA		сітү Granada	country Spain
INSTITUTION LUCA SCHOOL OF ARTS, KU LEUVEN A	SSOCIATION	CITY Brussels Ghent	COUNTRY Belgium
	निव		
INSTITUTION ACADEMY OF FINE ARTS OF MACERAT	A	сітү Macerata	country Italy
	PDF		

scaffolding.fba.up.pt



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Section VI

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Lino Cabezas Mirrors & Perspective Junta de Freguesia do Bonfim, Main Hall 7th May 2018, 18h30 2405. FCT HILLS BORTO Summaria isep understen and understand and an and a constant and constant and constant and

GRAPHIC DISPLAY **Poster #4**

VIDEO Conference

DIRECTOR AND EDITOR Patrícia Almeida / FBAUP

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PORTO, PORTUGAL



Javier Navarro de Zuvillaga Towards simplicity in teaching Soares dos Reis School of Arts Auditorium 8th May 2018, 18h30 ISED FUNCTIONER CONSISTENCE CONSIS

GRAPHIC DISPLAY **Poster #5**

VIDEO Conference

DIRECTOR AND EDITOR Patrícia Almeida / FBAUP

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PORTO, PORTUGAL



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GEOMETRY AT FINE ARTS AND DESIGN FACULTIES European Encounter of Erasmus Partner Faculties
Martin Kemp
Regular and Irregular Geometries in Science and Art
from Leonardo to Now
Faculty of Fine Arts, University of Porto Main Auditorium
9 th May 2018, 18h30

GRAPHIC DISPLAY **Poster #6**

VIDEO Conference

director and editor Patrícia Almeida / FBAUP

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Section VII

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Reflections...

ON FUTURE DEVELOPMENTS

PROFESSOR Miguel Angel Maure Rubio COMPLUTENSE UNIVERSITY OF MADRID, SPAIN	We expose in this congress "Geometry at Fine Arts and Design Faculties", the programs, work methods and first results obtained, of a teaching imparted with solid common foundations, but applied in several different way, in the different Faculties and Schools of Fine Arts and Design. This richness in the results between the different Faculties and Schools of the different countries, may seem excessively wide, judging by the exposed presentations. However, we have met to defend the teaching of geometry in the mentioned studies, because we understand that this remains a common denominator, regardless of where the degrees in Fine Arts or Design are taken.	Once again, we must point out how geometry develops intuition and student reasoning, so necessary to think correctly; how it manages to increase attention, the capacity for abstraction and spatial vision and how that abstract thought develops creative thinking. The Geometry underlies in the past, but also in the present and future of the new artistic manifestations linked to the unstoppable technology; In addition, it has always been behind any design process and today, thanks to digital tools, it extends its borders with the representation and handling of new curves and surfaces and Computational Geometry.
TARTU ART COLLEGE, ESTONIA	 different uses of geometry in different arts or creations 	photographs of local interesting objects, architectural details, and other related "find" angles, through the professional eye
	 the participants' individual creations 	of a guest participant
	in their teaching	• the use of geometry in various artistic creations - historical or contemporary -
	 creative practical workshops, (paper folding, origami, good tips and interesting 	some interesting artist from a participating
	tasks for teaching, based on the practical	internationally to a larger audience.
	experience of the participants, which they want to share with others	
PROFESSOR	IDEAS SOBRE UN FUTURO DE LA "GEOMETRÍA:	que se comunica con los demás intervinientes
Margarita del Cerro Delgado, Carlos Gómez Jimeno	SISTEMAS DE REPRESENTACION".	en este comunicar de pensamiento y emociones, concretándose en ideas
SCHOOL OF DESIGN IN	Si entendemos la "Geometría : Sistemas de	
MADRID, SPAIN	Representación " como la base (andamiaje)	(primero es la palabra versus geometría que
	v deja notoria su insustituible utilidad en	emoción que termina concretándose en una
	la transmisión, tanto de ideas como de los	actitud versus idea)
	proyectos para su desarrollo - en definitiva para bacerlos reales con su fabricación	En este lenguaie - la geometría plana - tiene
	y/o construcción - estamos hablando del	sus orígenes en el antiguo Egipto, donde
	pensamiento del diseñador y el lenguaje por el	los geómetras eran matemáticos, filósofos,

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Reflections...

