

ArtFutures

Working with Contradictions

in Higher Arts Education

Maria Aiolova

Dylan Brown

Ron Burnett

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Hugh Ward-Perkins

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Contents

- 2 *Foreword*
Kieran Corcoran and Carla Delfos
- 6 *Arts and Education in a Time of Digital Mutation*
Frédéric Martel
- 14 *When Science and Art Meet*
Peter Weibel
- 22 *Animation and its Future as a Medium*
Dylan Brown and Ron Burnett
- 28 *'Beaux-Bau' and Beyond*
On Chinese Modern Art/Architecture Education
Jiang Jun
- 42 *At Least We Now Hear Them Talking*
Art and the animal other in the era of neoliberal dogma
Terike Haapoja
- 52 *Trading Places*
Mike van Graan
- 60 *The Field of Urbaneering*
Maria Aiolova
- 68 *Art Schools, Learning and Modernity*
A Visual Essay
Douglas Coupland
- 74 *ArtFutures*
Voices
Yoko Ono
Hito Steyerl
Shady El Noshokaty
Jin Xing
- 84 *How Would a Game Solve It?*
Evert Hoogendoorn and Willem-Jan Renger
- 92 *Sound Art, Inter-disciplinary Involvement and Community Spaces*
From SACS to IICS
Mantautas Krukauskas and Hugh Ward-Perkins
- 100 *The Future of the Cultural and Creative Industries will be Designed by its Actors*
Christoph Weckerle and Simon Grand
- 110 *Afterword*
Hedy d'Ancona

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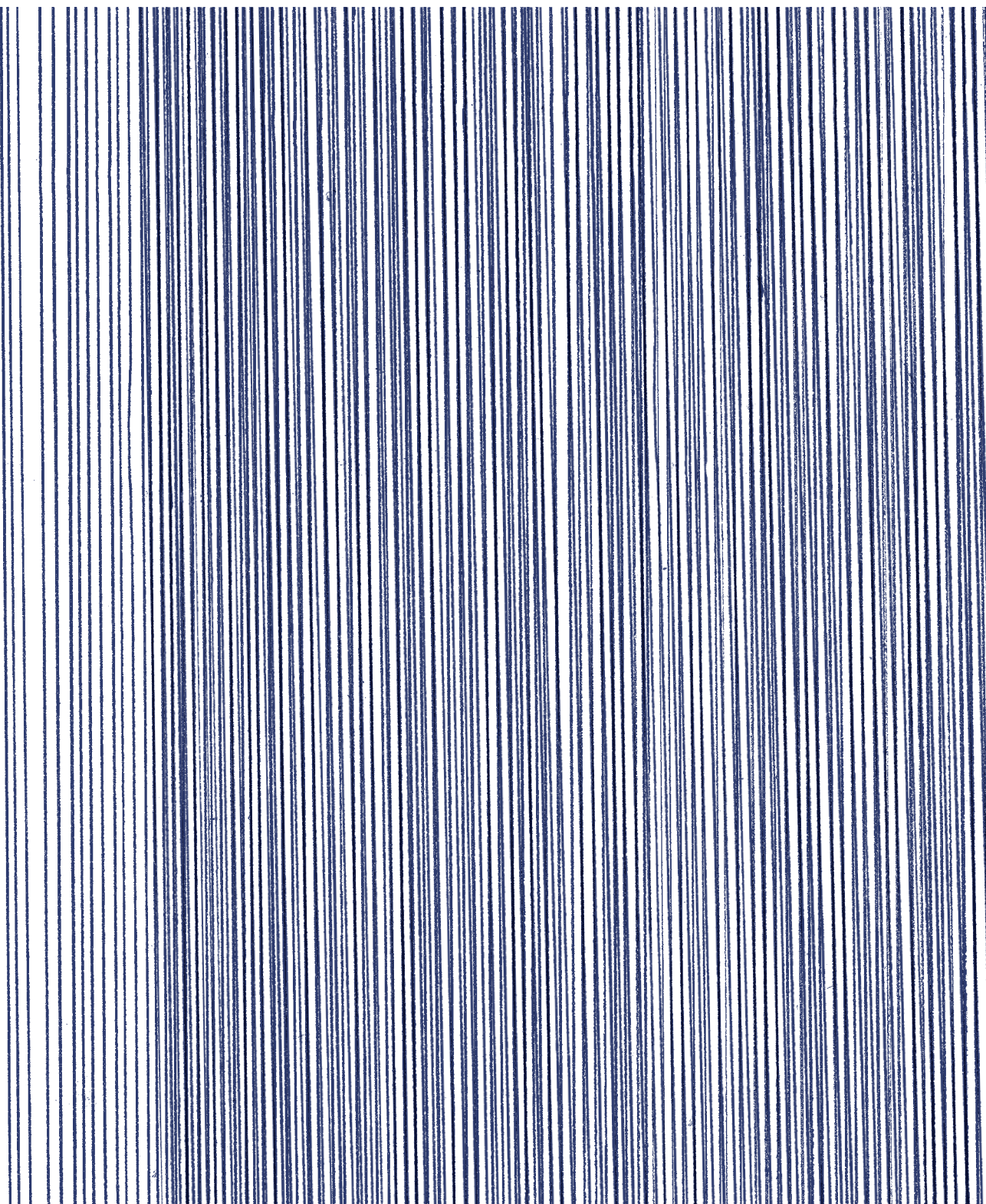
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Kieran Corcoran and Carla Delfos

Foreword



In 2011, the European League of Institutes of the Arts (ELIA) was awarded an Operating Grant through the Cultural Programme of the European Commission. This grant supported the ongoing activities of ELIA for three years and allowed the development of a range of new initiatives. This book features a selection of papers – some commissioned, some presented at ELIA conferences – which have been made possible by the European Commission’s grant. These papers focus on a field in transformation, illustrating the many ways in which art schools interact with society and showing how art schools are engaged in preparing the ground for new artists, helping them to face the challenges of the 21st century.

The main ELIA activities supported by the grant are biennial conferences, teachers’ academies, leadership symposiums, the exchange of knowledge, expertise and information about current issues in higher arts education and a general programme of advocacy around the arts at a European level. The ELIA Biennial Conference, which draws around 500 participants from all over Europe and beyond, is the largest global forum for the specific discussion of higher arts education. The 2012 conference – entitled *Art, Science and Society: Art Questions/Art Knows/Art Matters* – was held in Vienna. It focused on such broad issues as: how the creative arts contribute to the experience of life in parity with science and philosophy, what the distinct features of the arts are as a domain of knowledge and how the arts can make a substantial contribution to the economy and social change.

The ELIA Leadership Symposium draws leaders in higher arts education together for an intensive two-day workshop. Its fifth incarnation, *WIHERE: Contesting Knowledge in the 21st Century*, was hosted in Vancouver in 2011 and the ensuing discussion continued at its successor, *E/MERGE*, held in Helsinki in 2013. Both events focused on developments that are likely to have an impact on the future of education and considered the shape of the 21st century art school and the relationship between creative arts education and new trends in a global society. The emergence of new economies and cultural hegemonies, the effect of what the French call ‘métissage’, today’s new cultural paradigm, the interweaving of influences, the merging of ideas and meanings were analysed and discussed in relation to European higher arts education. As a corollary to this, the ELIA Teachers’ Academy – which was held in Porto in 2012 and Utrecht/Amsterdam in 2013 – provides a peer-reviewed platform from which ELIA members can exchange new ideas and methods in creative arts pedagogy.

ArtFutures: Working with Contradictions in Higher Arts Education highlights the most exciting viewpoints from these events, providing a unique overview of the pressing issues facing arts education. In a decade of unprecedented change within the field of knowledge creation, one of the key themes addressed is how to prepare education for a rapidly changing world. In her paper, ‘The Field of Urbanneering’, Maria Aiolova describes a design practice that explicitly focuses on the complex problems of future urbanity, which might be solved by a new group of urbanneers, combining versatile skills from different professions and working on such diverse projects as parametric design and the creation of construction panels from mushrooms. Terike Haapoja continues explorations in this direction, by asking

who has the right to make art in society and proposing a radical reinvention of the relationship between humans and the rest of the animal kingdom.

Frédéric Martel considers a number of hypotheses about the relationship of culture and education to globalisation and digitisation. Conceiving the latter two phenomena as two sides of the same coin, he debunks the fear that they represent a threat to culture, on the basis that content (one of the primary functions of art education) can only be created locally. In the process, he reworks a well-worn adage to propose that technology is global, content is local. Mike van Graan pursues this theme by rejecting the one-size-fits-all model of the cultural and creative industries in relation to economic growth, asserting that, in an African context, such a generalised system entails that 'the poor – previously excluded on the basis of race – are once again excluded on the basis of poverty'. In response, he advocates a more inclusive approach, based on local experience of informal arts education and the reality of working in an informal economy.

In their paper, 'The Future of the Cultural and Creative Industries will be Designed by its Actors', Christoph Weckerle and Simon Holt advise that plotting the future of the cultural ecosystem – which is usually dominated by discussion of the big three: globalisation, digitisation and particularisation – can only succeed if it takes close account of the models, strategies and practices of key individual actors in the sector. This theme is taken up again, in a discussion between Dylan Brown and Ron Burnett which explores the importance of achieving the correct mix between content, narrative and technology in animated film production.

In considering 'When Science and Art Meet', Peter Weibel posits that the technological revolution has created a new set of conditions that will allow art and science to reconnect, thus restoring a synergy first propounded by Leonardo da Vinci. In the process, Weibel isolates Renaissance 2.0, a new scientification of art, which flows from apparatus/media art to go beyond reception and the representation of the natural world and 'pursues the same objective' as science. In 'How Would a Game Solve It?', Evert Hoogendoorn and Willem-Jan Renger harness new technology, particularly game design, to advance an emergent pedagogy that incites students to take ownership of the learning process. Mantautas Krukauskas and Hugh Ward-Perkins propose further innovations within teaching through their work, which evinces an inter-disciplinary, pan-European approach to music education.

The activities and events that were made possible through the European Commission's Operating Grant between 2011 and 2013 are a clear vindication of the ambitious programme being planned and orchestrated by ELIA. Since then, ELIA has continued to develop its strategic direction and strengthen its function as a membership organisation by establishing global partnerships while further supplementing its wider network and knowledge-exchange activities.

In addition to the activities facilitated by the Operating Grant, ELIA was actively involved in a consideration of artistic research education, and, in 2013, published a major report on behalf of SHARE, an international network working to enhance

the 'third cycle' of arts research and education in Europe. *The Handbook for Artistic Research Education* is a detailed study covering such areas as organisational strategies and platforms for artistic research education and the question of quality and evaluation.

Following hot on the heels of the SHARE publication, *ArtFutures: Working with Contradictions in Higher Arts Education* provides a snapshot of an engaged field of enquiry and demonstrates the advantages of supporting a network organisation like ELIA. It is our conviction that bringing together a wide range of organisations and experts from many countries and promoting active democratic citizenship through the creative arts will remain key components in helping to build the cultural identity of Europe.

On behalf of the editorial board,
Kieran Corcoran, ELIA President
Carla Delfos, ELIA Executive Director

Frédéric Martel

Arts and Education in a Time of Digital Mutation

Frédéric Martel, a senior researcher and journalist, has a PhD in Sociology and four Masters degrees in law, political science, philosophy and sociology. He has been a visiting scholar at Harvard and teaches at Sciences Po Paris. He is the author of eight books, including **On Culture in America** (2006) and the best-seller, **Mainstream** (2010), which was translated in 20 countries. As a journalist, Martel is the anchor of the weekly radio programme, **Soft Power**, on French National Public Radio (France Culture/Radio France) in addition to acting as the editor of the book review site, *nonfiction.fr*. Martel is also a senior researcher at the Institute of International Relations (IRIS) in Paris.

Text adapted from Frédéric Martel's keynote presentation to the **6th ELIA Leadership Symposium – E/MERGE** hosted by the University of the Arts Helsinki, 27–29 November 2013.

I am going to share with you some hypotheses about culture and education – the arts and academic life – in relation to globalisation and digitisation. I shall begin with a quick example, with which people from the US might be familiar. For four years I lived in Boston, particularly at Harvard University, and on the Harvard campus there is a library – the Widener Library – that is the second largest in the world in terms of number of books. There are three museums – the Fogg Museum, the Arthur M. Sackler Museum and the Busch-Reisinger Museum – and all three are extremely influential in the US. There is also the Harvard film archive, which is a kind of national centre for films, especially art films. There is the American Repertory Theatre, which is the key school for theatre; the Harvard University Press, which is a publisher; five orchestras, 12 choirs, two jazz bands, 19 dance groups, 16 theatre companies, between them staging 450 concerts and 70 plays on campus every year. When I lived there, a young kid was trying to create a new social network; his name was Mark Zuckerberg, and it became Facebook.

I present this brief picture because, when you are European – perhaps especially French – and you live in the US on a campus like Harvard – and it would be the same at Yale, Illinois University, the University of Texas, Berkeley, UCLA, and so on – you are really surprised by the fact that the arts are not at the edge of the university campus but at its core. In the US, the arts are very key things for universities, and I would say that one of the main reasons why the cultural system is so influential in the US is because of these universities.

This has a lot of consequences. The first is the quantity of art activities in the US that are linked to universities. I mentioned Harvard, but I could have said that, within the 4,200 higher education colleges and universities in the US, there are 700 museums, 300 radio stations, 350 rock/jazz facilities, 120 publishers, 3,500 libraries and 2,300 performing arts centres. So, if you look at the US system – and I'm not going to focus only on this – art life and academic life are closely linked. This means that the university is a key place to look if we want to understand the workings of soft power and the influence of the US around the world in the arts sector but also in several other sectors. Soft power refers to going out and being an influence in the world with something that is not only military and economic; it could be culture, it could be higher education, it could be the internet, it could also be values. I think that the US model shows us how important it is to have a vibrant arts life, in order to have soft power abroad.

The second consequence is that the US example shows us how we need to think of the arts as something that is not only regulated and funded by the market. Of course, the US is a very powerful system for the commercial arts; Broadway, Hollywood, the music industry and the book industry are essentially market orientated. But, before a piece of art becomes famous, before it has built a lucrative market, research and development, training, experimentation and risk-taking are needed. In the US, a large part of this training is organised within the university system, which is a not-for-profit business. If you take the 1,400 largest research universities, 75 percent of them are public universities and the remaining 25 percent are what we call non-profit universities. They are known by the US fiscal code 501C3, which

means that they are not private – in the sense of being commercially orientated – they are non-profit, which means that the arts – even in the US, the most commercially orientated system – are part of the non-profit sector, at least in the aspects of training, experimentation, research and development.

The third consequence of the linkage between the arts and universities is the influence of the diploma, one of which is the Masters of Fine Arts (MFA). In France, nobody is particularly familiar with the MFA. Twenty years ago, nobody knew what the Masters of Business Administration (MBA) was, but now MBAs are everywhere and they are central to the dissemination of soft power because the MBA dictates the curriculum, the language, the way teaching is organised, and so on. So, in the business sector, in France (and I guess this is true everywhere), the MBA has become the rule. All higher education orientated towards business is linked to the MBA, and I predict that the same thing will happen with the MFA becoming the key diploma and curriculum in the arts world. If we are not prepared for that – if we don't see how the US, with the MFA, is able to regulate the arts world – we might miss an important development.

The fourth consequence of this synergy concerns international influence. I wrote several books and did my PhD about the US, but I'm known not to be especially supportive of the US on many issues – the economy, the death penalty, gay issues, gender issues and sometimes race and social security issues. Having said that, when you look at the university system, it works pretty well, and I think that one of the reasons for the influence of the US abroad is linked to this academic system, and it's going to be even more the case in the future. This is not only by virtue of the MFA but also of what we call MOOCs, which are the massive online courses that are still in the process of being tested. There are three or four systems, including Coursera, edX. By the way, edX is non-profit, being developed by Harvard and MIT, amongst others. The other main system, Coursera is for-profit and linked to Stanford University. So, the significance of this – the MFA and MOOCs, alongside the simple fact that universities are all so very art-orientated – is that the US is likely to confirm its leadership in academic life and the arts around the world.

At the same time, I see some problems. In mid-November of 2013 I was in Silicon Valley, at Stanford University – the symbol of Californian university life – and I was surprised by the fact that two sizeable academic disciplines are gradually disappearing. The first is the humanities. Stanford is well known as an engineering university, and a very scientific one, but it used to have a very strong history department; it also had a very important languages department; but, little by little, students have stopped taking classes in these subjects. So, there are still numerous, well-paid professors, but they don't have students because the students don't want to study the humanities. The second example is the arts. They have very beautiful and impressive arts facilities at Stanford, like everywhere else in the US, but the students are not making use of them. The university created a building in which everything merges. So, if you are scientific, you go there and you also have economists, business-minded people, people studying languages, artists, all coming together in this building, creating new ways of thinking and new tools. The arts might be

present within this building, but otherwise one has a feeling that the arts are not very central to this engineering and science campus.

Having considered the example of the US, I would like to go a bit further. Even though I said that education is increasingly following the US model, I believe that education will be global in the future. And this is actually the power of the US because it can go abroad, in a local language or local culture – so, for example, MOOCs can be in any language – while the tools and system are likely to be American, like the iTunes University, Apple, Google and so on.

So, there are two ways of looking at globalisation in education and the arts. On the one hand, it won't be as globalised as we imagine, even taking account of the internet. On the other hand, the tools might be more global than we think. There are a lot of consequences to these developments, and I would say that the people who will play an important role in this future will be more numerous than today. In a very key way, globalisation is also a regionalisation, paving the way for the emergence of new powers, which might not necessarily be European. The fact that new countries are emerging means that the US won't be alone in its global dominance.

The term 'emerging' relates not only to economy and demography, which are the two key factors for emerging countries – demography referring to a very large amount of young people and a much richer population – but also to culture, education and values. When I was researching my book, *Mainstream*, I travelled to 40 countries, and, for my next book on digitalisation, which will be published in April 2014, I visited 50 countries over two years. So, I travel a lot and I always try to consider new developments in a qualitative way because statistics on culture, education and the internet do not necessarily tell us very much. On the culture of education, on universities and the arts, many examples can be drawn from new groups in China, Dubai, Brazil, for example. This kind of cultural emergence is also visible in countries such as Mexico, Colombia, Chile, Turkey, Burma, Vietnam, Egypt, Iran – because, even though Iran has political difficulties, and this is also true of Egypt, it has the demography, economy and will to become a powerful country. So, it's not just four or five countries; it's closer to 20 countries, all of which are going to be key players in culture, education and the arts in the future.

The other consequence of what I was saying about globalisation, digitalisation and education is the fact that the definition of the arts is changing. For Europeans, arts is written with a capital 'A'. The French are particularly good at this because we believe we are the only ones to have a Ministry of Culture with a big 'C', and we believe that only the US market is in front of us and it is regulated by the private sector. Of course, this is total nonsense because we are not the only ones to have a ministry of culture, and countries without such ministries can be very influential in the arts, with very robust cultural policy and as much public money for the arts as we have, per capita, derived from tax deductions and indirect subsidies rather than the state.

For those of us in Europe, the arts basically refers to the little guy in the avant-garde film house – he's very poor, of course, but he will be famous later (in centuries). Nobody really understands what the films are about, but art means quality; it means excellence; it means elitism; it means nothing very popular, but at least it is art and it will be important for a long time and in many places. This definition is closely linked to the Frankfurt School of Adorno and Benjamin – by the way, I am a big fan of Benjamin, so this is not a criticism of him – also to Horkheimer and even to people like Hannah Arendt, who weren't part of the Frankfurt School but were able to speak about the difference between the arts and entertainment.

I would say that the main job of a teacher in France – a professor, journalist or any kind of person that assesses the quality of the art – is to make clear that there are the arts and there is entertainment and the two do not mix. There is a big difference between them, and our job is to protect this border or frontier. In his famous letters from the 1940s, Adorno tried to explain why jazz couldn't be music – because music had to be white, European, etc. He ended up with this crazy theory which meant that jazz was radio. Of course, today everybody knows that jazz is music and it's maybe even the classical music of the 20th century in the US, but still, the idea that was prevalent in the 1940s was that music should be something very high quality, European, White, and so on.

Nowadays, nobody – except maybe the French – really thinks like this. The arts are generally taken to include video games, mangas and internet start-ups, publicity, mobility culture, global media and TV series. The hierarchy between art and entertainment no longer makes any sense. They put Spiderman on the cover of *Les Cahiers du Cinema*, which is the most elite publication in France around the film industry, and they said this is art now. I know I am French and it's not very normal for the French to speak like this – even today, you can read in some newspapers exactly the contrary of what I am saying – but I don't believe that this hierarchy is valid today, and, whenever you go to Mumbai and Dubai, to Mexico and even to places like New Orleans or Atlanta, nobody thinks in terms of this hierarchy.

Another development is that industry – the commercial part of art – is also changing a lot. At the time of Adorno, the culture industry mainly consisted of big studios, and everybody was working all year long, around the clock, with the same contract for Metro-Goldwyn-Mayer, Columbia or another studio. Today, if you look at the way the film industry is organised, you have big studios, which are basically banks, and they work with hundreds of small companies, and quite often there are specific corporations that are independent. So the big works with the independent and the independent works with the big, without knowing a real difference between them, and they all need each other. At the end of every big blockbuster, we see hundreds of small companies that were part of the production. It's exactly the same in the book industry, with what we call the imprint, it's exactly the same in the music industry with the label, and you also get this in video games, with video game companies consistently working with small studios that are able to create the big blockbusters. So, the frontier between independent and mass culture is totally blurred, and the enemy that is the big studio – which was supposed to

be what culture was fighting against – is now totally independent while supposedly independent companies work closely with them.

We live in a world in which products in the arts are disappearing and being replaced by streams, services, formats and applications (including smart phones). So the content – the art product – is no longer a product; increasingly, it is a service, a subscription format, an application. It is critical to recognise that cultural diversity is a key part of this evolution. Not cultural diversity as it is defined at UNESCO, which is implemented by governments, but cultural diversity as ways in which national cultures interact with minority cultures. So, typically, the French, along with China and Canada, are leading advocates of cultural diversity in the world but actually none of these countries care about their own minorities. This is well known with China, but it's the same with Aboriginals in Canada and it's true with the so-called Arabs in France, who make up between ten and 15 percent of the population but the art system doesn't care about them. At the same time, countries like the US (or sometimes the UK) are seen not to be strong on cultural diversity but care is shown for the people that are part of these countries because, in the US, there are 50 million Latinos and 40 million Blacks and 15 million Asians, which makes culture very diverse at home even though cultural diversity is not necessarily supported by the US abroad.

By way of conclusion, I would like to briefly consider the implications of the internet for the art world and academic life. I already mentioned MOOCs. These open up a world of opportunities and challenges, because the internet and new technology can be simultaneously good and bad. What has been very surprising for me – especially on art campuses and universities and art departments – is how, in Dubai, in Mumbai, in Rio de Janeiro, in Johannesburg, young artists or entrepreneurs or the youthful directors of business-orientated corporations speak about optimism; they are very open and offensive about the future of art on the internet; they are opening their eyes, opening their arms and saying, 'we are in the process of inventing, creating, the culture of the future'. By contrast, in France I met with one of the most influential people in the film industry, who is close to 85 years old, and he was on the defensive against the internet and his only goal was to protect the culture of the past. In all the emerging countries, you will see that people are embracing the arts and education on the internet, thinking that we have to invent the culture of the future, whereas, in Europe and sometimes even in the US, people are trying to protect the culture of the past and not thinking of the future.

For me, the internet is a global phenomenon, with global tools and technologies, but the content is, and will continue to be, very localised, territorialised. When I say territorialised, it's not because I'm thinking of borders – there is no such border on the internet, and no police to control the border (except maybe in China), but there are frontiers, and, in English, the difference between a border and frontier is extremely important. A frontier is something purely theoretical; it could refer to history and culture; it could also refer to being part of a community – because you are Black or you are a woman or you speak this language or you are Breton or you are gay or lesbian or whatever – and the internet is a world with a very clear

frontier and you don't, in fact, communicate with everybody. The internet is not at all global in its content; you have the NUMA-NUMA video – millions of people can see this video – or maybe the new Lady Gaga video or a speech by Barack Obama, but this is a small little part of what I used to call the mainstream; it's just a very small part of a shared culture in which the arts, culture, content and education are still very national and regional.

But while content is not global, the tools and the technologies are. If we want to protect content and keep the internet world very linked to the life of the people, we need to have some rules, some regulations, some taxes on technologies, especially for the big players in this game, like Apple, Google, Facebook, Twitter and a few others. And, when I say this, it's not because I am some kind of leftist Frenchman; in the 1930s and '40s, Roosevelt said that capitalism was good but it should be regulated, and big agencies – like the FCC, the FTC, the NTIA, the Department of Justice and especially the anti-trust division of this department – have become influential at regulating the culture industry. So, as Europeans, as Latinos, as Asian people, we also have to do that, not against the US but in the same direction as the US.

There is a very big movement in Europe that is afraid of the internet and globalisation. Certain intellectuals think that culture is in trouble – that languages are in jeopardy, that we might lose our identity – they are afraid of the new world that is emerging – with technological globalisation, academic life, MOOCs and so on – and they think that the world has to be closed. I think exactly the opposite. I think we have to see the digitalisation and globalisation of the world as a natural phenomenon that is not inherently good or bad. Education and the arts are not in danger because of globalisation and digitalisation – which are two faces of the same phenomenon – they depend on what you and me and we together will be able to do with them.

Peter Weibel

When Science and Art Meet

Peter Weibel follows his artistic aims using a wide variety of materials, methods and media, including text, sculpture, installation, film and video.

In the mid 1980s, he explored the possibilities of computer-aided video processing. In the early 1990s, he created interactive, computer-based installations, again addressing the relationship between media and the construction of reality.

In his books, lectures and articles, Weibel comments on contemporary art, media history and theory, film, video art and philosophy. As a theoretician and curator, he advocates a form of art and art history that includes a history of technology and a history of science. In his function as a Professor at the University of Applied Arts Vienna and Director of institutions such as Ars Electronica, The Institute for New Media and the ZKM | Center for Art and Media Karlsruhe, he influences the European scene of media art through conferences, exhibitions and publications.

Peter Weibel was a keynote speaker of the **12th ELIA Biennial Conference – ART, SCIENCE AND SOCIETY: Art Questions, Art Knows, Art Matters** hosted by the University of Applied Arts Vienna at the MuseumsQuartier Wien, 8–10 November 2012.

John Cima translated this text from German.

Classical art

Classical art imitates nature – *Ars imitatrix naturae*, mimesis – and constitutes the visual reproduction and replication of the natural world as seen by the human eye. Classical art, therefore, represents a repetition of our elemental perception of the world around us. This is illustrated by the legend of the competition between Zeuxis and Parrhasius: ‘In the contest with Parrhasius, Zeuxis painted grapes which were so true to nature that birds flew down to peck at them. In response, Parrhasius presented his rival with a painting which was apparently hidden behind a linen curtain. In his impatience to see the concealed picture, Zeuxis requested that the curtain be lifted so that he could look at the image, only to discover that the curtain was itself a painting. Parrhasius was thus the winner’.¹ Accordingly, the best painter was the one whose visual depiction of the world was so perfect that it could deceive not only birds but also humans.

