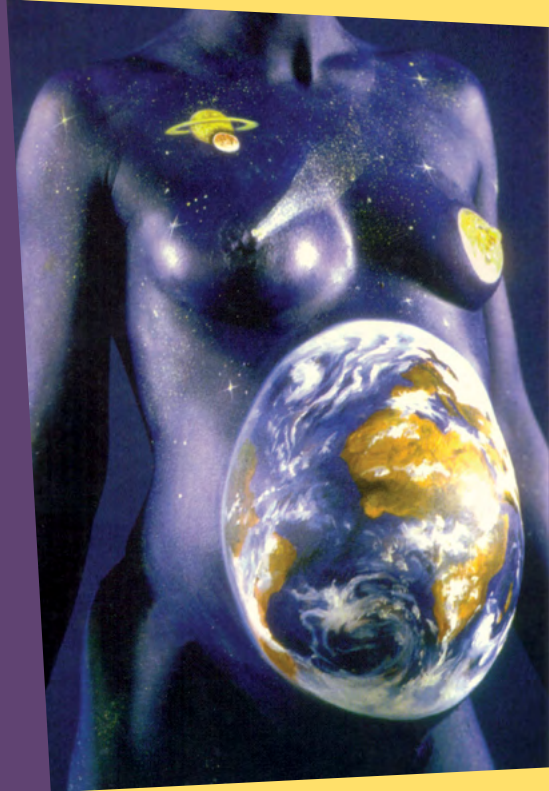


desirable new world

LIFE IN 2042: SUSTAINABLE,
DIVERSE, AND CREATIVE



LALA DEHEINZELIN AND
CRIE FUTUROS MOVEMENT

WHY NOT?

This should be our guiding phrase as we think of futures and free ourselves from what's known and plausible to plunge into what's desirable.

Why not create another economy, where "value" is more than just financial worth? Why not create a model of government ruled by merit and direct participation of the people? Why not have cities built for enjoying time instead of occupying space? Or have "care" be the guide of all kinds of activities in the 21st century? Why not have the kind of education that teaches us how to make good choices and then understand the consequences of each one of them? Why not leave behind all the daily problems caused by fear and mistrust? Why not establish relationships, businesses, and territories based on trust? Why not embrace collaboration as a *modus operandi*?

A sustainable, diverse, and creative world. Why not?



© Otto Coletivo Fotográfico

LALA DEHEINZELIN is one of the pioneers in Creative Economy in Brazil. Relating sustainability and models for the future with experiences in Creative Economy, she has worked as a consultant, lecturer, and workshop instructor in different countries on four continents. Her transdisciplinary activity began in the cultural sector and has extended to include work developed with corporations, the third sector, governments and development agencies, multilateral organizations, and collaborative networks.

Lala is a founder and director of *Entusiasmo Cultural* and creator of the *Crie Futuros* movement.

She served as a Senior Advisor to the UNDP's Special Unit on South-South Cooperation, from 2005 to 2011; as a Member of the Board at the National Institute of Fashion and Design; and is one of the founders of the Future Studies Nucleus of the Pontifical Catholic University, PUC. Find out more about Ms. Deheinzelin at www.laladeheinzelin.com

LALA DEHEINZELIN

DESIRABLE NEW WORLD

Life in 2042: Sustainable, diverse and creative



First Edition

São Paulo, SP, Brazil | 2012

Publishing: Claudia Deheinzelin

English text: Eugênia Deheinzelin and Willian Krell

Dados Internacionais de Catalogação na Publicação (CIP)
(Câmara Brasileira do Livro, SP, Brasil)

Deheinzelin, Lala

Desirable new world [livro eletrônico] : life
in 2042 : sustainable, diverse and creative / Lala
Deheinzelin ; [English version Eugênia Deheinzelin
and William Krell]. -- São Paulo : Ed. do Autor,
2012.

Título original: Desejável mundo novo : vida
sustentável, diversa e criativa em 2042.

Vários colaboradores.

1. Criatividade 2. Desenvolvimento sustentável
3. Futuro – Perspectivas 4. Imaginário coletivo
5. Movimento Crie Futuros 6. Movimentos sociais
7. Mudanças sociais I. Título.

12-06714

CDD-303.4

Índices para catálogo sistemático:

1. Crie Futuros : Movimento para criação de
futuros desejáveis : Mudanças sociais :
Sociologia 303.4

SUMMARY

1 WHY, WHAT FOR, HOW	9
Create desirable futures, why? • Our starting point • Sustainability how? Three infinities • Lending a helping hand to the future • Why don't we change the world? • <i>A dialogue in the future, Pichi de Benedicts.</i>	
2 GAIN, VALUATE, NEGOTIATE	27
Work to live, or live to work? • Multi dimensional wealth index, a desirable future • Economy of Abundance, systemic economy • Time: the fifth element • 4DxT Economy: multidimensional resources, results, and values • From the linear to the volumetric: visualize to understand and act • New indicators and ways to measure wealth • Activation Function: from absolute value to relative value • 4DxT Currencies and alternative currencies • New context, new professionals dynamics • <i>Earning one's multicurrency life in economy 2.0, Melanie Swan.</i>	
3 GOVERN, DECIDE, COORDINATE	51
Change of government model • From frontiers to membranes, from the wall to the skin • Planning, long-term, commitment • The role of the Macro Moderator: facilitator and connector • Mesh Management: use what you have • Innovation and soft and low-tech technologies • New Law: trust and simplicity are the rule • <i>Govern the future, Joxean Fernandez</i> • <i>A prospective idea of culture: how will the culture of the future be?, Angel Mestres Vila.</i>	
4 INHABIT, MOVE, CIRCULATE	77
Cities • <i>The renaissance of the 21st century, Jorge Wilhelm</i> • <i>Optecnia: nature and culture without a separation, Jacques Dezelin</i> • In the neighborhoods • In the countryside • Moving around	
5 CARE, NURTURE, PRESERVE	93
Feeling with: our nature and nature • From recycling to empathy: sustainability from inside out • Water • We want more than just food! • Multi, trans, poly Health • <i>Health in 2042, from the outlook of "nonsensology", Wellington Nogueira</i> • <i>Caring a lot, Silvina Martinez.</i>	
6 LEARN, CREATE, COMMUNICATE	111
Where are we? Another reading of the passing of time • Technology: means and not end • Tools for each layer of the Educreative process • About Educreative Spaces • <i>Education and future, Rosa Alegria</i> • <i>To make of the world we have the world we want, Maria Arlete Gonçalves</i>	
7 BE, RELATE, CONNECT	141
Curiosities of the Forties • Our history in a year and a day • Gaia, the Earth as a living being • Transcending Culture • Cycles, flows, regulation • Homo Estheticus • From fear to the now • The desirable and the plausible • <i>From the book "Images of the Future", Fred Polak</i>	
CREDITS, ACKNOWLEDGEMENTS, AND HISTORY	157
Thanks to everyone who made this book possible! • Crie Futuros thanks • History	



Welcome to our Desirable New World.

You are in 2042, when this fiction is taking place.

This is not a technical book on scenarios and projections of the future. It is an inspirational book. It shows the future that embodies the desires of persons of all ages, backgrounds and training. Hence the name, which is a play of words with the, by no means desirable *Brave New World* by Aldous Huxley, who in 1932 described a somber future. Indeed, today the future broadcast by the mainstream media, games and science fiction is also somber. The assumption we stand for in Crie Futuros is that our dreams nurture the future – that is why we are engaged in creating and spreading positive futures that may encourage the desire to make them come true.

The text follows two lines: the selection of futures from our collection, created under the Crie Futuros movement since 2008, that are highlighted or interwoven in the text, and my conceptual line, which was also the reason for their selection, explained in Chapter 1. From it I unfold in the remaining chapters the factors that I perceive as forces that shape the future. Finally, we have the precious contribution of guests who disclose inspiring outlooks on the addressed themes.

The chapters are organized into macro-themes of everyday life, intentionally broad and generic, to avoid falling into familiar patterns. For example, “education” recalls school, while “teaching and learning” can occur in many contexts. Of course, each subject is merely an outline of all that could be addressed, and the themes portrayed are those that appeared in Crie Futuros Workshops or in our site.

There are solutions, curiosities, lacks, delusions, inventions, childhood wisdom, drafts of laws, good ideas, impossible ideas (really?) yet desirable. They serve to reflect the ability – or difficulty – we have to create our future. Unfortunately, many of the futures in our collection are not propositive or creative and tend to fall into the abstract (“a world where all are happy”) or into the repetition of messages from mainstream media (“we will protect our rivers”).

We invite you to interact with the collection in our wiki (www.criefuturos.com in Portuguese, English, and Spanish) because all futures may be edited and complemented by new texts, images or videos.

Our desirable future is that this book may motivate more and more people to create the future as well as inspire leadership in decision making and point out opportunities.

But above all, we hope that your reading is enjoyable and raises the question: “Why not?”

Lala Deheinzelin
Crie Futuros

Prospective thinking has existed since ancient times, because as Peter Drucker says, *“The best way to predict the future is to create it”*. From the standpoint of David Bohm’s Holomovement, the *Explicit Order* unfolds as an event based upon the underlying *Implicit Order*. The extraordinary futurist and visionary Buckminster Fuller¹ also believes that reality has an underlying inner path that may warn us about the most radical transformations. When changes approach our reality, the turbulences of the system increase and watching them may allow us to prepare adequately. How to access these changes that are underway, but still somewhat imperceptible?

In the fifties, in California, the Rand Corporation started the Delphi technique, applied to deal with the Fifteen Global Challenges by the Millennium Project², represented in Brazil by NEF. Domenico de Masi explores the theme of Creative Chaos and his latest book on Creative Groups progresses in new trends with the use of collective intelligence and wisdom. In the nineties appeared the project *Imagine Chicago* by Bliss Brown, who uses the technique of *Appreciative Intergenerational Dialogue* which continues to expand worldwide.

The Crie Futuros proposal aims to develop contexts to generate innovative ideas that are shared through social networks and thus pollinate *memes*, in what Rupert Sheldrake calls *morphogenetic fields*. We believe that it might be close to the proposed *Integration of Knowledge* initiated by C. R. Snow, in which the Exact Sciences (that analyze), the Social Sciences (that explain) and the Arts (that reveal) interact synergistically. The latter we believe is the key at this time of planetary transition, disclosed by the creative economy or new concepts of design, such as those proposed by Bruce Mau when he said in his book *Massive Change*: “It’s not about the world of design, but about the design of the world.” Throughout the world universities concentrate their thinking on what this future may be, and how it develops, resulting in prospective laboratories and projects such as *EdXonline*³.

In Greek thinking there are *Kronos and Kairos*, linear time and the time of opportunities, one more quantitative and the other more qualitative. The current moment is one of opportunities, of accelerating processes and hoping that the initiatives suggested in the RIO +20 seeking a better future for all, such as those proposed in this book, might be implemented in the right way at the right time.

Arnoldo de Hoyos, 2012

Chairman of the NEF⁴, Center for Future Studies at PUC, the Catholic University of São Paulo

1 In his classic book *Critical Path*

2 www.millennium-project.org

3 www.edxonline.org

4 www.nef.org.br

To create the future, we have to let it be born

Scene 1: In October 2010, I was with Lala in one of the first preparatory activities for the Rio +20¹ and of what would follow after it, discussing perspectives to bring about the civilizational transition we desire and need. We were dealing with what could become a “Global Union for Sustainability.” Not coincidentally, we were together at the same table, along with Rosa Alegria, Pedro Tarak, Carlos Lopes² and other colleagues. And we raised the flag: strategies and action plans are necessary, but not sufficient. We need a positive outlook of the future, able to mobilize and direct our creative energy towards nurturing the spirits of millions of people. The idea was heard, and appreciated, but was not considered as a central guideline.

Scene 2: When preparing that seminar, with other fellow creators of the future, we discussed what we might expect from the Rio +20. Two phrases came to my mind, and I believe they are increasingly true. One: “Rio +20 should be the occasion when, finally, we will realize that the world is more than just the sum of countries.” The implications are enormous, and require a true reinvention of the systems of political and social organization. The logic of nation-states assumes a world fragmented into impervious territories, with controllable frontiers. Nothing is more incongruous with the reality that we are already experiencing and that becomes more pronounced every day. This finding, plus recognition of the existing immense technological and social possibilities gives rise to the other phrase: “what is at stake at the Rio +20 is the creation of the future-now.” That is, we speak of a future that is already among us, struggling to come to light. But to create the future, we have to let it be born. And the delivery has to be now.

Scene 3: The everyday routine reveals that even our most mundane decisions have a built-in expectation of future, often unconscious. There is an expectation of the future that governs our decisions in the present. In the current collective imaginary – in the news, movies, books, art – prevails the outlook of an apocalyptic and not very remote future. That is what we are going to create if we do not immediately strengthen the outlook of the desirable future we already feel pulsating.

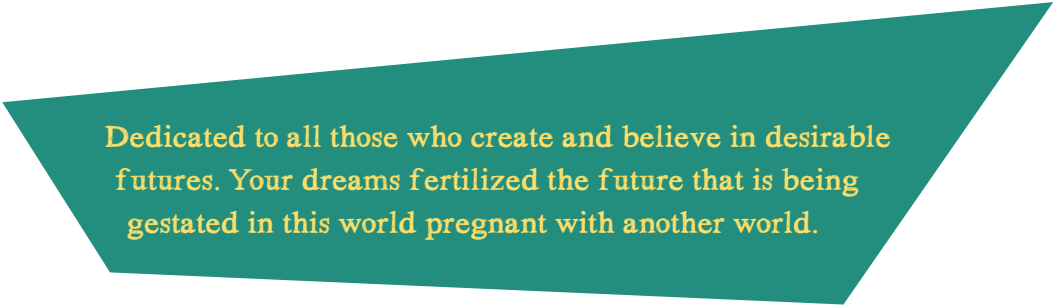
Scene 4: A year and a half after the first scene, Lala gives me a call: she had invested in the idea, cultivated the proposal to share desirable futures. And there was a book (this one you are reading), ready to be launched at the Rio +20. She invited me to help disseminating it. Of course I accepted, along with colleagues from the Vitae Civilis and many more who, like us, know that it is possible to create the future. After all, we do this every day, and have done so for many years. Welcome to Lala, with her enthusiasm and persistence. Welcome to you, readers who will share foresights and join us in the effort of this delivery and the creation of our desired future. Here and now.

Aron Belinky, Instituto Vitae Civilis³
Coordinator of International Processes

1 http://www1.ethos.org.br/EthosWeb/pt/4732/servicos_do_portal/noticias/itens/foram_global_pela_sustentabilidade_sera_lancado_no_rio_em_2011.aspx

2 Respectively: Núcleo de Estudos do Futuro, Fundación Avina, General Sub Secretary of the UN

3 <http://vitaecivilis.org/>



Dedicated to all those who create and believe in desirable futures. Your dreams fertilized the future that is being gestated in this world pregnant with another world.

To all those who participated in Crie Futuros and, by doing so, granted us the non-commercial use of their futures, thank you for your trust and inspiration. To professional artists who ceded their illustrations (fantastic!) especially to Claude Giordano for the emblematic cover image. If any image is not credited, we apologize and reiterate our good faith – it is because the contact could not be found. Our process is collaborative and made possible thanks to the commitment of people and institutions, which we thank. Learn more at the end of the book. Our collection is wiki: it allows you to get to know, edit, and supplement the futures with texts/ pictures/ videos in www.criefuturos.com

Disclaimer:

The entire content of this book is the sole responsibility of the author, who thanks the supporters and exempts them of any responsibility for the text or images herein. To get this book, visit www.criefuturos.com . The proceeds from the eventual sale of this publication will be reverted to the maintenance of the Crie Futuros movement.

TAGS: future of the past – inspiration – happiness –
consumption – sustainability – cooperation –
collective imaginary – change of mentality – wealth
– processes – networks – another possible world –
collaborative models – participation – abundance
– creative economy – interdependence – trust

1

WHY, WHAT FOR, HOW

"The future is the outcome of dreams from the past and choices of the present."

Crie Futuros

CREATE DESIRABLE

FUTURES - WHY?

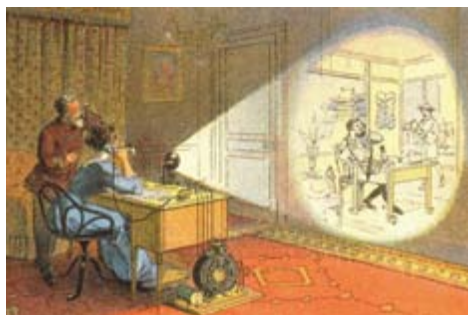
Looking at the future of the past it is quite obvious that much of what exists today has been previously dreamed of: since the late nineteenth century we find many images of information and communication technologies such as video conferencing, notebooks, wireless technology. We can also see gigantic cities filled with more and more cars, drive-thrus, fast food, robotic surgery, solar heating.¹

These things inspired and engaged those who grew up looking at them to turn dreams into reality. These images influenced choices of lifestyle, political and investment priorities, technological innovation. One can also note what kind of future was wished for – and thus created. The ubiquity of cars, in all possible shapes; consumerism, synonymous to happiness; families and individuals cooped up in their homes, content

to be set apart from the external world; highly sophisticated and expensive artifacts of war. Images that nurtured our



Remote chat by video; fax or printer; use of wireless technology; global cities. Frank R. Paul, USA, 1921.



Life in the Year 2000: TELEPHONE CALL with video. And already wanting to talk with China. French National Library, 1912.

relationship with energy, consumption, sustainability, cooperation, rapport with our fellowmen.

Nevertheless, the message is clear: how we visualize the future influences its creation. Today's choices design the world of tomorrow. By changing the choices, we can change tomorrow. So, what should we choose? How to choose? Do we have visions of desirable futures to guide our choices and inspire innovation? Futurist Peter Drucker says: "The best way to predict the future is to create it".

However, since the sixties the most common images of the future have been somber, grim and vague. Images of violence, disaster, threats. Today, the (few!!) images of the future, found mainly in video games and science fiction, frighten rather than motivate.

It is necessary to **dream and spread images and ideas of desirable futures** that can inspire innovation and point out choices, especially in the direction of the change of models that is needed for a better and feasible world. *Crie Futuros* endeavors to fertilize the collec-

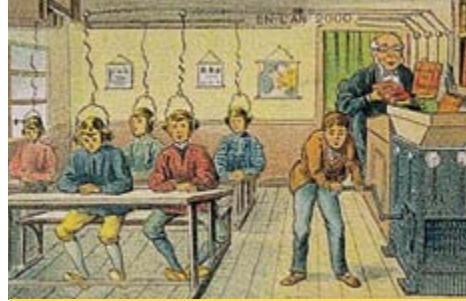
¹ See more at www.paleofuture.com and www.criefuturos.com.

tive imagination by creating seeds of the future and preparing the ground so that urgent changes of mentality and behavior may take place.