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alquimistas, en definitiva, grandes curiosos del mundo que les rodeaba, y que su objetivo fundamental era relacionar conceptos lógicos (logos) y deducir a partir de ellos, para volver a empezar con estructuras más complejas.

Los sistemas de Representación surgen como medio de expresión y de comunicación de las ideas en cualquier momento de su desarrollo, concretando visualmente la representación en el sistema y la escala más adecuados al propósito de ese transmitir. Su último fin será la creación y fabricación de un producto/objeto/ espacio.

Por tanto, para que este comunicar ideas se produzca, es necesario que la comunicación sea objetiva, de interpretación unívoca y capaz de permitir un dialogo fluido entre proyectista, diseñador y usuario. Para ello se establecen un conjunto de convencionalismos y normas que caracterizan el lenguaje específico del dibujo técnico y por tanto de los sistemas de representación espacial, que le dan su carácter objetivo, fiable y universal.

Adquirir soltura, destrezas en el dibujo a la vez que visión espacial, (tanto conceptual, como práctica), en definitiva, recursos para transmitir de manera objetiva, fiable y universal, la idea de un proyecto es la finalidad de la asignatura.

Todo proceso creativo conlleva una serie de pasos, que según se adquiera experiencia estos se amontonan y por tanto interviene de forma fluida e inconsciente ya que lo habremos integrado. Estos pasos son:

DATO: sugerencia, pensamiento-idea, a partir de la cual tiene como utilidad el propio análisis con rigor, lo que le dota de significados concretos. Un conjunto de datos son entonces el mínimo contenido de un tema, y este se transforma en información.

INFORMACIÓN: otorga significado o sentido a la realidad, ya que se origina un modelo de pensamiento humano, o lo que es lo mismo, de conocimiento inicial.

CONOCIMIENTO: es integrado a través de la experiencia, con ella llegamos al entendimiento y por tanto al conocimiento más complejo.

SABIDURÍA: varias acepciones de la etimología de esta palabra que pueden sorprender:

• Originalmente significó tener sabor, saborear, y también saber y tener sensatez, sentido común para juzgar las cosas (nuevamente el logos).

• La persona sabia no tiene que tener directamente los conocimientos por explorar, sino que tiene que ver (tener la capacidad) con el poder de interiorización, silencio y observación que le conducen en sí mismos a conocimientos nuevos, más "lejanos".

• Facultad que se desarrolla al aplicar la inteligencia en la propia experiencia De este modo se sacan conclusiones que facilitan la reflexión y otorgan un mayor entendimiento frente a lo que se vive, permitiendo discernir lo bueno, la verdad, etc.

Podemos decir entonces que el conocimiento es un conjunto de información almacenada que mediante la introspección de los datos y mediante la experiencia, llegamos al aprendizaje. Este conocimiento que vamos "saboreando" (siendo conscientes a través de la experiencia) es el que termina haciendo sabiduría.

PROPUESTA

En definitiva, mi propuesta para sucesivos congresos sería el estudio y debate de cómo podemos hacer a nuestros alumnos más sabios, y cuáles serían esos conocimientos mínimos que nosotros, como profesores, deberíamos aportarles para su consecución, sin olvidar que

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Reflections...

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en el momento actual todo pasa (para muchos alumnos -empieza-) con el uso de los varios programas de ordenador.

Desde mi punto de vista me interesa más un congreso de auténticos geómetras, no los del "más o menos". Esto lo argumento desde la experiencia de lo complicado que resulta en los momentos actuales dotar al alumno, por ejemplo, de una buena base de los sistemas de representación - del conocimiento de la proyectación-, que, aunque los datos se reducen al mínimo, le siguen pareciendo excesivos, en esa cultura del "más o menos".