The artistic and scientific knowledge systems

The status of art in ancient and medieval times was unlike that of today. From one epoch to another, the knowledge pictured in so-called ‘knowledge trees’ was subject to shifting systematisation and hierarchical structures. For example, as is generally known, the Greeks differentiated between two forms of knowledge, ‘episteme’ and ‘techne’. Originally, techne referred to the knowledge of craftsmen, or practical expertise. Plato placed an emphasis on theoretical knowledge, or episteme, as that succeeding techne, while Aristotle drew a clear line between techne and episteme, defining the former as practical skills and expertise (agriculture, architecture, painting, music, sculpture) and the latter as scientific knowledge (grammar, dialectics, rhetoric, arithmetic, geometry, astronomy). The Romans then built on these distinctions and categorised them. The previous forms of episteme were collated as the ‘artes liberales’ [liberal arts] and classified as intellectual activities (grammar, dialectics, rhetoric, arithmetic, geometry, astronomy). For the Romans, the study of these artes liberales (which, from a current perspective, we would call science) formed the content of higher education that was not directed

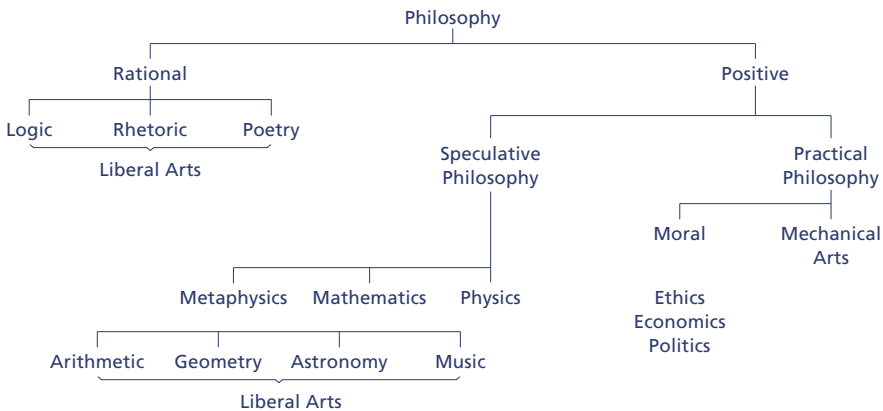


Figure 1 Girolamo Savonarola, *Tree of Knowledge*, circa 1492.

¹ Pliny, *Natural History* XXXV, p. 64.

towards gainful employment and thus befitted freemen. Therefore, one can refer to 'free art' for free citizens. Painting and sculpture continued to be regarded as *techne* and were labelled 'artes mechanicae' [mechanical arts] because they involved manual work and skills. Accordingly, the mechanical arts of painting and sculpture were confined to the domain of captive hired labourers and slaves. This division into the sciences and the arts was then integrated into the scholastic system and survived until the Middle Ages. In 1492, the famed rebel Dominican from Florence, Girolamo Savonarola, issued his pamphlet, *Opus de Divisione, Ordine et Utilitate Omnium: Scientiarum necnon poesis ratione*. He had studied the works of Aristotle and Thomas Aquinas, and had already published *De Ruina Mundi* [On the Downfall of the World] in 1472 and *De Ruina Ecclesiae* [On the Downfall of the Church] in 1475. In his 1492 pamphlet, Savonarola drew up his *Tree of Knowledge*, which had philosophy at its crown and the artes mechanicae at its base (Figure 1). In 1498, he was publicly hanged and burned on the very square where he had made a bonfire of books and works of art that, in his opinion, were immoral.

The contest of the arts

A contemporary of Savonarola, named Leonardo da Vinci, was one of the many painters who began to enquire why, if poetry was considered part of the free arts, painting was not. Therefore, around 1490 Da Vinci wrote a manuscript, entitled *Trattato della Pittura* [A Treatise on Painting]. This represented a rigorous attempt to define painting as a science and thus facilitate its status among the artes liberales. His chosen method was to compare painting with other art forms such as sculpture, poetry and music. He thus made an important contribution to Renaissance discourse on rivalry between the arts, known as 'paragone' [comparison]. This comparative exercise was not aimed at the devaluation of other art forms but rather at an upgrading of painting in order that it would finally gain acceptance into the canon of artes liberales. With Da Vinci, the Renaissance accepted the challenge of solving the underlying conflict between the various forms of knowledge and practice that had been brewing since antiquity. For painting to have any chance of joining the sciences of arithmetic, geometry, logic, grammar, etc., Da Vinci's initial task was to pose the question as to whether or not painting was actually a science. Logically enough, he could only answer in the affirmative. Above all, systematic comparison with the other arts served the positioning and legitimation of painting as a science. As in all scientific argument, Da Vinci attempted to make the case for painting through reason and experience, and, in this, he followed the ideas of the English Franciscan and philosopher, Roger Bacon. In *Opus Majus* [Greater Work] of 1266 (a work Da Vinci may well have known), Bacon wrote that 'there are two modes of acquiring knowledge, namely, by reasoning and experience'.² Science requires geometric and mathematical demonstration, and Da Vinci begins his treatise by considering points, lines and planes to be the elements of painting, for which Euclid's *Elements of Geometry* (300 B.C.) served as a model. This prescribed that 'Il principio della scienza della pittura è il punto, il secondo è la linea, il terzo è la superficie, il quarto è il corpo, che si veste di tal superficie. E questo è in quanto a quello che si finge, cioè esso corpo, che si finge, perché invero la pittura non si estende piú oltre che la superficie, per la quale si finge il corpo figura di qualunque

² Roger Bacon, *Opus Majus* (1266); trans. Robert Belle Burke as *The Opus Majus of Roger Bacon* (Philadelphia, 1928), Part 6, Chap. 1.

cosa evidente'.³ [The first principle of the science of painting is the point, the second is the line, the third is the surface, the fourth is the body, which dresses itself of such a surface. And this one, being the body, is what it pretends to be; because in reality painting does not exist anymore outside of the surface; therefore the body pretends to be the surface of any evident thing.] In articulating the representation of forms as points, lines and planes, Da Vinci departed from classical art's aim of visually representing the world of perceptible objects.

The end of Da Vinci's programme

The path of art from ancient to modern stretched from the representational – the visual depiction of things – to 1) abstraction, i.e. the portrayal of the means of representation (e.g. Kazimir Malevich) and 2) the portrayal of objects, or reality (e.g. Marcel Duchamp with the 'readymade'). From the standpoint of classical art, this path can be seen as a process of self-dissolution, or a caesura. This is because everything that classical art had discovered and developed with regard to knowledge, technology, innovation, craftsmanship and means of representation – from local colour to perspective – in order to depict the things of the visual world – from trees to skin and clouds to waves – in the most naturalistic and authentic way possible, was cast aside and destroyed by modern art. Modern art annihilated the classical, owing to the fact that it no longer concerned itself with the representation of reality, instead taking portrayal of the means as its subject matter.

Modern painters analysed the means of painting exactly as Da Vinci did. For, when he writes: 'The science of painting begins with the point, secondly with the line, thirdly with the plane and fourthly the body', he precisely outlines the programme of the Bauhaus, from Kandinsky to Klee and from Malevich to Mondrian, the latter of whom, incidentally, only implemented the first half of Da Vinci's programme in his painting. Similarly, Kandinsky's *Point and Line to Plane: Contribution to the Analysis of the Pictorial Elements* (1926) sounds like a replication of Da Vinci. However, these modern painters only went as far as drawing attention to the means of representation but did not employ them to depict the world.

In 1939, Alexander Rodchenko resolutely declared the end of painting-as-representation with reference to his earlier work of three monochrome pictures from 1921: 'I have brought painting to its logical conclusion and am putting three paintings on display: a red one, a blue one and a yellow one, with the following assertion: all has been done. These are the primary colours. Every surface is a surface and nothing further is to be represented. Each surface is spread to the edges with one single colour'.⁴ The painters themselves thus announced the end of painting.

Even more radical than abstraction was the progressive substitution of representation by reality. Contemporary art employs real artificial light instead of painted natural light, real fire instead of painted fire, real musical instruments rather than painted ones, real bodies and performance instead of painted portraits, real land in place of painted landscape, real movement as seen in the form of kinetic art, real wind

³ Leonardo da Vinci, *Trattato della Pittura* (ca. 1490), Part 2, p. 41.

⁴ Hubertus Gassner, *Alexander Rodtschenko: Konstruktion 1920 oder die Kunst, das Leben zu organisieren* (Frankfurt, 1984), p. 36.

and water, etc. as declared works of art. One consequence of the introduction of real objects into art is the involvement of the actual body of both the artist and the viewer. In the 1960s, public participation became part of artworks – e.g. Nam June Paik's *Participation TV* (1963) or Peter Weibel's *Publikum als Exponat* [Public as Exhibit] (1969) – and the public was thus transformed into an artist or a work of art.

Apparatus art

Since 1840 and the discovery of photography, a third line of development has formed – namely media art, which simulates and constructs reality. In media art, the integration of the viewer takes place with the help of apparatus, machines and mechanics. In fact, for 2,000 years, the term 'mechanics' has been falsely connoted. 'Amechania' was the spirit of helplessness, and the A in Greek is a form of negation. Mechanics is the opposite of Amechania/helplessness, and it is the tool with which we humans can liberate ourselves from it. Media art represents an aid with which people can escape from the prison of nature. The mechanical arts are, therefore, a technical means of pushing back the boundaries of natural perception within which painting remains. Science has always commenced at the point where natural perception stops. Through media art, which also uses artistic devices and transcends natural perception, art approaches science.

Da Vinci undertook dissections in order to comprehend how the body functioned anatomically. However, he only had one type of scalpel at his disposal. Therefore, he carried out anatomical experiments and, with his scalpel, transcended natural perception. However, owing to the fact that we now have technology such as the microscope, computer tomography, etc., we are able to see a world that was previously hidden. We can observe things such as cells, molecules and atoms that are invisible to the naked eye. The limit of what is visible no longer falls at the frontier of human perception. Using devices and media, we can see further and deeper. Media artists have recognised the fact that they can develop Da Vinci's programme by visualising things that are only visible with the help of equipment, and realising that representation need not stop with natural perception. Apparatus art, media art, mechanical art and its tools (X-rays, ultrasound, etc.) are, to a certain extent, 'soft scalpels' that penetrate surfaces without physical dissection. The problem of the art knowledge system is that it has not included apparatus-derived, scientific images that go beyond the natural. Let us take the example of the photogram. Why does one see images from Man Ray in art books, but not those from Robert Koch, who was already producing microscopic photograms in 1877 (Figure 2), 50 years earlier? This is based on the fact that – to echo Niklas Luhmann – the artistic knowledge system is incapable of connecting with other knowledge systems.⁵ Art operates a process of selection which precludes linkage with the selection of other systems. Alone, apparatus art, media art, is capable of connecting with science because it pursues the same objective.

⁵ See Niklas Luhmann, *Soziale Systeme: Grundriss einer allgemeinen Theorie* (Frankfurt, 1987).

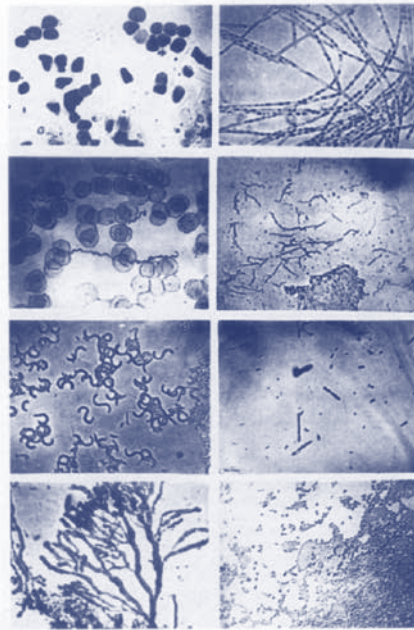


Figure 2 Original photograph from Robert Koch. In *Beiträge zur Biologie der Pflanzen Volume II* (Breslau, 1877) plates XIV, XV u. XVI. From Loeffler 1887 (appendix).

Fig. 1 (top left) Live anthrax bacteria, 700-enlargement.

Fig. 2 (top right) Anthrax trichobacteria (filamentation). Sporiferous, 700-enlargement.

Fig. 3 Blood of a recurrent patient with spirochaetaemia. Coloured with aniline brown, preserved in glycerine, 700-enlargement.

Fig. 4 Spirochaetaemia of the dental mucus. Photographed in a dry, uncoloured condition 500-enlargement.

Fig. 5 Spirillum undula with flagella, 500-enlargement.

Fig. 6 Bacillus with flagella, 700-enlargement.

Fig. 7 Zoogloea ramigera, 200-enlargement.

Fig. 8 Rows of micrococci, forming a thin skin on water, 500-enlargement.

Conclusion: Renaissance 2.0

In his Kahn lectures, Frank Lloyd Wright tabulated the equation for the modern with the formula: 'Machinery, Materials and Men' (1931). Apart from machinery, we now have the media and the data that they disseminate. With this in mind, the new formula reads: 'People, Media, Data'. The media consist of the means of production, storage and distribution, beginning with printed type and extending to the DVD. They have initiated the loss of a series of monopolies. In modern art, with the arrival of photography, painting was dispossessed of its monopoly on image-making or picture production. Artists have also been divested of their creative monopoly, as, with media support, anyone can be an artist. Moreover, the mass media have forfeited their distribution monopoly due to the internet. Today, everyone is a sender, consumer and user.⁶ These are the preconditions for the Renaissance 2.0 and postmodern art.

Technical art establishes new relationships not only between the sensory organs but also between natural/artificial sensory organs and the artificial/natural environment. Around the turn of the 21st century, the modern proclaimed synaesthesia. When, for example, information from the eye arrives at the brain, it affects the neighbouring areas with the result that optical data also triggers sensations for the ear. The postmodern has seen the arrival of the simulation era (Jean Baudrillard), the virtual simulation of sensory information. Today, we live in an age of substitution. The harmless synaesthesia thesis has led to the fact that the sensory organs are not only reprogrammed and redefined but also replaced. For, if we assume that one sensory organ at least partially activates the others, as well as various areas of the brain, then we risk the assertion that, in the future, this sensory organ will also be able to

⁶ See *YOU_ser 2.0: Celebration of the Consumer*, exhibition of ZKM Zentrum für Kunst und Medientechnologie | Karlsruhe, 1 May–30 August 2009, <http://www02.zkm.de/you/>.

partially assume their tasks. This is the concept behind neuroplasticity, which implies that the media are extensions of the sensory organs or artificial sensory organs. As such, they form interfaces between the (human) system and the environment. Consequently, the media, acting as artificial sensory organs, redefine both the relationship between the natural sensory organs and the environment to the point at which one sensory organ can assume the function of the others from an apparatus standpoint.

The US neurophysiologist, Paul Bach-y-Rita, has a list of fantastic achievements to his name in the field of substitution. His starting point has been examinations of rehabilitation following brain damage. In 1969, considering theoretical assumptions around the neuroplasticity of the brain – which is understood as the ability of synapses, nerve cells and also entire neural areas to alter their characteristics in line with their application – Bach-y-Rita and his colleagues proposed the idea of a machine that would transpose camera images into vibratory signals and thus help blind people to navigate. The blind can apparently conduct visual signals to the brain via the skin on their fingertips. These messages arrive in the visual cortex and are processed in the traditionally responsible area of the brain, which allows the reading of Braille type with the fingers. Bach-y-Rita embraced this experience and subsequently discovered that the tongue – the taste organ which possesses great sensibility – operates at a ‘resolution’ of around 450 dots, which corresponds to roughly half the number found in a black and white television. In 1998, Bach-y-Rita started experiments using the tongue as an optical and reading organ, and these trials led to the development of the ‘Brainport’ device. A small camera, attached to spectacle frames, transfers wireless signals to a mini computer, from which a cable leads to a matrix of roughly 450 dots. This matrix is placed on the tongue, conducting electronic impulses from the computer and camera. The tongue gathers an impression of the image from the video camera, rendering blind people able to ‘see’ with their tongues.

Following representation and simulation, the new working terrain of art is, therefore, reality, substitution and construction. Art will become part of technical systems that will remove human helplessness and enrich both itself and its environment in an apparatus-related manner in the form of augmented reality. For example, Google Glass provides additional, networked data and supplies information regarding the blood sugar levels of the wearer.

The modern may have terminated Da Vinci’s programme, but, with media art, it has begun to restore the severed link to classical art in a new form. The Renaissance, as the scientification of art is called, will return as the Renaissance 2.0 in the data and media age.

Dylan Brown and Ron Burnett in Discussion

Animation and its Future as a Medium

Dylan Brown joined Pixar Animation Studios in 1995, to work on image compression and colour mapping for the **Toy Story** Animated Story Book and the **Toy Story** Activity Centre CD-ROM. He then moved into the animation department, where he worked on **Flick** and as an animator on **A Bug's Life**. Brown's role expanded to Directing Animator on **Toy Story 2**, for which he provided team leadership and support while primarily animating Buzz Lightyear. Following this, he oversaw all of the animation in **Finding Nemo** and, later, **Ratatouille**, as Supervising Animator with teams of over 50 people. His ability to bring characters to life and to deliver on the vision of directors such as Andrew Stanton and Brad Bird is virtually unparalleled. He has animated many other classic Pixar characters, including Sully and Boo from **Monsters, Inc.**, Bob Parr from **The Incredibles** and characters from the short films **Presto** and **Partly Cloudy**. From 2009 to 2013, Brown was Creative Director for Pixar Canada.

Ron Burnett, PhD, CM (Order of Canada) RCA, is President and Vice-Chancellor of Emily Carr University of Art and Design. In 2002, he received the Queen's Golden Jubilee Medal and in 2012 the Queen's Diamond Jubilee Medal. In 2010, he received the 'Chevalier de l'ordre des Art et des Lettres', a knighthood from the French Government. In 2013, Burnett received the Order of Canada. He is on the board of BCNet, The European League of Institutes of the Arts (ELIA), The Association of Independent Colleges of Art & Design (AICAD) and the Learning Development Institute, and former Chair of the Knowledge Network. He is also former Director of the Graduate Programme in Communications at McGill University, Designer at the New Media Innovation Centre, author of 150 articles and book chapters, Educator of the Year in Canada and recipient of the Outstanding Leadership Award from the International Digital Media Arts Association. He was the editor-in-chief and founder of **Ciné-Tracts**, a film and cultural studies journal that was among the first to appear in Canada. Burnett has published three books, **Cultures of Vision: Images, Media and the Imaginary**, **Explorations in Film Theory** and **How Images Think**. He is a photographer, videomaker and filmmaker and was one of the first people in Canada to receive a Masters degree for a film production.

Dylan Brown and Ron Burnett were keynote speakers of the 5th ELIA Leadership Symposium – **W/HERE: Contesting Knowledge in the 21st Century** hosted by Emily Carr University of Art and Design in Vancouver, 7–9 December 2011.

Ron: Dylan, where do you think animation is in 2014, compared to when you started out in the field?

Dylan: When I started at Pixar, *Toy Story* was just about to come out. The technology at the time was used for visualising special effects in films and commercials, as well as theme parks, and it was mostly done to replicate real-life objects. And it was actually quite good at that. In fact, I think there's irony in the fact that chrome (the material) was one of the first things that was ever rendered with digital tools, and it's still one of the hardest things to do, just like hair and facial expressions.

Ron: Chrome as an object, meaning to reproduce its qualities of reflection and texture?

Dylan: Yes, as a surface. Since then, I think Pixar has really defined the look and the feel of what animated entertainment is in its digital form. And I think there's been very little deviation from that model. It's like the iPhone. The iPhone hit on something – a sweet spot – and that's why everything else now basically looks like some version of it. But the limitation with this approach, and I think this is where the industry is right now, is that a feature-length animated film has to be 'Pixar-esque'.

Ron: So, the aesthetic/technical requirements have overwhelmed the narrative. And, in effect, the narratives have become subservient to the 'Pixar-esque' aesthetic and the technology that comes with it?

Dylan: Yes.

Ron: So, why do you think this approach has sustained itself without falling into a crisis – a crisis of identity?

Dylan: The issue is identity and brand. Actually, identity is in crisis. Anyway, brand has a lot to do with it. Disney saw success with great classics, and then, in the 1990s, they began to lose their way. It seems that they've found it again now, but what is interesting is that they are returning to doing some of the things they were doing before they diluted their brand. They're not making *Pinocchio* or *Dumbo* or *Bambi* – these incredible films that have stood the test of time. Instead, they're making new versions of *Cinderella* and *Snow White*, which are fine, very popular and make money. That suggests there is a crisis in the Pixar approach.

Ron: Do you think the medium of animation can actually tell a story of, say, Barack Obama or the Syrian War?

Dylan: Yes.

Ron: So, why do you think the industry doesn't recognise that its audience is actually quite different from the past? What about the kids between the ages of 14 and 20, who are teenagers but for whom issues of the environment and war are very serious, for example? Why is the industry unable to really recognise the importance

of those stories of conflict and redemption? How about YouTube and Twitter, which have many narratives in them and reflect the interests of a young generation?

Dylan: There is a mainstream expectation that animation needs to hit the right balance to attract family audiences. And I do think some films take on social issues, *WALL-E* certainly did. And, in *Finding Nemo* and *Toy Story*, there's some psychology happening there.

Ron: But they're orientated towards that sort of mythical six year old, or five year old, that they think is not intelligent enough to evaluate the content. So many of the animations don't address young people with the intelligence and maturity that they may well have. So, is it the case that the aesthetic shape and form of the medium overwhelms the capacity of the storytellers to tell a different kind of story?

Dylan: I do think the industry locks you into what's been done. First off, it's really hard to make one great movie of any kind. For example, you can make a live action film, even modestly, for \$30 to \$50 million, whereas animation is at least double that, if not three and sometimes four times that. And then the time commitment is often at least twice if not three times again. So, I think that the overall investment is much higher and the risk goes up financially and you start making choices that are safer.

Ron: So, how can things change?

Dylan: I would begin by asking the industry to redefine what being successful means. Right now in the industry, being successful means creating something that people enjoy and that they will spend money on, and, in turn, you as the artist makes money, so you can do more, and so on and so on. I think one of the most dangerous things in the world is to be called the best at something because I think then what happens is that it triggers fear, and it triggers the fear to stay successful. So, then your energy changes into maintaining the industry's idea of success. And what happens is you lose sight of what made you successful in the first place.

So, there's a fundamental difference between striving to be the best and being the best. What I've witnessed is that when people and studios strive to be successful they tell very similar stories to each other. And nothing really special stands out because no one's actually taking any risk.

Ron: It is interesting to note that, in the 1920s, the cost of making a film was equivalent to what it is today. And the industry's subsequent collapse in the early 1930s was because costs outstripped revenue. Much as it is today. Then, in the 1930s, Walt Disney grabbed onto the opportunity the collapse presented. And the films Disney produced, as meticulous as they were, were not expensive even for the time. So, the question is whether or not the present model is bankrupt. And, in the case of Pixar, is the push for some sort of digital perfection actually going to be its undoing.

Dylan: I think that's absolutely correct.

Ron: The world of stories is infinite, but the risk factors militate against people choosing stories that are really new and innovative. For me, the best films in recent times are the non-animated films that have made money. Take a film like *Nebraska*, which uses black and white to talk about everything from generational conflict to Alzheimer's and Dementia – issues that aren't often brought to children but which they may well be prepared to watch. But then you take a look at a phenomenon like *Lego Mindstorms*, and you watch what kids are doing with it, and you wonder if these same children should only be shown a very simple story told in a digital form by Pixar or Disney. Or should we be pushing the boundaries of their imaginations? So, maybe the answer is that the filmmakers are not talking to the audience anymore.

Dylan: I think the filmmakers are looking at what it means to be successful and at their bottom lines and worrying less and less about audiences.

Ron: Because they're looking at gross figures, and wondering if they will get enough bodies into the seats?

Dylan: Yes, it is why sequels are popping up left, right and centre.

Ron: Talking to audiences is hard – if one actually started talking to kids and spending time in schools and searching for new stories with the audience that would be a different process of engagement. And what has happened in the Hollywood Studio system is that the industry has become more and more divorced from its audiences. I don't know any family today that looks forward to the next animated film. They're not looking forward to it. It is not exciting. When *Toy Story* came out, everybody waited for the next *Toy Story* because there was something there, but that is not happening now.

Dylan: It is even more difficult when your brand is based on pairing directors with a writer and then developing a passion for a certain story. Look at *Finding Nemo*, which came out of Andrew Stanton's life experience raising his son and observing what he was doing and thinking about how that could map onto a story and then thinking about animation as a medium. And that he used fish to map the story made it a film that has really broad appeal – one that was founded on an emotional core, and the story was hung on that. People are looking for gems in the stories that they can relate to their own lives. And I think what's happening now, in the big studios, is that the same story is being told over and over and there is a formula appearing. What I think is missing is the personal, the individual story.

Ron: But, for our students, it is about striking a balance between wanting to start out and learn the system and being able to maintain a practice of critique without being so absolutely submerged in the system that you can't see where you are headed. From a personal point of view, wasn't it very much like this when you started working in the industry in the mid 1990s?

Dylan: At first, you're just swallowed by it and immersed in it, so everything looks, tastes, smells original and new. I have always been interested in the craftsman's point of view – being committed to the details. I think it was around 2004 that I noticed things really changing. A lot more studios began popping up and creating films. And even more significant was the emergence of places like India and Singapore, where films are being made in assembly-line fashion. A great example of this is *Despicable Me*, which came out of France. The first *Despicable Me* had a simplicity and genuine heart – things not often celebrated by the industry, but the second version had no energy at all.

Ron: The fetish for detail, which I have noticed in mainstream cinema, animated or not, is often an excuse; it is a type of technical perfection that tries to cover the imperfections of the industrial process. It's as if you focus on making the colour right, then you don't have to talk about whether the story is right. Take *Up*, which to me is an amazing film because it crosses all the boundaries of age and explores the medium, pushing at the limits of animation as a medium.

The thing that is interesting to me is what's happening in Japan, with cheap manga being made on the fly and massive audiences sharing social experiences around manga films. And, with manga, there's no real quality there; it is just story, story, story, story and get it out quick. And then you've also got the masters in Japan, like Miyazaki and others who make amazing films. It seems that Hollywood is losing sight of what is happening in Japan and South Korea and other places where films are being made for one-tenth of the price. And they are being made because audiences want them and filmmakers know their audience well. In Hollywood, it seems there is a struggle to define an audience. So, the successes happen but the failures happen more often; it's a bit of a lottery. So, where are we headed?

Dylan: I think there's another parallel here, at least in the United States, with the rise of the big-box stores and their impact on our culture. Like Wal-Mart or Kmart or even Starbucks, which effectively took away the mom-and-pop shops. The massive distribution of a single brand, while it has certain benefits of course, takes away from a connection to community and militates against risk.

Ron: Shifting a little, what role do universities play in the continuum of craft and risk, experimentation and change?

Dylan: School is where risks can be taken, because once you are in the industry, you get caught in its seductively conservative nature – because taking a risk is scary. For example, with animation, I think that one of the areas that is extremely untapped, for me, is motion capture. The medium and its possibilities still need to be experimented with. When it first came out, the technology was clunky and mostly used for video games and was built on an assembly line system, where someone came in with a suit, someone else generated the data and someone else mined and cleaned it up. The tools were taken out of the hands of the artist. That has now changed and could lead to a new golden age of animation.

School is where play and risk can happen – where new approaches to technology can be experimented with – and this is a critical place for students, because they can approach creativity with completely new ways of thinking about films; what I would call ‘dangerous thinking’ is a real challenge to the industry.

Ron: Another challenge for us in educating students is to temper their obsession with technology. What we should be doing is balancing innovation and technique with reading 18th century folk tales and Aesop’s Fables and the Brothers Grimm. After all, many of Disney’s films are sourced from these stories. We should show them that the real risk is in telling a bad story, and that the hardest thing is telling a good one. And even more interesting is using the simplest of technologies to get to great stories.

For us at Emily Carr, the question is how to get young people feeling empowered, but to also cultivate naivety and curiosity and to believe that you can create something brilliant with, say, post-it notes. Jeff Chiba Stearns’ *Yellow Sticky Notes* is a great example – he was one of our students who made a film using 2,300 low-tech post-its. He went viral, and he’s now got his own animation company. His film was seen 4.5 million times on YouTube. It’s a bigger audience than any kid could ever imagine having.