We believe that to break with models and generate profound innovation, one must be freed from the search for plausible futures, to reach out for the desirable, the unlikely, but not impossible. Always dare to look at the world and at what we want to change, and think **“Why not?”**. It seems utopian, but the work of hundreds of people and institutions (such as the Ashoka² social entrepreneurs) has shown that the impossible is possible. For example, low income community neighborhoods that have built parks and daycare facilities without money and in two days³!

Visualizing futures is also important because sustainability comes from the harmonious choices we make in the present. If we are not attuned to the future we always risk wasting large amounts of time, resources and opportunities mak-

ing choices and devising policies based upon perspectives and priorities that do not make sense in the long run. For ex-



Life in the year 2000. Education as an assembly line ...
Bibliothèque Nationale de France. France, 1889.



Designed for 2889, this identical towers where an entire city can live, already exist. USA, 1933.

ample, city planners and futurists of the late nineteenth century London believed the city would continue to be powered by horses as it grew. So, one of the greatest challenges was what to do with all the horse manure? Diapers? But then, how to get rid of them and their contents? A lot of energy was spent on these questions, but little did they know that in less than thirty years, the issue would no longer make sense, since horses were replaced by cars. This metaphor highlights how many of our concerns and policies might be “horse diapers” and refer to issues that soon will have no meaning, unless we make an effort to visualize different futures.

Measuring the wealth of people and nations only by the amount of money generated; investing almost everything in infrastructure, i.e. hardware, and almost nothing in intelligence and processes, i.e. software, (and no hardware works without software...)⁴, in processes (such as bureaucracy) and struc-

2 See www.ashoka.org and www.ashoka.org.br

3 See www.institutoelos.com.br.

4 Tragic examples are budgets of what is planned for the World Cup and Olympic Games in Brazil even by the BID. (www.copa2014.gov.br/tags/bid).

tures (like cities) that cause huge losses of the most precious, scarce, and nonrenewable resource we have: Time. These may well be some of the “horse diapers” that should be rethought in our designing of sustainable lifestyles.

OUR STARTING POINT

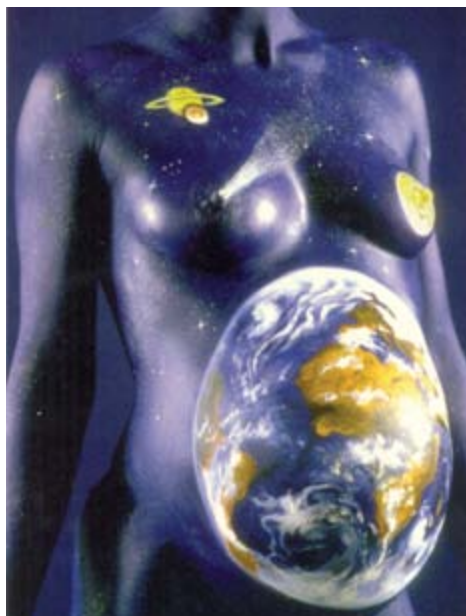
“We can’t solve problems by using the same kind of thinking we used when we created them.”

Albert Einstein

“Desirable New World” was constructed based upon hundreds of futures created between 2008 and 2012, in eight countries, by people belonging to dozens of networks and of all ages and occupations. Simple, diverse, and light language without any technical pretention connecting the dots to reveal the full picture of these desired lifestyles.

Our feeling is that they make visible some traits of this “other possible world” that is being engendered.

Eduardo Galeno⁵ says: **“This is a world pregnant with another world.”** A phrase that best translates what we have been saying for many years using the image in the book cover: sus-



Tableaux Vivants. Claude Giordano, Paris, Nineties.


tainability will not come to be just by tweaking the old models. We are talking about something new.

Our contribution to this “gestation” is the result of extensive work, a creative and futurist mix that converges upon a vision of sustainability based on creative economy and collaborative models. This work was structured through activities involving⁶ a wide variety of stakeholders: the cultural sector, corporations, the third sector, local governments and development institutions, international cooperation, collaborative networks.

The concepts and tools we developed along this path guided us on how to bring together the futures and design sustainable ways of life. We are “synthesizers”: in quest of synthetic ways that might be applied in various domains; “howists”: interested in the “how to”; and “hubs”: trying to unite languages, sectors, and fields of action.

⁵ During the movements of true democracy in Spain in 2011...

⁶ Further information, articles and videos in the site www.laladeheinzelin.com



If you prefer, go straight to the futures, because what follows is rather technical and we do hope that you will enjoy reading this.

SUSTAINABILITY HOW?

THREE INFINITES...

Sustainability? How, if the Earth is only one and its resources are finite and scarce? Creative economy might be a solution.

We are experiencing the passing of centuries in which society, economics, and politics were organized around material resources such as land, gold, or oil, tangibles and, therefore, finite and consumed upon use. This finitude creates an economy of scarcity, based on competitive models. However, intangible resources such as culture, knowledge, and experience are infinite and multiply with use. They may stand for an economy of abundance relying on models of collaboration.

In a simplified way, we might say that the traditional economy hinges on tangible resources: environmental/ structural and financial capital that being scarce and finite resulted in unsustainable models. Conversely, Creative Economy is based on intangible resources: cultural capital and social capital which, incidentally, are abundant in “poor” countries. This economy rests upon cultural diversity, knowledge, ICT, and creativity that enable the eventual achievement, not only of economic, but social, cultural and environmental results as well. That is to say, sustainable.

Sustainability may be possible, since we are talking about three infinities! One infinite leveraging the other... **The first is that of intangible assets**, which not only cannot be depleted, but are renewed and multiplied with use, instead. This alone should turn creative economy into a strategic priority at a time when the major predicament is how to improve quality of life and generate income since the planet is just one, finite. But if the

atoms of Earth are finite, **the bits of the new technologies constitute our second infinite**. With them we can create many virtual worlds and endless ways to empower, connect, recreate and interact. And that creates our **third infinite: the infinite ways in which the network society** is organized, produces, reinvents. And all the new ways of producing and undertaking derive from these associations, which are summarized in the word “collaborative”. The examples are many: new models to produce, distribute, and teach like *Circuito Fora do Eixo*⁷; the hundreds of crowdfunding⁸ – collaborative funding sites; Mesh⁹ businesses that propose an economy of sharing; the fabulous resource known as “cognitive surplus”¹⁰, the col-

7 A Circuit that links more than one hundred clusters of creation now spreading out to other countries of America, that innovates in all forms of management <http://foradoeixo.org.br/>

8 Hundreds of sites, and all very recent

9 See the book *Mesh*, by Lisa Gansky or the site <http://meshing.it/>

10 Concept proposed by Clay Shirky, <http://www.shirky.com/>

laborative production of knowledge which bears fruit like Wikipedia.

Current times are fascinating because each of these “infinities” activates the other, allows it to be strengthened, turning potential into reality. Of course, infinite 1, that of intangible resources (culture, knowledge, creativity, experiences), has always existed. But the new technologies of infinite 2 have created associations with other sectors and partners that allow this creative potential to become real, visible and accessible, thus “tangibilizing the intangible.” The combination of these two infinities generates the third one, with new ways of organizing people, relationships, and businesses, that is, the “network society”.

But for these infinities to come together “activators” are required: elements that act as “modems” or catalysts, integrating sectors and languages and leading to the convergence needed for a systemic action. If we dare to abandon many of the models (known and comfortable, albeit wrong) of the 20th century and make the right

choices, this “trio of infinities” can bring prosperity and harmony. We use this outline for the Desirable New World, sustainable (and possible...).

For all this to happen, which would be some of our starting points?

LENDING A HELPING HAND TO THE FUTURE

The Crie Futuros logo¹¹ symbolizes a hand because we want to “lend the future a helping hand.” To achieve this we identified some principles that will be the guidelines in this book.

ONE NEW OPERATIONAL “SYSTEM”: CULTURAL CHANGE. CHANGE MENTALITIES TO CHANGE HABITS

“Desirable New World” is not a technical book, but an inspirational one. We would like to motivate, entertain



and collaborate to change the culture towards sustainability.

Our starting point is based upon some assumptions:

🌀 Sustainability is only possible through a change in culture, mentality, desires, outlook of the world and the future. Are we trying to change habits without changing mentalities?

🌀 “Sustainable” is not merely an adjective but a new “operational system” that from now on will guide actions in all domains of life. Just as slavery is inconceivable today, in the near future it will be inconceivable that any aspect of life is not sustainable ...

🌀 The word “sustainability” gives us a feeling of guilt, not enthusiasm – we “know” that sustainability is essential but we “sense” it something that may be restrictive, technical and tedious. Sustainability is the possibility of re-designing the world, it fosters a better quality of life, and it is interesting and daring too.

🌀 The approach to sustainability must be systemic because the ecosystem we live in is socio-environmental, signaling the interdependence between the tangible of economics and environment and the intangible

of society and culture. Limiting sustainability to environmental solutions entails more than a risk; it jeopardizes what might be the solution.

🕒 It is a major cultural change to perceive that a solution for sustainability are the intangible assets: creativity, cultural diversity, knowledge, experience, care and human values. These are abundant resources that renew themselves and multiply with use.

TWO EQUIVALENT COORDINATES: TANGIBLE / STRUCTURAL AND INTANGIBLE / PROCESSUAL

“Contemporary civilization experiences the explosive combination of rapid technological evolution and slow ethical and social evolution”¹²



The practice of considering an equivalence and interdependence between tangible / hardware / structure or intangible / software / process, helps to understand how and where we can be more sustainable. In most cases,

policies and investments focus on hardware / structure, as if their existence would suffice to generate software / processes. The upshot is always a huge waste, because hardware will not work without software... Example: the Olympics and the World Cup, in Brazil. Almost everything that is being undertaken is “hardware”, structure – such as stadiums or highways. Whereas little is underway in “software”: management, entrepreneurship. We make products, but do not provide the process for making them visible and workable. We invest more in infrastructure than in education, we change government priorities without bothering to change the laws and regulations that enforce them.

Another interesting thing is that the same structure / hardware can accommodate various processes / software, that is to say, the same form can have several different functions. This was our rationale: start with what already exists today and think of new functions. After all, this is what creativity and innovation are all about.

We further believe that there is always equivalence between the tangible and intangible, and we can always seek the “translation” of one into the other. Examples: it would be sustainable to manage both the tangible assets (biodiversity, natural resources) and intangible assets (cultural diversity human and social resources) in a clean and renewable way. Those who emit large amounts of carbon can pay credits to offset emissions. We take care not to waste tangible energy, but ignore the expenditure of intangible energy such as “distrust cost”: faulty environments and processes like most of the bureaucratic procedures, resulting in an enormous waste of time, money, knowledge. Furthermore, we give heed to natural resources, tangible, but neglect the scarcest resource of all, time, which in fact is not renewable.

“Desirable New World” was designed intending to optimize time and find other functions (processes / software) for the forms (structures / hardware) that already exist. When playing at re-inventing these forms, it is

12 Ricardo Abramovay, “Folha de São Paulo,” 03/27/2012 <http://radarrio20.org.br/index.php?r=sitelview&id=233404>

amazing to see how much could be done with little effort and few resources. Sustainable.

THREE POINTS IN TIME: PAST, PRESENT AND FUTURE

Traditional economics no longer takes into account¹³

that products or processes only exist because of heritage received from the past – and that goes for assets and tangible natural resources (such as oil or water) as well as for the intangibles (such as knowledge and practices). Any process or product leaves a legacy for the future, be it positive or negative, tangible (such as solid waste) or intangible (such as knowledge to be systematized). To be sustainable is to make the appropriate choice concerning resources received from the past and the legacy for the future. Indeed, our outlook has been immediatist, short-termed, focused only on the present.

To think about Time is to appreciate the past, since there are products



and processes that must be maintained simply because they are already good enough. In this book we deal a lot with “oldie”, not only with novelty...

Looking back we are bewildered by barbarities such as the Inquisition or astonished to find out that bathing was considered bad for health. To think about Time is to visualize the present as if we were in the future because then we become aware of the barbarities of the present. Consider the fattening breakfasts in hotels or the disasters triggered by misfortunes of the financial market. **This book recreates or eliminates quite a few barbarities, and also points out that until recently there were no things that, off and on, we judge as irrevocable such as the single currency system or advertising.**

FOUR DIMENSIONS OF SUSTAINABILITY IN THE PROCESSES, VALUES AND OUTCOME: ENVIRONMENTAL, ECONOMIC, SOCIAL AND CULTURAL



The tangible aspect of our ecosystem encompasses the environmental dimension – both natural and technological and the economic dimension – monetary and solidary. The intangible aspect entails the socio-political dimension and the symbolic-cultural. Interestingly, the latter is still barely visible, although it is where the – abundant and renewable – resources that can provide the solution for sustainability are found: intangible assets like knowledge, creativity, and culture.

We speak about human capital, intellectual capital, social capital, cultural capital, environmental capital, but still do not acknowledge that “value” may mean much more than the economics. For example, reputation (one of the few things that cannot be copied) tends to be one of the most important values.

Assets refer not solely to economics, such as investment, funding, markets, exchanges, bank of hours, complementary currencies. Moreover, assets can be found in the socio-political dimension: vested rights, networks, social fabric, institutions, articulation, and

¹³ As stressed by the economist José Eli da Veiga
www.zeeli.pro.br

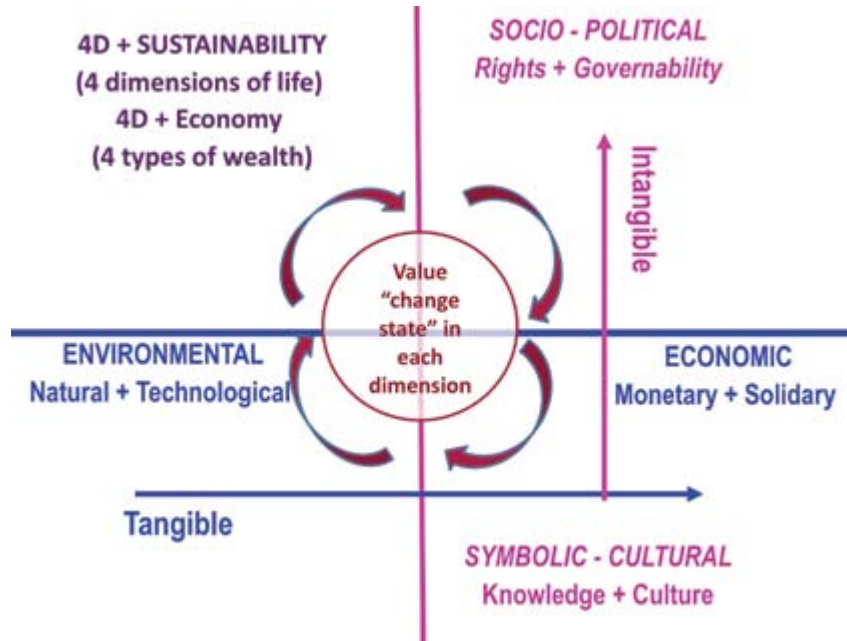
leaderships coordinated action. Assets may be in the cultural-symbolic dimension: as knowledge and practices, languages of arts, creativity, history, spirituality, human values. And environmental assets involve more than the natural environment – biodiversity, raw materials, our body and health, it involves also the technological environment – spaces, facilities and equipment.

We propose **Sustainability 4D+** considering that products and processes, to be effective and sustainable, must be systemic and always encompass these four dimensions in their make up and forms of evaluation. This probably will require development of indicators and four-dimensional measurements (4D+) of wealth, resources and results. We further noticed that, just as the water

changes state, a “change of state” occurs in the nature of Value. Just as it is impossible to understand the water cycle by studying only the liquid state, we realize that this is also true in relation to Value. For instance, we invest financial capital in human capital and thus generate technological capital which in turn can produce environmental capital and so on.

Perhaps in the short term we will have a 4D+ Economy, where the assets of nations, institutions and individuals are the sum of resources and results in tangible (environmental and economic) and intangible (socio – political, and symbolic- cultural) dimensions. This is the desirable future, because it would change negotiation levels, decision making, the definition of priorities and policies.

Our “Desirable New World” already operates with this multidimensional rationale: projects, processes, policies are always aimed at results 4D+. The economy has been re-invented and gained size and currencies. The ways to assess and measure are also 4D +, since measuring life, sustainability and abun-



dance using only available measuring units is like trying to measure liters with a ruler. Impossible.

FIVE "HOWS" OF SUSTAINABILITY: CARE, TRUST, POTENCIES, FLOW AND THE COLLABORATIVE



CARE is the purpose

The 1998¹⁴ *What the World Wants* project, shows that to solve most (yes! almost everything!) of mankind's problems it would be enough to invest for ten years, only thirty percent of what the world spends on armaments. More than ten years have gone by, the choice for the common good has not been made and spending on weapons has doubled. The futurist Buckminster Fuller says "Either war is obsolete, or men are". Why do we continue to make foolish choices?

The historian Riane Eisler¹⁵ proposes a reinterpretation of our history from two models: one of Domination – where the focus is on death, and one of Partnership – and is focused on supporting life. It does make sense doesn't it? For millennia we have lived in the culture of domination: fear moves the economy and society, evolutionary theories are based on the idea of struggle, survival of the fittest, that which is linked to the human and socio-cultural is not valued; religions preach that the best of life is... after death!

The collaborative model is increasingly present, thanks to the network society, and will probably be the future (or we shall have no future...). Therefore, care should guide choices, priorities and policies in all areas. For each thing, design, law, investment, relation, attitude, ask the question: what does it take care of? The greater the care, the more worthy it is of our choice, since care is inherently sustainable and has a long-term outlook.

Care encompasses many activities of the future: to take care not only of Nature but of people, cities, knowledge, practices, time, relations, lifestyles, resources 4D+. There will be fewer jobs in the future, but there will be plenty of work in "taking care" therefore it should become a priority in national policies¹⁶. Iceland's rapid recovery after the 2008 crisis is an example of the focus on care, sustainability, creative economy and not by chance the country is managed by women¹⁷.

In "Desirable New World" the selected futures are linked to care and oriented by affection: we affect and are affected. As pointed out by Leonardo Boff we should consider more the emotional intelligence, since it is the most evolved, occurring only in mammals¹⁸.