No pretendo enjuiciar, pero si quiero conocer la opinión de auténticos expertos que interpretan correctamente los datos para obtener información veraz y universal, a partir de la cual, con el conocimiento aportado de esa exposición de su experiencia docente y sus recursos de aula, contaríamos con su sabiduría para poner en común entre todos cuáles pueden ser esos datos y conocimientos básicos que el alumno actual debe manejar para obtener el conocimiento que le permita hacer sabios proyectos.

Entre todos podrían salir cuestiones interesantes, que no tiene que ver con la programación, sino más bien de programar conjuntamente un camino por el que transitar en este lenguaje tan preciso y lógico (LOGOS).

PROFESSOR Kris van 't Hof ARTESIS PLANTIJN UNIVERSITY COLLEGE, BELGIUM The encounter resulted in my decision to change our study programme for the students in our first level Bachelors of the In Situ³/Fine Arts.

It made me realise how much the knowledge of perspective had declined amongst current students and that all the lessons emphasising perspective have disappeared over the years.

Due to the introduction of computers into the syllabus, the time we spend on perspectival drawings has been diminished, therefore the student's insight has become lost. This has also clearly affected the understanding of the figure as a 3-dimentional object.

Photography has liberated drawing from its purely documentary purposes, but it has also misguided students concerning their insight about perspective. Many graphic computer programmes require an insight into perspective, but students underestimate its value.

At the event I liked the introduction of the encounter, setting up the exhibition with our representative's drawings and posters, it was an innovative start, but I regretted that we never went back to the exhibition for more reflection on it. We had the material there and we could have used it more effectively.

Due to my lack of the Spanish language I wasn't able to understand some of the talks of the keynote speakers. Would it be possible to have some translation in future? Your Dean set a good example during his opening speech of the exhibition by providing a projected text.

This gathering has started a path and has set a trend, we must develop more. Upon my return and thanks to the initiative of Marja Nurminen (Aalto University, Espoo, Finland) and Erik Roger (LUCA Brussels) who visited me with their students; we had a lesson in my class where our students could experience my specific approach to figure drawing exercises.

Meeting, seeing results and talking with colleagues about geometry in drawing was enlightening. Thank you!

I would like to invite whoever who want to set up a drawing class in Ponte da Mucela, Portugal, with me. We have accommodation for 20 people and studio space.

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Reflections...

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PROFESSOR Svetoslav Kossev UNIVERSITY OF VELIKO TARNOVO, BULGARIA	The event Geometry at Fine Arts and Design Faculties was one of the most reasonable things sponsored by the program Erasmus + where I participated this academic year.	must continue because that kind of knowledge, related with Geometry at Fine Arts, is so specific and phenomenal, and it must be protected.
	The organization was extraordinary and well balanced between working program, places for visiting and meetings. There were special things as dance program at the dinner which were very impressive, where we were involved to join in. I am truly confident that meetings like this	Greetings to my colleague Vasco Cardoso for the initiative to organize this encounter. I hope it was only the first step from many others into the future. One of my big desires is to develop this specific part of the art and science and I would support this cause together with the other colleagues, participants of the encounter.
PROFESSOR María Dolores Vidal Alamar, Roberto Vicente Giménez Morell VALENCIA POLYTECHNIC UNIVERSITY, SPAIN	El encuentro nos ha puesto en contacto con profesores de otros centros y países lo que ha supuesto una aportación y una amplitud de miras de la geometría, los sistemas de representación y las formas de ver en el ámbito de las Bellas Artes. Creemos más interesante que la exposición de dibujos de alumnos tenga lugar en el mismo edificio que donde se llevan a cabo las conferencias y debates de los asistentes. Así como, que el alumnado	pudiera estar asistiendo a los diferentes encuentros. De cara al futuro proponemos que haya algunas proyecciones de videos sobre la disciplina y sobre los trabajos de los alumnos y cómo éstos trabajan en los talleres. Ampliar y definir los campos en los que interviene la geometría en cada materia de las Bellas Artes, especialmente en el campo de la comunicación audiovisual, que tanto cautiva a nuestros alumnos.
PROFESSOR Alec Howe OSLO NATIONAL ACADEMY OF THE ARTS, NORWAY	The encounter at Porto provided a seldom and very welcome opportunity to meet and exchange information around the teaching of geometry in Art/Design higher education. The presentations showed a broad area, some maybe at the edge of the main theme. Both the presentations and ensuing discussions were valuable in questioning, clarifying and putting one's own practice in perspective. This was particularly valuable as tutors often work alone in their respective institutions. The following is a range of points based on a summary of the encounter and questions	Geometry exists as an element in study programmes, normally in the first year, with limited time, normally taught by artists/ designers. • Which role, relevance, degree of integration has geometry – in general? /- in specific programmes? • What/ why is the choice of area within geometry? • What is the relation between theory (lectures, literature) concept and practice?
	relevant to my own practice. I hope that some of this can also provide relevant themes for further encounters. Also included is the three titles for the bibliography.	How does this relate to historical / contemporary developments in the field?
	1. Geometry in Art and Design courses	 which tools and technologies are employed?