My sense is that we are at an important inflection point between technologies. Basic, simple technology is cheap and accessible, and there are tens of thousands of DIY-ers making films and putting their stuff onto YouTube. And YouTube could become the place for stories, the place for research for Pixar, Disney and Dreamworks – a whole new inventory of stories.

Today, everyone can learn technology and even master it without understanding the history of narrative. So, it’s what happens at the margins that become more important than at the centre. The margins are where 3D experimentation is taking place with cheap Fuji cameras, and where devices attach to your iPhone to generate 3D movies that, by their very nature, can only be experiments.

Dylan: And it’s students who are going to continue to disrupt. We just don’t know what it’s going to look like, thankfully, because if we did know then it wouldn’t be real innovation.

Jiang Jun

'Beaux-Bau' and Beyond

On Chinese Modern Art/Architecture Education

Jiang Jun is a research architect, archive editor and freelance writer. He is the founding editor-in-chief of **Urban China Magazine** (2005–2010), which featured articles with such titles as 'We Make Cities', 'Made in China', 'Socialist New Village', 'Chinese Family', 'Chinatown', 'Collective Movement', etc. Jiang Jun has served as a project director at Strelka School of Architecture, Design and Media in Moscow (2010–2011), a visiting fellow at the ESRC Centre on Migration Policy and Society of Oxford University (2011–2012) and an associate professor at Guangzhou Academy of Fine Arts. He is the founder of Underline Office.

Jiang has been working on urban research and experimental study, exploring the inter-relationship between design phenomena and urban dynamics with fieldtrips in more than 200 Chinese cities and around 50 countries. His work has been presented in exhibitions such as **Get It Louder** (2005, 2007), **Guangzhou Triennale** (2005), **Shenzhen Biennale** (2005, 2007, 2011), **China Contemporary** (2006) and **Documenta 12** (2007).

He acted as the curator of the international exhibition **The Street Belongs to...All of Us!** in China (2008). He has been invited to lecture in universities such as The Chinese University of Hong Kong, Harvard University, University College London, Tokyo University, Seoul University, Princeton University, Columbia University, Illinois Institute of Technology, University of Toronto and the University of Sao Paulo. Since 2009, **Urban China Magazine** has been exhibited in three museums in New York, Los Angeles and Chicago as the first Chinese magazine being exhibited overseas in solo exhibitions. Jiang is working as curator of the Chinese Pavilion for the **Venice Architecture Biennale** in 2014.

Text adapted from Jiang Jun's keynote presentation to the 6th **ELIA Leadership Symposium – E/MERGE** hosted by the University of the Arts Helsinki, 27–29 November 2013.

Zhang Bochao contributed research to this text.

One of the most important functions of education is to present students with a spectrum of knowledge and to help them to situate themselves, their interests and their quality within this spectrum. However, since the beginning of the modern period, we have had too many new disciplines to possess a panoramic view of everything. What I will attempt to do here is to classify knowledge not by disciplines but by directions, orientations and dimensions. The basic Five Dimensions of knowledge are geography, economy, society, politics and culture. Their inter-relationships are more important than they are in themselves; economy is based on geographical resources, society is organised to facilitate economic management, politics is formed for better social distribution and, finally, culture is accumulated because of all the lessons and experiences gained through human activities (Figure 1).

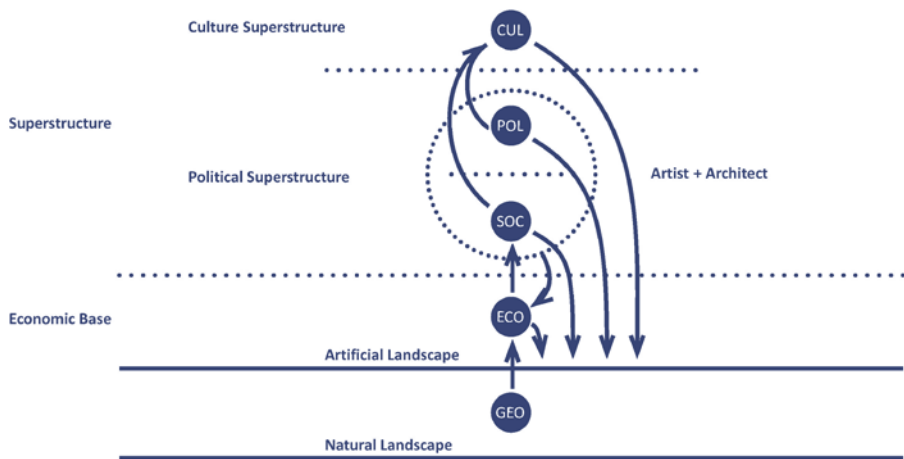


Figure 1 Inter-relationships between the basic Five Dimensions of knowledge – geography, economy, society, politics and culture.

According to Karl Marx, the 'superstructure' is built upon an 'economic base', formed by geography and economy. The 'political superstructure' is comprised of society and politics while culture contributes to the 'cultural superstructure'. Our role, as artists or architects, then, becomes accumulating non-spatial knowledge within space, constructing an artificial world. People are always talking about the differences between artists and architects. They say that artists are about objects and architects about space. But we can also find space-orientated artists and object-orientated architects. In late 2013, Rem Koolhaas was appointed chief curator of the Venice Architecture Biennale. He pointed out that recent incarnations had become like the art biennales held in alternate years, as demonstrated by Zaha Hadid's *Lotus* being exhibited in the art biennale of 2008.

I would like to briefly discuss the evolution of modern art and architecture education in China and my suggestions or predictions for it. China used to have a very independent and self-sufficient education system, based on Taoism and Confucianism. But, as many of you might know, the modernisation of China was very much

influenced by external forces, which extended to the introduction of a modern education system dominated by the west. In terms of art education, this implied the Beaux-Arts system. From the perspective of ‘dimensions’, Beaux Arts was based on the handicraft industry; its social politics were about serving a minority, and its cultural criteria were rooted in geometrical aesthetics.

The introduction of the Beaux-Arts system in China took place in two fields – art and architecture – which had traditionally been located in the same school. The art branch of the Beaux Arts was introduced from France, via the Soviet Union. In the 1950s, the famous Maximov workshop of oil painting, at the Central Academy of Fine Arts (CAFA) in Beijing, introduced so-called socialist realist art. Jin Shangyi, who would become the dean of CAFA, was one of the students who participated in this workshop. This Soviet-style Beaux-Arts workshop was a neoclassical mutation of Beaux Arts that served the majority of proletariats.

By contrast, the architectural system of the Beaux Arts was introduced to China via the United States, through individuals such as Liang Sicheng, the founder of the architectural school at Tsinghua University. He graduated from the University of Pennsylvania in the 1920s, at a time when it was dominated by neoclassicism. What he learned there enabled him to document and interpret the fundamentals of traditional Chinese architecture in the 1930s. However, neoclassicism was used as a tool in the effort of establishing a nation state, both in the Republic of China and the People’s Republic of China, which was quite different from the original Beaux-Arts system.

包豪斯体系 Bauhaus System

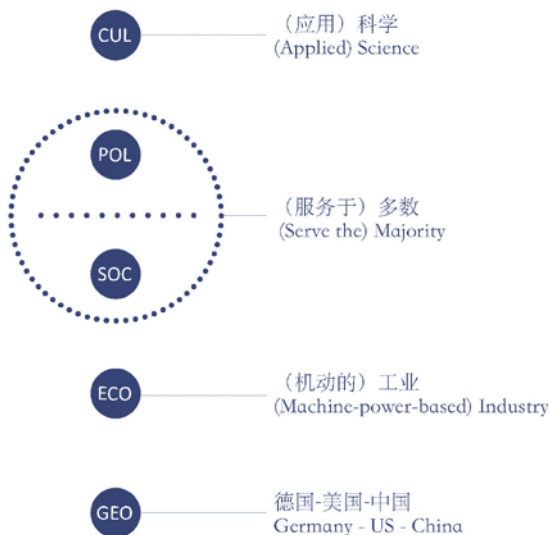


Figure 2 Modernisation of the Bauhaus System mapped onto the Five Dimensions of knowledge.

At the same time, we can find a parallel influence on Chinese modernisation in the Bauhaus system. From the perspective of dimensions (Figure 2), the Bauhaus is based on machine-powered industry, which represented a shift in cultural orientation from geometrical to sci-tech aesthetics. However, geometrical aesthetics were maintained in the Bauhaus system to a greater degree than is suggested in some architectural history books. The major innovation of the Bauhaus system was its consideration of the social politics of design, in which serving the minority shifted to serving the majority.

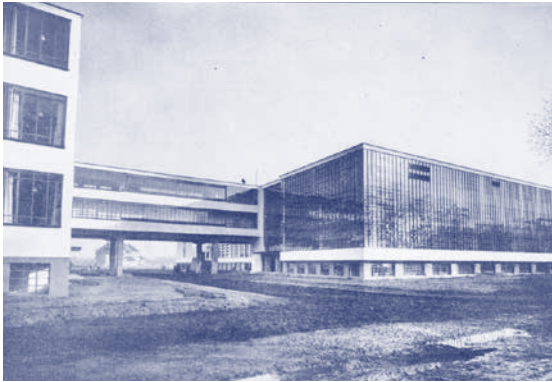


Figure 3 Bauhaus, Dessau, designed by Walter Gropius (1926). Retrieved from Rijksdienst voor het Cultureel Erfgoed – CC BY-SA 3.0 NL.



Figure 4 Wenyuan Building, known as the ‘first seed of Bauhaus in the Far East’, designed by Huang Yulin and Ha Xiongwen (1952). Retrieved from Shanghai Municipal Higher Education and Shanghai University Fine Arts Graphic Database.

What’s interesting is that the Bauhaus system is present in China. This is particularly evident when comparing the Bauhaus campus in Dessau, Germany, designed by Walter Gropius in the 1920s (Figure 3), with the Wenyuan Building in Shanghai, China, designed by Huang Yulin and Ha Xiongwen in the 1950s (Figure 4). Gropius’ Chinese student at Harvard, Huang Zuoshen, founded an architectural school in a church university, Saint John’s University, in Shanghai in the 1940s, which inevitably became an incubator of Bauhaus thought in China. In the 1950s, the Communist Party took over all the religious schools in China, and Saint John’s was merged into Tongji University. The architectural school building of Tongji, the Wenyuan Building, is acclaimed as being ‘the first seed of Bauhaus sowed in the far east’, as it’s easy to detect the Bauhaus gene in the design.

Chinese architectural education hence became an interesting fusion of Beaux Arts and the Bauhaus. A typical syllabus requires that, on the one hand, students have to study painting, including figure sketching (a fundamental part of Beaux-Arts training for centuries); on the other hand, they also have to study modern programmes such as mechanical physics, descriptive geometry, project management, etc. With this in mind, I would like to rename this the ‘Beaux-Bau’ system (Figure 5), a system comprised of a natural-science-based fundamental education and an applied-science-based professional education. At the same time, we can find cross-disciplinary education in comprehensive universities such as Tsinghua and Tongji, although this

布包体系 Beaux-Bau System

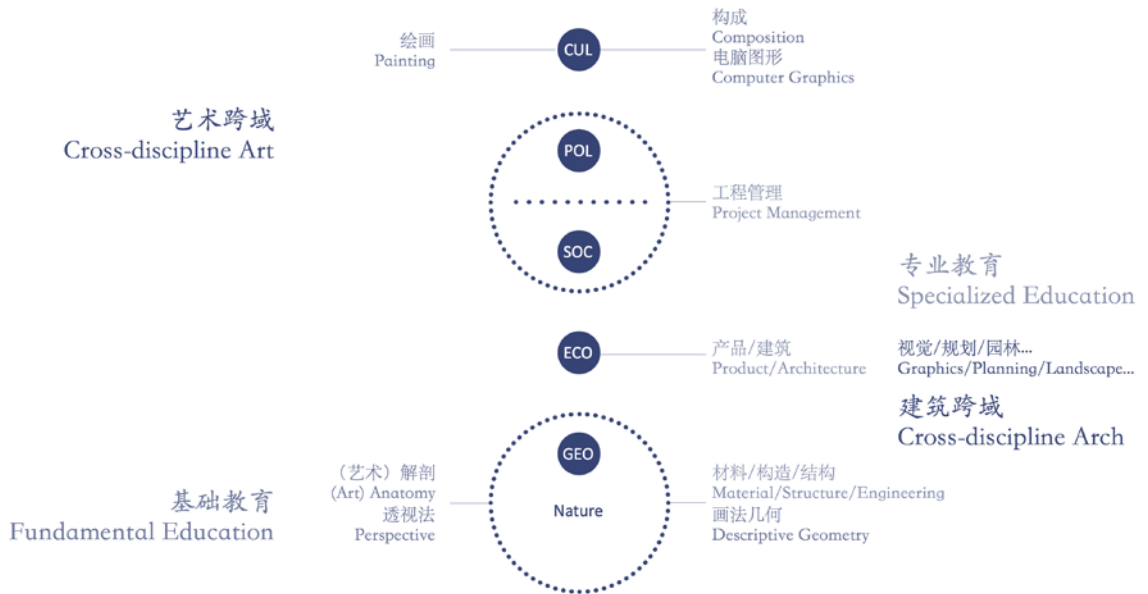


Figure 5 Typical syllabus of the 'Beaux-Bau' System mapped onto the Five Dimensions of Knowledge.

disciplinary mixing tends not to be via top-down programmes but through the self-organisation of students. Tsinghua and Tongji are both based in metropolitan cities, giving them an advantage for informal cross-disciplinary communication. As an extreme example, Beijing is highly concentrated, or over-concentrated – it's the sum of Washington as a capital city, New York as a financial city, Los Angeles as a filmmaking city, San Francisco as an IT city and Boston as a university city. It concentrates the most important art schools in one city, which is why over 50 percent of the highest-selling artists are based in Beijing, as the Hurun Research Institute reported in the *Hurun Art List 2013*. It's easy to find inter-disciplinary crossfire here, which, for me, is a critical contextual factor within art and architecture education.

So, this is the current situation, in response to which I would like to raise three major questions. The first is: on what kind of fundamentals is our art/architecture education system based? The second is: how can we establish a future-orientated education system? The third is: how can we cross disciplines?

In relation to the first question – concerning the type of fundamentals – I turn to the Venice Biennale plan made by Koolhaas in 2013. He proposed the setting up of a central pavilion that collected together different architectural elements – doors, ceilings, windows, etc. – from around the world, with diversified local characteristics, implying that we used to be different but now we are all the same. This is a western-ideology-based perspective of history, in which elements are crucial for comparative studies.



Figure 6 Tree of architectural history by Banister Fletcher, *A History of Architecture on the Comparative Method* (5th edn, London, 1905). Retrieved from The Internet Archive.

British architectural historian, Banister Fletcher, shows a tree of architectural history (Figure 6); in this, we can find different styles running throughout – Roman, Renaissance, German, French, with American revivals and modern styles situated at the apex and Japanese and Chinese placed towards the roots. This is further evidence that architectural history has been more or less defined by elements or styles. However, we also find that this historian looked for the causes of local differences. He discovered that there are hidden driving forces behind the diversities – geography, geology and climate, culture, history and society – although the inter-relationship between driving forces has thus far been beyond the reach of architectural historians.

So, what is the crucial difference between western and eastern fundamentals? The root of western art is also the root of western civilisation; the Beaux Arts can be traced back to Raphael's *Scuola di Atene* [School of Athens] in which we can find the Seven Free Arts of Greece (Figure 7), namely music, logic, grammar, rhetoric, mathematics, astronomy and geometry. This cross-disciplinary intellectual environment explains why, as I understand it, generalists, such as Da Vinci, could

be generated in the Renaissance west. Moving forward, we find that, by the time the School of Athens spawned the Beaux Arts, the whole spectrum of knowledge had been narrowed down to mere elements, or professions, including sculpture, painting and architecture (Figure 8). Logic, grammar, mathematics and astronomy had disappeared.



Figure 7 Engraving by Giovanni Volpato (1770–77) of Raphael's *School of Athens* (1509–1511) with notations by Jiang Jun. Taken from *The Great Works of Raphael Sanzio of Urbino: a series of thirty photographs from the best engravings of his most celebrated paintings*, edited by Joseph Cundall (1868). Retrieved from The Internet Archive.



Figure 8 Central panel of *I'Hémicycle des Beaux Arts* by Paul Delaroche (1841–42) with notations by Jiang Jun. Retrieved from Wikimedia Commons.

In ancient China, Six Arts were taken to be the basic skills of Confucianism (Figure 9) – rite, music, driving, archery, mathematics and literature – which corresponded closely with the Seven Free Arts of Greece. Logic and mathematics were also considered part of art. The difference lies in the inter-relationships. For example, the conjunction between mathematics and literature concerned the inter-relationship between rationality and emotion, or sense and sensibility. Driving implied that a student should know how to manage a group to drive a cart dragged by many horses, while the conjunction between driving and archery was about the inter-relationship between collectivism and individualism. Music meant that students should know how to play different instruments in a coordinated group, making the conjunction between rite and music about hierarchy and harmony. As a consequence of this training, the Chinese have become accustomed to setting up dialectical inter-relationships for the world in which they are living, locating themselves at a balanced point between two poles, which is why China means ‘the central country’ in Chinese.



Figure 9 Inter-relationships between the Six Arts of China.

We can compare the intentions underlying these perspectives. Da Vinci’s *Vitruvian Man* shows the desire of western intellectuals to identify a perfect world and the assumption that the truth of the universe could be revealed in perfect forms, proportions and scales. By contrast, as we have seen, the Chinese are not so interested in forms or elements, but in the inter-relationships between movements or phases. *I Ching* presents the inter-relationships between Sprout, Grow, Restrain, Reserve and the circulation of these movements – Conversion (Figure 10). Yin and Yang can be found subdivided into Five Phases, which was always mistranslated as Five Elements, to correspond with the Four Elements of ancient Greece. I have to say that it’s not about elements but a series of phases within a circulation of change instead, which is why *I Ching* is translated as the *Book of Change*.

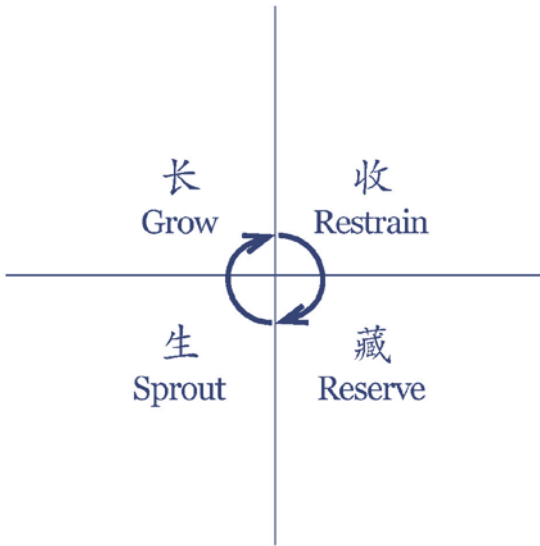


Figure 10 Four phases, or movements – Sprout, Grow, Restrain and Reserve – mapped onto four quadrants to demonstrate a mutually generating circulation.

On the one hand, the Tai-chi model shows mutually generating relationships between the phases – Sprout generates Grow, and so on. From this perspective, the Five Dimensions could be mapped onto a circulation of the phases in which geography generates economy, economy generates society, and so on (Figure 11). On the other hand, we find it increasingly important to show mutual limitations between the phases. Sprout restricts Grow, by means of balancing Conversion, and so on. This is more or less like a republic, in which elements counterbalance each other from within. This is the real fundamental of Chinese art and architecture.

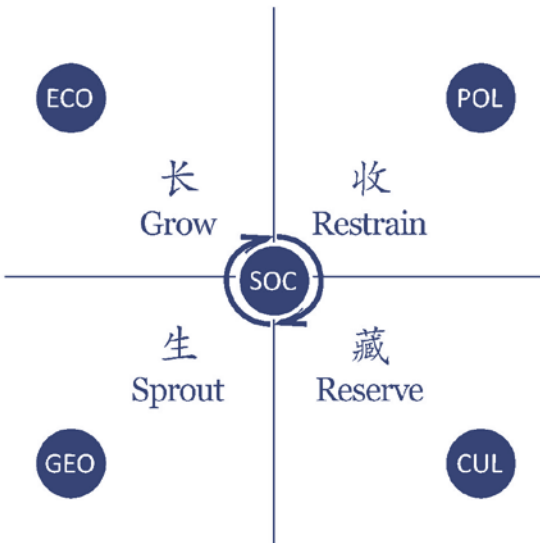


Figure 11 Five Dimensions of knowledge mapped onto the phases.

Let us now turn our specific attention to the architectural discipline within this metaphysical fundamental. If we map our architectural system onto the first four phases (Figure 12), we have as Sprout a Nature System also called Penghu – geographical knowledge about site prospection – but nobody talks about this in China. Instead, we have a Construction System for Grow, which is still the major part of Chinese architectural education, a Planning System for Restrain, which balances overgrowth of the construction system, and a Landscape System for Reserve, which hides and incubates knowledge in the form of hidden landscapes or gardens.



Figure 12 The architectural system mapped onto the phases.

Now we have a reference framework with which to compare east and west, pre-modern and modern. The Construction System of ancient China was a prefabrication system in which every element was precisely modularised; you can actually assemble, disassemble and re-assemble a typical Chinese house, as well as the wooden organising structure, which was also modularised. Due to the centralised power of China, the module – in housing, city planning and political systems – was implemented as law, corresponding with the political hierarchy.

By contrast, the western classical architectural system was defined by elements, which were sometimes prefabricated but not particularly modularised. It was more or less a load-bearing wall system, and the modern architectural movement was a revolutionary departure from this system in favour of a framework system in which modern architects found freedom. This was deemed revolutionary since it happened in parallel with a social revolution that was stimulated by the industrial revolution, causing public space to become a critical issue along with the socialisation of mass production. In China, in terms of the technology of modularisation and the framework structure, it was not so much a revolution, which is why I don't call ancient Chinese architecture 'classical' but 'pre-modern', because of the modernity hidden in its traditional face.

On the other hand, if we compare the Planning System – which is about how to restrict the overgrowth of architecture – the ancient Chinese Planning System could be simplified as a fractal system of Yin and Yang or courtyard and house. A yard-house, consisting of a house with a yard, is the minimal unit of this system. Each four houses share a yard. So it's always about Yin and Yang being together, which is quite different from western prototypes. If we want an extension, we just copy this yard-house pattern, more or less like metabolic growth. In addition to this, the yard-house provides a model for public space. The shared yard is perceived as a public space for residents of the houses but as a private space for visitors. When a community space is surrounded by yard-houses, it is public for community members but private to non-community members. In this way, we have a fractal structure of public vs. private – public communities surrounded by private families; public cities surrounded by private communities; public countries surrounded by private cities, and the public world, or nature, surrounded by private countries – which is a different notion, or definition, of public and private space from that of the west.

Finally, we come to the Garden System. We have very different ideologies about landscape. In western gardens, we can see diagonals, or perfect symmetrical forms – based on the fundamentals of geometrics and science – everywhere. But, in Chinese gardens, the fundamental is 'Tao follows nature'. While being confined to gardens, ideologies of nature had a great influence on the design of cities as demonstrated by two 'ideal cities' designed and partly implemented in China and Britain. The Chinese one is Yuan Ming Yuan, or the Garden of Gardens, featuring a similar fractal structure to the public-private prototype – a yard surrounded by houses, islands composed of yard-houses, a lake surrounded by islands and a 'sea' surrounded by lake-islands. Although it was a garden, it was also an imperial garden city – parallel to the Forbidden City in central Beijing – and a reserve of the knowledge contained in materialising an imaginary macro world into micro space. Coincidentally, in another work, also called Garden City, designed and built by Ebenezer Howard a few decades after the Garden of Gardens was destroyed by his British compatriots, we can easily find similarities with the geometrically designed European gardens.

If we consider the civilisation of China to be a circulation of the Five Phases, its modernity is to be found in balance and sustainability. As a consequence of systematic challenges to Chinese culture by external forces – especially from 1839 onwards as a result of the Opium Wars – the introduction of western modernity to China was met with scepticism. The modern architectural movement in China has had an influence on the left part of the circulation, which is more about Sprout and Grow and less about Restrain and Reserve. As a result of western-dominated conceptions of modernism, architecture in China is now more developed than its pre-modern counterpart in terms of its technology of standardisation and structure. In terms of public space, there is a meeting point between the east and the west. However, in terms of gardens, the knowledge is not there yet.

The literature critic, Mu Xin, who passed away in December 2011, argued that 'In terms of the so-called east, China is the representative. It is right to supply the west,

as what's lacking in the west is what's hidden in China: implicitly, or winning the strong with the weak. There needs to be a real communication between the east and the west before the new civilisation starts. However, to awaken the east, China has to be understood in the west'.¹ Chinese civilisation is a self-sufficient circulation, which is both its advantage and its weakness. It can easily suffice by itself, but, in order to evolve into the next circulation, it needs external forces to break down its hyper-stable structure, until a new sufficiency is established and the external forces are absorbed and reconciled to become part of its own civilisation.

Fortunately enough, we are now facing a meeting point between east and west – a transitional moment between the old circulation and a new one. The introduction of Beaux Arts and the Bauhaus was the beginning of this absorption of external forces, albeit in a controversial and conflicting way. Chinese modern architecture fluctuated between two extremes. The American Radiator Building, a typical early 20th century American skyscraper built in New York in 1924, was copied in Shanghai as a 'modern thing'. This influenced plans for the Bank of China, built in Shanghai in 1934 by design firm, Palmer and Turner, with Qianshou Lu as Chief Architect. However, in order to maximise the symbolic meaning of financial independence in the newly unified China against a backdrop of colonialism, it was topped with a Chinese roof three years later to become a skyscraper with Chinese elements (Figure 13).

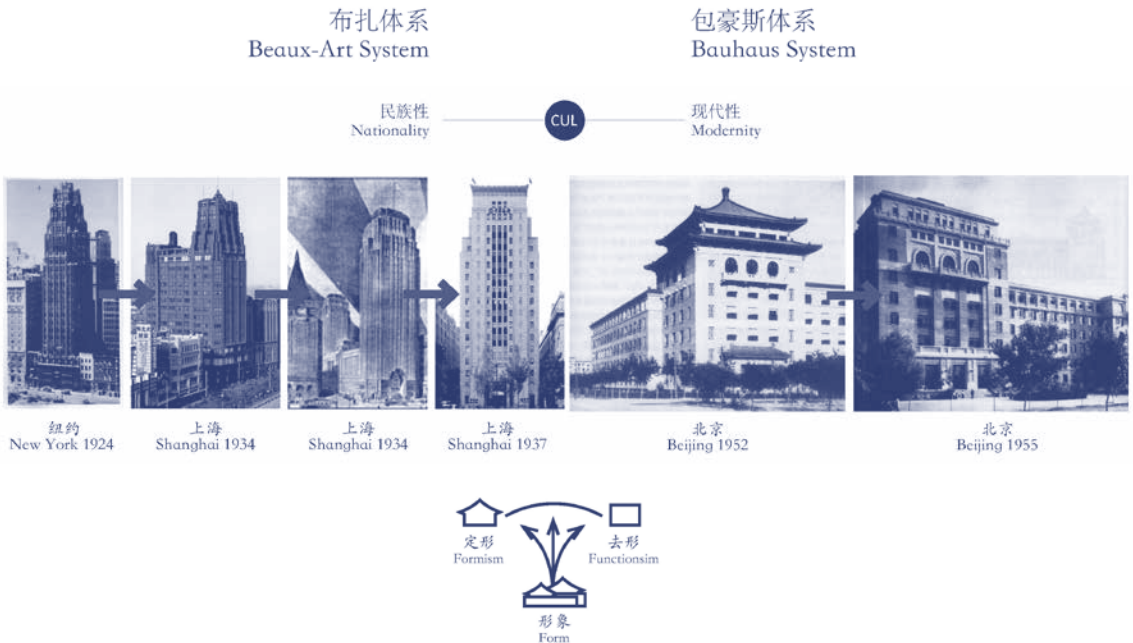


Figure 13 On the left, The American Radiator Building (1924), typical of early 20th century American skyscraper design. The adjacent two images show an imitation of this style visible in the Bank of China, built in Shanghai in 1934. The fourth image from the left shows the Bank of China in 1937 when it was topped with a Chinese roof. On the far right, the Office Complex of Ministries, designed by Zhang Kaiji and built in 1955, and, next to it, the original proposal from 1953, featuring large roofs that were later removed from the design proposal. Photographs courtesy of Jiang Jun. Diagram created by, and printed with permission of, Jiang Jun.