14 *What the World Wants*, see the table showing this relation and the proposal in http://www.unesco.org/education/tlsf/mods/theme_a/interact/www.worldgame.org/wwwproject/index.shtml

15 <http://www.rianeeisler.com/>

16 One of the proposals by Ladislau Dowbor; Carlos Lopes and Ignacy Sachs in the book <http://criseoportunidade.wordpress.com/in>

17 One of many articles on the topic. Note they chose not to save banks but to invest in people http://internacional.elpais.com/internacional/2012/03/09/actualidad/1331323885_752952.html

18 This is one of his texts that mentions the subject http://www.mndh.org.br/index2.php?option=com_content&do_pdf=1&id=60

TRUSTFUL environments and processes are the basis

“To be or to being, that is the question...” Paraphrasing Shakespeare we note that there is a tremendous difference. For instance: Japan is “poor” – many natural disasters, insufficient land to grow food for all, severe winters, while **being** “rich” – its people have a good quality of life. Yet, Mozambique although **being** “poor” is actually “rich” – the country has an abundance of natural resources, cultural diversity, privileged location and climate. Why does this happen ?

Looking at development processes it is clear that the capital which is able to activate others is abundant in Japan and scarce in Mozambique: the Social Capital – collective and economic results achieved through cooperative and trustful social relations; coordinated planning and action; strong institutions; culture of solidarity and citizenship.

And Social Capital depends on what? Reciprocity and personal, interpersonal and institutional trust. In Japan, people leave their bags to mark

their place in the subway line when they go to the restroom! The costs of distrust are enormous, look at how many things around you are driven by distrust... Can you imagine the heavy cost of the huge onerous bureaucracy that tries, with little success, to avoid corruption and instead makes most public bodies in Brazil unable to execute their annual budgets and to adequately contract services.

Lack of trust lies behind much of the disharmony we see in the world, in many spheres of human life and largely fueled by mainstream media, whose prevailing product is fear.

Trust is the basis for processes related to activities whose raw materials are intangible resources, and we have seen that these are our pathway for the future – since intangibles resources abound and multiply with usage. Tourist experience, creativity, the values of an enterprise, governance, learning, all rest upon trust.

Much time, resources, energy, knowledge, joy are wasted by distrust. It is unsustainable. The future is networked, collaborative, intuitive, and increas-

ingly guided by collective common sense. None of this is possible without trust. How can one collaborate and connect without trust? Changes nowadays are so numerous and rapid that increasingly we have to use intuition and common sense as parameters, needless to say, they also rely on trust.

“Desirable New World” is made by and for those who trust – themselves, their fellowmen, their community, a cause – and realize that there is wisdom in the collective and that you can live and operate from it.

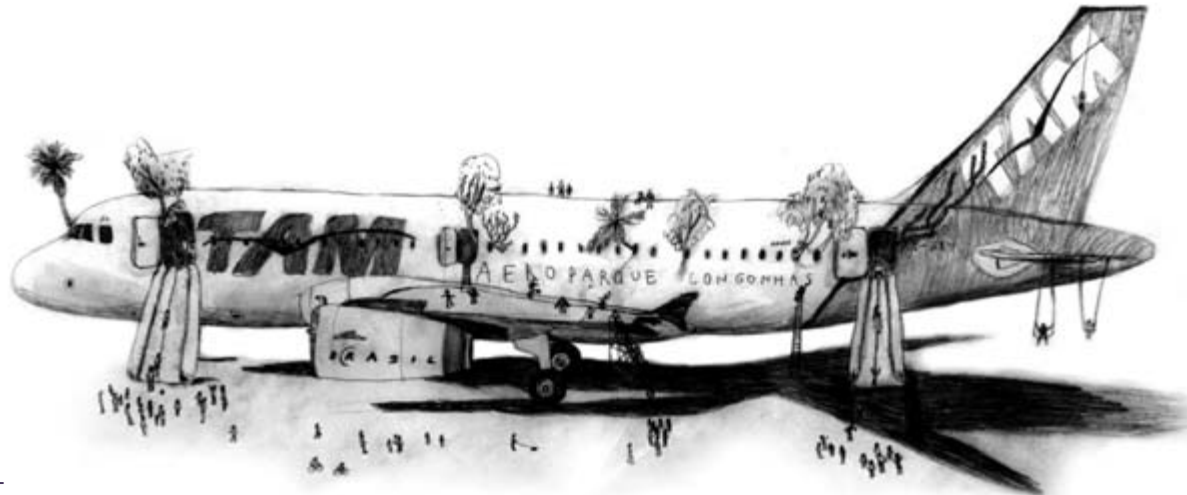
Work on existing POTENCIES is the resource

Engineers who project a highway do not start from the holes, but from solid ground. We can add as many holes as we want and they will always amount to emptiness... However, our culture operates on the rationale of the hole, of what is missing and not on what do we have: that is where assistencialism comes from, which disempowers and does not resolve. Normally planning meetings begin with the question: “What do we

need?" And not "What do we have?"

Might this everlasting feeling of "lacking" – and the resulting consumerism and waste – not derive from the fact that we do not visualize what we have and are always on the half- empty part of the glass? This feeling is even stronger since we have not yet learned to "tangibilize the intangible" and visualize assets and resources over and above the economic and tangible.

We find that there are abundant resources if we change the perspective, no longer work on what is missing but on potencies, the differentials and strengths of each person, institution, community. Recognition and appreciation of what is unique helps identify



Used airplane turned into a children's playground. Angela León, 2012.

the 4D+ resources available (social, cultural, environmental and economic). Then we can see what can be done with them. To be aware of the potencies further generates trustful environments at personal and community levels. We have seen that trust is what fuels social capital – precisely that which we lack.

The network society increasingly allows each one to exercise their power and choice through co-creation and participation. The Transparency Hacker¹⁹, a movement that generates apps to

make public data operational and visible, works by combining the power of the "hackers' for good" abilities plus the power of public databases, that are presented as mere lists with no possible use. Moreover, the definition for "hacking" is interesting: to deeply know the tools, in order to find new uses and expand their function.

In "Desirable New World" we "hack" the things we wish to change: we create new functions for existing structures. Since, even when they seem just an amusing flight of fancy, they point to sustainable routes. Why not??

19 <http://thacker.com.br/>

Fair and accessible FLOW of resources is the goal

When we train our eyes to visualize potencies we find that there is abundance and flow is lacking. In Nature there is health where there is flow. Still water, rots. Stopped blood, dies. Might we have a broader and more systemic outlook of sustainability by thinking about identifying, promoting and regulating flows? Environmental and financial tsunamis; hunger or obesity, social and urban mobility: all flow problems. Money, knowledge, food, water, health, culture, affection, clothing, housing, energy – how much of the problem is a real lack and how much is lack of flow?

Abundance is even more evident when we take into account tangible and intangible resources and results. To ensure appreciation and flow, as a kind of “conversion system” between dimensions, is another reason why, in a Desirable New World, there are innovative 4D+ metrics and indicators: environmental, social and cultural as well as economic.

Awareness of the flows reveals many of today’s barbarities. The annual energy that the controversial Belo Monte hydroelectric could generate is equivalent to that wasted by our power transmission system. The 2010 Census revealed that the number of vacant houses in Brazil exceeded the housing shortage, yet the real estate market continued to expand (another bubble about to burst?)²⁰. Does it make sense that about thirty trillion dollars committed to bailing out banks²¹ in the crisis of 2008 would be the equivalent of a monthly salary of U.S. \$ 357.00 during one year for the seven billion inhabitants of this planet? Or to recognize that the “financial cloud” circulates a capital 75 times greater than the world GDP?

20 <http://www.ecodebate.com.br/2010/12/15/> the Brazilian Census of 2010 shows that the number of empty houses outstrips the housing deficit.

21 See also <http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/6722123/Bailing-out-the-banks-cost-5500-per-family.html>

Our outlook is optimistic (we are enthusiasm!)²². As such, we look at the half-full part of the glass and see that the data reveals opportunities. “Desirable New World” asserts that it is a privilege to live in this era where, for the first time in the history of humanity, there are sufficient resources, knowledge and people. For this reason we hope to foster the practice of well thought out and sensible choices that may allow this abundance to circulate fairly.

COLLABORATIVE and netwoven processes are the mechanism

When, in 1987, Riane Eisler proposed the two aforementioned models of Domination / centralized and Partnership / distributed, the notion of the “collaborative” or web had not yet surfaced. However, the typology of networks translates her thinking quite well.

In the **Centralized Model**, the movement goes from a few to many: all that is “mass” – media, culture, consumption, tourism, event; “big” – cities,

22 *Enthusiasmo Cultural* launched and coordinates *Crie Futuros*.

corporations, markets, debt, **“mono”** – culture, theism, currency, **“concentrated”** – decision making, income, power, resources, knowledge. A hierarchical model, suffice to think of the meaning of the word **“real”** and that we experience **“reality”** – there is no **“peoplety”** – what is personal does not matter nor is it visible. **Technologies are linked to tangible / structural**, they spin off from war – or are war derived, such as the internet or games. **We impose our outlook on nature**, translating it into struggle, competition, and survival of the fittest. Our motto for millennia has been **“the conquest of space”**, which entails the notion of **possessing**.

In the **Collaborative Model**, the movement goes **from many to many**: that of **“mass”** is replaced by the **“diverse”**, characterizing and qualifying all aspects of life: the **“big”** is replaced



Centralized model,
from a few to many.

by diversity of **small and medium-sized**²³; everything is **“Multi and Trans”** – disciplinary, sectoral, cultural, frontier. Decision making, income, power, resources and knowledge are **shared**. In this model we are netweaving, are **co-authors**, and therefore **co-responsible**. Will the virtual world finally contribute to **“peoplety”**, by making the personal visible and important? The technologies are linked to the intangible / processual, they are **socio-cultural technologies** arising from supporting life. **We learn from nature**, a success case for over four billion years, and began to work with design of ideas and processes based on biomimicry. Collaborative models are based on **use and enjoyment** and not on possession – do we need to have things or to use things? And our motto now for the future is **“the conquest of time”**, since we won the space, but lost the time, this scarce and not renewable resource, the key to all the best that life can bring.

23 Note that big corporations generate the largest parcel of the GDP, while the SME generate the majority of jobs.



Collaborative model,
from many to many.

How to gain time? How to ever gain at all? By collaborating. No enterprise in the world would have enough resources or personnel to make Wikipedia, with all its entries and languages – possible only by collaboration. Calculations show that a hundred million hours were required. This seems quite a lot, but it is the number of hours spent watching television commercials, in one weekend, in the USA alone²⁴!! Each year the world watches a trillion hours of TV. Can you imagine all the things we could do collaboratively, profiting from this free time and acquired knowledge?

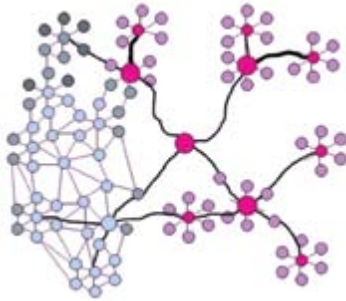
This book was also made in a collaborative way and the set of futures

24 Calculations by MIT and Clay Shirky in *Culture of Participation*

that inspires it – our wikifuturos²⁵, reveals that the desire of people is to make the best use of their time, as well as to socialize and share.

“Desirable New World” is the one in which the mix, the middle way, the resultant are sought. Clinging to polarization is always a risk and perhaps the best model is collaboration: a little of each of the above models, as represented in the rhizome²⁶.

Rhizome.



25 www.criefuturos.com, with futures in the macro themes of this book

26 Model Inspired in Nature, proposed by Gilles Deleuze and Félix Guattari where the organization of elements does not follow lines of hierarchical subordination and any element can supervene in the other.

WHY DON'T WE CHANGE THE WORLD?

The idea of Crie Futuros²⁷ was born on January 1st 2007, during a mix of personal crisis (I asked myself “how do I desire to live?” And noticed that I didn’t know, I only knew how I had to live) and the effect of having read Massive Change, by the designer of ideas Bruce Mau – a collection of information on technologies and people who participate in redesigning the world. With these issues in mind, and preparing a lecture on the sixties, I decided to begin one hundred years earlier – to show how everything converged to a major leap of awareness and behavior that supposedly would follow the effervescent events of the sixties and seventies. The outcome of this mix of a new year, massive change and the sixties brought up the same old question: if we have resources, knowledge and people to do so, why

don’t we change the world? Why not? Do we still have a dream²⁸?

The scientists, winners of the Blue Planet Prize, a sort of Nobel Prize for the Environment that has existed since the Rio Earth Summit, begin their text for the Rio + 20²⁹, reasserting that, yes, they have a dream. Their dream questions the myth of eternal growth and the view that “the green economy will be able to compatibilize the increasing size of the economic system, with the limited resources of ecosystems.”³⁰

The green economy alone may not succeed in becoming a solution for sustainability. However, “Desirable New World” believes that creative economy, multidimensional wealth and collaboration are essential keys to make this possible, so that we can design – and live – the better world we desire. Maybe we have not yet changed the world

28 The emblematic phrase by Martin Luther King: I have a dream

29 http://www.af-info.or.jp/en/bpplaureates/doc/2012jp_fp_en.pdf

30 <http://radarrio20.org.br/index.php?r=site/view&id=233404>

27 Create Futures

because we think it is impossible! Our dream is that the futures we explore next, created between 2008 and 2012³¹ and often based on currently existing practices, may sway, inspire, motivate and point the ways towards innovations and “oldities.”



The division of topics is didactic in the next chapters to facilitate the organization and futures research. Of course, in everyday life everything is mixed. The themes that are presented in this work (a very small part of what would be possible to address ...) are those most recurring or related to the axes that guide this book: sustainability achieved through the creative economy, new technologies and collaborative models. And of course, the change of mindset that this requires. Some things are repeated in the chapters, both to allow them to be read independently

³¹ It must be highlighted that the lifestyles portrayed mirror the groups that created them. There is a great diversity of people but results still disclose a predominantly urban, Ibero-American, young and middle class outlook.

and to enhance the logic and assumptions that we propose.

The futures from our collection, text or design, appear in their original wording,

in boxes, or are woven into my text. Our guests also have their boxes. And the delicate illustrations by Angela Leon were made especially for the book.



The arrival of the Year 2000. Albert Robida, France, 1882.

A DIALOGUE IN THE FUTURE

Pichi de Benedictis, Rosário, Argentina, 2008

Cultural manager, musician, photographer, professor, creator of the project Rosário Creative City / Franja Joven

So, this is what I could remember from a dialogue in the future, between a male nurse and a millionaire creator of fantasy characters, (let's say Walt Disney) who wakes up from a cryogenic dream. That is why I have to warn you that not everything I could remember may be interesting or understandable for 21st Century people like us. Just imagine the disturbed condition of a man who has been unconscious for centuries. However, maybe it is better like this, with no certainties so as not to exclude the possibility that the future may surprise us. Still a bit giddy and trembling from cold, Mr. Disney asked:

- Is there only one kind of government?
- *No, there are thousands, and people change them according to their interests.*
- And what happened with the State?
- *It belongs to everyone. It started to belong to all when the bids failed.*
- What do you mean the bids?
- *Well, when the system of government by parties failed, for a long time people elected companies to manage cities, but that also didn't work well. Soon they tried to make computers able to issue guidelines to manage the cities, but that didn't work out either. So finally we decided to do it by ourselves.*
- In the end are all men equal?
- *No, they are all different, nobody wants to look like the other.*
- Have religions come to an end?
- *No, there are hundreds of religions.*

- So people believe in God?
- *The people believe. That's what matters. Some, certainly, in gods.*
- Do people live forever?
- *No, for about 100 years, according to the decision of each one.*
- What do you mean, each one?
- *The fact is, each one decides how to live. People choose if they want to eat well or poorly, we cannot force anybody. Some like to take risks, I don't know, they choose how to live, and how to die.*
- That means that there are no problems?
- Oh! Yes sir, fortunately there are many problems. What would happen to us without problems? For sure we would end up killing one another. We love to discuss passionately about everything, so that when we have finished the discussion, the beer seem to taste even better.
- Since he didn't catch on clearly what was happening on the Earth, Mr. Disney decided to by-pass the issue by asking?
- Are there people living on Mars?
- *Mr. Disney, why should we go and live in such a dark, far away place, if here we have available all the sun, clean air to breathe deeply and rivers full of transparent water?*
- Are you saying that the Earth is not a desert or a huge glacier?
- *According to what I read, the only difference between your time and ours is that now desert and glaciers are just places for tourists, maybe like your fake parks in Florida were at that time. We have a lot of free time to go from one place to another and we love the mountains, the rivers, to be with different people and taste their food...*
- Did they set off the atomic bomb?
- *Sir, what was the atomic bomb?*
- Please don't mind my question, it's because we are by ourselves, do women exist?

- *How can one imagine any kind of life without women!*
- *Oh! So matrimony still exists?*
- *I don't know what matrimony means.*
- *Tell me all about robots and machines, I am dying of curiosity.*
- *Don't do that Mr. Disney, right now when you are just resuscitated, you are going to die again? Look, I don't know what a robot is, I'm sorry to disappoint you. And about the machines, I must tell you that many have been built in the last years, but just a few have been useful, for instance the machine that shows us just like we are.*
- *Oh! That already existed, it's called X-Ray.*
- *No sir, you do not understand understand: just as you are! I believe that at the time they used to call it therapy or psychoanalysis, but they did it without machines and it didn't bring about the expected result. Let me go on. The machine to exterminate all machines was invented so that their tasks could be carried out by men; the machine to clean space residues that blotted out the stars; the machine that recycled human wastes and that which purifies the water of our homes to be clean when it reached the rivers. I was going to tell you that they also invented water fueled cars, but I remembered in time that they were created in the 20th Century, although nobody is able to explain why they didn't use them then.*
- *With so few machines you must be very busy. How many hours a day do people work?*
- *Look, only 6 hours during half of the year.*
- *Only half of the year? And what do they do the rest of the time?*
- *They get to know places, help those in need, educate, inform. Come together with other people to think about how to live better. I believe that now they are busier living than surviving.*
- *Tell me about the land, what do they plant?*
- *At what time? Where, Mr. Disney? One plants what one needs to live. Your*

questions are quite absurd! The people leave an empty space in their field to grow what the others need.

— *Are there towns and cities?*

— *Of course there are. And each town has its own festivity, distinct from all other festivals; each place has its own food, different from all the other foods, each town has its own product different from all the other products, and many products are required by all towns.*

All together we make up the whole.

QUE NÃO TROQUEMOS
O RISCO DE MORRER
DE FOME PELA
CERTeza DE MORRER
DE Tédio.