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Reflections...

2. Geometry in changing society

Geometry acquires differing meanings in a changing multicultural society. Geometry is also integral to new technologies and systems.

• In which ways does the content of study programmes reflect these changes?

3. Geometry - use and application in programmes

Geometry has a wide range of applications within art/design programmes, e.g.: Principles of ordering and arranging - two and three-dimensional form, proportion, harmony, repetition, rhythm, structure, vernacular Method: As concrete starting point of enquiry, questioning, experimenting, analysis and synthesis, abstraction Materials and tools Communication systems, measuring

• How is geometry used/ applied within the respective art/ design programmes?

4. Geometry and students' learning

Geometry consists of degrees of theory, concept and practice. There can be a challenge for students to immediately understand abstract concepts in teaching modules as well as to transfer and employ geometrical (abstract) principles in individual practical work.

• Which emphasis is placed on motoric, methodological and conceptual aspects in course deliveries? • How do students further develop their learning in subsequent courses?

5. Geometry - related areas

Geometry is closely related to areas such as perception and biology as references (Martin Kemp's lecture.

• Are other sources and references used in other courses? - Which?

6. Geometry - embracing and challenging, as a way of questioning

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Sense	Non-sense
Planned	Random
Choice	Chance
Order	Chaos
Harmony	Disharmony
Purpose	Shit happens
Uniformity	Diversity
Modular	Individual

Every day we meet the above, as complementaries not as opposites, rather in degrees than in polarization. As practitioners, both in creative and systematic developmental processes as well as in a final result, decisions are made regarding the degree of order, function / purpose and open-ended interpretation.

 How do we facilitate and embrace this across our learning programmes - also in the area of geometry?

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Reflections...

PROFESSOR Marina Falco ACADEMY OF FINE ARTS OF BRERA, ITALY The reflections arising from the discussions shared during the European Encounter in Porto, revealed how complex and articulated the world of Geometry is. The lectures given by Keynote Speakers have especially shown how the language of Geometry expressed itself.

The differences stressed in ways, methods (exp. Cabezas), rules plus methods (exp. Navarro), natural and artistic phenomena (Kemp), lead to important considerations and underlined the great importance of Geometry during the centuries.

The various experiences proposed by colleagues coming from different countries have underlined the universality and versatility of Geometry as a true language in Art.

After such a rich and meaningful experience, in order to improve our debate, we could underline our personal idea of method and language of Geometry in Art, developing and creating further opportunities for discussion.

These opportunities could be:

1) Meetings, lectures, lessons exchanged by the participants in the meeting (to spread or to stress our personal idea of Geometry - these opportunities/ activities could be supported by Erasmus Training) 2) Thesis research carried out with the collaboration of our students. The thesis could deepen topics closely related to Geometry in Art.