¹ Chen Danqing (ed.), *Literary Memoirs by Mu Xin* (Guangxi, 2013).

Modernity was localised by means of typological elements because of the appeal of the nation state, which had first motivated the introduction of the Beaux-Arts system into Chinese architectural education. In the early 1950s, under the influence of the Soviet Union, a neoclassic or eclectic approach was widely used for representing nationalism – big roofs were everywhere – until a political debate took place between formalist nationality and de-formalist modernity, which was eventually won by modernity. Big roofs were removed from the original proposal for the Office Complex of Ministries, designed by Zhang Kaiji, which had left the building a hybrid of two architecture ideologies.

Formalism or de-formalism has been an abiding question, possibly as a consequence of the dichotomy between nationalism and modernism. However, we can find cases to demonstrate that there is no such dichotomy, such as the public canteen of the People's Commune, built in 1959, in which people could eat for free. This includes a dining hall with a western-theatre-style archway absorbed into a yard-house, in which the different programmes of the canteen were clustered into houses around a yard; in the yard, we find a familiar image of China, which was realised not so much through elements but through inter-relationships. More recently, hidden clues of Chinese architectural modernity have gained world recognition through the Pritzker Prize winner, Wang Shu. His works indicate the possibility of realising 'Chinese-ness' without using Chinese elements. In this way, the question of formalism or de-formalism has been surpassed.

When form gives way to image, we are liberated, without losing connections to our roots. As a keyword of Taoism, image resides between the tangible, physical world and the intangible, metaphysical Tao. Tao is that which is always hidden behind, and image is the messenger of it. The Chinese gave so much significance to Reserve not because of their obsession with mysticism but because it is a way to perceive the remote truth of daily life. The parameters of perception are defined by dialectical relationships; smaller defines bigger, shorter defines higher and a Chinese image emerges.

Everything I have spoken about so far explains why I suggest that we should introduce part of the knowledge of Taoism or *I Ching*, such as Chinese gardens or Chinese calligraphy, into our fundamental education. Taoism is an open system, not one restricted to materials or forms. Historically, Confucianism and Buddhism have had an impact, but both were eventually absorbed. And now education is being impacted by science, and I would personally like to see this as another process of absorption, which is also a future-orientated process.

As for the third question – on how to cross disciplines – we already have many art-related majors in our schools – music, drama, film, etc. – but I don't really think these could be defined as cross-disciplinarity. These art forms always have to express content – narratives of history, society, politics or culture – beyond art itself. They are not content in themselves, but mere narratives. If we delve further into content, we'll have a wider panorama in which we can find all the other disciplines of a modern comprehensive university.

Crossing disciplines is about the inter-communication among these arts, but it's difficult to know where to start. Luckily enough, artists and architects have the advantage of translating something non-spatial into something spatial, in which space becomes a universal language, just like a diagram or an icon. This is why I imagine – although this is not fully established yet – that space can become a mediator, or coordinator, between the contemporary non-spatial disciplines, at least in architectural schools. Space can be linked with geography, economy, society, politics and culture, forming new cross-disciplines such as urban geography, regional economy, space sociology, and so on, leading to a 'universal education' which is also future orientated.

We can imagine a future syllabus based on these layers of education – starting from fundamental education in grade 1, then divided into different majors for professional education in grades 2 and 3 and, finally, the option of meeting again with postgraduate students for universal education in grade 4.

I don't yet have a name for this system. Perhaps it's up to you to give a name, such as the Comprehensive Education System (CES). As we have seen, there had been a shift from the handicraft industry to modern industry and, finally, to post-industry, or IT. This is supposed to parallel the shifts within the art and architecture education systems, from Beaux Arts to the Bauhaus to something else, which will meet the growing demand of inter-disciplinary working in an information age. Perhaps we can just call it System X.

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Terike Haapoja

At Least We Now Hear Them Talking

Art and the animal other in the era of neoliberal dogma

Terike Haapoja is a visual artist, living and working in Helsinki. Her work consists of installations and collaborative projects, characterised by the use of new media and new technology. In her projects, Haapoja investigates our relationship to the non-human world from scientific, existential and political viewpoints. Her projects are mostly large-scale and built around thematic framing, often including collaborations with professionals from other fields of study. Haapoja's work has been shown widely in solo and group exhibitions and festivals both nationally and internationally. Haapoja represented Finland at the 55th Venice Biennale in 2013. She is currently working on a practice-based PhD at the Academy of Fine Arts, University of the Arts Helsinki.

Terike Haapoja was a keynote speaker of the **6th ELIA Leadership Symposium – E/MERGE** hosted by the University of the Arts Helsinki, 27–29 November 2013.

Some time ago, I was invited to a gathering by a large Finnish grant foundation. The event brought together professionals holding high positions in different fields of art and culture. I was invited to take part in a panel to discuss the topic of ‘for whom should art be made?’ The discussion centred on whether art should be made for a professional arts audience or for a wider public, and what the need was for applied arts and societal arts in today’s society in general. I remained silent for most of the discussion, as I felt I could not grasp the point of the question. The question seemed to portray art as a specific kind of a ‘product’, which was manufactured by professionals and then distributed to consumers. The structure of this art distribution was analogous to that of any product, where demand, market value and consumer expectations were driving the development of product design – in this case, the strategies of art funding.

Finally, I tried to raise my voice, and proposed to shift from the question of ‘for whom should art be made?’ (which presupposed a one-way deliverer–receiver structure) to the question of ‘who can make art in society?’ Following this, I proposed that, if we had societal funding structures such as a ‘citizen salary’, people could participate in creativity and art-making, and questions about the status of professional or amateur art or boundaries between popular culture, DIY communities and fine art would become trivial. Then, the follow-up question would be: ‘what kind of art is made, and made possible, by the people?’

As one might expect, my proposal was met with minimal response, as leaders of art institutions continued their debates on the distribution of governmental art funding to established institutions. The problem did not seem to be how to deal critically with the economic structure, which increasingly defined art and art-making, but how to get as much funding as possible from this structure. Slight panic seemed to be filling the atmosphere, as pressure from diminished state funding, on the one hand, and increased reliance on private funding, on the other, forced institutions to blindly fight for survival. For the artists, the question of DIY or amateur art posed a threat to the professional league, which also had to prove its expertise and irreplaceability in the face of the system.

For me, this was a clarifying moment. There I was, at the very core of cultural funding, amongst these high-ranking decision-makers, and not even they had any power over the rhetoric that comes, direct and unmasked, from neoliberal economic language. There seemed to be no other option than to accept what was put into action, from the top down, by the government and make the best of it. Consumer logic has rooted itself so deeply into our cultural unconscious that most of the time we do not even realise it’s there.

For me, the question of the role of art in society is a fundamental one. Art is at the core of all human activity, and probably a feature we share with multiple other species. Art is unexpected forms of creativity, languages that study language, communication and expression, a site for debating morals and values, a mirror and much more. Take away art, and you find just an empty shell where civilisation used to be. There is no ‘good life’ where there is no art.

The role of art changes in every cultural paradigm. As Nicolas Bourriaud has noted, art was once about our relationship with natural forces, then with the divine.¹ Now, as we seem to have lost both, art is working with social relations. These social relations are thoroughly defined by the economic structure and theories underlying them. When we look back over the past 100 years, we can see art as a series of escape attempts from the grip of capitalism. Every new art form of the last century celebrated itself as that which could not be recuperated by bourgeois society. As objects gave way to site-specificity in the name of non-commercialism, or sculpture to minimalism and installation in the name of viewers' subjectivity, or still images to media art in the name of the flow of time, or statues to live bodies in the name of encountering 'the other', the ethics were always: *this cannot be sold*. And yet, it always has been.

This does not make art an impotent tool. Quite the contrary; art will always find ways of creating meanings where meanings are forbidden and mere reductive materialism is celebrated. As a single reason, that should be enough to encourage artistic practices outside the established arts: *this* is exactly where the seeds of future cultures are stored. In the discovery of new realms, a space for revolutions, becomings and unbiased research on the structures of our world always momentarily opens up. Even if this space keeps folding down, it will never close permanently, it just changes place. For me, this is exactly where art happens, and this happening is not defined by art academies, art institutions or high-class professionals but by expeditionaries and experimentalists who wish to turn the world upside down to see how it looks from the other side.

As art has adopted new technical innovations, it has always investigated their links to power and to the ideologies and ontologies of their time. This was the case with new cinema at the beginning of the 20th century, with media art and mass media in the 1960s and '70s and internet art in the late '80s and early '90s. All of these new genres focused on the social and ontological relations created by the new media in question, as well as their application in society and wider cultural impact.

A field that is currently emergent, or perhaps just being established, is that of art and science – an inter-disciplinary field born in the mid '90s as artists first went into wet labs, which has now expanded into a wide range of practices that study all areas of the natural sciences. What is stunning in this field is not really what happens inside the work – as this is part of the tradition of all media art work throughout the century – but the fact that it emerged only now, given that, throughout the 20th century – when science had the most impact on human life and the human-nature relationship became so severely distorted – these themes were absent from the field of art.

This is no coincidence, of course. This absence was partly due to the two cultures' divide – identified by C.P. Snow in his 1959 lecture – which had opened up by the early 20th century. This separated the natural sciences and humanities, also distancing art from the fields of exact knowledge. But, at a much deeper level, it was the result of a cultural ideology, which regarded nature as an endless resource for the

¹ Nicolas Bourriaud, *Relational Aesthetics* (Dijon, 1998).

production of goods. Justified by the dominance of reductive materialist realism in the natural sciences, the dogma of neoclassical economic theory considered the human–nature relationship as simple, technical and factual, in contrast with the soft and muddy social issues discussed in politics. Ideology, then, was something that contrasted with this dogma (which still seems to be the case). As such, there seemed to be nothing for art to discuss in the human–nature relationship.

Throughout the 20th century, we witnessed a massive-scale abuse of species, land and natural resources, which has resulted in climate imbalance, epidemics, erosion, the emptying of seas and uncontrolled migration movements, to name but a few of the consequences. For decades, due to the normalisation of theories supporting the abuse of the earth in the fields of biology and economy, this devastation was considered irrelevant to mainstream politics, art and public discussion. By the end of the 20th century, it had become obvious, however, that the crisis of the natural world was rooted in thoughts and practices in the realm of the human. The cross-disciplinary, heterogeneous practices of art and science critically examine exactly this – the points of contact between ideology, knowledge production, technology and nature.

At the dawn of the 20th century, many of developments that are now commonplace first saw the light of day. Industrialisation and automatisisation required the distribution of work, standardisation in workers' tasks and machinery, minimisation of excess time and specialisation. As workers no longer had a full picture of the production process and production was not dependant upon the expertise of a single craftsman, power moved up to the leaders and designers of the process. Even if it might be far-fetched to compare a contemporary university to a Fordist production line, a resemblance lies in the concept of specialisation. As work is fragmented into smaller and smaller tasks and scientific research areas have less and less to do with the big picture, it is increasingly easy to abuse the system in order to gain profit for the few. The 20th-century tendency towards specialisation is also visible in the development of art schools and art institutions and their distinct fields of study.

Paradoxically, one reason for these differentiated practices to come back together is forgotten; nature. Just as it became evident, during the last decade or two, that our relationship with nature is severely harming our own culture, it has become necessary to revisit the ideological basis of our society and try to grasp the big picture again. There, multi- and inter-disciplinarity is a necessity. As Bruno Latour notes, phenomena like global warming are not natural, or technological, or economic, or social, but all of these at once, and much more.² These phenomena have to be studied from different fields and with diverse tools. As the natural sciences began to be contaminated by the influence of the humanities, such as sociology, the empirical nature of scientific knowledge also became questionable. This prompted such reflections as: how is science actually made? Who generates new knowledge? What is the scientific method? What kind of presuppositions, about nature or life, are hidden behind this knowledge? Who ordered this knowledge? What is it used for? *Is it progress?*

² Bruno Latour, *We Have Never Been Modern* (Cambridge, MA, 1993).

There are few examples of areas of scientific research that are highly politicised. Stem-cell research is one of them, and climate change another. But most other fields of research are also embedded into society and cannot fully claim to fulfil the requirements of positivism. One can even argue that there is something wrong with the concept of objectivism, as it proposes a 'view from nowhere', as philosopher Thomas Nagel has put it.³ And, if one looks deeper into such practices, it becomes clear that the scientific method is itself contaminated with all sorts of ideas about what nature is and what humanity is and what the research and scientific subject is all about. Suddenly, scientific studies have sailed into the centre of philosophical debates and to the platforms of artistic investigations.

What art can do for science is precisely this. Art has proven to be an effective platform for discovering how things work, what their function is in society and what the ideology is that lubricates them in their movement. In our culture, our relationship with everything that was once defined as nature (body, landscape, other animals) is widely mediated by technology. Therefore, much of the work of art and science (art that is made in the realm of, or in collaboration with, the natural sciences) can be seen as a continuation of the tradition of media art. But, as media art in previous decades looked into human-machine relationships and their social effects, contemporary biomedial art looks into the wet biological world and our technological relationship to it. The search travels two ways; on the one hand, art questions the straightforward link between science and so-called 'progress' by making the technologies and their possible applications accessible to public debate. On the other hand, natural sciences bring new, less anthropomorphic, perspectives on reality into our human-centred mainstream culture.

The most significant conceptual shift brought about by the natural sciences, scientific studies and posthumanist theories relates to the place of humans in the world. In the realm of theory, the anthropocene era – the era in which humans are the most defining geological force of the planet – is, paradoxically, defined by the movement of the human figure from the centre of the world into the margins. Theories such as psychoanalysis, feminism, post-colonial studies and queer theory had already removed the rational, white male human from the pedestal on which the Enlightenment had placed him. Animal studies and posthumanism are just the latest waves in this process. Thus, the key figure of the neoliberal system – the individual – turns out to be an illusion. Instead, the human subject seems to be a bodily being, constructed by language, culture and its relationships with other species. In itself, it is an ecosystem that consists of billions of species. *Homo sapiens*, the rational human, has proven to be an invention of its time.

Prior to modernity, there was hardly a more studied theme in the history of art than that of the representation of nature. For centuries, visual art was about representing what was not there, thus portraying how we see and understand nature. The epistemological concept of representationalism – the idea that we can only access the outside world through mental or physical representations of it – has been at the core of western culture, shared by art and science since the early ages

³ Thomas Nagel, *The View From Nowhere* (New York, 1989 [1986]).

of the Renaissance. Representationalism peaked in postmodern theory and its view of language as all-encompassing. It is no wonder, then, that looking critically at the representations our cultures produce has been the focus of contemporary art for the past two or three decades, just as models of scientific representation have been the focus of science studies. This is the level at which most of the art concerning human–nature relations has been situated: the level of cultural representations of nature and animals, and the ways in which it affects our relationships with them.

However, there is another aspect built into the idea of representation, which is to *speak for another*. This aspect connects humans with nature, not as an epistemological crossing but in a political power structure. Representation, in this sense of the word, points to the question of how nature is represented in the languages of law- and decision-making in society.

The concept of democracy is defined by ideals of equality and fair representation of all. But this democracy is only accessible to a small minority of those present. Not only animals and other species but also groups of humans live in society without access to the decision-making process and without recognition of their legal rights. A structure of exclusion is built into the system of a nation state and of a reichstadt – the sovereign state, consisting of its sovereign people, who gain their position as subjects and members of the state exactly by differentiating themselves from ‘the earthlings’. Exclusion, of course, traditionally functions as a way of using the excluded as a resource for the benefit of those inside the system. All struggles for emancipation have been confronted with rage and ridicule; claiming rights and autonomy for the excluded is a threat to the establishment. We know this from the battles of slaves, women, ethnic or sexual minorities and many other groups fighting for autonomy, freedom and equal rights. These battles have been fought on two fronts; the oppressed have had to stand up and speak for themselves, but, even more importantly, there have been people inside the system who talk on behalf of those who are excluded. Beyond the politics of interest groups, there has always been a tradition of political altruism – politics that tries to speak on behalf of she who cannot speak for herself.

The most common method of exclusion is dehumanising. The word ‘animal’ can be seen as a theoretical tool for denying the basic rights of a group and excluding from society those who are de facto already present. The word ‘animal’ stands for a metaphysical order which places a division between us and them at the centre of the world, an order, which enables a politics based on essentialism, instead of relations, politics that normalise means of exclusion instead of acknowledgement and discussion of existing power relations.

When we talk about society, we usually refer to the structure made by and for humans. Other species are strangers in this community; they are present, but not members. They are just ‘animals’. Hundreds of millions of individuals in industrial food production or in the wilderness take care of the processes fundamental to our society, such as circulation of carbon, oxygen or water, decomposition or the production of raw materials for industry. These agents do not have any legal position;

instead, their legal position is generally defined by their use value in relation to other humans. This divide is not a natural one; like all divides, it is cultural and supported by the interests of those who benefit from it.

We have arrived at a situation in which the concept of universal equality between all humans is widely accepted though not widely respected. We are facing a time in which we have to finally bring up the question of 'the animal' in all of its radicality. For as long as we have this barrier, it is possible to push anyone outside society and 'treat him like an animal'.

The *Party of Others*, an artistic political intervention I initiated in 2011, was established in order to try and approach this question. The first version of this project is based on interviews with 12 Finnish individuals from the fields of animal rights, environmental politics, law theory, art and politics. They were asked: what would society be like if the excluded – whether human or non-human – were acknowledged as members? What would the political structure of that society be like? How would it be possible to speak for those who do not have a voice, a vote? Based on these interviews, an agenda for a real political party was written. This agenda tries to formulate the radical, utopian ideas of a truly open society, which would not be based on exclusion, into the form of a traditional political party strategy.

The agenda of the *Party of Others* includes detailed notions of community, law, language, imagination, education, representational structures and altruism. It is radical, in the sense that it calls for a fundamental change in society at all levels, from culture to power structures. But the agenda is also realistic, as there are many proposals for improving the status of the excluded that could already be realised within the existing political structure. During the launch of the project, a campaign for registering the party into the official party register was started. In Finland, there are only 17 official parties, and 5,000 support cards from voters are needed for registration. The *Party of Others* project received a great amount of interest and a lot of media coverage. The project is continuing to be a platform upon which ideas around nature and legislation in different cultures can be developed. The aim is to use the *Party of Others* as a Trojan horse, which challenges and provokes the existing political structure from the inside.

Despite the interest the project has received, not much of it considered the initiative to have anything to do with the real political institutions. In the past few years, however, voices speaking for the rights of nature have started to come together. Fields of law theory – called wild laws or earth jurisprudence – study the possibilities for natural entities or individuals from other species having representatives. Even if we do not have any realistic discussion of the representation of non-humans in the mainstream western parliamentary system, in more and more societies the idea of establishing positions for nature representatives, who would have to be heard in cases concerning possible harm to a site or a species, is considered less and less ridiculous. These steps gradually make it possible to discuss the legal situation and status of non-humans in the world.

Rhetorics matter. Our language defines what can be talked about and how. Conventional language is transparent, giving us only that which is said, not the medium of language itself. Art and poetry are places where language can be brought into play and where the way it structures our thinking can be made visible. When it comes to talking on behalf of the other, language matters even more. Because we cannot have direct access to the others' languages, we must be even more careful about how we reflect the medium we use. This is why the *Party of Others* project also investigates how language perpetuates structures of exclusion. As key concepts of law are thoroughly anthropomorphic, the discussion of the role of non-humans in society stops too easily at the threshold of the parliament. We do not have words with which to address non-human subjectivities or their silent utterances. Language itself becomes a form of discrimination, as only those with access to it have a vote. New interpretations of our relationships with body and matter in philosophy and poetry help us develop a thinking that can see and categorise the world differently, giving us tools with which to make politics when the time comes.

A sister project, *The History of Others*, focuses on rewriting history from the perspective of other species. The starting point is a simple, though not widely recognised, fact: that history has always been written from the perspective of only one species, though there have been millions of others in the making of it. This silenced history – the way other species understand our common reality – is the narrative left untold in museums celebrating human progress and development. Aiming at focusing on one or two species a year, I, together with my working partner, author and playwright Laura Gustafsson, decided to start by writing about the everyday speciesism we encounter. Absurd and often insane revelations of our culture become visible when looking at the telos of human common sense, or the techno-scientific 'rationality' from the point of view of other species.

The first exhibition of the project, *The Museum of the History of Cattle*, opened in November 2013 in Helsinki, and it is by now the world's first ethnographic museum that exhibits a non-human account of history. Taking a bovine perspective, the museum looks at the ways in which central developments in the human–cattle relationship has affected cattle culture, and how different technologies, sciences and ideologies form a network that neither humans nor cattle can escape. It becomes clear how economic theories and industrial inventions have created a culture in which both human and animal bodies are subjected to biopolitics, biotechnologies and control in order to reduce the cost of unperfect bodies to society. It also becomes clear how concepts such as 'slavery', 'animal', 'control' or 'normalisation' have not disappeared but have only changed places and hidden themselves in different forms in ever more effective ways. The standardisation of bodies and work, automatism and measurability as the basis of every lifeform in the name of efficiency are the reality of cattle and human populations all over the western world.

In the upcoming second part, *The Museum of the History of Parasites* (2014–2015), we will create a narrative of world history from the microbiological point of view. Drawing on recent discoveries from human microbiome and the resulting concept

of the human body as an ecosystem, we will look at how the history we consider to be 'ours' could actually be seen as the conquest of multiple other species, which use our bodies as host organisms. In the exhibition, the viewer's body becomes the 'museum' and the narrative draws a parallel with the relationship between the human body and its inhabitants and human culture and the earth.

Both the *Party of Others* and *The History of Others* investigate the structures of exclusion and the animal (the conceptual differentiation of humans from the other and the animal – qualities typically connected to this otherness, such as incapacity to express oneself with language) as something that is foundational to these structures. By appropriating existing institutional forms, like the political party or museum, they make visible the anthropomorphism built into these societal traditions. As they propose to deliver a non-anthropocentric view – an impossibility to start with, as the project is made by and for humans – they frame a space in our society which the animal other cannot occupy, because this space is formed on the basis of the human figure. Still, the approach of these projects is productive rather than cynical; by trying to do and think that which is impossible in the existing paradigm, I believe it is possible to make cracks in which the seeds of a new paradigm can take root.

As Steve Baker argues in his book *The Postmodern Animal*, as modernity began to investigate itself, other species vanished from view.⁴ As art lost sight of nature, it also lost the animal; if art was to discuss only itself and the languages it used, there was no space to bring in anyone else. Representations and images were considered to belong only to the human sphere.

During 100 years of industrial development, the animal was reduced, on the one hand, to a symbol of itself – mere representations to be consumed as fabrics, figures and icons by consumer society. On the other hand, the fleshy, bodily existence of the animal was reduced to mere matter and churned into never-ending billions of pounds of nuggets, milk or leather products. This way, the animal could be consumed 'body and soul' without ever really being encountered.

The question of the animal has come to light only in the past few decades, as the figure of the independent, rational human individual – the 'Enlightenment man' – has started to lose its magic. Suddenly, non-humans are everywhere. They have surrounded our conferences, our literature, our exhibitions. They do not yet have access, but we can feel their presence, and we know we cannot hold the barriers much longer. They sniff and see and talk in many foreign voices, and, even if we cannot understand them, we can at least hear them talking. Now what do we do with them?

There has hardly ever been a greater void between the reality of theory and the reality of praxis than at the beginning of the 21st century. Despite the 100-year quest in the realm of theory to dismantle the 'Enlightenment figure', we see no end to the individualist, rationalist, profit-seeking man in the hard reality of our lives. He – because, despite actual gender, this is a male construction – is fighting fit and very much at the centre of the world.

⁴ Steve Baker, *The Postmodern Animal* (London, 2000).

But the void between theory and praxis is, in fact, a void between theories – a void between theories in humanities and theories in economics. While humanist theories (the broad tree of thought from philosophy to science studies to social studies) increasingly propose an image of the human as a companion species, a hybrid, an ecosystem or a production of its culture – in short, something far from the autonomous, rational and unique individual – neoclassical economic theory still relies on the Newtonian worldview and the rationality celebrated by Enlightenment theories. Despite all this inter-disciplinarity, we have not overcome the two cultures divide, and we will only do so if we realise that the economic conditions which govern our lives are not laws of nature but based on worldviews, theories and ideologies. We cannot simply reject ‘economic talk’ as something threatening, or superimpose it onto our non-anthropomorphic artistic or research practices. We only overcome this divide if we challenge neoclassical economic theory from the very root, and start to look for theories of economy that could address the displaced, non-centred mode of humanity. The current economic crisis has proven that neoclassical theory brings poverty to the majority and benefit only to a minority of a minority. Behind a normalised vocabulary lie concepts of human nature and societal behaviour, of what utility is and how to measure it, of what oikos [household] is and who is counted as part of it.

There is a great tendency to go along with justifying art on the basis of economic profit. The pressure to adopt this vocabulary is heavy, and it is already being implemented in most of the university- and art-funding discourses. What adopting this language means is that we continue to live in a schizophrenic state in which the practice and theory we apply do not meet in any morally consistent way. But in doing this we also lose the tools and modes of thinking about *value* in any terms other than economic ones. We must resist this tendency with every means possible.

Rhetorics matter.

As the art world is increasingly consumed by market ideology and the ‘success’ of art is equated with the amounts of money exchanged, we define the value of art only in economic terms. This has already started to distort the general audience’s opinion of what art is, and what its role is in society – as if art that does not sell is not art at all. It is necessary to investigate, and make explicit, how mainstream economic theory works its way into the art market, and to make visible both reality and its alternatives. What is in play is not (just) the erosion of values but also real, live, human and animal bodies.

As politics flee from politics and parliamentary decision-making becomes mere distribution of state funds, it is increasingly important to secure art as a site for discussion on ethics and on *good life*. Non-productivity, non-individualism and not meeting consumer needs must be taken seriously; when art becomes a production process, its appreciators paying customers and its makers entrepreneurs, we lose a place from which to critically investigate society and keep a door open to alternatives. This is not a formal question but an acute, ethical one. Art is a site of play, just as children play without a pre-set concept of how things should be. This is where radicality (in the true sense of the word) can emerge.

Mike van Graan

Trading Places

Mike van Graan is Executive Director of the African Arts Institute (AAI), a South African NGO based in Cape Town, the two-fold mission of which is to help develop leadership for the African creative sector and build regional markets for African artists and their creative works. He also served as the Secretary General of Arterial Network, a pan-African network of artists, cultural activists, creative enterprises and others engaged in the African creative sector and its contribution to human rights, democracy and development on the African continent. After South Africa's first democratic elections in 1994, he was appointed as a Special Adviser to the first minister responsible for arts and culture, and played an influential role in shaping post-apartheid cultural policies. In 2011, he was appointed by UNESCO as a Technical Adviser to assist governments in the global south in developing cultural policies aligned to the UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions. He was appointed as Artscape's Associate Playwright and is considered one of South Africa's leading contemporary playwrights, having garnered numerous nominations and awards for his plays interrogating the condition of post-apartheid South Africa. At the 2012 National Arts Festival, he received the Standing Ovation award for his sustained contribution to the festival as a writer and activist.