Let us not change the risk of dying from hunger,
for the risk of dying from tediousness.
Rogério, Rio de Janeiro, 2011.

TAGS: assessment – tangible and intangible assets – credit – human value
stock exchange – economics – creative economy – green economy –
management – taxes – indicators – leisure – sustainable measures –
metrics – multidimensional – absolute and relative values

2

GAIN, VALUATE, NEGOTIATE

“In economics, it is easy to explain the past. Easier still is to predict the future.
Difficult to understand is the present.”

Joelmir Beting

WORK TO LIVE, OR LIVE TO WORK?

"To earn a living" was a curious expression used until a few decades ago, before it became clear that Time is more valuable and that life is already earned! It is up to us to make the most of it ... "Earn" referred to receiving a single type of currency in exchange for goods, or services rendered. "Living" referred to paying expenses at the end of the month, without any kind of task-sharing or exchange for hours of work/skills, also paid for in the same single currency. This situation, where people lived more to work than worked to live, was aggravated by the by now well-studied distortion that led to the Great Bubble of 2013: "earning" had nothing to do with life, property, or labor, but instead with the issuance of single currencies or financial speculation. Despite the various crises that preceded that of 2013¹, it took

quite some time for the population to clearly realize these mechanisms and their consequences. Already in the middle of the last century, the economist John Kenneth Galbraith² said: "The process by which money is created is so simple that the mind rejects it."

An example: in 2010, a specialized media vehicle³, stated: "One of the biggest risks to the world's financial health is the \$1.2 quadrillion derivatives market". Unfortunately, our researchers have not found a clear description of what was traded in these markets, nor could they achieve to understand what that meant, since this value was equivalent to approximately 20 times the global GDP (GDP was the old way of measuring the wealth of "nations"- management units that today would correspond to our **MSEE – Macro Socio- Environmental Ecosystem**), a sum that divided by the number of inhabitants of the planet,

1 *If indeed about US\$30 trillions were invested to save enterprises of the financial system in 2008/2009 this corresponds to one year of a monthly of more than US\$400, per inhabitant of the world.*

2 <http://www.chrismartenson.com/crashcourse>

3 <http://www.dailyfinance.com/2010/06/09/risk-quadrillion-derivatives-market-gdp/>



Science and Invention – the invention is a Sleep Eliminator, which allows user to live to work!!!
USA, 1923.

would result in US\$171,429 per person, or a one year's monthly salary of US\$14,285 per earthling.

And what would true wealth be? We saw the spreading of the notion of wealth as **"Abundance that does not generate scarcity"**⁴. A millionaire's wealth could then be abundant in money, but scarce in time or freedom; a job could warrant abundant security and lack of autonomy; an enterprise could generate abundant dividends for shareholders and scarce benefits for its community; or even, an international expert could have abundant experience and scarce connections.

The major instability of the first twenty years of this century led to profound and rapid change. In the twenties, we witnessed a re-design of virtually all areas of life, with a wide scope, thanks to the process of technology sharing and dissemination – both the "hard" tangibles and the "soft" intangibles. In the thirties, these new struc-

tures were monitored and adjusted by society through **DDCG: Direct Digital Co-Governance**. In June of this year, a couple of historians presented a thesis at the Rio + 50, showing that the DDCG was made possible when global and unrestricted access to ICTs resulted in better education, more transparent procedures and, therefore, better ability to choose and decide on the part of the population. This also led, in recent decades, to the breaking of a historical pattern that they perceived, and nicknamed "crab dance". It was a pattern of advance and retreat that marked almost rhythmically the last decades of the 20th and early 21st centuries – see, for example, the switching between progressive and conservative governments, which were curiously called "right" and "left". That just before the extinction of the "parties" government system, since they had become quite indistinct in their purposes.

HSE: Human Stock Exchange

Based on the following indexes:

- 1 – Index of Talent Expression;
- 2 – Index of Transparency / Telepathy
- 3 – Index of Emotional Health or Playfulness;
- 4 – Index of Material Detachment or Material Balance;
- 5 – Index of Affective Bonding;
- 6 – Index of Reduced Extraction
- 7 – Index of Beauty;
- 8 – Index of Kindness

Gabriel, Sonia Bosco, Camila Aragon, Elen Igershemer, Monica Cristina Ladim, Woody, Laura, Helen Rose, Renata Proetti, Leatrice Cristina Affonso, Marilena Martins, Brazil, 2009.

⁴ Metariqueza: concept devised in 2008 by Roberto Adami Tranjan http://www.leituracorporativa.com.br/open.php?pk=34&fk=63&id_ses=4&canal=16

MULTI DIMENSIONAL WEALTH INDEX, A DESIRABLE FUTURE¹

The exercise below was created in November 2008, São Paulo, during the Global Latin America Forum, an initiative started by the BAWB – Business as Agent of World Benefit. After applying the Appreciative Investigation Method the following step by step scenario was built for 2020.

Aspirational Assertion: News in 2020

"The European Union, the last economic block to adopt the Multidimensional Wealth Index (MWI), consolidates the model developed by LAU – Latin American Union, and created based on the global economic crisis of 2008."

Both the set of indicators as well as the new currencies of the MWI allow the balance in the management of the Integral Sustainability Quadripod: the economic, environmental, social and cultural development, measured by means of quantitative and qualitative metrics. The new model in force, which prioritizes human values and intangible resources (knowledge, creativity and culture), achieves its objective of generating public and private policies based on the concept of interdependence and focused on quality of life for mankind on the planet.

From the results of 2017 in Africa, we can state that some vectors of this success were multi-sectoral management, interdisciplinary education, collaborative production, networking and community empowerment. Today we can state the redefinition of wealth as "abundance that does not generate scarcity" is a reality.

If anything was possible, we project:

MULTIDIMENSIONAL WEALTH INDEX: NEW INDICATORS, CURRENCIES AND FLOWS

Aspirational Phrase:

"Multidimensional Indicators of wealth generate Integral Sustainability for humanity and the planet."

Symbolic maquette made by the group – inspirational synthesis. Prototype:

Multidimensional Wealth Index includes:

A) Currencies/ metrics related to the quadripod of Integral Sustainability (environmental, social, cultural and economic dimensions) that allow measurement, evaluation, exchange. To measure development and sustainability only by the economic value is like trying to measure liters with a ruler. Human and cultural capital; social capital, technological and environmental capital allow that cultural and natural diversity, solidarity, articulation, traditional knowledge and practices, creativity, can be integrate into the equation of sustainable development.

B) The set of wealth indicators, guided by the concept of interdependence and human values, which, when encompassing the quadripod dimensions of Integral Sustainability, promote balance between the material, tangible and the intangible aiming at the quality of life.

C) Legislation and policies that transform and regulate economic and social flows that will enable the application of the MWI.

Involved:

- Multisectoral and Transdisciplinary Task Force to draft the core of the process, which would then be developed by a multidisciplinary work group. Axes: sustainability, innovation, development, cooperation.
- Institutions whose work already approaches the subject; selecting professionals of a transdisciplinary profile from education institutions (the environment, law, commerce, culture, politics, development etc). Includes "practitioners" and "researchers".

Indicators /Schedule

Short Term:

Preparatory Research:

- Background: experiences and information on the subject. Ex: Gross Happiness Index, Icons 2003 Conference, Sustainability Indicators of Nations and other publications, Creative Economy and Sustainable Development, Solidarity Currencies.

¹ Know more about the Global Latin America Forum in <http://www.compendiosustentabilidade.com.br/compendiodeindicadores/praticas/default.asp?paginaID=27&conteudoID=345>

- Research of institutions and names to integrate the initial Task Force (Currencies Module, Indicators Module, Legislation and Policy Module).

Three months:

- Distribution of preparatory material resulting from the search.
- First meeting of the Task Force to establish the foundations of the project and define the groups working on each module.

Long Term:

Six months:

- Design of communication and mobilization campaign to prepare the ground for change, simultaneous to the work groups.
- Work Groups in the three modules.

One year:

- First draft presented.
- The campaign for preparation of the ground continues, now conducted by civil society, already mobilized.

Two years:

- Pilot Experiment (e.g. municipality), monitoring, necessary adjustments.
- Campaign multiplies results and starts preparing the ground in other ambits.

Three years:

- Implementation of beta version in expanded ambit (e.g. State)
- Awareness/ mobilization campaign in wider scopes and abroad.

ECONOMY OF ABUNDANCE - SYSTEMIC ECONOMY

A substantial part of the Sustainable 4DxT Measures, implemented in the years after Rio + 20, had to do with re-designing the economic system, because it became obvious that without these changes advancement would be impossible. Brazil started to work on the issue, in 2015, trying not to repeat the indebtedness and strategic mistakes of the Olympics (2016) in the World Cup (2014). It was therefore one of the pioneers in designing a systemic, multidimensional economy. Some of the steps in this process are listed below:

The entrepreneurial universe tends to be fast and innovative and this was also what happened at that time of major change. Realizing that their financial value fluctuated greatly, or dissolved in successive bubble bursts, enterprises associated with nonprofit organizations (similar to what currently brings together **Social Enterprise 3.0, Co-Laborato-**

ries, and **Organo-Colletives**) to develop more reliable and comprehensive forms of measuring wealth. Those were the early days of today's 4DxT Economy, a four-dimensional system, where the economic dimension began to be called "financial" (since "economics" means the set that includes the other three) and to which were added the values and metrics of the environmental, socio-political and cultural-symbolic dimensions. Today, just adding D/ to the name is enough to characterize it: volunteering is a D / Financial resource, governance a D / Socio-Political resource; sewer system is a D / Environmental Resource; and popular festivities are a D / Symbolic-Cultural resource.

This process of expansion of economics was also necessary when the Green Economy and the Creative Economy were considered strategic priorities for governments and countries. That is why, we had to "tangibilize", measure, evaluate, and create exchange and conversion mechanisms among the various forms of wealth. In the entrepreneurial context, a major change in decision

Project Quality Indicators (PQI)

Appropriation: Balance between what is desired and what is achieved.

Coherence: Relationship between theory and practice.

Cooperation: Team spirit, solidarity.

Creativity: Innovation, entertainment and leisure.

Dynamism: The ability to change according to need.

Efficiency: Identifying the end and the need.

Aesthetics: Refers to beauty and refined taste.

Happiness: Feeling good about what we have and who we are.

Harmony: Mutual respect.

Opportunity: The options open to us.

Taking the lead: Taking an active part in making fundamental decisions.

Transformation: Moving from one state to a better one.

Indicators used by the CPCD, Center for Popular Culture and Development, Brazil.

making took place, since it was possible to “see” the results and value generated by intangible-related areas, such as R&D, HR, Communication, Social and Environmental Responsibility. Previously, they were considered expenditures and not income and, later, their centrality as generators of key values, such as Reputation, Loyalty, Engagement, and Innovation, became evident.

The bases for this transformation of the economy were already outlined in

the methodologies of all those in need of other measurements other than the quantitative and financial. The old NGOs contributed with aspects related to the socio-political and symbolic-cultural⁵ dimensions; the multi-sectoral processes of search for solutions for public administration and large metropolises⁶, with indicators of governance and quality

of life; the financial⁷ and entrepreneurial⁸ sectors, with methodologies for assessing intangibles, to which were added existing socio-environmental as-

⁵ <http://www.cpcd.org.br/principal/publ/Guia%20IQP.pdf>

⁶ <http://www.nossasaopaulo.org.br/observatorio/indicadores.php>

⁷ Search for BNDES, MAE and Eduardo Rath Fingerl

⁸ Search for Daniel Domeneghetti
<http://www.domsp.com.br>

assessment methodologies⁹. Indicators and metrics were combined, adapted, and systematized according to the 4D + rationale, to facilitate comprehension and application.

TIME: THE FIFTH ELEMENT

However, we were actually able to move forward in sustainability issues, when we included **the element Time, transversal to all dimensions**. Then we moved on to the **4DxT Economy, an Economy of Abundance**. Traditional economics, prevailing until the end of the '10s, had a short-term view, focusing only on the present. It did not take into account¹⁰ that any product or process exists only because of a legacy received from the past and that goes for both assets and natural resources (such

⁹ <http://footprint.wwf.org.uk/> www.globalreporting.org/ www.cdproject.net/ <http://epi.yale.edu/>

¹⁰ See “Mundo em Transe”, by José Eli da Veiga, 2010

as oil or water) as well as for intangibles (such as knowledge and practices). Just as any process or product leaves a legacy (positive or negative) for the future, be it tangible (such as solid waste) or intangible (such as knowledge yet to be systematized). We became sustainable when the choices made in the present were able to balance the use of the assets received from the past with the legacy left for the future. One of the most immediate results of this approach to the economy, considering it as a process in time, was the change in pricing: gasoline, for example, whose value per liter now includes the “before” – time for oil to form and the “after” – rebalancing environmental consequences.

Compare what it means to understand something from a photo or from a movie. For it was something similar that happened when we began to take Time into account. Shifting from static to dynamic is, for example, to work with processes (dynamic) and not just with products (static). Previously, a bank that would finance a restaurant could fund “hardware” products such as stoves or

the remodeling of the space, but could not finance “software”, processes like Chef training courses. This is precisely what adds value and a plus.

In Brazil, the same change of focus on products / infrastructure to one of focus on processes / systems management prevented the repetition of the socio-economic and environmental mistakes of World Cup 2014. What to do with newly built or renewed spaces, previously without use, lacking maintenance, content, management, or public? How to succeed in having the resources of the event benefit a variety of local MSEs and not be concentrated in a few large enterprises? For the Olympics 2016, the biggest investments were in intelligence and organization of collectives – qualify and prepare services, educate, train managers, organize solidarity networks and/or micro entrepreneurs who could meet the services demand. Innovate by holding major events within a collaborative rationale, adopting socio-cultural technologies in order to achieve low economic cost and high social outcomes – this was the country’s

The Pro-City Bank presents its Pro Machine

A machine where citizens can deposit all projects that benefit the city will be inaugurated tomorrow. It will then conduct a viability study weighing feasibility, necessary funding, and benefits for the city.

For the selected projects, the Bank will facilitate not only the money needed, but also other institutional, corporate, and any other relations needed. Interest will be reduced and will be proportional to the success of the project.

*Erica Sarchione and Florence Lucchesi,
Rosario, Argentina, 2010.*

legacy to the world. Still today, we are in awe at the originality of the stadiums renewed by the samba schools, each one leaving its mark and creativity, a combination of colors and shapes that was the very picture of the Brazilian way of being that launched **Collaborative City Planning**.

4DxT ECONOMY: MULTIDIMENSIONAL RESOURCES, RESULTS, AND VALUES

Changes in the economic system are still ongoing, and so it is best to explain how it is being designed. In **4DxT Economics**, Time acts as a coefficient, a multiplying factor for the value assigned to

each resource received from the past or outcome generated in the present. A D / symbolic- cultural resource, such as a traditional dance; a D / environment resource, such as fruit trees; or a D / socio-political resource, such as respect for human rights will have final values proportional to the Time coefficient, by which they were multiplied. Ex: Human rights respected for a longer period of time, a higher value.

In 4DxT Economics, **the sum of the Resources of each dimension constitutes the Assets of that dimension**. The total **4DxT Heritage** is the sum of the tangible assets (monetary financial / solidary + environment natural / technological) and the intangibles assets: socio-political and symbolic- cultural assets.

The same rationale applies to the Results. **The en-**

semble of results in each dimension is equal to the impact. These, when added (or subtracted ...) generate the **4DxT Total Impact** – which may be negative or positive.

Total Heritage plus (or minus) Total Impact give the **Real 4DxT Value**, which is the real value of the future.

Example, an enterprise may have this result:

- (D / financial) Sales + 8
- (D / environmental) Utilization of vacant spaces - 4
- (D / socio-political) Reputation - 3
- (D / symbolic - cultural) Knowledge management + 6

The total is $8 - 4 - 3 + 6 = 7$

When speaking of Time it is crucial to highlight that our major advances came from the perception that time is much more than money. Anything that makes people, institutions, and venues happier and more evolved takes place in Time: relate, learn, create, care for, understand, taste. "To Optimize Time" is more than to make it more productive. We know that the function of better management and



increased productivity is to create more free time for activities that add flavor and sense to life.

Time also makes it possible to generate that abundant and precious resource which was largely responsible for having us actually succeed in making “sustainable”, “participatory”, “creative”, “diverse” stop from being adjectives to become widely adopted practices nurturing the “Cognitive Surplus”, a concept proposed at the turn of the century, by Clay Shirky. The combination free time + collaboration / connection via the web produces an abundant source of knowledge, talent, good will, and commitment to be applied in any kind of cause or context. This has happened, for example, in DDCG: co-Governance is possible due to people’s time and knowledge cognitive surplus. The more successful the DDCG (and end of corruption was an evidence), the more people enjoy it; and this generates better results that, in turn, generate more engagement and, lo and behold, we finally leave vicious circles to enter virtuous ones.

FROM THE LINEAR TO THE VOLUMETRIC: VISUALIZE TO UNDERSTAND AND ACT

The transition to a multidimensional economy allowed a more clear view of the processes associated with wealth in all its forms... Imagine the difference it makes to appreciate a construction from the blueprint or a 3D model. The relationship between perception and acuity between traditional economics and the new economic system is the same.

To visualize this multidimensional wealth and its flows was an important strategy to engage the planetary population in **DDCG – Digital Direct Co-Governance**. Soon after the **Bubble of 2013, Clocks of Money** were created. Illuminated billboards (formerly used for advertising, or for Stock Exchange quotations) showing how much money was there, where, with whom, and invested in what.

Later, we moved on to **4xD Models of Abundance**, using architecture soft-

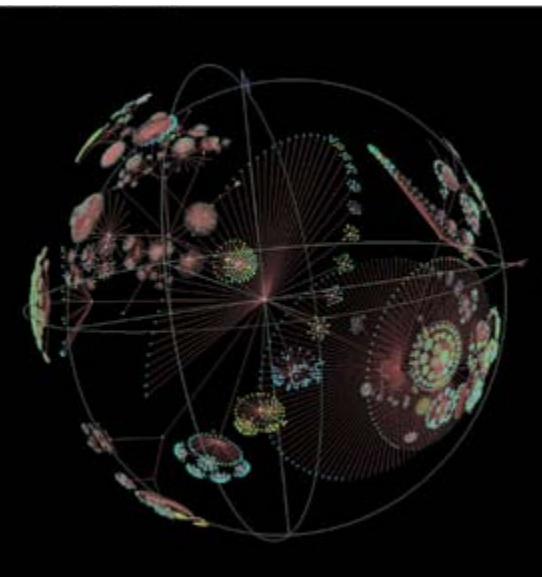


Clock of Happiness: more time, happier. Alexandre Matos and Echthol Mejia, Dominican Republic, 2009.