3) To achieve in different places art works, exhibitions, videos related to the topic and documented by digital catalogues.

4) Get the opportunity to involve other colleagues or students of our School, it could be great to start a collaboration inside the same Institute or to develop a sort of partnership between different Art Schools.

This production could be documented in a digital way as to be easier to file material for future discussions and analysis, to be presented at future Encounters.

Last but not the least all these published documents could be for all those interested people a wonderful opportunity for new interventions, in order to share didactic experiences and knowledge. It would be an extraordinary experience for the entire community of Fine Arts teachers.

Thank you so much for your contribution.

PROFESSOR

Inmaculada López Vílchez UNIVERSITY OF GRANADA, SPAIN Creemos que la docencia actual de contenidos relacionados con la Geometría y los Sistemas de representación en las Facultades de Bellas Artes requiere una revisión. La estructura de los actuales Planes de estudios valora marginalmente la aportación de las materias vinculadas a estos conocimientos por considerarlos en muchas ocasiones prescindibles para la práctica artística o profesional contemporánea.

Hoy en día, la dedicación temporal a estas materias es reducida, en ocasiones se encuentra aislada del currículo formativo global y, además, la incorporación masiva de la tecnología digital afecta estructuralmente a su actualización.

Sin embargo, estos aspectos no deberían impedir la preservación de las bases conceptuales del Dibujo y tampoco permitir olvidar cómo y de qué manera se ha enseñado y organizado la materia en su larga tradición. Nuestros estudiantes se han formado en la cultura digital con preeminencia de la imagen y encuentran mayores dificultades técnicas (dado un escaso aprendizaje) y otras de carácter conceptual, para aprender a racionalizar y

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Reflections...

codificar el espacio representado.

Mi propuesta para tratar en un futuro encuentro sería trabajar de manera más concreta en los temas y contenidos que ayuden a reorientar la materia para que el alumno conozca las bases de los sistemas de representación desde la práctica (puede realizarse este proceso a través de tareas que impliquen distintas fases de trabajo: ideación, previsión, proyectación, formalización e incluso producción), tomando como objetivo transversal la adquisición de destrezas (recuperando en gran medida el dibujo a mano alzada) y favoreciendo el pensamiento racional antes que el aprendizaje de rutinas. En segunda instancia, una vez asimilados los conceptos básicos de la disciplina, la tecnología digital debe incorporarse como medio de trabajo, pero no como fin en sí misma.

PROFESSOR Erik Roger LUCA SCHOOL OF ARTS, KU LEUVEN ASSOCIATION, BELGIUM

JOY AS A SCAFFOLDING FOR DRAWING

Young people who choose for an education in Interior Design at Luca School of Arts often have no affinity with mathematics. That is why in the drawing classes, the emphasis is more on the pleasure of drawing than on geometry.

If students experience pleasure in drawing and in seeing the result of their drawing activity, they will draw more. If students do not enjoy drawing, they will stop

drawing when they are no longer obliged to.

Of course, there are other underlying structures that provide guidance to a draftsman:

• The gesture, which is fundamentally connected to the human body: because the body moves, and that movement is continued to the drawing tool that makes contact with the surface, that gesture leaves traces on that surface.

• The imagination that encourages to draw and the drawing that communicates to the outside world what takes place in the head of the draftsman.

• The observation, in which the artist examines the subject to be drawn and

compares the drawing with the drawn subject.

• ...

Does this mean that geometry, and more specifically perspective, is missing in the drawing classes at Luca? Not at all. It is indeed important that students become familiar with these basic principles in order to truthfully translate the three-dimensional world into the two dimensions of a sheet of paper. However, by embedding this rather mathematical side of drawing in an approach that starts from pleasure and fosters this pleasure from a multitude of perspectives, the student will incorporate this technical side of drawing in a natural way. Geometry is, as it were, hidden behind all other approaches.

Because the students acquire the principles of geometry unconsciously, it will be hard for them to resist. And, because the resistance is lacking, the principles will be better remembered.