Mike van Graan was a keynote speaker of the **6th ELIA Leadership Symposium – E/MERGE** hosted by the University of the Arts Helsinki, 27–29 November 2013.

As I reflect on my South African and African experiences alongside my engagement with art education, my key point of departure is contemporary South Africa as a microcosm of the world order and apartheid South Africa as a microcosm of Africa's colonial period. The chief characteristics of the latter were: a White minority accumulating wealth off land from which Indigenous people were forcibly removed; Indigenous people being obliged to sell their labour cheaply in White-owned factories, mines and farms; Indigenous cultures and languages being suppressed, with the concomitant imposition of Afrikaans and English as official languages; dual education systems being imposed – one which affirmed White people as holistic human beings, while the other dehumanised Black people as (in the infamous words of one apartheid Prime Minister) 'hewers of wood and drawers of water'. These features mirrored the colonial period during which European powers carved up Africa, took land and raw materials by force and rendered African knowledge systems, cultural values and religious beliefs inferior to the European equivalents that infused the education systems of the colonised.

Apartheid decreed that there be different education systems for each so-called population group, meaning that, as a person classified as 'Coloured', I was obliged to apply for a permit to attend the 'White' University of Cape Town. This was granted on the basis of my undertaking drama – a subject not offered at the university designed for 'Coloureds', since performing arts jobs were reserved for Whites. During my undergraduate years, I learned about the history of theatre – or, rather, the history of European theatre – and about contemporary American theatre; nowhere was there a place for the theatre of Asian countries, of the Arab world and certainly not of Africa.

Given the overwhelming bias of funding, infrastructure, resources and content in favour of the White minority before the first non-racial democratic elections in 1994, post-apartheid cultural policy was – understandably – premised on a human rights approach. Article 27 of the Universal Declaration of Human Rights states that 'everyone shall have the right to freely participate in the cultural life of the community and enjoy the arts'. A new education system was devised for all, while numerous tertiary institutions, which had formerly served segregated racial communities, were merged in order to achieve economies of scale while realising the political and moral imperatives of building a South African identity rather than multiple, polarised racial identities. Curricula were re-examined as universities woke up to the fact that they were located in Africa, that they needed to help find solutions to myriad African challenges and that Black staff had to be recruited and trained to teach in arts faculties which had formerly produced graduates for jobs primarily reserved for Whites.

Yet, nearly 20 years after Nelson Mandela was elected President, South Africa is again a microcosm of the inequality that typifies the rest of the world, with the top 20 percent of the population earning 70 percent of the national income and the bottom 40 percent earning just seven percent of the national income. Officially, unemployment is 25 percent, meaning that South Africa is one of the most unequal societies in the world. Political emancipation has been achieved – in that everyone

now has the right to vote and Black-led government is in place – yet the economy is still largely controlled by a minority, just as, in the post-colonial era, the economies of independent countries remain inextricably linked to those of their former colonial powers.

Over the past two decades, we have witnessed an influx of immigrants from other African countries, in search of a better life in the African country with the largest economy. But, against the background of inequality and poverty, such economic migrants have been the target of xenophobic violence, accused of taking work opportunities from South Africans. This is not unlike the experience of immigrants from the global south to fortress Europe with its economic woes. Again, the South African microcosm reflects the two key fault lines in the world today – inequality and culture – with inequalities in material wealth, political power, cultural privilege and military means, and the associated tensions, often finding expression in the cultural domain.

Whether it is because of the cyclical rise of governments whose neoliberal ideology privileges the marketplace, or the impact of economic recession – which, ironically, has its roots in free-market assumptions and practices – the humanities, in general, and the arts, in particular, are condemned to continually having to justify their value within society, and thus within the tertiary institutions required to produce ‘productive’ graduates.

Our relative powerlessness, internalised over long periods of marginalisation, our inability to convincingly argue against other perceived national interests – such as economic growth, job creation, social cohesion, etc. – and our dependence on the public purse for our institutional sustainability often make us reluctant to rock the boat. Furthermore, our concern for our own jobs during times of rationalisation – particularly when the nature of our subjects grants us much higher staff–student ratios than high fee-income-generating subjects – results in the arts sector generally conforming, and adapting, to these conditions, in some cases even embracing market imperatives, if not to overcome then at least to postpone any existential questions.

To justify our existence, we embark upon economic impact studies, affirming the contribution of the creative sector to GDP, job creation and export earnings, and catalysing secondary industries such as tourism, transport and leisure. We become trapped by politicians and policy-makers who think in terms of electoral cycles determined by the short-term economic and social well-being of voters rather than a longer-term need to nurture holistic citizens.

And so it is that, 18 years after the adoption of a White Paper on Arts, Culture and Heritage premised on human rights, our Department of Arts and Culture is reviewing this policy document. In this process, there has been an overwhelming emphasis on the creative industries as the department’s contribution to growing the economy in order to meet the government’s broader political imperatives to create jobs, reduce unemployment and generally help to address the country’s development challenges.

Similarly, in advance of the 2015 deadline for meeting the Millennium Development Goals (MDGs),¹ and with 36 of the bottom 45 countries appearing in the 2013 Human Development Index (which measures life expectancy, literacy and economic well-being) being African,² the creative industries have been promoted by institutions such as UNESCO, the European Union and the United Nations Conference on Trade and Development (UNCTAD) as key drivers of economic growth and, thus, as indicators of an ability to meet the MDGs.

UNCTAD's 2nd Creative Economy Report in 2010 states that 'In 2008, the eruption of the world financial and economic crisis provoked a drop in global demand and a contraction of 12 percent in international trade. However, world exports of creative goods and services continued to grow, reaching \$592 billion in 2008, more than double their 2002 level'.³ The Report concludes that 'This is a confirmation that the creative industries hold great potential for developing countries that seek to diversify their economies and leapfrog into one of the most dynamic sectors of the world economy'.⁴

And so, on the basis of these kinds of postulations, South Africa has embraced the creative industries model and is encouraging educational institutions to produce appropriate practitioners; publicly funded entities are pressurised to commercialise their activities; value is shifting from the intrinsic to the economic. A cultural policy premised on the notion that everyone has a right to access the arts has given way to a policy in which only those with disposable income have access; *their* aesthetic and entertainment desires are the 'market' that determines programming. The poor – previously excluded on the basis of race – are once again excluded on the basis of poverty. This is compounded by programming that is alien to their lives and the geographical location of institutions which continue to reflect apartheid's spatial arrangements. Ironically, the creative industries are supposed to deliver benefits to the poor; they are just excluded from enjoying them.

Too often, because of the lack of resources and support from their own governments, players in African creative space embrace the latest policies emanating from the global north, particularly from Europe. Yesterday, it was cultural diversity; the day before, it was culture and development; today, it's the creative industries; tomorrow, it will be intercultural dialogue and, the day after, climate change and the arts. Projects are panel beaten, to fit with the new language and access the resources attached to such policies, without necessarily interrogating what they might mean within African conditions.

¹ Eight Millennium Development Goals were adopted by world leaders at the United Nations in 2000 to address the key challenges of poverty and underdevelopment. See <http://www.un.org/millenniumgoals>.

² The 2013 Human Development Index is available for download on the United Nations Development Programme website: <http://hdr.undp.org/en/content/human-development-report-2013>.

³ United Nations Conference on Trade and Development (UNCTAD) and United Nations Development Programme (UNDP), *Creative Economy Report 2010: A Feasible Development Option* (New York, 2010), p. xxiii. The full report is available for download on the UNCTAD website: <http://unctad.org/en/pages/PublicationArchive.aspx?publicationid=946>.

⁴ Loc cit.

Yet, at the third African Creative Economy Conference in Cape Town in October of 2013 – hosted by Arterial Network, a pan-African civil society network of artists and cultural activists – it became abundantly clear that conditions are fundamentally different between and within African countries, making the creative industries model a most inappropriate one-size-fits-all developmental driver when:

- in previous years, thanks to the discovery of oil in many countries and China's appetite for commodities, African countries have not had a problem with economic growth, with many African countries averaging annual GDP growth of four percent or more,⁵ making the creative industries redundant as a driver of economic growth.
- notwithstanding such growth, more than 50 percent of Africans live on less than \$2 per day, just as was the case more than 30 years ago,⁶ so the challenge does not have to do with growth but with the distribution of wealth and its application to development needs.
- most Africans – a McKinsey report estimates at least 70 percent – earn an income within the informal economy, with fewer than 30 percent of the continent's inhabitants having formal, wage-paying jobs.⁷ This also speaks to the potential lack of sustainability of the creative industries which, of course, requires markets.
- copyright regimes vary dramatically between countries in both their form and application, so that, for example, for every ten DVDs created in Nigeria's film industry – the third largest in the world, in terms of number of movies produced each year – it is estimated that nine are pirated,⁸ and yet it is precisely such activity that generates income for distributors operating within the informal market.

It is not that the cultural and creative industries have no place on the continent; it is that they are given undue emphasis as a result of political and economic imperatives that have not been thoroughly interrogated. The various traditions of the arts being practised for their own sake, as integral to human development, being harnessed to socially beneficial ends or instrumentalised for social development purposes and being used to stimulate economic development are all valid in diverse African conditions. Within the informal arts educational space in which I operate, we seek to provide participants with theoretical, organisational and practical tools that enable them to be engaged in any or all of these ways of working, depending on the conditions in which they find themselves.

Given South Africa's superior economy and infrastructure, our creative exports to Africa have increased dramatically, with only a minimum of imports of African creative goods and services to our country. And herein lies the final South African

⁵ Arterial Network and the African Arts Institute, *Africa by Numbers* (Cape Town, 2013). Available for download on the Arterial Network website: <http://www.arterialnetwork.org/research/africa-by-numbers-empowering-figures-for-the-creative-sector>.

⁶ See Poverty and Equity Databank <http://data.worldbank.org/topic/poverty>.

⁷ David Fine et al., *Africa at Work: Job Creation and Inclusive Growth* (New York, 2012). *Africa at Work* was initiated by the McKinsey Global Institute, the business and economics research branch of McKinsey and Company, a global management consulting firm. The full report is available for download on the McKinsey and Company website: http://www.mckinsey.com/insights/africa/africa_at_work.

⁸ Rebecca Moudio, 'Nigeria's film industry: a potential goldmine?', *Africa Renewal Online*, 27/1 (May 2013), 27. Full magazine available for download on the United Nations Africa Renewal website: <http://www.un.org/africarenewal/magazine/may-2013>.

microcosm of the world. For the creative industries, the arts, arts education and the like are not only about economic development; they are also instruments of cultural hegemony. Embedded within films, television programmes, music, literature and educational programmes are values, worldviews and ideological assumptions, so that, as people consume cultural products, they internalise the ideas embedded within them.

It was no coincidence that colonialism and apartheid suppressed Indigenous cultural practices and languages and introduced other value systems and ideological positions. In a post-colonial world, empire works not on the politically odious basis of ruling Indigenous people by imperial authorities but by the co-option of local elites and relationships with client states that provide continued access to cheap labour. Multinational companies have call centres in India selling products in the UK; garments are made cheaply in Vietnam and Bangladesh and sold elsewhere at huge profit; technological instruments are manufactured cheaply in China and even musicals like *Cats* and *Phantom of the Opera* are outsourced to South African companies and toured globally at considerably less expense than a UK company would cost.

In a world with fundamental structural inequalities, with economic, political and military power representing the coercive means of such inequality, education and culture represents soft power – the means with which to build consent, through which hegemonic forces colonise hearts and minds. The Goethe Institute, the French Institute and the British Council remain extremely active across post-colonial Africa, even as China's Confucius Centres begin to multiply across the continent in parallel with China becoming Africa's leading partner in trade.

The world is indeed changing.

- Centres of economic power are shifting to the Arab world and Asia. New trade blocs such as Brazil, Russia, India, China and South Africa – BRICS – have emerged to challenge the economic and associated political power of Europe and North America.
- No longer do we only have CNN, BBC World, Sky News and French twenty-four-hour news channels; the world is being interpreted and projected through Russia Today, Chinese and Indian global television stations and Al Jazeera.
- The promotion of democracy by the west loses its allure when these same so-called democracies support dictatorships or the suppression of human rights if it is in their geopolitical-economic interests to do so, or when elected governments can be removed by extra-constitutional means with the silent blessing of democracies, or when obscene amounts of campaign funding are derived from a private sector to which politicians appear more indebted than they are to their voters, or when global multilateral institutions, such as the UN and UNESCO, are held hostage by minority veto power, or when authoritarian societies appear better able to drive economic growth and lift people out of poverty than democracies that appear to benefit the few, or when the government of the world's largest democracy can be shut down for weeks.

- Values associated with human rights, promoted by the west, ring hollow when the so-called war on terror makes possible renditions (such as the illegal kidnapping of alleged terror suspects and their transfer to interrogation centres in other countries), Guantanamo Bay's detentions without trial and assassinations by drones, or when, in the ten years after 9/11, in which 3,000 Americans lost their lives, Brown University's 'Costs of War' project (which monitors the financial and human costs of America's wars) estimates that more than 190,000 people have been killed as a result of 'the war on terror' in Iraq with at least \$2.2 trillion being spent on the war in that time.⁹
- Climate change – the direct result of global industrialisation, particularly in the global north – threatens the very existence of many communities, not only in the global south, and there appears to be great reluctance to do anything about it lest it impacts on short- to medium-term profit making.

With deepening structural inequalities at regional, national and global levels, on the one hand, and growing frustration and little-to-lose desperation, on the other, our world has become increasingly dangerous. And, as security tightens to protect the haves, so it unleashes further antagonism between the haves and have-nots.

In conclusion, tertiary institutions generally, and those within Europe in particular, are challenged to determine where they are located within this changing world, and how they would like or need to contribute to change that is just and sustainable. A further challenge for arts departments will be to do this in the context of institutions that might deem the humanities to be expendable or inferior to other areas of academic endeavour. For this reason, networks such as ELIA are important for sharing ideas and strategies and for planning and undertaking advocacy.

⁹ Costs of War project, 'Iraq War: 190,000 lives, \$2.2 trillion' [Press Release], Brown University News and Events page, published online 14 March 2013 at: <http://news.brown.edu/pressreleases/2013/03/warcosts/>.

Maria Aiolova

The Field of Urbanneering

Maria Aiolova is an educator, architect and urban designer based in New York City. Her work focuses on the theory, science and application of ecological design. She is founding Co-President of Terreform ONE and a Partner at Planetary ONE. Aiolova chairs the ONE Lab New York School for Design and Science and the ONE Prize Design and Science Award. Prior to this, she was a member of the faculty at Pratt Institute, Graduate School of Architecture and Urban Design and Parsons the New School for Design. Aiolova has also taught at the University of Toronto, Wentworth Institute of Technology and Boston Architectural Center and has been a visiting lecturer and critic at Harvard Graduate School of Design (GSD), Columbia University, Cornell University, City University of New York (CUNY), Washington University, Cooper Union and Rhode Island School of Design. Aiolova has won a number of competitions, including first place in the CHARLES/MGH Station, Boston, and the Izmir Post District International Competition, Turkey. In 2011, she was awarded the Victor J. Papanek Social Design Award, sponsored by the University of Applied Arts Vienna, the Austrian Cultural Forum and the Museum of Arts and Design. Maria also won the Zumtobel Group Award for Sustainability and Humanity and the Build Boston Award.

Text adapted from Maria Aiolova's keynote presentation to the **12th ELIA Biennial Conference – ART, SCIENCE AND SOCIETY: Art Questions, Art Knows, Art Matters** hosted by the University of Applied Arts Vienna at the MuseumsQuartier Wien, 8–10 November 2012.

Urbaneering is a radical new occupation that proposes to regenerate, pioneer and sustain the future of urban realms. Terreform ONE – an architectural and city design think tank – advances the notion of green urbanism in derelict municipal areas. On behalf of Terreform ONE, I would like to consider the main challenges in the field of Urbaneering, which in America continues to be our core value system. McPeople, McCars and McMansions consume a lot of energy and produce a lot of waste and greenhouse gases. At Terreform ONE, we don't believe in the end of the world; we'll leave that to Hollywood. Instead, we are looking for solutions, and the two we have available to us are techno fix – the idea that science and technology will invent a silver bullet to remedy all the problems of overconsumption – and Ecotopia – the idea that we should return to nature, listen to nature and learn from nature.

At Terreform ONE, we spend a lot of time thinking about the future of cities. Our idea of a future city includes tall, bioclimatic buildings, interconnected by canyonated transportation systems that separate slow from fast movements, cars from pedestrians, and, in the air, what we call 'blimp buses' and jetpacks open up a vertical course of transportation. We discovered that this idea was nothing new. Over a hundred years ago, Harry Pettit drew the same vision of New York City, with tall, interconnected buildings, transportation separated on the street (in this case, horse-drawn carriages and the first automobiles) and dirigibles in the air.

In 2009, we started our school, ONE lab, where we conduct our research and teaching. This is where we educate people in the art of Urbaneering. We intend that Urbaneers will gain a versatile combination of skills that previously belonged to separate fields. We think these should include the skills of designers, artists, scientists and engineers, together with those of developers and politicians, in order to solve the complex problems of future urbanity. We think an Urbaneer should have a role akin to Jane Jacobs, combined with the massive success and impact of Robert Moses. An excellent historical example of an Urbaneer is Frederick Law Olmstead. Students come from all around the world, as far as Australia, Kuwait, Iran and all over Europe, to meet in Brooklyn, New York. Their activities range from parametric design to growing construction panels out of mushrooms, from working with living trees and engineering natural filtration systems to deal with rising sea levels. We are growing the ONE lab. Our goal is to take it around the world, and in 2013 we will be offering ONE labs in three European cities.

A variety of projects have been created with our students in ONE lab. One such project, *Urbaneering Brooklyn* (Figure 1), proposes a vision for Brooklyn a century from now. We always start with research, and we have found that New Yorkers do much better than the average American. We have less dependency on coal and use much less gasoline. However, the percentage of renewable energy being used is still very low. So, in this project, we focused on downtown Brooklyn; this is where our studio is, and our premise is that, in the future, cities can be completely self-sufficient within their political boundaries. What we mean by this is that they can produce all the energy, food and water they need, and deal with all their waste.

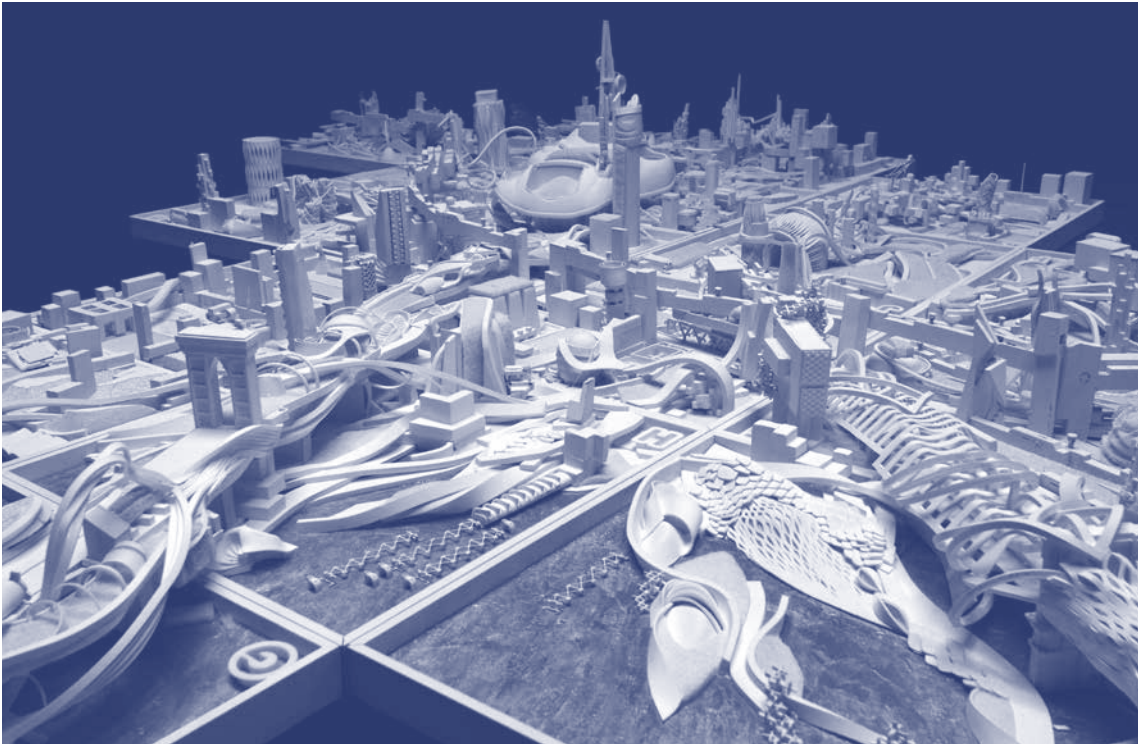


Figure 1 Model of *Urbaneering Brooklyn 2110: City of the Future*.

The only thing that goes in and out is culture. We looked at Brooklyn, and we currently use no recycled water and only about six percent of the energy used is renewable. Which is pretty good, but there is still much more to be done.

Our belief is that, 100 years from now, water will be a commodity, and so we have focused on that. New York City is an estuary in which rivers meet; there is always water there. We looked at when Brooklyn was first established, in 1779, when there were marshes with soft edges that were able to deal with the sea currents going in and out. Back then, the natural environment was equipped to handle all the water. We looked at what we call productive green space – space for farming, for pasture, for forests and also wetlands, which filter water. Today, we have zero productive green space. There are a few parks; Brooklyn Bridge Park is wonderful, but the other parks are around housing projects and are inaccessible even to residents. What we are proposing is that we go back to where we first started but use modern science and technology. What we want to create is a resilient city, by building a porous edge, made of sponge parks, which can filter water and accommodate rising sea levels. This is space not just for recreation but also a productive green space that can produce food as well as energy for biofuel.

This is our basic premise – that we go from a completely built environment to reversing the figure-ground and combining liveable spaces with vertical farms, with renewable energy production and self-mobility. If we apply this model, we can have 100 percent renewable energy and we can have 100 percent recycled water. The result will be that this infrastructure will become the new organising principle

for urbanity. The main water filtration station will become the new cathedral; it will be celebrated as the city centre, combining the function of plants cleaning the water with the functions of city government. Our new plan for downtown Brooklyn includes canals that are used for both transportation and recreation.

To give a little more detail, our idea of blimp buses (Figure 2) – which can carry people over water – demonstrates soft infrastructure, combining different modes of mobility. The concept is that the components within this infrastructure have a modicum of intelligence and can communicate with each other. The *XO (hug and kiss) Lamb Car* (Figure 3), is actually soft; if it hits you, it will just tickle you, and you can reorganise the street by always giving priority to pedestrians and cyclists and manipulating traffic around them while also making sure that nobody dies in a car accident. Let's consider a few other projects that combine this notion of design and science. *Fab Tree Hab* is a proposal that we can grow houses out of living trees. This is based on the 2,000 year-old technology of pleaching trees together, combining them into a singular vascular system that creates structural stability. Our contribution is to deploy Computer Numerical Controlled (CNC) reusable scaffolding to guide this growth, which can then be reused to create a living wall.

On our roof in Brooklyn, we have been experimenting with growing willows and pleaching them together. Over the summer, the willows grew in just about a month and a half. Then the question follows: why not grow a house? Our starting point is that we currently have passive houses and zero energy houses, but a tree made of willows would actually be a positive energy house because it's part of the environment. It's a positive contribution, not only sequestering carbon dioxide and other greenhouse gases but also producing oxygen and providing a habitat for different organisms. You can grow a whole village. It takes time – in this climate, probably five to seven years. We are always asked about that, especially by developers,



Figure 2 Rendering of blimp buses.

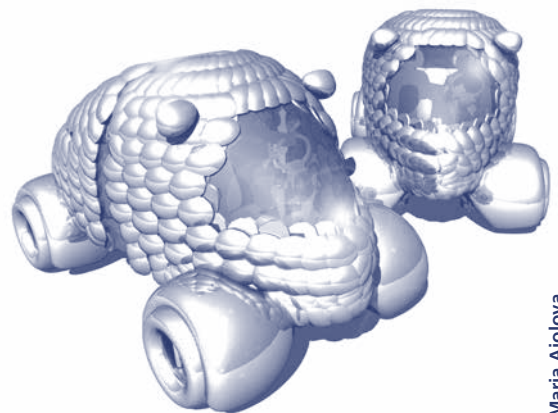


Figure 3 Rendering of *XO (hug and kiss) Lamb Car*.

and we say people wait seven to ten years for a good bottle of Scotch, so hopefully they will wait for a pre-grown house. The model for *Fab Tree Hab* (Figure 4) was displayed at the Museum of Modern Art in New York. The idea is that these houses can be pre-fabbed if you start with pre-grown trees and in warmer climates; using Ficus trees, you don't have to wait that long – about a year.



Figure 4 Model of *Fab Tree Hab: Living Graft Prefab Structure*.

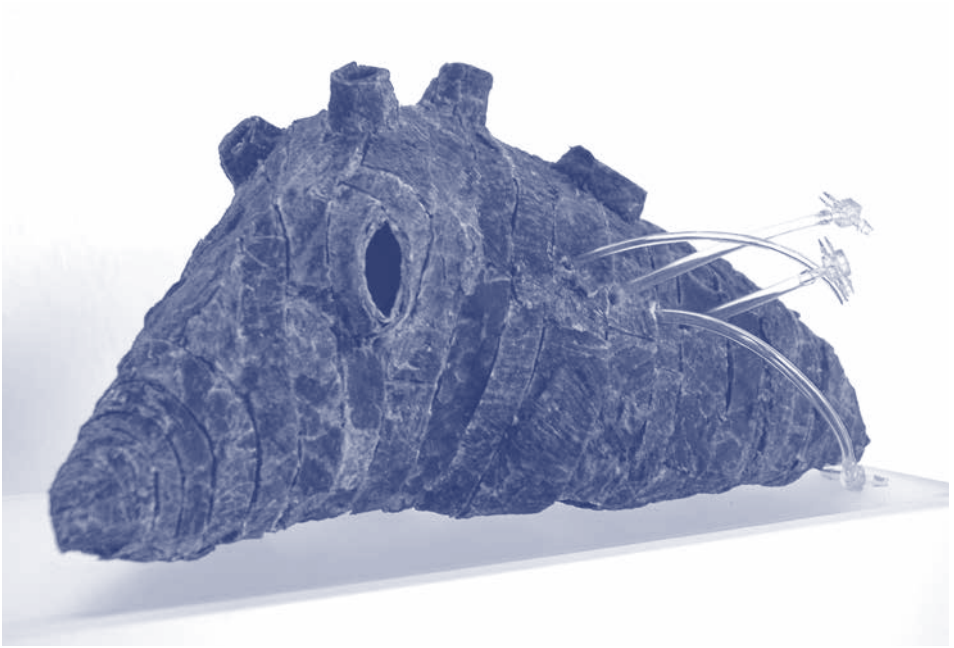


Figure 5 Model of *Meat House: In Vitro Meat Habitat*.