“Free time”, “leisure” and “work” will practically be synonymous.

Besides being similar, one is contained in the other. Thus, the word “work” will not inspire negative adjectives such as boring, tiresome, stressful, and constraining. In the future, work will be seen as leisure time; the time when we liberate the child within to become free and to create. All this relaxation, experienced for hours each day, will affect our health and appearance: we will be more immune to disease and will age more slowly, because body and mind grow old together and since the latter takes longer to feel the burden of age, the former follows suit.

Olindo de Oliveira Estevam, Brazil, 2010.



Example of visualization of the Web topography, showing nodes and directory trees using the Walrus tool.
www.caída.org

ware tools. The dimensions of wealth appeared as the layers of graphics programs and the data were transformed into volumetric shapes; color gradients, ranging from red to green, displayed states of alert or balance; resource flows, in time and space, could be seen, as well as the interactions between them.

By rendering all these aspects visible, the **Abundance Models** were extremely effective in public and private management processes. And they continue to delight people who walk by and watch the environmental dimension growing and gaining color when mango trees are laden with fruit. The intense flow of D / socio-political resources generates much enthusiasm when hundreds of people are in samba schools' Co-Laboratories getting next year's Carnival ready. The same goes for the magnitude of the values represented by the cultural diversity of the MacroSEES¹¹ (former countries) of the African continent, once seen as poor.

11 Macro Ecossistema Sócio Ambiental

NEW INDICATORS AND WAYS TO MEASURE WEALTH

Sixty years ago, economist and futurist Hazel Henderson¹² already pointed out that the monetized GDP corresponds only to two layers of the Total Production System. According to our 4DxT rationale, we would say that the informal economy (D / financial), the economy of solidarity (D / socio-political), and what was offered by the natural environment (D / environmental) remained invisible. Today, we would add another layer, aware that it is probably the largest of all, because it multiplies and renews itself – the D / cultural-symbolic heritage. Imagine how much eight thousand years of history are "worth", a 100% (well!) educated population, or all the books produced in the world, accessible, online?

12 Presented by her in *Crie Futuros Bancos Moedas*, 2009 http://criefuturos.com/futuros_criados/
C.F. Novos Bancos e Moedas Hazel Henderson

Since the '70s of the 20th century other ways of measuring wealth¹³ have been discussed to replace the GDP, a biased index, which increased with ecological hazards or wars, and was unable to provide a true picture of a nation's available resources. It was then that the term GNH¹⁴, Gross National Happiness was coined. Insofar as the logic of **living = earn money** was being replaced by **living = enjoy Time**, other indexes emerged¹⁵, and the GNH went on gaining acceptance and new adaptations.

When measuring the Real 4DxT Value of the Socio-Environmental Macro Ecosystems (also called nations in some places) the application of the GNH 4DxT changed the axes of power and economics by revealing that, in the overall calculation of the 4D, they are not so disparate. There are many examples of

13 See for instance this Compendium by Anne Louette, available in Portuguese and English <http://www.compendiosustentabilidade.com.br/compendiodeindicadores/default.asp>

14 Gross National Happiness, formulated in Bhutan, in 1972 <http://www.gnh-movement.org>

15 <http://www.happyplanetindex.org/>



Total Productive System of an Industrial Society (Layer Cake With Icing)



Hazel Henderson, in 1982, already pointed out that the GDP only encompasses a small part of the total productive system.

Practicing the GNH

From the perception that the GDP does not include quality of life and it is not the only indicator of people's happiness, a condominium, with 2,500 people, took a census to identify the opportunities and needs of its residents.

Some of the objectives were to create more interaction, find nearby places to work, and take advantage of the time and skills of people to generate in-house courses and workshops in the condos to improve income and quality of life.

The result was an energizing relationship among people, supported by the GNH – Gross National Happiness Indicator.

Fernando Figueiredo and Fernando Almeida, Brazil, 2009.

Oikos + Nomia

The new avatars of the economy are finally abandoning their outdated economic theories that no longer serve to understand the new practices carried out by communities. Individuals and communities have long found that economics is a science of being, since etymologically, oikos is home and nomia is care. Thanks to this awareness, exchange relationships are taking place through the meaningful use of time in a shared and collaborative way.

Leila Garcia, Sergio Barbosa and Jose Salvino Filho, Brazil, 2009.

MacroSEES with more abundant D / socio-political resources, but scarce D / environmental and other resources that have an abundance of D / symbolic-cultural and D / financial scarcity. To further reduce the disparity, international trade is designed to balance scarcity and surplus, rather than accentuate them.

Economic 4DxT data collection evolved considerably compared to earlier forms, essentially capable of collecting quantitative and sectoral evidence and corresponding to the formal

part of the economy. The “informal” sector (but not necessarily unlawful) grew more and more, parallel to the growth of entrepreneurship – especially in **OrganoCollectives** (groups operating in a functional, but not legal organization) payments were made in various currencies. Although much was being done, there were increasingly fewer “jobs.”

In the traditional economy, it was possible to map and measure using linear procedures, systematized as in a production chain. For instance, from the cotton thread to the T-shirt. The centrality of the Green Economy and the Creative Economy made it necessary to evaluate and measure complex systems. Both the “sectoral” notion and the linearity no longer applied. A trivial example: when measuring the formalized sector of dance, we would reach a small value; maybe the meager sum of dancers, choreographers, and performances. But the economy of “dance” is very large, because it includes popular festivities (like Carnival), celebrations (such as parties and weddings), nightlife, and

fitness centers with all their equipment, spaces, contents, props, etc. And that’s because we are referring only to the D / financial aspects – the importance of “dancing” increases even more when its “results” and impacts on other 4DxT dimensions are verified.

Another factor that led to a change in data collection was the amazing speed with which new professions and languages arose as the result of trans-disciplinarity and the consequent need to connect different areas of knowledge and expertise. The old “taxonomic” standard that tried to create codes for every type of activity could no longer be maintained. Already in the mid-twentieth century, for areas linked to creativity, it was difficult to classify people and projects according to the existing codes. An outcome of this increasing failure to fit knowledge and professions into closed and predetermined areas was the reformulation of higher education. In the **Pluriversities** convergence replaced specialization; discipline menus are offered (and not closed curricula), and since information

is available everywhere, they have increasingly become practice labs.

Moreover, in the beginning of the 21st century, it became clear that sustainable development took place at local level, in the territories, and this further contributed to gradually put aside the “sectoral” concept. The 4DxT logic and tools allowed the territories (now called **MicroSEES – Micro Socio- Environmental Ecosystems**) to be studied under a multidimensional volumetric rationale. It was possible to have a geo-referenced reading, where 4DxT layers were superimposed on satellite images. Readings of images are produced by the flow of data in time (as in visualizations¹⁶ of data), or a combination of both. It was actually possible to have a true organic perception of the territories and their processes appeared as organs of a living system – highlighting their ecosystem character.

ACTIVATION FUNCTION: FROM ABSOLUTE VALUE TO RELATIVE VALUE

To map and measure the intangible, using measuring tools and methods devised to measure “things”, is not very efficient. Creating an analogy, clouds are not mapped in the same way as mountains, but instead, by studying their behavior. Approaches similar to the calculation and study of climate – where the interactions and dynamics are registered – were adopted to measure the intangible. We made good progress when the quantum concepts became more present in everyday life (imagine, that in the ’10s, almost one hundred years after their formulation, schools still only taught Newtonian physics). As such, an analogy between the Particles of quantum physics and Tangibles (the basis of traditional economy) was observed, and between Intangibles (the basis of Creative Economy) and Energy, strengthening the need to further study “behavior” rather than form. According to the

Heisenberg Uncertainty Principle(22)¹⁷, the more we dedicate ourselves to knowing the position (space / form) of an electron, the less we will know about its momentum (time / process) and vice versa. Similarly, it was found to be more efficient to map the new economy from its dynamic aspect (momentum / process) than its form (position / quantities), since areas related to intangibles are characterized by their accelerated and constant change of form. After concluding a measurement of that reality, it no longer exists – the cloud has moved.

When studying the “behavior” more than the “form”, it was found that fields of activity have different **activating potentials**. Some can activate their surroundings, boosting other business areas, while others only generate jobs. Compare, for instance, the uniformity of an old industrial neighborhood to the variety of a current creative territory. Some cause environmental damage, others qualify those who produce and those who consume, creating or

16 <http://www.webdesignerdepot.com/2009/06/50-great-examples-of-data-visualization/>

17 Statement of quantum physics postulated in 1927

Ibero-American Gazette, October 13, 2015

A new exchange currency of socio-environmental value was launched today.

Starting today, every citizen receives his personal card for monetary transactions. Initially the card will perform transactions in four types of currency:

- Social attention time: for the exchange of time (hours) made available to the fellowman;
- Bonds of Exhaustible Resources: measurement of time of mineral reserve
- Recycling tax on material goods (non-renewable resources)
- Ticket for organic restaurant: inducing the consumption of organics

Haroldo Vilhena, Christophe Place and Cesar Matsumoto, 2009.

changing cultures. The more benefits are generated, and in more dimensions, the greater the **Activating Potential**. The damage caused generates negative activating potential, which grows according to the amount of dimensions affected. Thus it becomes clear that the ways of assigning value to resources, re-

sults, products, and services cannot be uniform. Today, there are other factors relative to the **Activating Function** of each element of the economy.

Let us say that two types of businesses generate additional \$1,000. The first, an unregulated extractive activity that can have a negative activating function (- 2.5) and the value computed as (- \$1.500). This means that it generated a \$1,500 revenue, but caused a \$2,500 damage (environmental, social, etc.) The other is dedicated to facilitate access to ICTs, has a high activating function, say 5, resulting in a final value of \$5,000. The \$1,000 revenue generated \$4,000 in benefits (social, cultural etc.) Another example: when assigning a value to a D / environment resource – say a river – if it is located in a tropical region, with a lot of water, the activating function can be 2, whereas in an arid region, it can reach 8.

Studying economic areas from their activating potential standpoint was crucial for Creative Economy and Green Economy, of high activating potential, to be definitely turned into priorities.

4DxT CURRENCIES

AND ALTERNATIVE

CURRENCIES

Adoption of the 4DxT outlook on wealth – multi-faceted abundance – resulted in the creation of various “currencies”, corresponding to the resources and results of the four dimensions. At the beginning it was controversial, because many people felt that this “monetized” the various aspects of life. Finally, it was concluded that, at that transition stage, it was still necessary to “tangibilize” the values related to dimensions other than the financial, until a new culture capable of perceiving them without the need of currencies was created.

The government pioneered in accepting payments in different currencies. Not enough money this month? Pay your tax by devoting time to the daycare center next door, or by offering tomatoes from your urban green garden for a snack... Since government is fully digitized, this type of procedure is



Alternative Currencies, Collection Circuito Fora do Eixo, 2008.

easy to manage, and each citizen can manage his own **Public Account of Multiple Currencies**.

Currencies are also important to allow convertibility of values among the 4DxT dimensions. In the past, we were only capable of recognizing financial value: one invested financial resources, one received financial resources. The **Cycles of Value Generation** had not been studied, showing that value “changes state” much like water does. A simple example becomes evident when we use the word “capital”: “fi-

nancial capital” invested in education generates “human capital” (researchers), which in turn can generate “social capital” (a Forest Code) that can generate “environmental capital” that may eventually generate new “financial capital”. The value is “changing state” when passing through the 4D dimensions. Another example¹⁸: an unknown music group that participates in a large collaborative festival, for free, but that receives a CD of the show paid for with the Reputation, Visibility, and Contacts “currency”. Perception of the Value Cycle was instrumental to implement Policies and Investments in the medium and long term, avoiding the pitfalls of immediatist results.

The diversity that characterizes this century of ours is strongly represented in the currencies and other forms of payment and credit that we have today. Exchange currencies have existed for tens of thousands of years, while single, centralized currencies only for a short period of time, just over three centuries

¹⁸ This is often the case in the Circuito Fora do Eixo- <http://foradoeixo.org.br/institucional>

Database of products and services: Gifts and Talents Barter Card

Attention, attention! Urgent news.

An innovative solution was established after the collapse of the Currency in Kind and the Mint: the government announced that its site features a database with addresses, e-mails, and phone numbers of all services and products available for exchange, including both corporations and individuals. For example:

- Exchange healthcare services with the Dr. Do It All company;
- Plumbing repairs in exchange for five massage sessions;
- Cleaning and painting for your home for 10 sessions of RPG or Pilates;
- One dinner at the “Of The Future” restaurant and cafeteria for one box of fruit and vegetables from Sta. Tereza Farm.

Your gifts and talents, products and services cannot be lost or stolen; they are worth gold.

Eliana Fonseca, Rosangela da Silva and Zilda Cristina dos Santos, Brazil, 2009.



– the period when they were a tool for the consolidation of the nation states¹⁹. When a currency is created, an exchange agreement is established within a group and the main result is a strengthening of the ties and the building of trust, i.e., in social capital, which is the one type of capital capable of activating the others. Information transparency and accessibility led this century's society to forsake the state of fear and distrust in which it had been immersed for years and begin that of trust – in itself, in others, in possibilities. As a result, credit recovered its original meaning: to give credit = to believe. With the comfort offered by new technologies, individuals could decide how much, where, for whom, and how they wanted to invest their money.

Times Square em 2042 –
4DxT Wealth Indicators.
Angela León, 2012.

19 Tom Greco, *Money, Understanding and Creating Alternatives to Legal Tender*, 2001


NEW CONTEXT, NEW PROFESSIONAL DYNAMICS

In recent decades, institutions had to learn to turn intangible assets into the “raw material” and essence of a new Economy of Abundance, empowered by the infinites offered by new technologies and organization in networks and collectives. Since the goal was to create business models that would generate multidimensional results, within the 4DxT rationale, the structure of institutions had to be thought out anew. The areas linked to intangibles and that promote integration with others were strengthened, acting as a kind of “modem”, a strategic and aggregating element that guarantee the sum of the transdisciplinary skills required.

Very early in this century, products and services were similar, and quality and price were premises, not differentiating factors. Practice has shown that what could guarantee longevity, attractiveness, and loyalty was intangible:

brand, design, innovation, cultural attributes, social responsibility, and environmental leadership. Today, the economy is no longer spurred by products or services, but by experience (that is why tourism and entertainment have grown so much), while the actual products and services are differentiated by the type of experience they bring about. Values are no longer measured only quantitatively but also qualitatively. Not only **Result** (short-term view) is measured, but mainly **Impact** (medium-term view). **Reputation** is the major measurement of an enterprise’s or an institution’s value. It is what ensures their ability to attract collaborators for their teams and public interested in what they offer.

Below are some of the elements that enabled this change:

 **Information Age or Age of Creativity?** It has become clear that the central issue is not so much the information available, but the culture and creativity that give us the ability to use it. A parallel: to have the ingredients does not mean to have the cake. The recipe, the process, knowing what / how to use them are missing. Areas

New Law for marketing products

On Tuesday, October 13, 2042, the Central Government of five continents approved a law establishing that all enterprises worldwide must include a 10% to 15% rate for social responsibility in the price of their products in order to receive their licenses.

The enterprise will have to allocate this percentage to an action for sustainable development of a community. Any enterprise that does not abide by this new law will be prevented from marketing their products. The Production agency will oversee the validity of the enterprise’s social action. Assistance will be given to micro entrepreneurs who lack resources to implement such actions. It is expected that this new law will provide a substantial improvement in the living conditions of millions of people over the coming years.

Bruno Dias Pereira de Andrade and Frederic Lavoie, São Paulo, 2010.

related to Intangibles became a key element in the strategic planning of organizations, when it was found out that talents and skills are their greatest assets. And that means people...

🌀 **From products to processes:** Our dreams of the past showed a future where invented technology and products were the solution for everything. Today, we know that technology is a means, not an end, and this further reinforced the need for processes: to change the way of thinking and doing.

🌀 **Modems and connectors:** In the 20th century telecommunications and computing evolved thanks to “modems” and “hubs”, and their ability to integrate and link different languages and systems. In this 21st century, the change to the centrality of intangibles and creative economy was possible only due to professionals and institutions that act as “modems”, as connectors. The new professional’s profile is to be a “modem” – able to connect multiple disciplines, several areas within the enterprise and accomplish the necessary integration between government and business sectors.

🌀 **Social capital, trust, self-esteem:** Areas of the institution that collaborate to create a climate of self confidence and self esteem – of people, communities, enterprises, cities – are strategic. This builds

interpersonal trust, which in turn builds social capital. And the key to development is social capital – which we usually lack. Trust and social capital are created by valuing the positive, cultural diversity, internal talents, and all that strengthens cooperation.

🌀 **Time, the only non-renewable resource:** The new technologies have let us conquer space and quantity: in the first decades, we were enchanted with the possibility of being in many places, simultaneously. For that, we lost time and quality... Today, institutions not only help us to optimize time, but to rescue and enhance the enjoyment, intensity, and direction we were losing.

🌀 **Choices and Consequences:** In the first decade of this century, information and demand overload, lack of time, and the urgency to attain sustainability made knowing how to choose and be aware of the consequences of each act a priority. Institutions, then, had to devise and provide tools to make this possible.

The diversification of occupations of the past decades is remarkable and consistent with the main trends of our

century: diversity, decentralization, and autonomy. Many are used to connect different areas and languages, especially in the 4DxT Sustainability context.



A Professional of the Futures is multi, trans, poly, to carry out the function of “connector”. Elvis Gonzalez, Dominican Republic, 2010.

Only things that matter, nothing urgent

In the near future, the enterprise will only become involved with clients and projects that have the power to transform or create sustainable and lasting relationships between brands and people. Relevance of the cause proposed and the client's time constraint will define the project's position within a matrix that will tell us whether we should or not get involved in the project. If the cause is relevant and the time available for the project is compatible with the time needed by the team to develop it calmly, carefully, and confidently, the enterprise will take it. If one of these prerequisites of importance without urgency is not met, the proposal is rejected.

Roberto and Ana, 2010.



TRANSPORTA IDOSOS

The New Motoboys

Motoboys still exist today, but with new functions, since the delivery of documents and packages now uses systems that track who is nearest to the venue to make the delivery. Tourism has grown, as well as the number of elderly people: motoboys are also tourist guides (who knows the city better?), or take the elderly where they want to go. Note that both functions require careful and attentive driving!

Felipe Jordani, Brazil, 2012.