Moreover, once the students get an assignment that explicitly zooms in on the geometrical rules, they will most often enjoy it, because it is so different from the assignments they usually get.

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Reflections...

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PROFESSOR **Teresa Marasca**

ACADEMY OF FINE ARTS OF MACERATA, ITALY Drawing combines doing with knowledge, that is, it plays a cognitive role, as well as an expressive one.

Drawing ... means thinking. Thinking while drawing ... means thinking in terms of images, shapes, spatial relationships, and similarities. Drawing therefore has a historical - cultural aesthetic dimension.

It shows us the world, things and their mutual relationships in a totally unique way; it shows us what otherwise would remain invisible. Seeing produces knowledge: the elaboration of concepts begins with the perception of forms. Drawing achieves a perfect syncretism of seeing - doing - knowing: learning to draw, acquiring how to draw a sign involves the acquisition of another ability, being able to see what - of a certain thing – one intends to draw.

For this reason, I believe that geometry is inherent in the drawing because when we draw we measure, we evaluate the distances between objects and space, we measure with our eyes

the length, the width and the height of what we are about to begin to draw, to represent with pencils, graphite, charcoal, pens, digital pens, computer... Geometry in Fine Arts Faculties and Academies is a language and a knowledge becoming more intimate and intuitive. The scientific study done in primary and secondary schools, through a new guidance to observation, a continuous and derivative practice of eyeeducation to observe, analyze, measure, choose and describe now becomes, in the careful visual reading, a construction of images freely drawn, responding to that creative process, precisely linked to the representation of shapes, figures and space itself. Such images fully respond to the visual and perceptual function, inevitably, the graphic description of the shapes, the figures and the space becomes intuition in geometric and perspective form. Creativity depends on the ability to perceive new solutions to old problems, to create new combinations based on existing elements or ideas or to see things in a completely new way.

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Common Bibliography

PORTO

VASCO CARDOSO, UNIVERSITY OF PORTO, PORTUGAL LUÍS MARQUES ESPINHEIRA, UNIVERSITY OF PORTO, PORTUGAL

- KEMP, Martin (1990), The science of art : optical themes in Western art from Brunelleschi to Seurat. New Haven, Yale University Press.
- CABEZAS, Lino G., UHLER, Luis F. O. de (2001), Análisis gráfico y representación geométrica. Barcelona, Editions Universitat de Barcelona.
- ZUVILLAGA, J. Navarro de (2008), Forma y representación; un análisis geométrico. Madrid, Ediciones Akal.
- COMAR, Philippe (1992), La perspective en jeu: les dessous de l'image. Paris, Gallimard.

MADRID (COMPLUTENSE) MIGUEL ANGEL MAURE RUBIO, COMPLUTENSE UNIVERSITY OF MADRID, SPAIN

- BONET MINGUET, Enrique (1985), Perspectiva cónica. Valencia, Autor-Editor. 4ª Ed
- IZQUIERDO ASENSI, F (2008), Geometría descriptiva. Madrid, Dossat. 26ª Ed.

VILLANUEVA BARTRINA, Lluis (1996), Perspectiva lineal. Su relación con la fotografía. Barcelona, Gustavo Gili

TARTU EVE EESMAA, TARTU ART COLLEGE, ESTONIA

RAUNAM, Oskar (1961), Joonistamise ja maalimise õpik. Tallinn, Eesti NSV Kunst. LI, Nikolai Gennadjevitsh (2005), Osnovõ utshebnogo akademitsheskogo risunka. Moskva, Eksmo.

RÜNK, Ott (1970), Joonestamise ja joonistamise põhikursus. Tallinn, Valgus.

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SPAIN

GUERRA, Álvaro de Sandoval, (2015), Dibujo Técnico 1, Bachillerato. Santander, Sandoval.

GUERRA, Álvaro de Sandoval, (2015), Dibujo Técnico 2, Bachillerato. Santander, Sandoval.