From the tree house, we move to the meat house. The idea behind *Meat House: In Vitro Meat Habitat* (Figure 5) is to produce what we call the victimless shelter. We are probably the first architectural office to have a bio lab. We had a grant about four years ago, and we were going to use it to buy a 3D printer. Instead, we decided to build a laboratory. The idea was that the methods of tissue engineering used in regenerative medicine – which has been around for decades now – can be applied to design. The idea was to pre-grow meat and then assemble it into a whole home. Bones will provide structural support, muscle and fat for insulation, skin and hair for the façade and then the opening is the sphincter muscle. We thought it's probably not going to be very beautiful, which can be judged from the model. I should say that it's not alive. We had to kill it, because it doesn't have an immune system and so couldn't survive outside the incubator.

A lot of our work is about polemics. The meat house model has been on display in museums around the world. We know we are not going to grow a whole house out of meat, but we have an idea that we can have victimless products of leather. One can imagine things like wristwatches and even handbags. Instead of killing an alligator, the skin can be grown in a laboratory. A few years ago, we had a show in Prague and we put the meat house in front of the cathedral so it could face religion.

We have worked on another project about using waste as a resource. In New York City, we produce 36,000 tonnes of waste every day. We had been working on that idea for a long time, and then Pixar came up with this movie, *WALL-E*, who is the most affable robot, building ziggurats out of waste. We fell in love with him. Then, we asked: what can we do with all this waste? Currently, we don't have a place to put it in New York; it used to go to Staten Island, to Fresh Kills Landfill, which closed in 2001. Now we put it on boats, trains, ships, and it goes as far as South

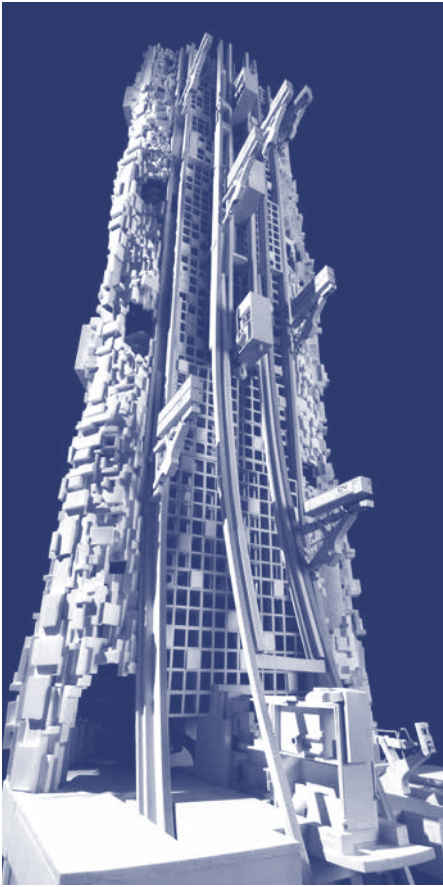


Figure 6 Model of 24 Hours Tower: Waste to Resource, representing a 54-storey building made from 24 hours of waste using *Mycoform*.

Carolina and Ohio. We sell our waste in New York City. Off-the-shelf compactors can be modified to produce puzzle-fitted geometry. We are using these compactors to develop technology that makes building blocks from waste by separating plastic from metal from organic. The idea is that this technology will be incorporated as part of construction. Using a day's worth of the waste produced by New York City, we can actually construct a 54-storey building every day (Figure 6). This is underwritten by the idea that, in the future, we will make the transition into a positive waste society, in which nothing will be thrown away anymore and we just continue to cycle it. We do a lot of collaborations with scientists, and we wanted to take this idea further, asking: how do we deal with the organic portion of waste, and how can we make it into a building block? We came up with the idea of combining compacted waste with growing what we call *Mycoform*.

Mycoform uses the structure of mycelium. Mycelium is the root structure of mushrooms, and it grows very fast – seven to eight days at room temperature – and it has really good properties. It is a biopolymer, and it can be used as soundproofing material. By combining mycelium with compacted aluminium, you can make a brick that is just as strong as a regular brick and is virtually free. We are developing this technology. We want to work with São Paulo in

Brazil to set up small shops. You can start a shop with a micro grant of \$500 and produce these bricks at the cost of a quarter of a penny. How is this done? We are starting with these medicinal mushrooms. They are not magic mushrooms; they are used to make Chinese tea and you can grow them in a lab. They have the ability to digest cellulose, and, as I said, in seven to eight days, they turn into a dense polymer.

Gen2Seat: Genetic Generation Seat represents a true collaboration between designers, artists and scientists. We entered the International Genetically Engineered Machine (IGEM) competition, started by a group of faculty at MIT. Our idea was to grow a baby seat out of just a few microorganisms. We combined the material we had been working on – a micro farm using mushrooms – together with a different bacterium called *acetobacter xylinum*, which has the ability to produce copious amounts of cellulose and can also be grown at room temperature at virtually no cost. So we combined these two technologies in our lab to develop a chair that grows very fast. *Mycelium*, the biopolymer, forms the body of the chair, and the *acetobacter* creates a very tough, leather-like skin out of cellulose that we use to cover the chair.

We wanted it to be playful, but it's also reminiscent of the vertebrae or some of the different bone structures that we have been studying. Little Mia Joaquin, the daughter of my business partner, contributed by modelling the chair (Figure 7). Our hope, at Terreform ONE, is that, by the time she has grown up, we will have changed our value systems. We will have materials, like this, which produce no waste. This chair can be returned to earth and will be fully biodegradable. It has no embedded energy, and it starts with only a few microorganisms to be fully grown in our lab. There are many technologies like this. Most importantly, it's about working together – working together with artists, working together with scientists, engineers and hopefully also politicians – to achieve this vision.



Figure 7 Mia Joaquin modelling *Gen2Seat: Genetic Generation Seat*.

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Douglas Coupland

Art Schools, Learning and Modernity

A Visual Essay

Douglas Coupland is a 21st century Renaissance man – an artist, designer, writer, speaker and thinker extraordinaire. Coupland combines the rare qualities of profound cultural insight with futurist thinking about everything from popular notions of technology and its impact, through to the role of theorists, like McLuhan, for whom technology is both liberating and a profound constraint on the future. Coupland is as comfortable with fiction as he is with examining the cultural phenomena and artefacts that surround everyday life. His various works bridge the differences between language, expression and artefact. He creates public art, while also commenting on the future of technology and the very notion of what a public is. His sculptures, paintings, stories and books together constitute an encyclopaedia of contemporary thought and creative practices. He is at the heart of Vancouver’s vibrant and innovative cultural scene.

Douglas Coupland was a keynote speaker of the **5th ELIA Leadership Symposium – W/HERE: Contesting Knowledge in the 21st Century** hosted by Emily Carr University of Art and Design in Vancouver, 7–9 December 2011.

**IT'S NOT
GOING
TO
END**

**FEELING
UNIQUE
IS NO INDICATION OF
BEING
UNIQUE**

**SOMETIMES
A NICE BIG HIT OF
RANDOMNESS
IS JUST THE
TICKET**

**OUR
ONLY HOPE
IS TO INVENT
SOMETHING
SMARTER
THAN
OURSELVES**

THE THOUGHT OF BEING
LESS
CONNECTED
THAN YOU ARE
RIGHT NOW IS
IMPOSSIBLE

THE INTERNET
OCCUPIES THE SLOT IN
YOUR HEAD
ONCE OCCUPIED
BY RELIGION
AND POLITICS

FREUD
JUNG
MARX
McLUHAN
SPIELBERG
JOBS
TORVALDS
GOOGLE

YOU KNOW
THE FUTURE
IS
REALLY
HAPPENING
WHEN YOU START
FEELING
SCARED

**NOSTALGIZING
THE WAY PEOPLE'S
BRAINS
WORKED IN THE
20TH CENTURY
HELPS
NOBODY**

**WE NOW LIVE
IN THE
POST-ERA
ERA**

**MULTITASKING
IS A
MYTH**

**WE ARE
SERIAL
THINKERS**

**ACCELERATION
IS
ACCELERATING**

**THERE'S
NO
GOING
BACK**

Yoko Ono is a Japanese artist, author and peace activist, known for her work in avant-garde art, music and filmmaking. Ono brought feminism to the forefront in her music, which prefigured New Wave music, and she is known for her philanthropic contributions to the arts, peace and AIDS outreach programmes.

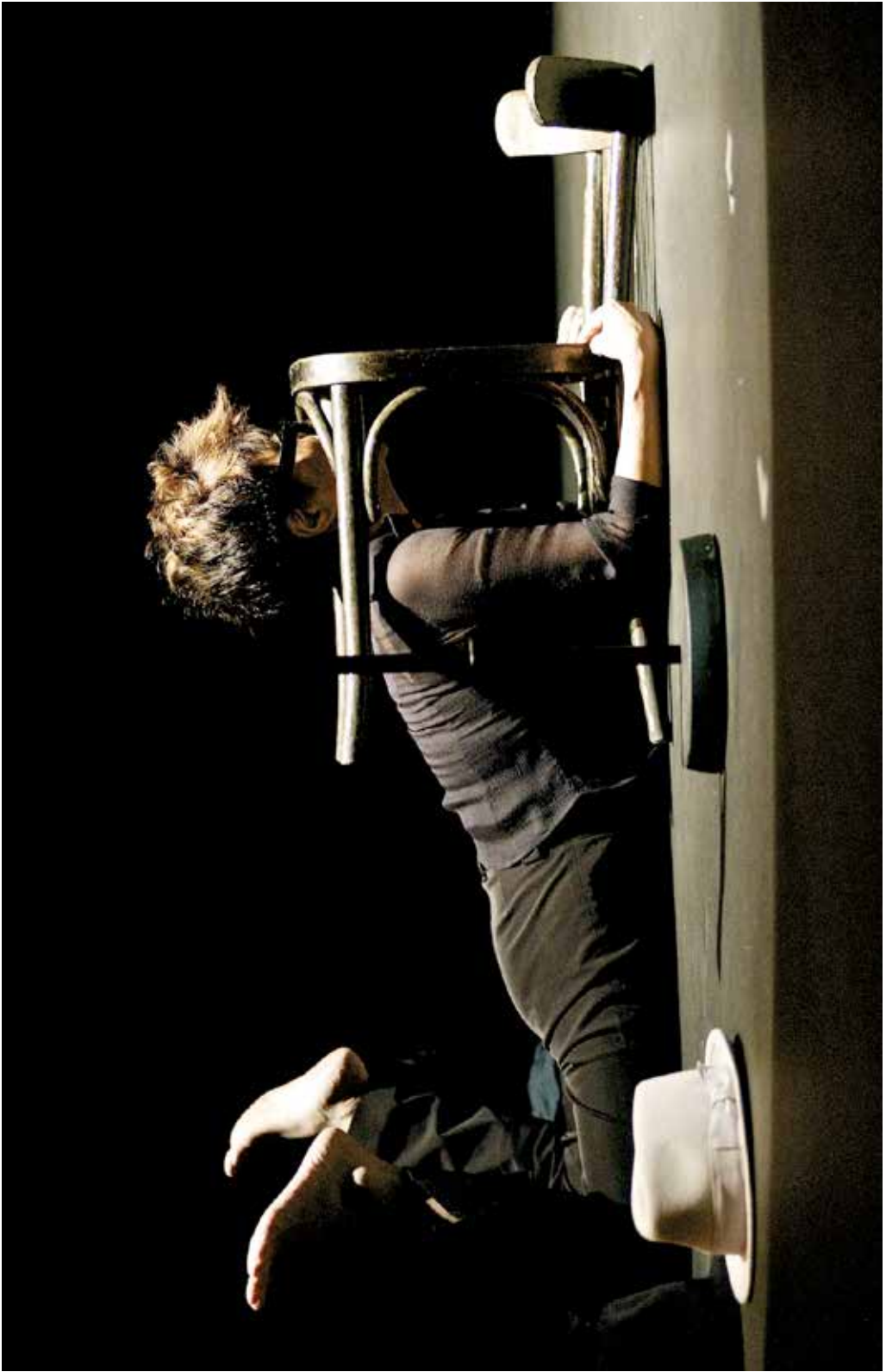
Hito Steyerl has produced a variety of works as a filmmaker in the field of essayist documentary video. Her principal topics of interest are media and the global circulation of images. In 2004, she participated in **Manifesta 5, The European Biennial of Contemporary Art**. She also exhibited in **Documenta 12** in Kassel in 2007, the **Shanghai Biennale** in 2008, the **Gwangju Biennale** and the **Taipeh Biennial** both in 2010 and was the subject of numerous solo exhibitions throughout Europe. She works at the Berlin University of the Arts as Professor for New Media Art.

Shady El Noshokaty is a contemporary Egyptian visual artist whose projects have been featured in the biggest museums and exhibitions around the world. He is Assistant Professor in the Department of the Arts at the American University in Cairo. Over the past decade, El Noshokaty has also played an undeniable role in the field of art education in Egypt. At the 2011 **Venice Biennale**, he was executive curator for Ahmed Basyony's art project, **30 Days of Running in the Place**, in the Egyptian pavilion. In 2010, he established **ASCII**, a foundation for contemporary art education, which aims to educate and develop young thinkers in new and alternative media practices.

Yoko Ono, Hito Steyerl and Shady El Noshokaty were keynote speakers of the **12th ELIA Biennial Conference – ART, SCIENCE AND SOCIETY: Art Questions, Art Knows, Art Matters** hosted by the University of Applied Arts Vienna at the MuseumsQuartier Wien, 8–10 November 2012.

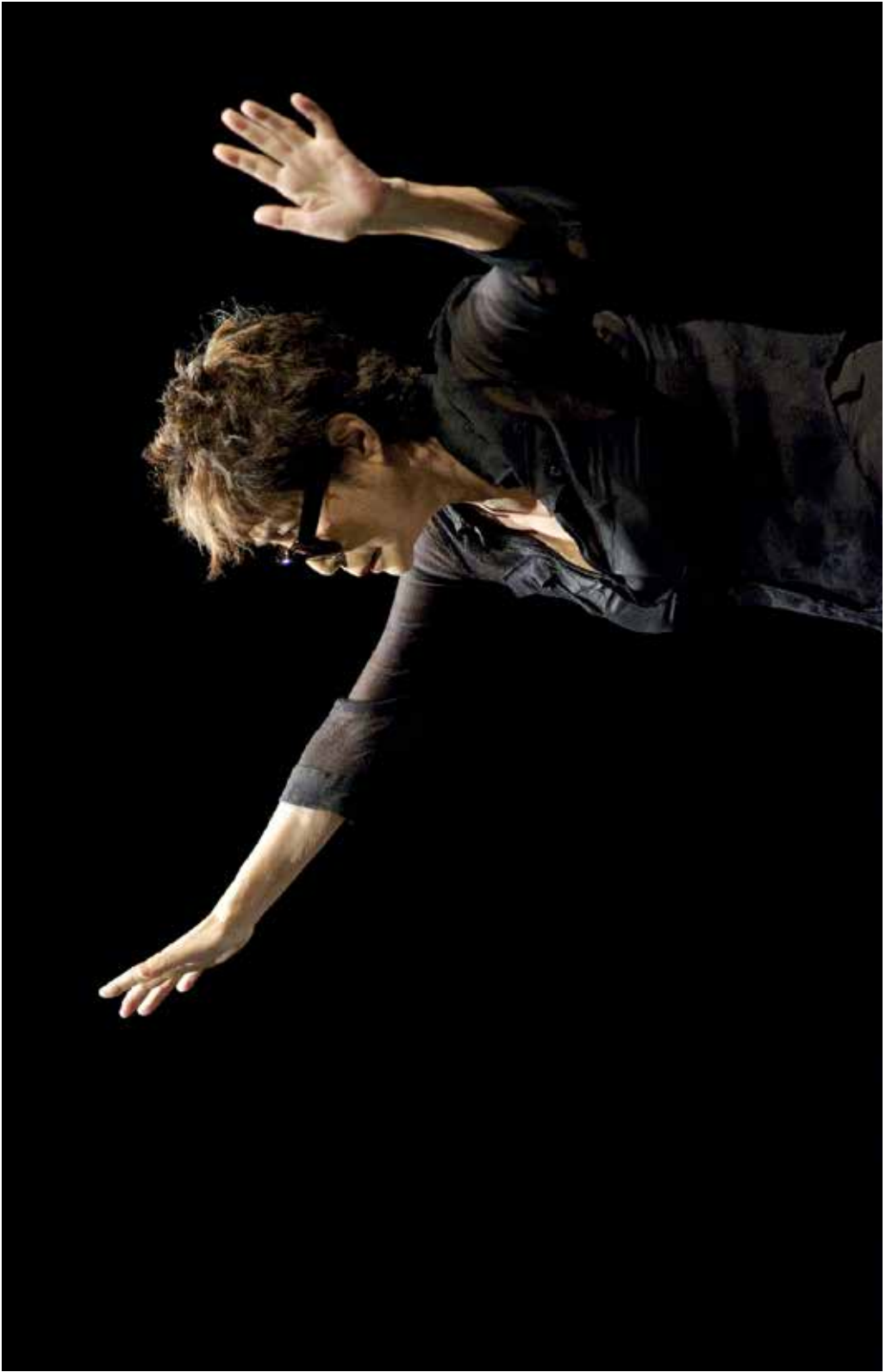
Jin Xing, as an artist and opinion-former in today's Chinese society, is a true icon. Trained as a dancer and being a highly decorated officer in the People's Liberation Army (PLA) at an early age, Jin Xing pursued further studies in the US and Europe for several years before returning to her home country in 1995. She founded Jin Xing Dance Theatre, the country's first independent dance company, and led it to international acclaim. In addition to her prestigious dance career, Jin demonstrated her versatile talent in films and theatre plays. Her achievements in the cultural field have received manifold recognition, including an honorary doctorate in the UK and the French Government's 'Chevalier de l'ordre des Art et des Lettres' to name but two. Since 2012, Jin Xing has commanded a highly influential public voice through her television presence, not least as host of her own talk show and through her fan base which reaches nearly a million followers in the Chinese blogosphere. Jin Xing not only represents a new generation in China; her name has become a synonym for courage, freedom, self-responsibility and the endless power of a creative spirit.

Jin Xing was a keynote speaker of the **6th ELIA Leadership Symposium – E/MERGE** hosted by the University of the Arts Helsinki, 27–29 November 2013.



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Yoko Ono: “I came here today to report to you - that this is the time for action and action is peace. Think peace, act peace, spread peace, imagine peace and know that we’re all together and we can make it. We’re gonna make it. We’re going to decide what our future will be. And our future, whatever it is, is going to be beautiful. Do you know what beauty is? Beauty is what we love. Beauty is what you love. Beauty is what I love. And we’re going to make this world beautiful.”

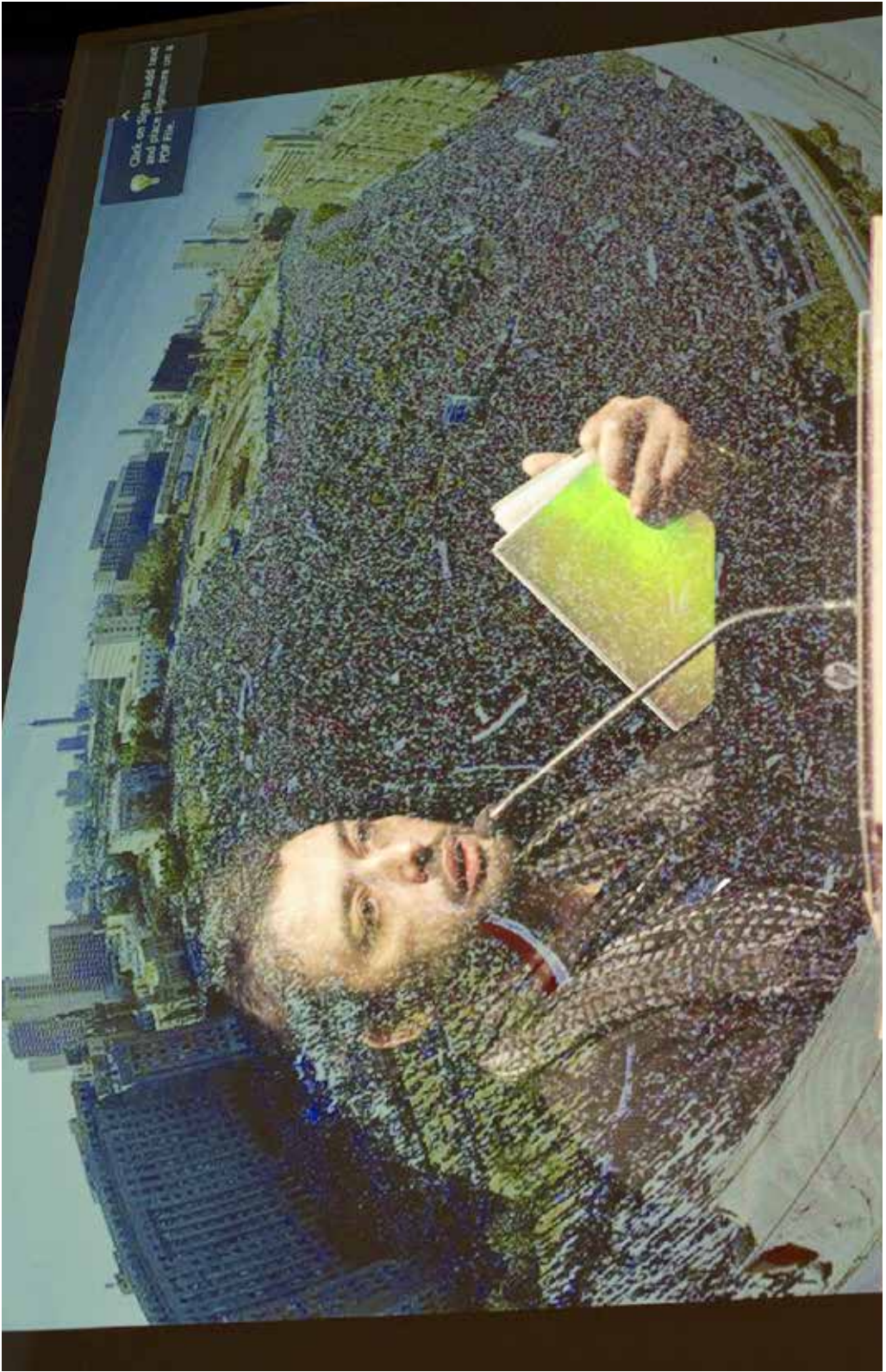


Hito Steyerl: *“We live in a world that is already deeply edited and PhotoShopped. It is cut and pasted, and the people who know these practices because they work with them everyday – let’s call them artists – they understand the importance of these practices, not only understanding the world but also making it as it is.”*



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Shady El Noshokaty: *“You are Egyptian; don’t forget your history, don’t forget your identity... We cannot deny where we came from, we cannot deny where we live... We all want to be a part of the revolution, so that we can make a difference too, and so that what we had already built could become real and become visible to others. We were all driven by this power into Tahrir Square. It was a moment one can never forget. It was a moment of fear, love. It was a great moment to be in the square – 25 January to 11 February. We were all dreaming about what could happen.”*



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Jin Xing: *“Frankly speaking, at that time, in 1987, I didn’t give a damn about modern dance; I just wanted to have the opportunity to go to New York, to discover the world. I was nineteen years old. I went to New York with my backpack, standing on Madison Avenue looking around – I was lost again. I was the number one dancer in China. I went there and I was nobody.”*



After four years, I left New York to go to Europe. Why? I thought that cultural exchange, America helping China to develop modern dance, was a great motivation, but, at the same time, they also wanted to put a label on me as ‘the first person from China learning modern dance’, ‘a modern dance choreographer made in the USA’. But I was not ‘made in the USA’. I was ‘made’ in China – like it or not. I appreciated the opportunity, the platform; it opened my eyes and developed my artistic vision, but I was not made in the USA. I was only made by my parents. I was made in China. This was soft power. Under globalisation, under this cultural exchange, soft power was being enacted upon me – so I left.”

© Japo Knuutila

Evert Hoogendoorn and Willem-Jan Renger

How Would a Game Solve It?

Evert Hoogendoorn has worked at the HKU University of the Arts Utrecht since 1999. Initially a lecturer in storytelling, he became Dean of the School for Design for Virtual Theatre and Games in 2002. He is Programme Leader of New Literacy at HKU Centre of Expertise in Arts Education and Senior Lecturer of Arts Education in the Master of Education in Arts. Hoogendoorn is the designer of abcdeSIM and a strategist and game designer at IJsfontein games company. In 2013, he was awarded the Smarter learning E-learning award.

Willem-Jan Renger has worked at the HKU University of the Arts Utrecht since 1997. Initially a curriculum developer, he became Dean of the European Media Masters of Arts programme and vice-chair of the Faculty Board from 2006. Renger is head of StudioLab, an applied research and design lab, part of the Games and Interaction department at HKU. StudioLab focuses on research and design, applying game design principles in contexts broader than entertainment, such as education and cultural heritage, government and citizenship, and healthcare, wellbeing and sports. Renger is a didactic expert and winner of the Dutch Award for the Best Idea for Teachers, 2010.

Evert Hoogendoorn and Willem-Jan Renger were keynote speakers of the **6th ELIA Teachers' Academy – Preparing the Artist of Tomorrow** hosted by the HKU University of the Arts Utrecht, 24–26 June 2013.

In this article, we will look at arts education from the perspective of game design. Being employed as educators and game designers at Utrecht University of the Arts, we have experienced that crossovers between the field of arts education and game design can inform innovative practices in arts education.

Traditional didactics in the design of learning situations

Traditionally, in education, content is king. This content – whether knowledge – or skill-based – is usually the starting point for the design of most learning situations. We all know that the form in which we offer education is crucial to the success of the learning experiences of our students. And, if we look at the archetypal behaviour of learners in the dominant forms of education, we can often explain them in relation to the behaviour of the teacher. There is a continuous strain on the teacher to maintain a proper balance. If the group has too much energy, the teacher must ‘hit the brakes’ to get them back in line. If the opposite occurs and the group is at low energy, the teacher often compensates for this with enthusiasm and personal energy. Such responsive student behaviour is embedded in the design of most of the traditional learning situations. A result of this is that too much of the teachers’ energy is required for actions which are not related to the content but aimed at the students’ (often unwanted) behaviour.

Some teachers in the arts may object that their students are easily motivated and do not usually need the extra stimuli common to other forms of education. Or they will say that the form or method in which arts education is offered is dictated by discipline-specific characteristics. Or they will object that, in arts education, there are more possibilities for one-on-one teaching than in other forms of education, so group behaviour is less of a problem. Still, in looking at these situations, we must acknowledge that arts educational design is usually based on either the excellence of the teachers at transferring their knowledge and skills or on a particular method they found most suitable in their career. In either case, the learning situation is specifically tailored towards the transfer of the teacher’s expertise and skills to the learners. Based on predefined learning aims and objectives, the teacher will set out to create appropriate learners’ activities to meet these aims and objectives, leading to measurable outcomes. A downside of this approach is that responsibility for the learning process largely resides with the teacher. This kind of role modelling potentially limits scope for the students to devise completely new, innovative, creative solutions in the learning space.

If we look at this learning situation from a game design perspective, it would seem that this pattern is broken, or at least seriously flawed. In this situation, a game designer would find roles and responsibilities highly unbalanced and unevenly distributed. The reason is that, in game design, the starting point is not content but desired player behaviour. Working on this basis, the student in the traditional setting has far too many possibilities for disengagement. The learning situation is not designed in such a way that the learner is fully responsible for the learning process. Failure to meet responsibilities is not part of the learning situation but positioned outside it, in the learning system as a whole. And this learning system does not respond to not taking responsibility; it responds to not passing tests on learning

outcomes. Student behaviour is, therefore, steered towards gathering credits, passing tests with the least effort possible, harvesting ECTS like a squirrel in autumn.