GUIA TURISTICA

Motoboys in their
new functions.
Angela León, 2012.

Promoter Of Socio-Economic and Environmental Feasibility — Assess and plan the lessening of economic, social, and environmental impacts in various value chains, and at all spheres.

Specialist In Environmental and Biodiversity Services Economy — In charge of appraising "nature and biodiversity services" for territorial planning and licensing.

Sustainable Flow Entrepreneur — Creates undertakings that, simultaneously, solve collective issues and generate social and environmental results and wealth for investors. Considers that flow is what must be achieved and interdependence is its perspective.

Energy Researcher — Develops energy solutions of all kinds for all types of processes, including food.

Sustainability Actions Articulator — Maps out and connects different stakeholders to enhance/expand the impact of actions that promote sustainability.

Domestic Cells Energy Generation Technician — Promotes alternative small-scale power generation. Brings about small-scale energy changes. *Created during the Workshop on Innovation in the New Economy, held by the Avina Foundation, October 2010.*

Others are related to the new international scenario of increasing mobility where we live and work in various countries.

One of the most active categories today are **NGIs – Non-governmental Individuals**, people who engage in public causes and bear witness to an extraordinary power to carry out the transformation of individuals. The movement

Cultural Facilitator

Accompanies people so they can learn to live by the culture of a host country other than theirs, to foster awareness and enrich global culture.

- Remains in a given country for 3 months;
- Interacts with people who share the same interests;
- Broad historical, political, and social knowledge;
- Ability as a communicator;
- Permanently connected with stakeholders;
- Supported by government;
- Sensitive to interpersonal interests.

*Edgar Morales and Jose Aldana,
Mexico, 2010.*

has grown since our historians rescued this amazing story of 2007, when Severino Manoel de Souza assembled a Community Library, and Jose Luis Zagati showed movies for free at the Tupy Film Club. Both stood on the cement slab of their small house and were built with materials that had been discarded²⁰.

Alterity is a guiding principle for all kinds of activities, and institutions always seek to develop dynamics to reinforce them. The more people are able to understand the function of each one of them, the broader their overview of the whole institution and the better the flows. And finally, the mood has become an important element of any workplace and profession. In the past, there used to be a time to “work” and a time to “live”. Today, as we do what we like and believe in the purpose of what we produce, joy, pleasure, relaxation, and play are part of our daily lives.

²⁰ See the video by Averaldo Nunes Rocha and Márcio Sno Mitio Konno, 2007, showing these stories.

Knowledge Pickers:

Since they circulate everywhere, they are also pollenizers of knowledge: by circulating books and other cultural products wherever they go. Their carts are equipped with sound, books, toys, everything recycled from junk.

*Julia Toro, Fernando P. Tohmé and Bella Zubbelis,
Brazil, 2009.*



Day of 'Change-Change' lets employees to know themselves better

Imagine arriving and finding the chief executive officer making Xerox copies and receiving patients in the clinic, the general coordinator developing menus, the managing assistant taking over a meeting or even a computer technician giving lessons to children. These are some examples of what happened on the first Day of the Change-Change.

The idea is simple: on this special day, each employee plays a very different role from his or her own to better understand the institution and the particularities of tasks, responsibilities, and operation of each position. This practice will happen monthly, in a kind of rotation. The assessment of the first day of this innovative experience was positive: everyone felt challenged, appreciated their colleagues' performance, and felt more integrated into the institution.

Ana Cecilia, Lourdinha and Patricia, São Paulo, 2010.

Inauguration of the Municipal Market "Happy Collective."

Yesterday was the opening of the first Municipal Exchanges and Fair Trade Market, where one can find all kinds of innovative services, such as "press a button" energy charging; "full pension" virtual tourism"; a wide range of radical virtual sports; smell and touch emporiums; practical objects and accessories made from leftovers. A wide range of crafts and services are also available for bartering. Payments may be made in \$CSREE (Currency of Social Responsibility Exchange) and other local currencies, including direct bartering. Open 24 hours a day, every day.

Andrea Jácome and Veronica Murias, Rosario, Argentina, 2010.

Urgency and Importance Decoder

A tool capable of differentiating urgent matters from important issues was created.

This is a collaborative tool and it all begins with a list of values and beliefs: I believe in what? What do I treasure? What is more important for me and for the enterprise? How many people will benefit from this action? And how many will be harmed by it?

Then, a questions exercise starts: What would happen if we did not do this by tomorrow? What would happen if we did not have to go through so many steps? And what would we benefit if feedback did not take so long? And if there were not so many steps for approval, what would we gain in time and quality? And what would it be like if we did it together, all committed to the same order and the same deadlines? And if we changed functions, exchanged positions – client X supplier- what would change?

Finally, a priority list balancing time + people + resources + importance is made.

Then, the urgent and important actions are defined and teams are assigned for each set of actions.

Tania and Maurice, Brazil, 2010.

EARNING ONE'S MULTICURRENCY

LIFE IN ECONOMY 2.0

Melanie Swan, MBA, Principal MS Futures Group, 2012.

The fast pace of technology advance and global connectedness is bringing about transformation in all aspects of life including the economy. Traditional notions of production, labor, and value exchange are being reformulated. In particular, there are five concepts that are shaping Economy 2.0 and its implementation: affinity capital, the multicurrency society, the proliferation of markets, the evolution of financial services, and abundance injection techniques.

1. Affinity Capital

The first concept in Economy 2.0 is affinity capital, where deeper levels of information about every economic transaction are starting to be available such that individuals, businesses, and communities can more specifically direct their capital inflows and outflows. Product purchases can be made on the basis of attributes related to origin and manufacture. Employees can be more selective about their earnings, checking employer's corporate social responsibility indices and preferring to be independent contractors through online marketplaces. Affinity capital can be directed in capital outflows through socially-responsible mutual funds, peer-to-peer lending, and social venture capital. Philanthropy is merging with investing where some investors accede to a lower financial return, acceptable when social outcomes can be achieved simultaneously.

2. Multicurrency Society

The second concept in Economy 2.0 is the multicurrency society. Some of the new non-monetary currencies include reputation, authority, time, attention, intention, ideas, creativity, and health. The new currencies do not yet have all of the properties of traditional currencies such as being fungible, transferable, and convertible, but this would be expected to develop if the currencies are to persist. In the future, it might be possible to transfer online reputations between digital properties such as Amazon, eBay, Facebook, and Google. Measurement of the new currencies is facilitated through their digital footprints, for examples by counting the number of friends, followers, re-posts, link-clicks, and keyword searches.

3. Proliferation of Markets

The third concept in Economy 2.0 is the proliferation of markets. There are more and different kinds of markets and market principles are being used as design elements in contexts that are not traditionally market-related. There is an extension of instruments in financial markets such as carbon credit trading, weather futures, and housing futures. Markets have arisen in the form of virtual online economies in video games like World of Warcraft and virtual worlds like Second Life. Prediction markets are emerging as an important mechanism for capturing group opinion about event outcomes such as elections and product sales. There are new markets like the gift economy where individuals work for free, possibly not expecting anything in return, or perhaps earning a reputational benefit, for example open-source software projects and the Wikipedia. Other digital exchanges for building reputation and status include idea markets like Quora, Twitter, and Innocentive.com.

4. Financial Services Evolution

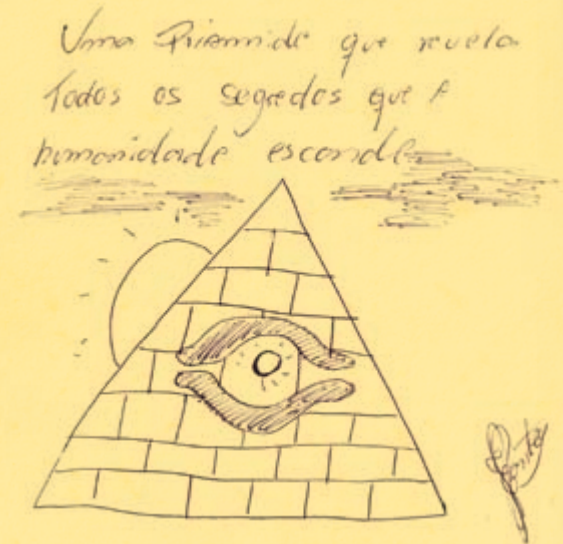
The fourth concept in Economy 2.0 is the evolution in financial services. The traditional model was one central institution impersonally serving many individuals. Now there are innovative new market models that offer alternatives in the conduct of many financial services. In payment networks, there are services such as PayPal, cell phone networks, Google Wallet, and NFC chips. In financing models, there are services such as peer-to-peer lending, crowd-funding, and the gift economy. Banking services are democratizing faster than other industries as a lady with a cell phone in the remote village is now providing financial transfers and other services to a wide range of clientele.

5. Abundance Injection Techniques

Now that there is a more empowered and malleable concept of markets, market principles can be used as design elements in other situations, in particular to create abundance. Market principles and digital technologies can be the tools for injecting abundance into areas of former scarcity to make a difference. In some cases scarcity is good as a market indicator of value but there is unnecessary scarcity that could be democratized in many places in society. There are already some examples of abundance injection techniques being used in the institutional settings of academia and governments, for example through open-access journals and open-source software licenses.

Implementation of Economy 2.0

To realize Economy 2.0, a tiered policy plan could be enacted. First could be enabling the populace as the foundation for growth, providing gratis mobile telephones and internet access. Second could be extending efforts to develop a skilled workforce in critical growth areas for the future economy such as energy, computer programming, cloud services, and medical tourism, as India did with software and call centers, and China is doing with genomic sequencing and supercomputing. Third could be the early adoption of core future technologies such as clean energy, synthetic biology, 3D printing, big data manipulation, and molecular nanotechnology.



"A pyramid that reveals all the secrets hidden by humanity."

Edgleison, FILE, Rio de Janeiro, 2011.

FUTURO
É
SONHO
PURO

FUTURO
É O
CLARO
NO
ESCURO

FUTURO
EU
JURO
VEJO
TUDO

FUTURO
NO
DURO É
DISCO
VOADOR

Guto Lacaz, Brazil, October, 2008.

tags: laws – digital government – decision, participation –
4dxt democracy, social game of governance, cooperation –
public management – meritocracy – participatory – rights
– frontiers – international cooperation – partnerships –
regulation – norms – procedures – governance

3

GOVERN, DECIDE, COORDINATE

“Who controls the past controls the future:
who controls the present controls the past.”

George Orwell

CHANGE OF GOVERNMENT MODEL

SLAVERY AND THE REPUBLIC; SUSTAINABILITY AND MERITOCRACY

When looking at our past we are surprised by things such as grant of indulgences¹ or existence of slavery. Likewise, when looking at our recent history we are surprised at how long it took for sustainability to become a guiding premise and axis of all policies, undertakings, ways of thinking and doing.

For centuries a series of economic and social standards made the impossible acceptable – like purchasing² pardon for souls in Purgatory, or enslaving fellowmen. Similarly, it was also necessary to change standards and beliefs that justify unsustainable procedures. Today,

inadmissible is not to be sustainable in every detail.

The current civilizatory change is similar to that experienced in the 19th century: the process of abolition of slavery occurred concomitantly with the transition from monarchy to republic. Not by chance the **Abolition of the Unsustainable** accompanied the shift to a new political paradigm: the move from the republic to **TPM: Transdisciplinary Participatory Meritocracy**.

The parties system weakened naturally, as new forms of collective representation and decision making were offered by the network society. Furthermore, the parties gradually resembled one another and, in most countries, there was no clear distinction between the old left and right, all of them drifting towards the center. Aware of that, while CO₂ emissions eroded the environmental ecosystem, corruption and lack of ethics eroded the socio-cultural ecosystem, it became imperative to fight them just as fiercely as global warming was being fought against. A reassessment of the

parties, their campaigns and funding processes, was part of the intense mobilization to end corruption in all its forms: governments, enterprises, as well as individuals.

Globalization promoted exchange and interchange of perspective in social and political practices-and it made it possible to learn about the best of each country (to facilitate historical understanding we have continued to use the old term “nation”). Examples: Japanese reliability / seriousness; Brazilian adaptability / resourcefulness; highly technical governments in China; social capital through society engagement in clubs and associations, such as in Japan and the USA; in the post-socialism era, the Eastern European countries direct leap into the 21st century thanks to their digital governments.

Small countries were the first to demilitarize, and some disbanded their armies in the 19th century. Not surprisingly, there was a correlation between

1 At the time, this sale warranted the bases of the financial system. Are we living something analogous? Are there “nothings” being sold?

2 By indulgences, the faithful may obtain for themselves or for the souls of the Purgatory, remission for temporal penances, sequels or their sins” (Catechism of the Catholic Church, 1498)

3 <http://abracoop.com.br/lista-de-paises-sem-forcas-armadas-paises-desmilitarizados/>

the lists of such countries with those with a better quality of life, something that encouraged other countries to change their military forces into **Caring Forces**. The social, environmental, cultural and especially economic immediate benefits were so significant that more and more countries are adopting this strategy. The level of social welfare attained by small countries was one of the reasons leading to the designing of the current decentralized management mechanisms, whereby big cities, or countries, are managed in smaller units. After all, a sprawling shantytown in São Paulo had more inhabitants than Iceland.

Still in the first decade of this century, China adopted Creative Economy and Green Economy⁴ as priority strategies, realizing that to restore the environment and balance internal tensions they were the key to prosperity. This was done very quickly and efficiently, and it soon became the country that

developed most green technologies and bigger creative market. To avoid hegemony, other countries followed suit. And fast!

TRANSDISCIPLINARY PARTICIPATIVE MERITOCRACY

We had the **Great Bubble of 2013** and the turmoil that followed it, the **Global Data Blackout**, which almost ended in a Third World War, but was fortunately avoided, since connectivity and extended access to real time information made citizens more aware of the power games going on around the world. This same access allowed the Web community and its “good” hackers to retrieve at least part of the lost data.

Two years after the **Arab Spring**, there came the **European Summer**; after one and a half year, the **Latin-American Autumn**; and, finally, the **Asian Winter**; and season after season, year after year, the real democracy movements pushed for change.

The experience began with **Transdisciplinary Participatory Meritocracy**. The name “Transdisciplinary” comes



Wiki Agora: Public Spaces intended for the free production of knowledge and decision making. Reinaldo Pamponet and Thomaz Buckup, Brasil, 2009. Illustration Odete Arias, Dominican Republic, 2010.

from the not compartmentalized, systemic management that follows the same organic and biomimetic outlook that had guided other decision-making spheres. Each **Management Unit** is

4 See at <http://www.worldbank.org/content/dam/Worldbank/document/China-2030-complete.pdf>

Interconnected and creative sectors

Now, the relationship among the three sectors is one of circularity and interdependence; hierarchy no longer exists. Through sectoral and regional commitment, short or long-term targets are set without relying on policies and political power, but instead on actors and representatives of their own desires. As such, it is important that creativity and art be present in all sectors. Therefore, it is essential to enhance cell spaces, such as schools, to function as pollinators of this coexistence and disseminators of creativity as a corrective and transformative potential, thus fulfilling the four fields (symbolic, social, economic, environmental) with values of *solidarity and cooperation*.

Guta Bodick, Joao Roberto Fava, Claudia Maria Fontana, Marta Fernandes, Clara Prazuelo, Marco Borches, Natalie Simon, João Meirelles, and Ivan Melita, Brazil, 2008.

considered a socio-environmental ecosystem and today's leaders, now called **Facilitators**, or **Public Connectors**, are in charge of work towards transdisciplinary solutions.

There is no division of power by jurisdictions, but by **Transdisciplinary Management Nodes** working, through task forces. Each Node is managed by three persons: an expert in the area, a specialist on the impact of decisions in this area related to the environmental ecosystem (tangible), and a third specialized in impact on the socio-cultural system (intangible). The **Facilitators** or **Public Connectors** are designated for their merits and a series of other criteria, such as competence and technical expertise in the area in question (although obvious, there were times when it was possible to be a minister without some knowledge of the area). Furthermore, for their effective articulatedness, especially effective with the communities they represent, and, finally, for taking into account the desirable future of these communities and having an interdisciplinary and collaborative outlook and practice.

Decisive factors in TMN are the **4DxT Footprints**. The candidate must, of course, have a good score in the four dimensions. In addition to the Ecological Footprint, **the Civic Footprint 4DxT⁵**, the **Footprint of Budget Optimization**, and the **Footprint of Quick Response** have greater weight.

Indeed, a number of factors contributed to the new governance model's efficiency: absence of competition, or feudalization of jurisdictions; joint and integrated action; resource optimization; progressive replacement by highly trained and committed teams. The result is that, if before the second most popular sport was to speak ill of the government, now the most popular one is co-governance, whereas the power game became the game "Yes we can".

The **Social Game of Co-Governance** won more supporters when conditions were created to make use of **the Cognitive Surplus of the population**. At the beginning of the centu-

5 See this interesting example from Canada: <http://www.civicfootprint.ca/>

ry, it started with movements such as the Transparency Hacker⁶, where civil society collaborated with time and knowledge to make public data visible and accessible.

An important element in this game was the abundant use of the cognitive surplus of inmates: madmen, with their creativity and freedom; those linked to organized crime, with their ability for leadership, managerial talent, commitment, and holistic outlook. To the extent that these skills were targeted for positive action, these people were able to decrease their debt to society by means of the positive scores of their **4dxT Footprints**

The more intense the **Game of Governance**, the more fun and the more fans. The goals were many: overthrow a corrupt politician; retrieve a head of organized crime; mobilize for forestry code approval; improve budget distribution; forge alliances and partnerships. Slowly, people were better balancing the time allocated to

other games and sports. Imagine all the transformation potential available, when people monitor a vote on reform with the same enthusiasm shown for their team! Or, when people engage themselves in the study of elements of public administration with the same interest they pay to a knee injury of a football star.

The day when cheerleaders, with their shirts and firecrackers, took to the streets to celebrate the transformation of Military Forces into **Care Forces** is unforgettable. It was amazing to see the ripples of *holas* and the chants "Education is my champion! Education, in my heart!" in front of Congress. Or, in the same way we heard "Goooooal" echoing everywhere in the city we now hear "Aprovooooooed" – because the voting is followed by the people, online, and on electronic screens. Inside pubs, men gathered to follow the score of negotiations and chanted "Go, go! Close this partnership!" "Move On! Cut that budget." Of course, this all happened while having organic and locally pro-

Law that assures the level of sensitivity of future leaders

The World Council met to define the only way to choose leaders.