CHING, Francis D. Y., STEVEN P. Juroszek, (2012), Dibujo y Proyecto. Barcelona, G.G. 2.ª Ed.

JACKSON, Paul, (2013), Técnicas de plegado para Diseñadores y Arquitectos. Barcelona, Promopress.

HEMENWAY, Priya (2005), Divine Proportion: Phi In Art, Nature, and Science. New York, Sterling.

VELIKO TARNOVO SVETOSLAV KOSSEV, UNIVERSITY OF VELIKO TARNOVO, BULGARIA

CHUHOVSKY, P. (1968), Constructive Perspective. Sofia, Publishing Science and Art.

RAYCHEV, R. (1995), Structural combinatorics geometry. Sofia,

Publishing Terziev and sons, Edem-21.

DANOV, T. (1977), Composition and drawing methods in the architectural perspective. Sofia, Publishing Technics.

VALENCIA

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GIMÉNEZ MORELL, R.V., VIDAL ALAMAR, M.A. (2007), Perspectiva artística. València, Editorial de la Universitat Politècnica de València.

AA. VV. (2015), El dibujo como forma de conocimiento. Valéncia, Editorial Sendemá.

CHELSEA, David (1977), Perspective for comic book artist. New York, Watson-Guptill Publications.

YVAN LE BOZEC, EUROPEAN ACADEMY OF ART IN BRITTANY - QUIMPER, FRANCE

- DERRIDA, Jacques (1991), Memoires D'aveugle - L'autoportrait et autres ruines. Paris, Réunion des musées nationaux.
- DAMISH, Hubert, (1995), Traité du Trait. Paris, Réunion des musées nationaux.
- COMAR, Philippe (2008), Figures du Corps – Une leçon d'anatomie à l'Ecole des Beaux-Arts. Paris, Beaux-arts de Paris, les éditions.

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Common Bibliography

ALEC HOWE, OSLO NATIONAL ACADEMY OF THE ARTS, NORWAY

- CRITCHLOW, K. (1976), Islamic Patterns. Rochester, Vermont, Inner Traditions.
- CRITCHLOW, K. (1969), Order in Space. London, Thames and Hudson.
- HAMBIDGE, J. (1967), The elements of dynamic symmetry. New York, Dover Publications.

BRERA

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- BAMMES, Gottfried (2017), The complete guide to Anatomy for artists and illustrators. Kent, Search Press
- LOLLI, Alberto, ZOCCHETTA,Mauro, PERETTI, Enzo (2017), Struttura uomo in movimento. Vicenza, Colla editore.
- ZARINS, Uldis, KONDRATS, Sandis, HANLEY, Monika (2014) Anatomy for sculptors, understanding the Human Figure. Seattle, Exonicus, Inc.

GRANADA INMACULADA LÓPEZ VÍLCHEZ, UNIVERSITY OF GRANADA, SPAIN

- CABEZAS, L. (coord.) (2011), Dibujo y construcción de la realidad. Arquitectura, proyecto, diseño, ingeniería, dibujo técnico. Madrid, Ed. Cátedra.
- GÓMEZ MOLINA, J. J. (1995), Las lecciones del dibujo. Madrid, Ed. Cátedra.
- LÓPEZ VÍLCHEZ, I. (coord.) (2012), Perspectiva. Entre el arte y la ciencia. Sevilla, Ed. Quaderna.

BRUSSELLS ERIK ROGER, LUCA SCHOOL OF ARTS, KU LEUVEN ASSOCIATION, BELGIUM

- NICOLAIDES, Kimon (1941), The natural way to draw: A Working Plan for Art Study. Boston, Houghton Mifflin Company.
- EDWARDS, Betty (1979), Drawing on the right side of the brain: A course in enhancing creativity and artistic confidence. Los Angeles, New York, J. P. Tarcher.
- EDWARDS, Betty (1986), Drawing on the artist within A guide to innovation, invention, imagination, and creativity. New York: Simon and Schuster.

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