Epistemic framing

When looking at student behaviour, a valuable approach is so-called epistemic framing. Described by David Shaffer in his book, *How Computer Games Help Children Learn*,¹ an epistemic frame is the integrated view of someone belonging to a particular professional community or profession. It is a combination of the specific skills, knowledge, identity, values and epistemology on which community members make decisions and justify their choices.

Shaffer and his colleagues used this notion of epistemology to create games for children, in which children take on the role and responsibilities of an engineer, with good results. The opposite is also true. If a learner is approached as a 'student', archetypical 'student behaviour' is automatically triggered, with some of the negative aspects described above. But, when a learner is addressed from a well-designed epistemic frame, calling on all the relevant aspects of that 'integrated, professional view', student behaviour will closely mimic the professional behaviour embedded in the frame.

This process of professional mimicry, identified by Roger Caillois as one of the archetypes of play, is ideally suited to game-based design.² A well-known example is that, in real life, people in uniform are more likely to help a person in need than if they were dressed as an anonymous civilian. The same goes for players of a game or students in a classroom. When students are addressed in their role as students, they start to behave as such. This might result in being on time, doing homework and listening to the teacher, but it might also result in being satisfied with a minimal score for a test, cheating and hiding in the group. These behaviours are integral to the epistemic framework of a student. The best-known behaviour of a student is that he or she will let the teacher take the lead. This is not strange if we look at how most schools (primary up to higher education) are organised. Most of them work with a group of students who are directed by one teacher. But, if students are able to work from the framework of a director, artist, entrepreneur or any different role closely related to their future profession, these roles will intrinsically give them one or more goals to achieve, and this will influence the ways in which the students (who do not perceive themselves as students anymore) look at the knowledge or skills they need in order to reach these goals. It will also change the way they perceive the context in which they are situated.

The epistemic framework not only affects behaviour in the classroom; it also affects behaviour or attitude towards content. The role that is given to students should, therefore, be chosen very carefully to create the desired attitude. It is vital that learning aims are defined in advance, as specifically as possible, since these produce the relevant assessment criteria. Once a well-chosen epistemic frame is in place, the goals a player – in our case, a student – strives to meet are perceived as intrinsically

¹ David Williamson Shaffer, *How Computer Games Help Children Learn* (London, 2008).

² Roger Caillois, *Man, Play and Games* (Champaign, 2001 [1961]).

motivated. To make a game-based design succeed as a learning experience, these goals must be coherent and relevant to both the content the educator wants to get across and the fictional world that has been created as part of the epistemic framing.

Ludodidactic framework

We propose a way of designing education, which combines the use of epistemic framing with other strategies from game design. We call this way of designing educational processes 'ludodidactics'. This model is informed by game design models and tailored towards the specifics of the educational context.

A useful model for our ludodidactic approach is derived from game design experts (and scholars) Salen and Zimmermann. In their book, *Rules of Play*, they describe an archetypal game design pattern that starts by defining a clear set of goals for the player to achieve. Through various meaningful actions, the player can decide to achieve these goals, based on a personal strategy. In order to be able to formulate a strategy, it is essential that the player receives direct and continuous feedback on his/her actions (Figure 1).

On top of that, to keep the player motivated, it is important that 'failure' is replaced by the concept of 'recoverable loss'. This is a crucial characteristic of the pattern. Recoverable loss implies a substantial diversion, in terms of behavioural patterns, for a player. It implies that loss can always be compensated for or undone, thus diminishing the disappointment of failing. This opens up the possibility of using failure as an exploratory strategy, just seeing what happens. Instead of risk avoidance, risk-taking becomes part of the learning experience. We advocate that one can learn as much from failure as from success.

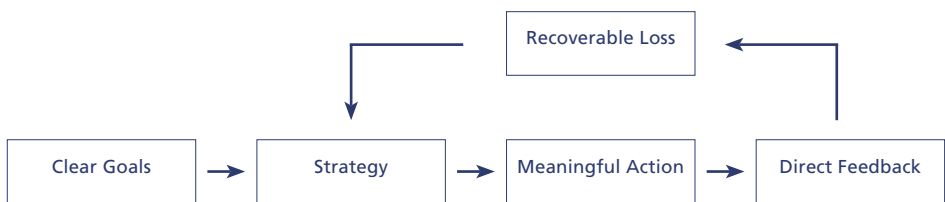


Figure 1 Immediate feedback loop. Adapted from Katie Salen and Eric Zimmermann, *Rules of Play: Game Design Fundamentals* (Cambridge, MA, 2003).

Based on this design pattern, and combining it with our earlier take on epistemic framing, we can now start to build a combined ludodidactic model.

Towards a ludodidactic model

The field of arts education is particularly suited to a ludodidactic design approach. Creative thinking, playfulness, improvisation, are all words which are at the core of both ludodidactics and the arts, which, in turn, is the passion and focus of both students and teachers in arts education.

In order to transfer the above game design pattern to education, or more specifically to arts education, all the following steps in the process must be adapted to support the learning aims of the specific situation.

Learning aims and desired learner behaviour

As stated earlier, it is very important to have learning aims clearly defined at the start. We need these as criteria against which to assess whether a particular epistemic frame is suitable for achieving our learning aims and catering for the desired learners' behaviour. In the formulation of these aims, it is, therefore, important to keep in mind that they should be capable of being expressed in terms of behaviours or actions.

Perspective/role

The second component is to find an appropriate perspective, or role, as part of the epistemic frame, according to which the student will model his or her behaviour. Part of this behaviour will follow from the precognition a student has of that particular role. For example, putting the student in the perspective of a manager implies the sound use of financial means, applying people skills, dealing with group dynamics and taking care of quality considerations. Other aspects of the perspective might be made more explicit in the instructions to the student in that role.

Play goals and aims

A fundamental difference between this type of educational design and the traditional design of learning situations is the duality between learning aims and play aims or goals. Education has a deeply rooted belief that being explicit about every aspect of the learning process is a cornerstone of its quality. Games do exactly the opposite. They are very explicit about the player's aims, but these aims only point the player's behaviour in the direction necessary to discover – through play – the hidden aim of the game. It is exactly this process of discovering the hidden quality of the game that makes them so attractive to their players.

If it is our aim to teach students about group dynamics, we might give them the aim of collectively building an artefact through play. By introducing scarcity of time and resources, or competition, we can influence the likelihood of certain group dynamics occurring. However, in this case, students will not demonstrate socially desirable behaviour in relation to group dynamics, since we have not been explicit about this aim. As such, their behaviour will be relatively authentic and more fruitful as a learning experience.

Actions

Based on the chosen perspective and the player's aims, a number of actions can be derived that are connected to the relevant role and needed to achieve the specified aims. In their allocated role, students will not perform actions randomly but consciously devise a strategy for the actions to be most effective. As mentioned earlier, if the design caters for recoverable loss, the student will include risk-taking as part of his or her learning strategy. Together, these strategically linked actions form a high-quality learning experience.

Responsibility and consequences

The perspective given to a player not only determines behaviour; it also brings in certain responsibilities. It is well documented that players at a high level in massive multiplayer games are likely to take responsibility for players at lower levels. As their high position in the game gives them the responsibility of keeping the overall level of the game moving forward, they tend to take on an apprentice.

In education, this would mean that students do not automatically assume that teachers will take the lead but take their own responsibility. To keep the experience as effective or challenging as possible, everybody involved must get to a higher level. This does not mean that everybody has to be at the same level or share the same knowledge. The learning experience improves when participants need each other, so different knowledge bases or skillsets are preferable to a situation in which everybody knows or performs the same things. Also, different levels of expertise within the same skillset can be challenging if, in the design, the mentor–apprentice relation is somehow rewarded.

When the student is given a role with clearly identified play aims and a pallet of actions from which to build his or her own strategy, it is vital to hand over responsibility as well. Only if the student assumes the full brunt of responsibility will the epistemic frame kick into action. Handing over responsibility to the players also means that consequences need to be part of the learning environment as well. Consequences should have the characteristic of recoverable loss, as identified by Salen and Zimmermann. This is not the same as failure as we know it within our traditional learning system.

Feedback loop

The immediate feedback that the player of a game gets after every action tells the player whether their effort has succeeded and whether the attempted strategy has worked out the way they expected. This is very important information for the player in developing new and improved strategies or, in case the goal is reached, in deciding to change direction and focus on a new set of goals. Because the feedback immediately follows the action, a continuous loop of hypothesis–execution–feedback occurs. We call this the 'feedback loop'. This feedback loop should reflect directly into real-world meaning and relate back to the original learning aims.

Conclusion: Ludodidactic design model

Building on the design pattern of games – in which goals, strategy, action and feedback are connected in the feedback loop – we can now describe how this pattern would look if adapted for learning situations (Figure 2).

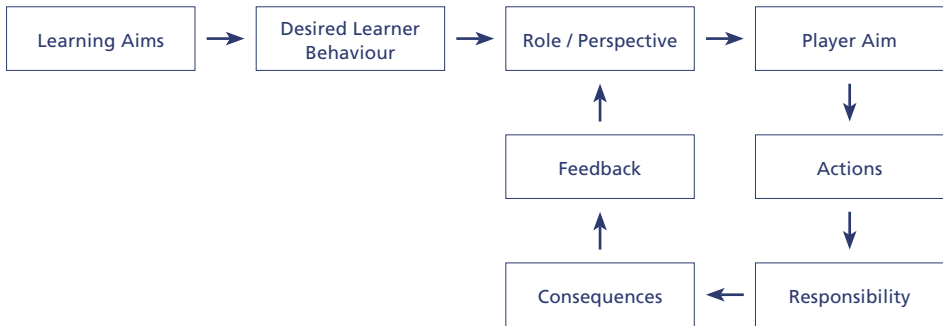


Figure 2 Ludodidactic model.

As we have seen, learning aims should be the starting point for the design of every learning situation. They should be made as specific as possible and connected to the assessment criteria. From there, we can specify the desired learning behaviour. The epistemic frame supports the desired behaviour by giving the player a clear perspective and aims to pursue.

In pursuit of these aims, the player will develop a strategy and take meaningful actions. The epistemic frame also forces the player to take responsibility for his own actions, progress and consequences. Keeping the player updated on both progress and consequences, the situation gives constant and immediate feedback. The cycle in this model should reflect the desired behaviour and learning aims specified at the outset.

Ludodidactics reshape the way we look at the behaviour of both teacher and learner. In many learning situations, the teacher is responsible for learning, which, as outlined, is a very hard responsibility to assume. In arts education, most students are highly motivated and very keen to take responsibility for their own development as arts professionals. Yet, the educational models that are still widely used put the teacher in charge. We hope the notions on ludodidactics proposed in this article can give insights for innovating and improving the learning in arts education.

Mantautas Krukauskas and Hugh Ward-Perkins

Sound Art, Inter-disciplinary Involvement and Community Spaces

From SACS to IICS

Mantautas Krukauskas has Masters degrees in piano and composition and is currently teaching electronic and computer music and sound art disciplines in the Department of Composition at the Lithuanian Academy of Music and Theatre. Since 2012, he has been head of the composition study programme committee. His compositions – including chamber music, audio-visual works and music for theatre productions – have been performed in Lithuania, Austria, Germany, the US and other countries. As a composer, Krukauskas has been the winner of two international competitions, both of which took place in Austria. He has been actively involved in various organisational activities, including project coordination and event organising, as well as international research and education programmes. His interests embrace creativity, inter-disciplinarity, music and media technologies and a synergy of different aesthetic and cultural approaches.

Hugh Ward-Perkins was born in Rome, graduated in medieval history and Italian literature at the University of Oxford and obtained diplomas in organ and harpsichord at the conservatoires of Bolzano and Ferrara respectively. He has performed (mainly as a harpsichordist in early music ensembles) and undertaken research in the field of Renaissance and Baroque music. For many years, he has taught the history of music and been responsible for Erasmus activities at the Conservatoire of Verona. In 2008, he was elected director of this institution, a post he will hold until October 2014.

Mantautas Krukauskas' presentation of *Sound Art, Inter-disciplinary Involvement and Community Spaces: From SACS to IICS* was a highlight of the 5th **ELIA Teachers' Academy – INTER-ACT** hosted by the ESMAE School of Music and Performing Arts along with the Faculty of Fine Arts at the University of Porto, 11–13 July 2012.

Prehistory

This article explores the findings of the European Community Action Scheme for the Mobility of University Students (Erasmus) intensive project, *Sound Art in City Spaces* (SACS, 2009–2011), and its follow-up, *Inter-disciplinary Involvement and Community Spaces* (IICS, 2012–2014).

The two projects began life in the best possible way – as experiments in the field – and, like many good ideas, from a chance encounter. One day in 2005, the University of Gothenburg offered the Music Conservatoire of Verona an Erasmus masterclass by a performative sound artist, who ran a workshop on ‘sounding objects’. A group of willing students formed groups, explored the school building, collected random materials (paper, metal, wood), experimented with sounds (banging, scraping, shaking, blowing) and the next morning – a cold November day – gave an impromptu concert in the school cloister. The audience was small, but there were smiles all round.

After that, the visits from Sweden became regular and Verona’s Academy of Fine Arts also became involved. From sounding objects, we moved on to sound art and public spaces. And then, in 2007, a festival was created called *Verona Risuona* (literally ‘Verona Resonates’) – a democratic, multidisciplinary, public space event also open to ordinary citizens.

From *Verona Risuona* to SACS

Verona Risuona, which still takes place each year in that city, had an international atmosphere, but it lacked international students. So, the question asked was: is there another way we can get students from different cities to come and work together? The answer was: an Erasmus Intensive Project (or IP). Finding partners wasn’t difficult. The idea – *Sound Art in City Spaces* – was a good one, and the acronym – SACS – was catchy! New friends were quickly made from the cities of Berlin, Gothenburg, Porto and Vilnius.

The main structure of the project was agreed with little discussion. Considering the open, creative nature of the project, and considering the different artistic personalities and national backgrounds of the teachers involved, we expected disagreement on aims, approaches and methods, but there was none, so we concluded that the basic formula was convincing. This is what was decided for SACS:

- it will work over three years (2009–2011);
- it will work in a different city each year, the cities chosen being those with the least experience in public space activities: Verona (2009), Porto (2010) and Vilnius (2011);
- it will work with 20 different students each year, four from each city, with a good female-male balance;
- the students will form four multi-disciplinary, international working groups; each group will include one student from each city;
- each working group will be monitored by one or more teachers.

Given the limited time spent in the host city (just ten days), it was also agreed that there would be a six-to-eight-week period of preliminary discussion, via an internet forum, through which students and teachers would get acquainted, learn about the spaces and make preliminary proposals for projects.

The ten-day intensive period was structured so that there would be two focal performances – an experimental performance on day four and a final performance on day nine – with reflection on day ten.

This model proved effective for SACS, so it was copied in IICS, the subsequent three-year project (2011–14).

From SACS to IICS

IICS had two main aims: 1) to broaden the inter-disciplinary perspective of SACS and 2) to strengthen links with the communities working in city spaces. From the first year of SACS, some of the projects proposed by the student groups didn't really match the pure conception of sound art. Moreover, working in public spaces naturally includes contact with people and communities, and this aspect was always emphasised by the teachers. Thus, the broader idea of IICS was born, shifting the emphasis from sound art to inter-disciplinarity, from public space to community involvement. New partners were invited to reinforce the new structure, and five more cities joined: Birmingham, Bratislava, Cork, Izmir and Vienna.

The model was updated in the following way:

- the cities chosen to host the project: Gothenburg (2012), Cork (2013) and Izmir (2014);
- IICS works with 30 different students each year – three from each city – forming six groups;
- each working group will be monitored by two teachers.

What now?

At the end of the six-year SACS/IICS period, we are now looking at further opportunities for development. With the new Erasmus+ programme, our existing network could formalise its activities as a 'strategic partnership'. Other long-term themes that can be tackled are the implementation of a joint degree in inter-disciplinary studies and the increase in project-based learning and cooperation in partner institutions.

The politics of SACS and IICS

First, let us set out at least three broad areas in which SACS and IICS played an innovative role, or at least tackled core issues in higher arts education.

Cooperation between art schools

One theme that featured in both projects is cooperation – or, better, the lack of cooperation – between different artistic departments (art, music, theatre, design, architecture, media, etc.) in European academies. Of course, there are examples of 'good practice' here and there, but the general trend is for the separate departments to keep to themselves, even when they live in the same building – indeed, especially when they live in the same building. Paradoxically, it is easier to participate

in an inter-disciplinary project with a school in a remote foreign country than to work with colleagues along the corridor or across the street. SACS and IICS have helped to bring this subject into the open.

A new form of mobility

In a lecture given at the ELIA Biennial Conference in Gothenburg in 2008 (on the theme of 'Moving beyond mobility'), we claimed that SACS was helping to generate a new kind of mobility 'across the artistic disciplines'. In support, we noted that our project was doing all of the following things: collaborating across the arts; finding solutions to problems in international teams; using public spaces for artistic performances; communicating with ordinary citizens and communities; acquiring new skills; creating new areas of international communication and organisation. Hopefully, therefore, both SACS and IICS are proposing a new form of mobility and contributing to keeping European culture alive and well in the 21st century.

Transnational collaboration at all levels

Both projects took their European commitment seriously, and extended collaboration to all aspects of the project, not only in relation to planning, consultation and monitoring but also to administration and the publication of results. In particular, the decision to organise the events of years two and three in cities other than those of the official coordinators (Verona and Gothenburg respectively) created additional difficulties, but, at the same time, undeniably strengthened the European identity of the project.

Inter-disciplinarity – a thorny question

During SACS and IICS, the students were asked to: use their skills and work in new ways; take art into the city and work in public spaces; be producers at the same time as artists; have control of their projects; involve the community in the production of artwork, etc. On the surface, these requests have little connection with the subjects taught in most arts schools, although they bring together many skills that are taught separately – composition, improvisation, technology, management and communication skills, outreach or community work, art or music therapy, language skills, etc. At the same time, they introduce a further skill that is too often forgotten – that of collaboration. This naturally raises some old questions; for example: should subjects like inter-disciplinarity or working in community spaces be included in the standard curriculum? Is it possible (or desirable) to impose some form of curricular structure on such activities?

At times, inter-disciplinarity is viewed as the counterpart of specialisation and, hence, as a threat to professionalism – an opinion still strongly held in the education of artistic disciplines that require a special focus on skills (for example, music performance, traditional painting). To our understanding, however, this is just a problem of perception, given that some of today's artistic fields were themselves once generated from other disciplines (e.g. conducting and composition in music, or architecture and sculpture in the fine arts). It would, therefore, be better to see the whole question as a natural process, in which specialisation and inter-disciplinarity pulsate in a constant spiral of development and the two poles complement one another synergistically.

Another preconception about inter-disciplinarity (unfortunately supported by examples) is that it breeds superficiality. In other words, innovative work with no real content has helped to generate a poor impression of inter-disciplinary work as a whole. In recent years especially, inter-disciplinarity has been used in various fields (media, policies, strategic plans) as a panacea intended to resolve issues raised in the new age. By contrast, successful inter-disciplinarity depends on the skills and characteristics of people who should, first of all, be outstanding experts in their own fields. Genuine inter-disciplinary development can lead to the creation of new disciplines, as has happened with graphic design and visual communication design.

The task of arts academies, universities and conservatoires is not only to prepare professionals but also to act as flagships of an ever-changing contemporary reality. Adopting an inter-disciplinary approach as an everyday strategy is a means to innovate and create disciplines with new boundaries, or even with no boundaries at all. In our view, this is very much needed now.

The process

Besides the core issues, such platforms as SACS or IICS enable teachers from various disciplines to discuss and try out different methodologies. Over the course of six years, we organised an environment for the project, tackling different aspects of its implementation. Here, we will outline some of the main areas.

The preparation phase

The main task for teachers and organisers is to prepare a creative environment in which students can engage in inter-disciplinary activities. The environment has to be free, but stable enough for students to feel safe. Students come from different schools, cultures and disciplines, and they have little time to agree upon and implement a project and deal with local communities at the same time. The priority should never be that of reaching the highest artistic quality, but instead ensuring that the students (with the moderation and guidance of teachers) can explore matters of inter-disciplinary group work in community environments.

The team of teachers also usually acts in an organisational capacity, sharing responsibilities on a voluntary basis. Naturally, most of the organisational work falls to the hosting partner. As a rule, a meeting is held in the host city for that year, attended by a part of the teachers' team (with others joining in by video-conference). The main object of the meeting is to explore the local environment for suitable community spaces, discuss improvements to the schedule, methodology, etc.

Selecting the students

The two main criteria for student selection are the ability to communicate fluently in the project language (English) and a disposition to engage in group work. Our goal is to encourage groups to create their own joint artistic values, beyond the borders of the individual disciplines and traditions from which each student comes. Doing this is harder than it sounds, as it involves individualities which do not necessarily match.

The procedure for selecting students varies from one school to another. As a rule, a general call is issued and students are selected locally, via interviews. Each selected student has to produce a short, simple introductory video, which is later uploaded to a project working space, so that everyone can meet virtually.

Selecting the communities

The local organising partner is responsible for finding and selecting the spaces and communities in which the work will take place, though all teachers are involved in the process. If possible, we try to make sure that the sites are not too complicated to work in for a short period, and we avoid excessive dissimilarities. Logistical and practical issues are also taken into account.

Forming the groups

After the selection of communities, the pieces of the puzzle start to fall into place. Each group should have: a balance of females/males (two females and three males or two males and three females); students from different cities (avoiding teachers from the same city if possible); a balance of different disciplines and typologies (performative, conceptual, etc.). The groups are assigned to a site/community in advance and associated with two teachers.

Working over distance

Six to eight weeks before the start of the intensive period, the online working environment becomes active. The main objective of this distance work is for all groups to get acquainted, examine their site/community and start reflecting on the artistic project. The students watch the introductory videos of their colleagues and teachers, share material about the community (photos, texts, history, videos, etc.), participate in a brainstorming scrapbook (e.g. uploading items inspired by, or related to, the community) and, where possible, arrange online video meetings and meet the community representatives.

Scheduling

Scheduling an intensive period of this kind is a challenge. Besides work in the communities, we try to provide students with lectures and workshops, give them time to present their own work or communicate individually with teachers and members of other groups. The needs and expectations of students are different (taking into account the ten quite diverse cultures from which they come), so it is hard to keep everyone happy. Despite minor changes (to accommodate the experience of previous years and local conditions), the following principles are always followed (Table 1):

- the introductory day includes tours of communities, lectures and socialisation;
- a greater concentration of lectures and seminars in the first week, leaving more time for group and individual work in the second part;
- movement/yoga/teambuilding or similar workshops for all students each morning (to start the day and enhance relations between students);
- participation in at least one informal improvisation in a public space, involving sound, movement or whatever is desired;

- one day (the fifth) focused on reflection, individual tasks, taking a short rest from group work;
- intensive preparation (days six to eight) on the work for exhibition day;
- one or more performance days (days eight to nine);
- a reflection/analysis day (day ten).

It is also worth pointing out that time must be found for socialising, informal and free activities; after all, the success of the group work largely depends upon the bonds that the group members form over the course of the project.

Week 1					
	Day 0	Day 1	Days 2 and 3	Day 4	Day 5
Morning	Arrival	Introductions, teambuilding	Lectures, workshops		Reflection and personal tasks
Afternoon		Tour: city and communities	Group work in communities	Group work/tryouts in communities	
Evening		Student and teacher presentations		Presentations on work so far	
Week 2					
	Days 6 and 7	Day 8	Day 9	Day 10	Day 11
Morning	Short workshops Group work		Exhibition/ performance	Reflection and evaluation	Departure
Afternoon	Group work	Rehearsals and/or exhibition/ performance		Joint improvisation	
Evening	Personal tasks			Socialising	

Table 1 Approximation of a standard schedule.

The role of the teachers

In spite of their different experience and backgrounds, all the teachers agree that their role as group moderators is not to tell students what to do but to encourage them to explore their own ways, advising when required. Given that working in inter-disciplinary, international groups is something that few students have at their institutions, it is important to let them use this opportunity to find their own ways of working and gain experience.

Reporting and documentation

Analysing while creating is a hard task for most students, so a framework for reporting is provided to those who need it. All groups are encouraged to gather documentation of their work, which is collated at the end of the project. All material is archived, and selections are used for publicity purposes. If resources allow, a short film about the projects of each year is produced and shared online.

A success?

Is the model used for SACS and IICS successful? To help us answer this elementary question, we asked all the students who took part in our projects to give us their candid opinions. Almost all of them responded. A small selection of their comments is given at the end of this article. It is worth reading.

A project can have a good subject, admirable objectives, first-class teachers, highly qualified students, ultra-efficient organisers and a spectacularly beautiful host city and still not work. A lot of other variables have to be taken into account. And, in the final analysis, what determines success or failure is the vital quality-of-life factor. For all concerned, of course: students, teachers and organisers.

Well, did SACS and IICS pass the test? Inevitably there were ups and downs. For some students, there were too many lectures; for others there weren't enough. Some thought the teachers were too bossy; some thought they weren't bossy enough. But, more often, it was the practical, day-to-day issues that upset people, food in particular. Mealtimes were too long, or too short. Or the menu was always the same. Nonetheless, we can assure you that everyone was sleeping in comfortable beds; there was never a word of complaint about that.

Students' comments

Alessia (design, Verona): 'As an experience, it was decidedly surprising; to have the opportunity to act as a team with people who share the same passion for art but have different points of view and different perspectives, not only because of their distinct experiences but also because of their different nationalities. Working and collaborating for a common object: pooling one's personal knowledge and personal skills (both theoretical and practical) opens up a form of contact that should exist not only in the artistic field'.

Irene (painting, Verona): 'We worked together to realise a project; we conceived it; and we saw it grow right until its execution. I learned the foundations of an artistic form that I still use today, and the teaching I received I will carry with me in all my future work. There are few projects like this, and I feel fortunate to have had the possibility to be a part of it. I think that it is fundamental in the artistic career of a student to have the opportunity to work with fellow-students from other countries'.

Mia (objects, everyday sounds, constructions, Gothenburg): 'It's a secret, so I can't tell you what I gained from the SACS project. Even I myself don't know what it is. All I know is that I have used it several times and there is still plenty left for the future. It is very useful and beautiful'.

Vytautas (photo, media, Vilnius): 'When there's just one place to make art, everybody has something different inside their heads. From the first moment in the group, you sometimes feel that your ideas are nothing, just because the others don't understand them the same way. After a week, you get used to that and you start understanding each other. But that's also good. Everybody comes back home with something new inside them'.

Christoph Weckerle and Simon Grand

The Future of the Cultural and Creative Industries will be Designed by its Actors

Christoph Weckerle, head of the Department of Cultural Analysis, Zurich University of the Arts has been researching and publishing on the cultural and creative industries for many years.

Simon Grand is a Strategy Designer, Knowledge Entrepreneur and Management Researcher, Academic Director of the RISE Management Innovation Lab at the University of St. Gallen and Research Fellow at the Zurich University of the Arts.

Christoph Weckerle and Simon Grand were keynote speakers of the **6th ELIA Teachers' Academy – Preparing the Artist of Tomorrow** hosted by the HKU University of the Arts Utrecht, 24–26 June 2013.

Future scenarios

European scenarios for the future of the cultural sector differ little in relation to the most important trends for forthcoming decades.¹ As a rule, the topics mentioned in such scenarios – albeit in different orders and with varying emphases – include globalisation, digitisation and the changing relationship between the individual and society:

Globalisation: The existence of different mainstream concepts in different regions of the world, as illustrated by the predominance of Disney films, computer games and television series, relativise the European ‘exception culturelle’.² What also holds true is that possessing the competence to express traditional European values and reflections will remain relevant as a context and export good for aspiring Asian markets and actors in the coming years. In a reciprocal process, European culture will be shaped by dominant contents from the US and by Asian innovations. At the same time, we shall witness the growing significance of the legal and technical, logistical and organisational aspects of the production, performance and dissemination of art and culture.