Applications are prohibited. Leaders will be nominated by their communities, among those who: humbly value the enormous responsibility of human beings on the planet; to have lived by the conviction that the sum of collective knowledge is the solution for problems; to have worked in community; to have graduated in the "School of Global Culture";

David Anica and Guillermo Dignani, Rosario, Argentina, 2010.

From inmates to doctors

In 10 years, individuals who were arrested and convicted will be monitored by qualified professionals and will be given learning, education, love, awareness of the importance of the family and of self-awareness in society. The inmate would be released, trained to have another outlook on the world, and would be thus fit for reintegration in society, a space that is common to all. Only through knowledge and education can society and general attitude be changed.

Sormani Medina, Marcia Regina Silva and Claudia Niza, Campinas, Brazil, 2010.

duced beer and peanuts, perched on stools with foot pedals that generate energy through movement, voting and choosing over their smart phones and other mobile devices.

COMMITMENT AND 4DxT POLICIES

As the 4DxT economy had multidimensional and relative values, in **4DxT Politics** the vote of each citizen had a weight proportional to his commit-

ment: the more positive their **4DxT-footprints**, the greater the weight of his choice. That's how we freed ourselves from the dynamics where a vote without a ballast of knowledge and awareness would eventually produce authoritarian governments and would not be directed to the common good.

The **4DxT Footprints** also reinforced the transparency and trust among all spheres and this, together with the possibilities of the network society, led to the development of an extraordinary collaborative system of visualization and monitoring of public and private data.

Data are fed by the citizens themselves and generate maps of environmental, symbolic – cultural, sociopolitical, economic **MicroSEE**, and their whole – the **Macro Socio-environmental Ecosystems**. This multidimensional approach enables detailed and dynamic reading that facilitates understanding of the geosociopolitical physiology of each of these **Management Units**. The system allows reading each one of its layers together or separately.

A systemic and collaborative view, in real time, allowed us to move towards the current **DDCG-Direct Digital Co-Governance** model. The model is still incipient, but is more decentralized and pluralistic than the **Transdisciplinary Participatory Meritocracy**, and is more strongly focused on the micro, local level, where the processes of change actually occur. There was an inversion: the former municipalities were serving the nation and were ruled by it. Today, the **MacroSEEs** are **networks of MicroSEEs** and policies are decided locally, both to ensure diversity (the differential that guarantees the value of each locality) and to streamline decision-making and action. The Macro jurisdiction serves as a facilitator and organizer of the flow between them. **What was formerly the State is now called Macro Moderator (MM), because its role is to facilitate, articulate, and regulate flows and decision-making among all parties involved.**

Interactivity and Decision-Making

The system of decision via interactive TV by remote control through individual IPs is increasingly effective.

After the amendment proposed by the Government a month ago and debate broadcast by various experts, the people decided today, by a landslide, that it will be prohibited to drive a motor vehicles less than 600m away from beaches and conservation areas.

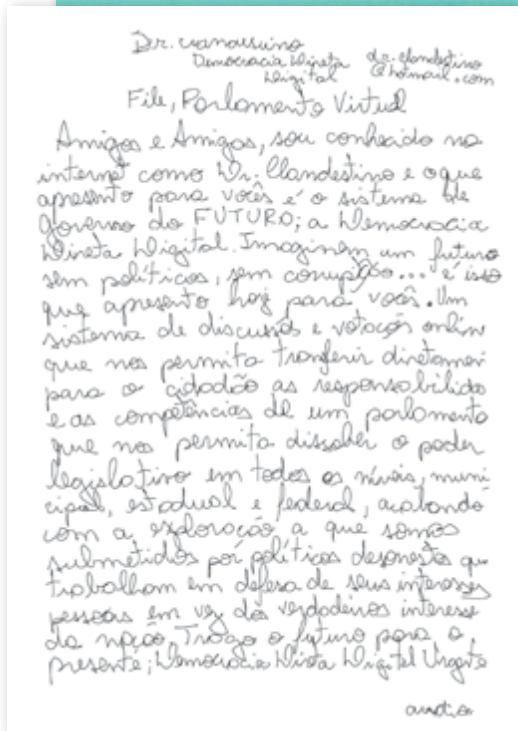
The measure will be tested for three months, after which the people will have the final say.

Edward Nartin and Roberta Pinheiro, Brazil, 2010.

Direct Digital Democracy

Without politicians, without corruption, this system of discussion and voting online will ensure a transfer of responsibilities and competencies from parliament, directly to the citizens. As a result, we will be able to break down the legislature at all levels, municipal, state and federal. The exploitation to which we are now submitted by dishonest politicians who act only on their self-interests will be abolished so that the real interests of the nation will be carried out.

Dr. Clandestino, FILE, Rio de Janeiro, 2011.



FROM FRONTIERS TO

MEMBRANES, FROM

THE WALL TO THE SKIN

Systems thinking, sustainability, the Gaia theory, bio mimicry. All led to an organic outlook of the world. This suggested replacing frontiers by permeable and flexible mechanisms similar to those of living beings. In addition to complex issues, such as discrimination, ethnic strife, migration and refugees, a number of daily factors demanded an in-depth structural change. In the new 4DxT economy, international relations, as an extension of local relations; participatory governance and online, direct marketing and credit between the

parties, even from a distance; growing numbers of people working and living in more than one country; children studying for half a year in each country; public administration understood as a means to balance and regulate flows of four-dimensional assets, required changing the very geopolitical structure. Traditional concepts of countries or states no longer made sense. Politically defined boundaries no longer made sense.

Of course limits to the Management Units were necessary, but these limits were related to their function, how they operated tangible and intangible, environmental and sociocultural ecosystems. Already in 2011, there was an example in the Creative Brazil Plan⁷: the combination of geography (tangible) with culture, generating the Creative Watersheds – defined as a geographical region comprising several territories with common cultural identity.

⁷ Proposal for development of the country through Creative Economy: <http://www.cultura.gov.br/site/wp-content/uploads/2012/04/livro-ingl%C3%AAsweb.pdf>, pg. 66

In various public spaces it is possible to practice Co-Governance.
 Ângela Leon, 2012.



There from appeared the **Micro (local) and Macro (national) SEE - Social and Environmental Ecosystems**. Their boundaries are organic and functional, similar to membranes, or skin: to protect, regulate exchanges, and above all,

to be a sensory organ that provides information to guide choices.

This also brought about changes in International Cooperation that now have quite distinct processes. Terms such as "help" or "capacity building" are

End of Customs

To celebrate years of activity, the World Parliament (WParl) declared the end of Custom borders and the flexibilization of territorial frontiers. Thereby, the global deputies intend to eliminate disputes over sovereignty, market protectionism, to allow free movement of persons, goods, and culture among countries.

The decision is part of the lawmakers' plan to abolish the division of the planet into national units in the next ten years. The organization of the world in countries will cease to be a territorial issue to become only a cultural and practical one. Considered by political analysts as one of the most important moments in human history, the measure will, once and for all, abolish borders between peoples.

Felipe Jordani, Brazil, 2012.

practically out of the lexicon, since they imply a perception of weakness or lack of capabilities on the part of those who are supported. Cooperation always takes place by exchange: for example, the population that receives financial

support (increasingly rare) should devote time to educational processes in exchange. The Cooperation processes are almost always direct, without intermediation of the State, to facilitate actions and to optimize resources. They occur mainly through currencies other than financial ones, since these created relations of dependency, corruption and correlated problems. The most common support is through “Soft” technologies sharing: sociocultural technologies to strengthen social capital (so that it can enable the other capitals) and utilization of the local symbolic and cultural heritage. The shared experiences derive from the good practices of non-governmental organizations and social enterprises that simultaneously generate entrepreneurial, cultural, educational, and social results.

A very successful experiment was “Creatives Without Borders”⁸, a caravan of collectives and collaborative institutions that contribute sharing their trans-

forming skills: to train young people to deal with ICT and recycle electronics, local agents of the creative economy; programmers helping to visualize public data; collaborative production of knowledge and tools for health care work, with humor; joint efforts, in the form of contests, for the construction of leisure facilities, permaculture, organic family farming, low-tech technologies⁹.

Today, the only remaining passport is the “Youth Passport”: with it, young people can learn about, try, and work in all types of activity before choosing the ones (yes, because nobody has only one) they will engage in. This process took place between what was once called “college” and admission into the **Pluriversities**, and it helps them to make a good choice: to do what they like and believe in.

PLANNING, LONG-TERM, COMMITMENT

Studies conducted in Brazil¹⁰, in 2005; show that the country was wasting as much as 150% of its GDP. Everything produced waste: food thrown away¹¹; time lost in traffic jams¹²; bureaucracy preventing problem solving; energy wasted in distribution networks still operating in the old centralized / mono model, based on huge or hydroelectric power plants. Soon after Rio + 20, more incentives were given for the creation of small networks of energy production, local and combined sources: mini hydroelectric, wind, solar, and kinetic plants.

¹⁰ http://www.intranet.rj.gov.br/lexibe_pagina.asp?id=1804

¹¹ The world already produces enough food for everyone. In Brazil, between planting and the table, 50% of edibles are wasted <http://www.ecodebate.com.br/2009/11/12/o-brasil-esta-entre-os-10-paises-que-mais-desperdicam-comida-no-mundo/>

¹² In the EU, 50 Billions Euros in 2009. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52006DC0059:PT:NOT>

⁸ See reference at <http://www.doctorswithoutborders.org/>

⁹ In chapter 7 we have the Collaborative Manifesto, designed at na artistic retreat with many organizations that inspired this text



Crie Futuros Comics Competition. Figura Rio +20 as seen by Beatriz Rocha, Brazil, 2011.

One of the first steps toward sustainability was to expand the notion of waste, considering not only tangible but also intangible resources, such as time, ideas, and knowledge. It was then that saving human energy finally became as

important as saving water or reducing waste. Prioritization of joy, environments of trust and autonomy were some of the strategies used to avoid wasting enthusiasm and good faith.

An important factor in the man-

Network Holistics

The facilitator and mediator of interactive cultural networks is a leader with a holistic view. He has the ability to see and use the richness of each individual, thus enhancing the human capital. In this network, everybody can co-create and become co-authors of projects and processes—always detached from institutions—both autonomous and creative. Thus, sharing a common house (the network) and the potential of each one, the leader would circulate and distribute potential and capital (in all senses), establishing new paradigms and decentralizing the economy. *Vivian Hirsch, Melina Roldan, Suzana Ferreira, Vanessa Reis, Tai Masi, Sílvia Sa, Patricia de Souza, Mariana Costa, Claudia Cezar and Diana Castro, Brazil, 2009.*

agement of tangible and intangible resources was the abolishment of parties, since repeated changes of government administrations brought about huge waste. Today, policies and planning are agreed upon by the com-

munity, carried out by technical teams, and implemented over the long term. The gains from the **Open Drawer Movement** were impressive: government projects that had begun and discontinued by changes in administration were rescued from drawers. Transdisciplinary teams comprised of public administrators and volunteer **pluriversity** students organized the material and found out that solutions had already been created, but most often had only been partially implemented, for most issues. It was another example of adjusting the work to what is already there- potential, not shortage.

Small attitudes have led to huge results, an example was that leaders finally participated in discussions and seminars prepared for them. In many places, the old practice was for authorities, who should listen to the contents, to make the opening speeches at events and leave soon afterwards, and for seminars to end as something like “preaching to the choir.” Perhaps the **Proportional Salary for Public Facilitators**

and Connectors, proportional to the success of their interventions, contributed to that.

The results of good planning and better use of what already existed led to the creation of the **Research Fellowship for Public Administration** and each **Node of Transdisciplinary Management** provided a year for planning and team-building before candidacy. We went from the marketer who planned the campaigns to the **Cooperation Coach**, as the managerial teams were trained with the same level of detail as sports teams. Even those who were not chosen shared their **Transdisciplinary Plan** (after all they were publicly funded ...) and the best of each proposal was agreed upon before yielding the final plan.

The focus of management was the long term; after all, we are talking about sustainability and nothing lasting can be expected from administrations that last two to four years. This transition was carried out by a growing number of women in leading positions. However, the best results were

From Censors To Sensors

An innovative social decompression chamber called Social Rehabilitation Center was inaugurated yesterday. There, a person elected by the civil society undergoes a series of sensitizing experiences to become more reflective and perceptive. From there, the person starts to feel in his/her own skin what it feels like to live life from a perspective different from his/her own reality.

Who would be better qualified to benefit from this innovative process?

People who formulate laws, such as politicians, who after a period at the Center, will have to rely on the public services of their own creation? Or, the owner of an enterprise that lays off an employee, but who will have to live for a few months as the dismissed employee, thereby becoming aware of the problem to propose solutions. Just imagine how this will transform human relationships!

*Esdras G. Cerqueiras; Ronaldo G. Alves;
Anastácia Jean Kyriassoglou and Emelin Assef
Jorge, Brasil, 2009.*

Who decides to wage the war goes to the front!

When governments decide to wage war, those declaring it and their families should be the first to go to the front. In this way, wars would probably never be waged.

Also, the person who makes a law should be the first to obey it. Based on experience, there would only be "good" laws for the benefit of all and not just one individual.

Mari Pini and Lyca Grinberg, Brazil, 2009.

achieved when they were joined by men with their synthesis capability, simplicity, and focus. After a period of women predominance in leadership positions, we returned to a gender balance (by the way, all genders, which by then were many) after the **Program of Male Affection**. It was interesting to see that men noticing the existing relationship between commitments in affective relationships with personal satisfaction coincided with their going back to taking over leading positions.

Regarding time in office, if in six months managers were not effective in implementing the plans proposed,

they were replaced. Conversely, they could remain as long as management was good.

As stated earlier, this series of measures was part of the Plan **for Management of Intangible Residue**: at the dawn of sustainability there was great concern about solid waste management, but little about intangibles. One of the worst outcomes was the enormous waste of knowledge due to the constant shifting of teams and lack of systematization of experiences. Not just in the public sector but in all sectors, too. So it became imperative to stop this from going on.

THE ROLE OF THE

STATE: FACILITATOR

AND CONNECTOR

Perhaps the greatest asset of the **Macro Moderator** is its access by all sectors, individuals, enterprises, institutions. Thus, he/she is the only person who can play such key roles in our time-**Process Connector and Facilitator**. All-digital systems enable the state to know the what, who, when, where and how about all supply and demand. **And so it can build bridges and create or regulate flows**. This, incidentally, is its major task since it became clear that **sustainability is equivalent to balanced flow among 4DxT assets**.

The Macro Moderator should first do what only it can do: create regulatory mechanisms. Policies, standards, laws, regulations, incentives and financing, structure and learning processes, entrepreneurship tools, in short, everything that contributes to its ultimate goal: create a favorable environment. In a parallel with Nature and the process of

cultivation, the MM should **guarantee seeds** (recognize, value, and preserve the **four-dimensional heritage**), and a step that usually goes unnoticed: **preparing the ground**.

An important aspect of preparing the ground is Advocacy¹³: to work on cultural and mindset changes (intangible) that precedes each structural change; forge partnerships and alliances; communication campaigns and provide information to the media. Interestingly, this stage does not exhaust material resources, but generates many results by identifying potentials and how best exploit them.

In a **4DxT government** policies should have a systemic (multi-sectoral and transversal) outlook and the main objective is to propose activities that culminate in the creation of a favorable environment for Green Economy and Creative Economy. To achieve these objectives, the Macro Moderator promotes joint and integrated action between the Transdisciplinary **Management**

Nodes within their respective fields of action. It also carries out partnerships with private enterprises, associations, civil society organizations, and Pluriversities to ensure sustainability.

Sustainable attitudes in the economic dimension imply focus on improving income distribution and use not only of financial, monetary tools, but also those related to solidarity economy and alternative currencies. In the environmental dimension, dealing with clean and renewable natural resources and sharing infrastructure such as space, equipment, and service networks. In the sociopolitical dimension, optimizing time, resources, and information through integrated and converging action among institutions. Finally, in the symbolic-cultural dimension, our resources for the economy are preservation and enhancement of cultural diversity and the centrality of intangibles.

The focus on sustainability revealed a gap in traditional management, which considered only the present: production, distribution, and consumption. This gap was one of the

factors that brought about the global financial crisis which, fortunately, we managed to resolve. Today, in a systemic and sustainable outlook, 4DxT **management** includes the steps related to the “before” and “after” of resources received from the past and the legacy for the future¹⁴. Instead of the linear production chain, we work with the notion of **Cycles**, which are closed by the systematization of experience in the form of indicators, data, and research that may feed the next Cycle.

13 Term corresponding to defense and dissemination of a concept

14 For more info research the economist José Eli da Veiga, among others

MESH MANAGEMENT: USE WHAT YOU HAVE

In recent decades we have witnessed the passing from of **Centralized/Mono to Decentralized / Pluri Patterns**, possible thanks to the network society's characteristics, to the focus on intangibles, and trust as a premise for commercial and interpersonal relations. Actually, the same happened with the government and, today, the Mesh¹⁵ concept of sharing applies also to **Mesh Management**. The basic principle is the same one that guided the great changes in our society: to work on potencies and not on shortages, creating better operation systems than the existing ones.

Example: suppose that in a MacroSEE, there is lack of appropriate personnel, management is carried out by employees without technical qualification. In this case partnerships are established with educational institutions to over-

come the existing deficiencies. The students already graduate with extensive practical involvement, which did not happen before, because they start applying their knowledge from the beginning. Students in vocational education and pluriversity training prepare local teams on how to use ICTs, carry out research based on actual needs, act as **Local Agents of Furtherance**. Excellent results were obtained with the adoption of **Convergence as the guideline**-another hallmark of modern times, when compared to past compartmentalizing. The number of programs and projects implemented based on the convergence of pluriversity research was amazing. For example, Coursework Completion (CWC), where students converged on the same subject. Let's take CCWs of a 4DxT Environmental Engineering class: this convergence would allow each student to approach an aspect to be improved and the sum of work would lead to a systemic solution for that location.

This rationale of working on potencies, with what is available, triggered

progress of the so-called "developing" countries. By avoiding the mistakes of the 20th century's neo-liberals they went from a situation of "backwardness" leaping straight into the 21st century. In these instances it was interesting to note that "backwardness was the opportunity," because their environmental, cultural, and symbolic heritages were still preserved. Progress was due to the fact that this type of policy and collaborative action of the Macro Moderator does not require cash money, just alliances. A double benefit, because without the involvement of cash there was less proneness to corruption, and more alliances strengthened institutional relationships. That means simultaneous work with the two key factors: strengthening of ethics and social capital. All this is leveraged and possible thanks to the priority given to truly widespread access to ICTs, one of the priorities recommended in the **Sustainable Measures Post-Rio + 20**.