Digitisation: New ways of creating, producing, disseminating and exploring art and culture imply quality issues, as exemplified by open source and social media or the emergence of digital communities and self-organised knowledge communities. What does being ‘professional’ mean in this context, especially if access to production possibilities becomes increasingly easier? To which (new/old) contents must the production of art and culture react? Which shifts at the interface between production and consumption become relevant? Digitisation thereby has implications for ‘content’ itself.

Particularisation: Classical ‘guiding or leading cultures’, known as ‘Leitkulturen’ in German, which encompass several social strata, are tending to lose significance. New audience structures are establishing themselves along community lines and changing rapidly. The meaning of artistic ‘identity formation’ for smaller and larger social groups depends on economic conditions. Times of crisis strengthen the need for secure cultural values while weakening existing institutions; economic upswings favour the particularisation of ‘scenes’ while authorship disseminates and organises itself in new ways.

Moreover, from a specifically Continental-European perspective, shifts in the cultural sector have become evident; up until the 1970s, around two thirds of European art school graduates, for instance, earned their livelihood predominantly in the public sector. Current developments in Europe (including the dwindling of public funding for culture and the rise of new occupational images involving a high proportion of self-employment) reveal that a growing number of art school graduates are now earning their living in the private sector. At the same time, the boundaries between sectors are becoming blurred, and the actors of the art-culture system are increasingly operating in hybrid settings.

Assuming, as we do, that these developments will become even more pronounced in the years to come, traditional perspectives on the cultural and creative industries

¹ Ministère de la Culture et de la Communication, *Culture & Médias 2030 – Prospective de politiques culturelles* (Paris, 2011).

² Frédéric Martel, *Mainstream: Enquête sur la guerre globale de la culture et des médias* (Paris, 2010).

need to be reviewed and new scenarios developed. The still widespread belief that approaches from other industries can be transferred to the cultural and creative industries – or the delimitation of the cultural and creative industries as a complex of industrial sectors – is obsolete.

What we suspect is that only new approaches will help render fruitful the high innovation potential and the entertainment qualities, forms of knowledge and critical resources of this complex of sectors for cultural, political and social developments and also for other sectors. We further assume that a fundamentally new perspective is needed with which to formulate funding concepts and financial structures fit for the future.

State of the art

How are we to understand the cultural and creative industries ecosystem?

Closely examining the current situation makes good sense, since the corresponding discussions may be traced back a few decades. In Europe, the cultural industries were first debated in France in the 1970s, in the context of the diffusion of television; in the 1980s, Switzerland initiated a debate on indirect profitability [Umwegrentabilität] at the interface between culture and the economy; in the early 1990s, the first strategies informing our current notion of the cultural and creative industries were developed in Germany, in the context of the decline of the coal and steel industries; this period also included initiatives to define the UK and its capital as a 'creative hub' and definitively established the 'creative industries' as a political issue in the context of national branding. Since the mid 1990s, the issue has consistently been on the agenda of various EU directorates general.

One striking feature of these developments is that – despite longstanding debate – defining a common framework for the cultural and creative industries has not thus far been possible. Statistical delimitations and basic notions diverge depending on the specific location and motivation. In its annual report, the United Nations Conference on Trade and Development (UNCTAD) lists, among others, the following (policy) areas in which the cultural and creative industries are a key factor: economic development and regional growth; urban and national planning; trade and industry; education; technology and communications; art and culture; tourism; social welfare. Given this diversity, one is tempted to conclude that the success of the cultural and creative industries rests primarily on interpretative leeway. That is to say, everyone can understand the cultural and creative industries as they please. We might ask, then, whether these industries are just another example of late 20th-century arbitrariness.

Mapping

In-depth analysis shows that the reasons for uncertainty in dealing with the cultural and creative industries should not be sought in the arbitrariness just mentioned, but instead in the corresponding conceptualisations. These approaches, it must be added, fail to take account of the specific mechanisms of this complex of industrial sectors. From a macro perspective, strategic positioning is all too often imprecise,

and the aforementioned interfaces between policy areas remain blurred. From a micro perspective, the focus is generally placed on institutions and products. This inadequately explores not only the manifold models of creativity, organisation, development and business but also the accompanying processes of creativity, performance, communication and implementation. Moreover, the diverse processes, practices and actors who make up the cultural and creative industries seldom come into view.

If we are to gain a comprehensive understanding of the macro level, we must first establish an overview. Doing so reveals the ways in which highly diverse concepts are superimposed upon each other as best illustrated by a coordinate system (Figure 1).

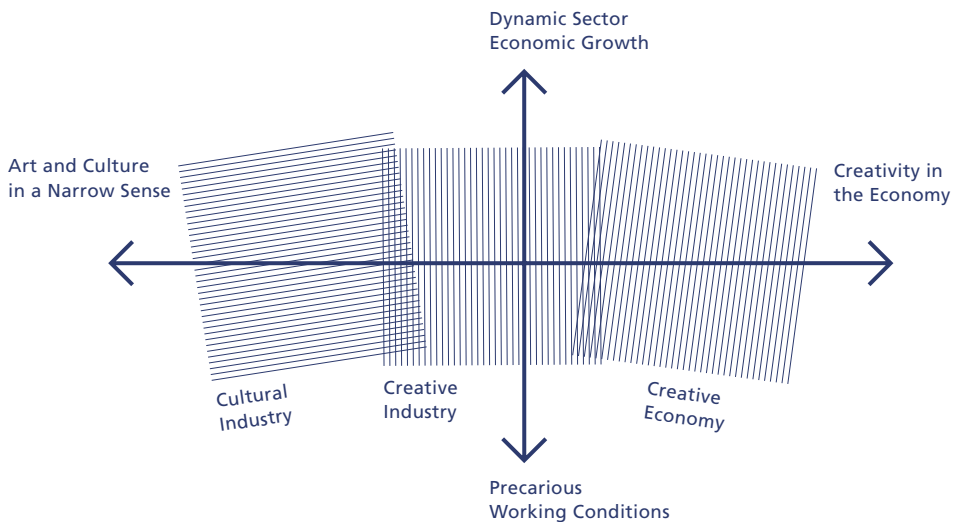


Figure 1

Along the horizontal axis lie the various dimensions between art and culture in a narrow sense (see left) and a focus on creativity in the economy (see right); its vertical axis spans economic growth (see top) and precarious working conditions (see bottom). This system offers a simple illustration of what the cultural and creative industries mean in the current debates; it also shows why the various perspectives and debates in this field partly remain adjacent, yet unrelated. The concepts on the left (cultural industries) can be found in Continental Europe, the approaches in the middle (creative industries) have spread from the UK to Europe and the Commonwealth, and the approaches on the right (creative economy) can be found in the US, from where they spread to and across Asia.

The discussion about the economic significance of this complex of sectors and its promotion in the force field between growth dynamics and precarious working conditions is manifested differently around the world.

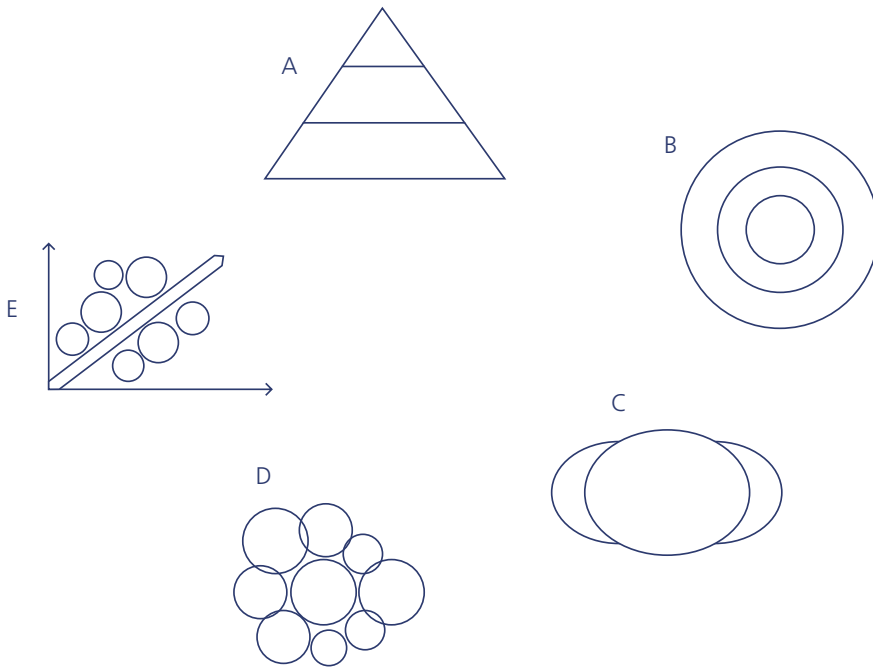


Figure 2

Models

This rough schema establishes a multitude of understandings and thus also possible strategic positionings in relation to the cultural and creative industries. Whether these notions are adequate or not can only be deduced from their specific context, taking account of funding constellations, political strategies, cultural or economic conditions, and so on. To put this another way: the starting point for a discussion about the cultural and creative industries must be a specific case. Postulating a generally valid understanding or even a global definition of the cultural and creative industries isn't helpful. This means that every engagement with the cultural and creative industries implies a specific perspective and context. When focusing on these factors, highly diverse interpretations and models for discussing the cultural and creative industries become evident.

This fundamental point is illustrated by considering some key visualisations taken from reports on the creative industries. Such visualisations (Figure 2) often reveal implicit notions rather than explicitly reflected premises. In Singapore, for instance, one finds that **triangular representations** (Figure 2A) are used; these models position the cultural and creative industries at the top and in the middle of a triangle and regard these industries primarily as a content provider for a bottom layer consisting of technologically-defined distribution channels. By contrast, in France the cultural and creative industries are represented as **concentric circles** (Figure 2B): here, a core area – consisting of music, text and image – is considered worth safeguarding against further (outer) circles, which primarily connote industries specialising in processing and distribution. A third kind of visualisation is that of **interface models** (Figure 2C), which are used in Scandinavia, for instance; such models designate a zone between the cultural and corporate sectors. Whereas

the corporate sector is taken to be comprised of products and services developed in ever-closer cooperation between producers and consumers, the cultural sector encompasses content-driven value creation and acknowledges the uniqueness of such products and services. Emerging at the interface between these two notions is the so-called experience economy. Then, there are **highly complex models** (Figure 2D) that attempt to represent either the multi-faceted dependencies of the cultural and creative industries on public funding structures or the relationship between these industries and the intermediary sector (foundations). Such visualisations are foremost in countries with a longstanding federalist tradition, such as Switzerland and Germany. Finally, **arrow models** (Figure 2E) define the cultural and creative industries as an independent value-creation chain, which exerts an external influence on other branches and sectors due to its dynamics. Such a notion is especially prevalent in regions experiencing strong economic growth, such as Asia.

On the one hand, superimposing these exemplary models, and their various emphases in mapping the cultural and creative industries, reveals that outspoken deliberation on that which is all too often a tacit premise can prove worthwhile. On the other hand, we see that these models and mappings are chiefly focused on reducing the multifaceted and complex landscape of the cultural and creative industries down to manageable and structured approaches. It may be argued that this approach conceals the heterogeneous, controversial and creative nature of the dynamics described as characteristic of the cultural and creative industries. We therefore suggest that, rather than concentrating on structures and models, current discussions can benefit from carefully exploring the force fields involved and the strategies for dealing with these.

Force fields

The complexity of the creative industries map introduced, and the highly diverse interpretations of the cultural and creative industries in each specific case, forbid any conclusive definitions. The field spanning the different approaches outlined here is neither neatly arranged nor linear, but instead characterised by shifts and ruptures, controversies and interactions (Figure 3). We are convinced that every attempt to simplify these ruptures and controversies, with the help of structures and models, underplays that which characterises a thriving industry in general, and

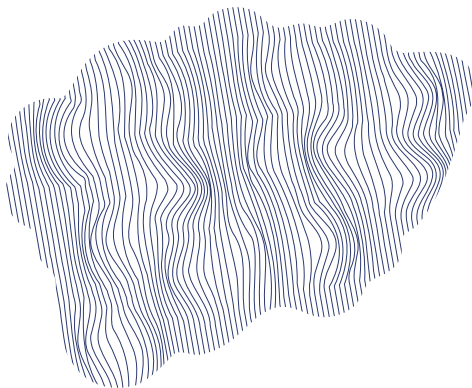


Figure 3

the cultural and creative industries in particular. We therefore suggest exploring the debate on the cultural and creative industries by describing the force fields involved. In this context, force fields refer to extreme poles, like global–local, cultural–economic, innovation–preservation, public–private, strategic–experimental, individual–collective. The poles of each pairing are a priori mutually exclusive, but they can also serve as a starting point for projecting new settings, models and strategies, in which initiatives of the cultural and creative industries can take place and in which their actors can develop individual and singular positions and thereby distinguish themselves.

Innovation – Preservation is a force field discussed on two levels. As a rule, this force field refers to the issue of governance; cultural and creative industry actors should think ‘outside the box’ and do things no one has done before them. This requires such actors to continually change their surroundings and framing conditions in order to try out new ideas. Political bodies and promotional agencies, however, function according to the rationale of legislative cycles and funding priorities.

Strategies

If we seriously intend to incorporate different understandings and approaches in the field of the cultural and creative industries, if we seriously intend to critically reflect on and interrelate diverse models and positions and if we seriously intend to explore this complex of sectors in terms of force fields, then this has to mean at least three things:

- First, when discussing models from a macro perspective, we must consider how any given model impacts upon the central force fields of the cultural and creative industries – by setting its own priorities, for instance, and by promoting the cultural and creative industries along certain lines (culturally valuable and/or commercially successful). The model will not smooth the spheres of action, but instead it will effect certain shifts and favour certain approaches over others.
- Second, raising the profile of any model and form of representation implies (and this factor is constitutive of the inherent dynamics of such a system) that, unlike institutions, individual actors will be consciously and significantly more mobile within these force fields and spheres of action. They will move in highly distinctive ways – partly competitively and strategically, partly collaboratively and interlinked, partly innovatively and subversively. This will happen because such movement can be important for their own positioning.
- Third, the focus on an analysis of cultural and creative industries will shift from discussing adequate models and stances to discussing the processes and practices through which individual actors, but also institutional players, can more successfully pursue their heterogeneous ambitions. Under these circumstances, globalisation, digitisation and particularisation all present specific challenges. Platforms for debate, rather than solutions, will be essential.

When undertaking any in-depth pursuit of the subject along the three lines just discussed, it is productive to orientate it towards a quality that is crucial for many actors in the cultural and creative industries: design. What this means can be approached from three directions. Firstly, from Otl Aicher’s perspective, ‘the world can be understood as design. As design, that is, as the product of a civilisation,

as a world made and organised by man'.³ Secondly, this view entails distinguishing a focus on 'the world as it is from a focus on how it could be' as articulated by Herbert A. Simon.⁴ Thirdly, in the pointed words of one designer, Branko Lukic, and thus of a representative of a key sector within the cultural and creative industries, 'The impossible drives the possible. [...] A designer's motto should always be: "What if?"'.⁵ Importantly, all three arguments focus on the creation and shaping of a space of possibilities. Thus, we would like to suggest that the debate on the cultural and creative industries should renounce any further attempt to describe this sector and instead focus on designing its possible futures.

It follows that focusing on the possible future of actors in the cultural and creative industries, as well as on the patterns, landscapes and force fields resulting from their description and modelling, holds out an exciting prospect. Importantly, as Julian Bleecker has observed, 'It would be useful in the design world to prototype things in a way that helps us imagine and wonder and consider unexpected, perhaps transformative alternatives'.⁶ Finally, James Auger puts forward the position that every design of a possible future stands in a tense relationship to the present, to the world as it is: '1. Project current emerging development to creative speculative futures: hypothetical products of tomorrow; 2. Break free of the lineage to speculate on alternative presents'.⁷

Shifting perspectives – from the current to the possible, from the existing to the future, from the clarified to the open-ended – brings into play at least six distinct aspects. These can be related to designing a future landscape of the cultural and creative industries. It goes without saying that the most diverse actors within the cultural and creative industries are always at work on these six aspects and the questions and challenges bound up with them.⁸ What is new, however, is to consolidate these aspects into a central focus of debate (Figure 4).

We need **design processes** (Figure 4A) that are radical claims about which future models could be possible, both as an innovative opening-up of perspectives and as a critical debate on the present and thus also on the world as it is. From this perspective, the cultural and creative industries may be understood as an incubator for models of the future – that is, not an attempt to play unconventional and new dimensions of value creation (new constellations, culture and the economy, society and aesthetics) off against each other but instead to hybridise these dimensions. Hybridisation will turn the cultural and creative industries not only into a laboratory of their future, but also into a wellspring of inspiration for other industries and actors.

³ Otl Aicher, *Die Welt als Entwurf* (Berlin, 1991).

⁴ Herbert A. Simon, *The Sciences of the Artificial* (Cambridge, MA, 1996).

⁵ Branko Lukic and Barry M. Katz, *Nonobject* (Cambridge, MA, 2010).

⁶ Julian Bleecker, *Design Fiction: A Short Essay on Design, Science, Faction and Fiction*, Near Future Laboratory. Available at: <http://nearfuturelaboratory.com/2009/03/17/design-fiction-a-short-essay-on-design-science-fact-and-fiction/>.

⁷ James Auger, 'Alternative Presents and Speculative Futures: Designing fictions through the extrapolation and evasion of product lineages', in Swiss Design Network, *Negotiating Futures – Design Fiction* (Basel, 2010). Available at: <http://sdn2010.ch>.

⁸ Simon Grand, 'Strategy Design: Design Practices for Entrepreneurial Strategizing', in Michael Shamiyeh *Creating Desired Futures: How Design Thinking Innovates Business* (Basel, 2009).

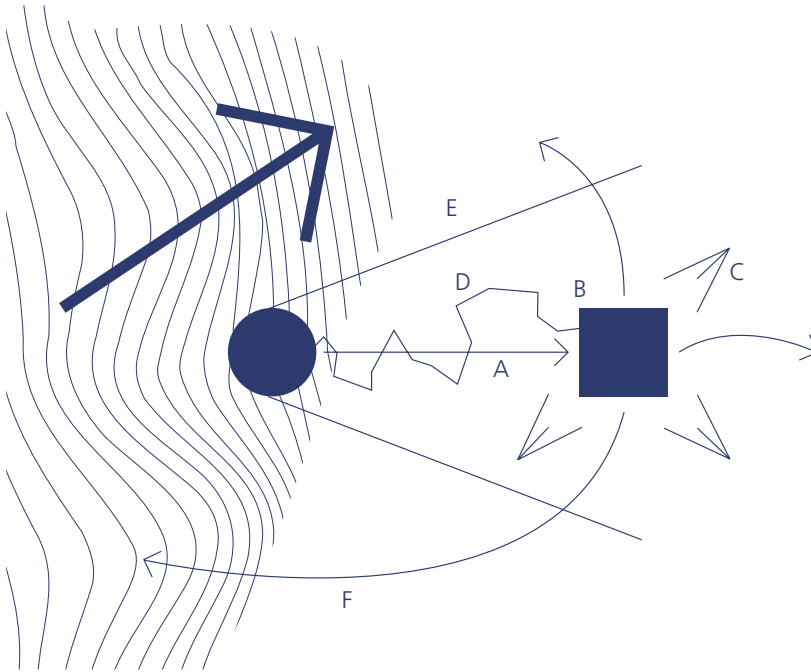


Figure 4

We need **materialisation processes** (Figure 4B) that are attempts not only to formulate radical claims in an abstract manner and to translate these into speculative designs, but also to put such claims into practice so that they can be concretely tested and made tangible. From this perspective, it becomes exciting to conceive of new models of agencies, curators, producers, journalists, collectors and galleries, not merely as peculiarities of an entirely different industrial constellation – one not yet successfully institutionalised and established – but instead as reference models of a possible future – one being tried and tested in practice, for instance in the shape of ‘critical companies’ and ‘cultural enterprises’, ‘curatorial practices’ and ‘social communities’.

We need **reflection processes** (Figure 4C) that are (internal and external) platforms on which designs and their materialisations can be controversially negotiated from different perspectives and with the help of heterogeneous evaluation criteria. These processes will bring forth exciting perspectives, for instance, for higher education and cultural institutions that see themselves not primarily as independent actors but rather as platforms, experimental systems and arrangements in which precisely these discussions can take place. At the same time, these will be the sites and constellations at which the established and the new, the tried-and-tested and the subversive can be confronted.

We need **process design** (Figure 4D) in order to enable the creation, development, implementation and testing of new models, particularly against the backdrop of global process constellations and the digital possibilities that exist in this field. With a view to the globalisation of the cultural and creative industries, as discussed

at the beginning of this paper, it could be very stimulating to understand exactly how global creation, production, transportation, distribution and communication processes are changing and developing while establishing new processes – artistically and logistically, creatively and operationally, aesthetically and organisationally. These developments present not only opportunities but also challenges for the established structures.

We also need **systematisation processes** (Figure 4E), in order to enable, structure and routinise designs, controversies and processes, not only as one-off and subjective procedures but also as repeatable and collectivised ones. This requires new concepts for how culture and creation can be understood. Against a backdrop of digitisation, and given that software development is also part of the cultural and creative industries, concepts emerging from this field are highly promising. Seen thus, software development would be the starting point for developing ‘cultural software’, so to speak, along the lines of concepts such as hacking and open source, automatic testing and model-driven development, permanent beta and extreme programming.

Finally, we need **translation/distribution/dissemination processes** (Figure 4F), in order to situate specific positions and attitudes in multiple contexts, heterogeneous spaces and distributed worlds as productively, effectively and sustainably as possible. This particularly needs to happen in relation to the ‘mainstream–singularity’ force field and in the context of the shifting relationship between society and the individual. As discussed at the beginning of this paper, this shift is occurring in terms of what we have called particularisation. Each translation involves new perspectives and references, and thus also the question of criticism, in that the new calls into question the established, the precarious, the successful and the surprising, which appeals to the majority.

Particularly promising for our debate within the context of the cultural and creative industries are the models, strategies, practices and processes of individual actors. As part of their agenda, these actors also explore and co-develop the future of the cultural and creative industries, either wholly or partially, as possible positions within the various force fields and spheres of action and with a view to globalisation, digitisation and particularisation.

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Hedy d'Ancona

Afterword

*Hedy d'Ancona was Secretary of State for Social Affairs and Employment in the Netherlands for issues concerning women's liberation between 1981 and 1982 and Minister of Health, Welfare and Culture between 1989 and 1994. She also served in the European Parliament and in the first chamber of the Dutch Parliament, for the Labour Party. Outside of government, she is known for starting the feminist monthly, **Opzij**, as well as the special interest lobbying group, *Man-Vrouw-Maatschappij* [Man-Woman-Society], which she co-founded with Joke Kool-Smit. In 1992, D'Ancona was awarded the Harriet Freezerring, a women's liberation prize, by **Opzij**. In 1994, she was named a Knight of the Order of the Netherlands Lion. In 2002, she won the Aletta Jacobsprijs, a women's emancipation prize awarded every two years by the University of Groningen. She has been, and remains, a board member of various Dutch cultural institutions, including the Rijksmuseum Volkenkunde, the Royal Concertgebouw Orchestra, the Netherlands Architecture Institute and the Dutch Federation of Cultural Industries.*

Hedy d'Ancona was a keynote speaker of the **6th ELIA Leadership Symposium – E/MERGE** hosted by the University of the Arts Helsinki, 27–29 November 2013.

By virtue of my work as a Member of the European Parliament (MEP) and as Minister of Health, Welfare and Culture for the Netherlands, I have followed the European League of Institutes of the Arts (ELIA) since its inception in 1990. In the interim, I have witnessed many changes as part of an ongoing process, accelerated through the invention and use of new technologies. We are all taking part in this, whether we like it or not, whether we embrace or rebuff the changes we encounter.

We are eager because we are able to see the challenges, the wider view, the discovery of unknown worlds, resulting in more information and creativity, and excited because we are convinced that the feeling of sharing one world will bring more equality and justice. Though, as always, the mark of significant change is that it is met with both ardour and doubt. Zeal sits alongside the fear of losing control over existing ideas, values and property. The success of extreme right-wing and nationalist-populist parties is a signal of this fear and uncertainty.

In a number of West-European countries around 1900, the arts came under the protection of nation states. Innovation came about when the private sphere of art, the playground of the Maecenas and the collector, opened itself to the public. Private art collections and libraries were made widely available, and European Governments were compelled to protect their cultural heritage and support the arts with grants. As a life-long politician – not only as a minister and MEP but also as an activist in non-governmental movements and organisations – I welcome the merging of ideas, the innovation that abounds throughout our globalising world. When the Netherlands held the Presidency of the EU in 1992, I had the chance to

realise one of my own ideals for innovation – the inception of a European cultural policy – by introducing article 184 into the Treaty of Maastricht. By means of this article, the exchange of arts and artists was encouraged, as was the protection of a common European heritage and cooperation between countries on cultural activities such as film-production, literary translations and many others.

My proposal of article 184 in the Council of Arts Ministers was not exactly welcomed with warm feelings. On the contrary; in the beginning, the majority of my colleagues were worried about the possible loss of national identity and more general loss of control that might result. Convincing them that a united Europe would benefit from this cooperation took some time, combined with the reassurance that regional variety would be protected.

If we are going to focus on improvement and recover lost ground, governments must reconsider their responsibilities towards art, culture and cultural education. We all need to ask ourselves: why do we need culture? Why do people need to be introduced to the world of arts? Why do we need professionals to mediate this engagement? We have philosophers like Zuidervaart and Rancière who can help us to answer these questions. They argue that people who are put in touch with the arts are able to more fully empathise with others, to more objectively assess the pros and cons of decisions and to more richly understand their opponents' points of view. In short, engagement in the arts confers the capability to act as democratic citizens. By this rationale, it is clear that there is a strong connection between the arts and the functioning of democracies.

As a well-established and recognised network, ELIA makes an important contribution to the empowerment of art schools and to elevating the visibility of European artists and their pivotal role in our changing societies. This book will function as a catalyst and a tool for ELIA members, and act as an example of the importance of art and arts education in European societies.

We have a lot of work ahead of us in the fields of art, culture and cultural education; but, as long as we have something to offer towards improving society, I remain optimistic.

ArtFutures *Working with Contradictions* in Higher Arts Education

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The European League of Institutes of the Arts (ELIA) is the primary independent network organisation for higher arts education. With approximately 300 institutional members in 47 countries, it represents over 300,000 students. ELIA advocates the arts at a European level as well as at an international level. It creates new opportunities for its members and facilitates the exchange of best practices.

Together with its member institutions, ELIA initiates conferences, symposia, publications and research projects, targeting all sectors of the higher arts education community – artists, teachers, leaders, managers and students – as well as the wider public. Representing all artistic disciplines, ELIA has well-established links with other networks and cultural organisations worldwide and with national and international authorities.

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ArtFutures: Working with Contradictions in Higher Arts Education brings together leading arts practitioners, educators and thinkers, across 14 countries and a variety of disciplines, to address the most pressing issues in higher arts education from the perspective of those operating within the field. These contributions cover a wide range of initiatives, from solving the complex problems of urbanity to plotting the future of the cultural ecosystem. In its exploration of diverse geographies, *ArtFutures* tackles issues such as the rise of the MFA in Europe alongside the need for an inclusive approach to the cultural and creative industries, centred on informal arts education, in Africa. Together, these papers constitute a unique anthology which highlights the manifold iterations of higher arts education. *ArtFutures* demonstrates that the tension between these pluralities, together with mediating institutions like the European League of Institutes of the Arts, acts as a driving force in the development of the field.

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