The prevailing rationale is to check what's in place and how it can be better used. Previously, (since the Pyramids!)

¹⁵ Concept created by Lisa Gansky: it means joining points in a sharing economy. See their Manifest in http://meshing.it/manifesto_mesh_eng.pdf

governments believed that to build mega projects bore witness to their quality, and consistently focused on implementing major civil construction works, often expensive and not very functional. Every planning meeting began with “we need ...” and not with “we already have...” An example: when it became evident that the creative economy was a guiding strategy for development, the needs of MicroSEEs were mapped out at the local development level. The need for **Multifunctional Spaces** that could house both a community meeting and a handicrafts exhibition, or movie projection was perceived. And of course, these “hardware” / structures needed “software” / processes to connect them and make them functional. Formerly, the prevailing rationale favored the opposite: dozens of large spaces were built with limited programs and few artistic languages, were open for a few hours, some days a week, and at costs that would be enough to equip and integrate the entire **Network of Multifunction Spaces** in hundreds of MicroSEEs.

Following the **Mesh Management** rationale, we don’t create new spaces (unsustainable...), but instead, map out the idle periods in existing spaces, and then develop systems to occupy them.

The same rationale-to create systems that promote better use instead of building large civil works-solved one of the major problems faced in the transition to sustainability: the energy issue. The solution was once again to go from a centralized / mono pattern to a decentralized / multi one with the aforementioned **Local Networks of Micro Energy Production Units**, with renewable sources, diversified and managed by the communities themselves.

One of the strategies of Mesh Government was the intensification of research in reverse logistics: see which systems were already developed and could be better utilized. A simple example that gave positive results was the use of surpluses, such as books, or used equipment, using pre-existing distribution systems. Today, every home has an input and an output system, for example, the milk bottles come in (yes, they were



Reverse Logistics. The same delivery system is in charge of redistribution. RAI, Brazil, 2008.

reintroduced) and books which have been read go out. The same enterprises that make deliveries remove the objects for reuse: who brought the new stove takes away the old stove to the Central from where they are redistributed.

Following this rationale of checking what there is and not what is lacking, it became evident that public administration is also important to take "oldeities" into account and not just innovations; many of the solutions needed for our sustainable and desirable world existed at some point in time, and were retrieved. This recovery was stressed by a movement similar to the **Opening of Drawers** with regard to government projects: the **Movement for Retrieval of Inventions and Patents**. Discoveries that had been shelved because they were not very profitable were recovered and put into practice, such as vehicles powered by water, or herbal medicine.

INNOVATION AND SOFT AND LOW-TECH TECHNOLOGIES

Of course with **Creative Economy** and **Green Economy** as priorities, and all the progress that followed it, was only possible thanks to widespread access to ICTs. Almost 20 years have gone by since all children in all countries of the world have simple computers and modems for Internet access. Even countries with no electric power adopted local solutions -from solar cells to bicycle powered computers -to ensure this access. The use of mobile devices enabled every citizen of the planet to be connected. We have become points of a major network throughout the planet, a network that communicates, delivers data, shares outlooks and, above all, is able to feel the pulse of the planet - careful to safeguard its sustainable state.

For over fifteen years, access to the Internet has been part of the basic services provided by the Macro Moderator State: water, electricity, sanitation, clean-

ing, Internet. There are wi-fi networks in all public spaces and even the MicroSEEs have telecenters. At the beginning of the century, Internet Cafes, especially in low-income communities used refurbished computers and played a very important role. Still today, they are a major source of income generation, fostering encounter and exchange.

For the older generation was somewhat difficult to make the transition to full use of ICTs, but children helped them a lot. The **Intergenerational Learning Programs** were very successful: the elderly learned with young people how to deal with digital technologies and taught skills - after all, nowadays they offer great job opportunities.

The enormous changes of the recent decades would not be possible without the conceptual change regarding innovation. Because in all previous centuries the emphasis had been on the structural, tangible, innovation was considered just when it referred to things, inventions, gadgets - what we call "**hard**" innovation and technology. When studying what caused the prog-

ress of some countries, the relation with a greater appreciation of the “soft”, procedural technologies and innovations, and management¹⁶ related to intelligence was soon detected.

The Macro Moderator must be careful not to set anachronistic policies, since its role in the 21st century is to enable the future and thus should not be driven by immediacy, becoming solely concerned with the demands of the present. As such, innovation must be considered as beyond and above product and infrastructure, and should prioritize process innovation, guided by knowledge and management. Innovation that relies on cultural diversity, the dynamism of traditions, the experiences of the third sector on the generation of creative products and services. It appears that until recently the more developed countries were those that focused on intelligence and management relegating the production to “emerging” countries. At the

beginning of the century, they became aware that to be a supplier of commodities and consumer of infrastructure was not a route toward development for the creative economies peculiar to the 21st century.

In “**Soft**” Innovation there is unity between formal and informal knowledge and innovative products and services incorporate models, old habits, and traditions that continue to be updated and useful. The symbolic-cultural heritage is alive, dynamic and unique, to be enjoyed by native and foreign populations. In management and marketing models, there is also innovation, by incorporating collaborative principles and other forms of collective action.

The new innovation concepts include and value “oldeities” and low tech, recognizing the genius of creative solutions developed at low-cost by low-income populations. India¹⁷ aggregated the government, NGOs, entrepreneurs, and public schools in de-

Knowledge database

In 2020, the government launches a project, where students are catalysts of experiences in their communities. The goal is to recruit and reward public school students to investigate and know the residents of their community, their knowledge, and creative and innovative projects, to organize this content in a large network of “utilities and knowledges”, which are catalogued to be shared with other communities.

Eduardo Giacomazzi and Ronaldo Gonçalves, São Paulo, 2009.

veloping mechanisms to identify and disseminate these innovations. Its example was followed by several other countries and the results are wide-ranging: hundreds of devices to facilitate agriculture; eyeglass frames with photoelectric cells for nighttime reading; shoes with a dynamo in the soles to collect energy from movement, and all sorts of inventions based on bicycles: from the e-bike to the pedal-powered respiratory device¹⁸.

16 See the studies of Jin Zhouying, Diretor of CTISS, Chinese Academy of Social Sciences, Beijing. <http://www.worldbusiness.org/about/fellows/zhou-ying-jin/>

17 In government <http://www.nif.org.in/>; in civil society <http://www.sristi.org>; in entrepreneurship: <http://west.gian.org/>

18 See reference at <http://www.idisc.net/en/Article.38950.html>



"Oldeities": Milk bottles and mini-cars that already existed. RAI Brazil, 2008.

To the extent that the **"soft" technologies** were appreciated, social entrepreneurship became a source of inspiration. Since the '10s, there was an expansion of B-Corporations businesses for wellbeing¹⁹, or Life Regenerating Businesses²⁰: using the power of business to solve social and environmental

19 The USA: <http://hbr.org/2011/11/the-for-benefit-enterprise/ar/1>

20 In Latin America <http://www.erv-lrb.com/>

problems. Governments have realized that their role at this time in history was to create processes, more than merely guaranteeing infrastructure. The importance of socio-cultural technologies, technologies of the intangible became evident, those that through social and cultural resources generate wealth and four-dimensional quality of life.

Brazil, as a storage house and reference for this type of technology, was the first to create an **Agency for Support and Export of Soft Technologies**, initially intended to ensure the success of new policies for hosting the 2016 Olympics. To systematize and disseminate methodologies was mandatory when **4DxT Social Policies** replaced the market policies that ruled the 2014 World Cup. Today, Latin America is the world's largest provider of these technologies that

achieve a lot with little, and generate 4DxT results that go far beyond the financial sphere.

NEW LAW:

TRUST AND SIMPLICITY

ARE THE RULE

The **models of government** are no longer segmented and have become systemic, looking for integrated solutions for every issue, just as health cannot be resolved without sanitation, and education does not exist without culture. Another case that is part of the general movement to go from a sectoral approach and segmented activities towards a systemic and integrated outlook. The consequence was the need to change rules, laws, and policies.

This was reflected in the Law, since the previous set of laws followed a taxonomic logic, sorting out and trying to fit everything into categories - unworkable in the context of the 21st century. Some recent historians point

out two interesting ideas: the first is that this “classificatory” Law followed the process of classifying everything that marked the 18th and 19th centuries. Before ecology, the study of life itself was highly taxonomic, directed more to morphology than to physiology. The second is that the old Constitutions and laws were formulated to defend ownership; the State and not the people; having and not being; individuals and not human collectivity. Remember that the first time the “human family” is mentioned in Law was in the Universal Declaration of Human Rights, 1948. Only in the nineties, of the 20th century, did national constitutions begin to include, for example, the notion of “humanity.” This occurred in two aspects: “crimes against humanity” and “common heritage of humanity”²¹ and many of the reformulations we have today were a result of the expansion of these concepts.

21 See the text on the subject by the lawyer Mireille Delmas-Marty, chapter 8, “A Religião dos Saberes”, organized by Edgar Morin, 1999

The extended discussion on what could be crimes against humanity led to the revision of many of the everyday issues of the pre-sustainability phase, such as eating habits, hegemonies, manipulation of information, restriction of patents. We even found a register of 2009 citing that predatory financism was a mechanism of mass extermination²². From expansion of the concepts of “common heritage of humanity” derived the concepts of assets in multiple dimensions, initially referring to the environmental, followed by the social, until reaching the final 4DxT design.

Returning to the theme of taxonomic vs. systemic, from the ‘20s on, we witnessed a massive overhaul of the judiciary, which had to be simplified and streamlined. Data show that in Brazil, in 2010, the country had 86.6²³ million

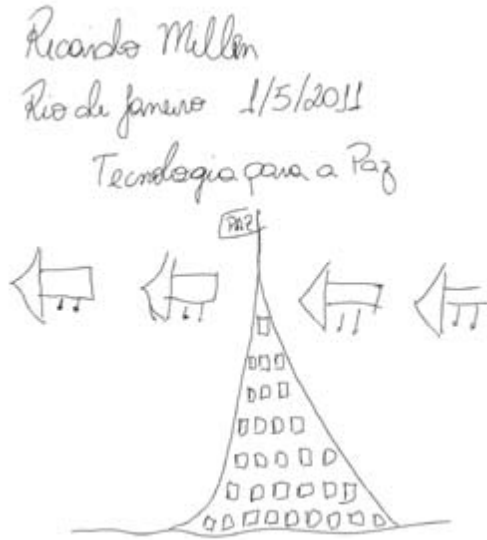
22 Lecture on “Innovation for Human Security”, by David Harries, of the Canadian Defense Academy and Foresight Canada, 10/12/2009, 6th International Conference on Innovation and Management, PUC, São Paulo.

23 <http://adperj.jusbrasil.com.br/noticias/2373555/brasil-brasil-tem-86-6-milhoes-de-processos-emandamento>

Isabela Corra e Lúcia Rocco
30/04/2011
Eu quero jogar em que a se por jogar
não tem campeão nem ganhador assim não
ser jogos diferentes, porque não vão extingui-
a competição que há em dia muitas pessoas
vão se frustrar por não vencer e jogar é
para se divertir!



Games only for amusement, in which there are no winners. Isabela Correia and Castro, FILE, Rio de Janeiro, 2011.



Technology for Peace. Ricardo Millen,
FILE, Rio de Janeiro, 2011.



Every large city should have huge screens along its avenues displaying cultural activities from other countries.
Gabriel Castillo, Randy Encarnación, Dominican Republic, 2009.

ongoing processes, which meant 2.2 cases per inhabitant²⁴. Obviously, there was not enough time or staff to resolve them. The number of cases greatly increased each year, but not that of

judges²⁵. In the process of simplifying the **Courts of Common Sense** at the local level, were very effective, since a significant number could be resolved by applying the common sense shown by ordinary citizens.

Another factor that allowed this simplification was to leave aside the taxonomic Law, with its thousands of laws, to go back to the **Fundamental Principles** that could guide the actions. This process came together with the trend to abandon morphological (classify situations and types) and stride to-

24 http://www.ibge.gov.br/home/presidencia/noticias/noticia_visualiza.php?id_noticia=1766

25 <http://www.lunazonta.com.br/brasileiro-gasta-r-17704ano-para-manter-o-judiciario>

A PROSPECTIVE IDEA OF CULTURE: HOW WILL THE CULTURE OF THE FUTURE BE?

Angel Mestres Vila¹, Barcelona, Spain, 2008.

CEO of Transit Projectes, coordinator Master in Cultural Management at the Universidad de Barcelona.

How will the culture of the future be? What new cultural creations will the model of collective creation bring to us? How will the new technologies transform local development?

Considering that technology is just one tool in our daily lives, these questions and many others arise every day when we turn on the computer, tablet or smartphone. The Internet has already transformed the process of cultural creation and dissemination. Thanks to the network, we are no longer mere consumers, but have also become producers and distributors.

What is culture? Culture is a mechanism of adaptation. It is the tool that makes us produce and exchange symbols. However, to answer the question that begins this article, it is necessary to start thinking about how to create these symbols from now on, since the current tools change and exchange constantly. It is therefore important to allude to three aspects that are basic: Knowledge, Communication and Cooperation.

I submit eight proposals not as Negroponte did in *Being Digital*, 1995, but from a perspective in which the **user** is the center of all the processes.

Prospective 1. Hybrid public space.

Occupy and transform the public space by combining local action, in the space, with organization and communication through digital technologies. The mobile phone will evolve as a system for locating people with similar interests and attitudes. A social network in the real space, which will also allow the creation of complex games and performances, partially online and partially presential. Increase of the flow of information in a contextual and non-invasive way.

Prospective 2. Digital storytelling.

Narratives will be created in a collective form, in audiovisual formats to enhance social inclusion and creativity. Live performances and creations in real time between people thousands of miles away from each other. New technologies in mobile devices will make it easier to establish such links of direct interaction between the first world and developing countries. Narratives will be developed by means of various channels, offering different experiences and different stories within the same world, and to understand it in its globality, we will have to enter into each of these channels.

Prospective 3. Remix culture.

The trends seen in actions and movements such as Copyleft, Creative Commons and the "procomún²" will create a new way of considering culture. Rather than finished products we will have pieces of a puzzle, with clips of music, sound, photography, cinema, animation, etc., so that everyone may build their own works. The culture builds itself upon former symbols, is a remix and a constant reinterpretation.

1 <http://www.transit.es/>; <http://www.asceps.org/>

2 A concept that is applicable to everything that belongs to the collective

Prospective 4. Electronic DIY (Do It Yourself).

The introduction of hardware such as the Arduino, and the development of powerful programming languages designed for artists and designers, such as the Processing, will increasingly make it common that rather than buying finished digital products, we will devise our own. The popularization of 3D printers will allow each one to think out their own design of an object and make it a reality. We will customize clothes including electronic components, such as sensors.

Prospective 5. Geomedia.

The inclusion of a GPS in more and more electronic devices, improvement of geolocation systems and other spatial positioning programs will enable the creation of a new kind of multimedia art project, making it possible to know at every moment where they are and thus react and provide contextual information from our location. Facilitating access and relating not only with their closest local context, but within a global context.

Prospective 6. E-emotion.

Culture is to create experiences and emotions. Multimedia art projects able to recognize in which emotional state we are and produce content tailored to these emotions. Cameras that shoot automatically when they observe an increase in our interest for a specific object or situation; musical equipment that detects our mood and selects the right music, or a system that suggests, according to our tastes and at any moment which exhibition, film or theater piece we might like to watch.

Prospective 7. Cyborgs.

The inclusion of sensors, robotics and multimedia in the performing arts will be increasingly present. When the novelty is over, really interesting proposals will begin to appear, where these technological elements will not only be used because it "looks good", but really associated with the story, thus transforming the arts such as the theater, dance and so on.

Prospective 8. Diversity.

All the above points are definitely guided by tools based on new technology - the advancement achieved by these means provides their decisive incorporation in daily activities.

The true meaning of culture of the future is rooted in the use of these means. This is a paradigm shift that introduces us as facilitators to foster inclusion, democratization of the means, interculturality and diversity. People increasingly become part of this global phenomenon, thanks to the reduced distances afforded by these tools. They will be able to use the contrast provided by these new points of view to understand their own realities. Multilingualism, new nomadisms, migration, diversity and culture of all and for all.

GOVERN THE FUTURE

Joxean Fernández, Spain, 2012.

International Consultant on Culture, Development and Innovation¹.

Only the older generation remembers how it was to govern in the past. It meant to manage fear. Exercise power, a male power, uniform, indifferent to human needs, autistic. The future was being built with the bricks of ancient fear, that evil has always prevailed over good and that the human being's capacity for transformation was dormant, a mirror broken into a thousand irreconcilable pieces.

Dreamers of futures were dangerous because they moved against the current. The fate of dreamers was that of heretics, madmen or clowns, different names for the same personage: the one that looks around and wants to change the world.

Freeing oneself from the tyranny of common sense

We were subjected to a lesser god, that of practical reason and its narrow limits of reality.

We need to change everything, for everything to change

Three generations ago, the polar ice cap melted and the world said enough. We were flooded not only with water, but also with hope. We felt the responsibility to do something before it was too late. With the energy of seven billion people convinced that it was urgent and possible to drastically transform the state of mind in relation to the future. In view of the pretentiously rational and always threatening, discourse of the scribes of power, people discovered that dreaming was a revolutionary weapon. Together we can change. Break the bonds.

New crafts

Since school, the most prestigious crafts are those that improve community welfare, caregivers, dreamers, sanitizers, educators, collaborators, scientists, true civil servants.

The dreamers

Dreamers are children from zero to 99 years of age. Literally. Eyes full of the future of newborn. Eyes full of wisdom of the elderly, just as the concentric circles of an aged tree. Often dreams are collective and they slowly impregnate the awareness of the community. Crazy dreams have stopped wars, reconciled fiendish peoples, and stopped destruction of the Amazon.

The rainbow days

Each person dedicates a variable number of days per year to collaborate in community causes. It's easy to know when someone is on a rainbow day: he walks around with a happy smile lighting up his face. Some say that the rainbow causes are inefficient and should be replaced by professionalized (and mandatory) services. These initiatives will never prosper. Efficiency is an overestimated value, it is a relic of the excesses of rationality. If the rainbow day assessed the contribution to the collective happiness, it would be one of the more luminous initiatives.

Distributors of hugs

These are special beings, empathic, that people seek like a shade on a hot day. There are professional distributors, and adepts who embrace on the rain-bow days. Sometime it might be kind of embarrassing, but indeed, it is always pleasant to receive a smile and a hug or two...

The new civil servants

Public service has acquired value. Opportunistic behavior has disappeared. There are new forms of democratic control that act as barriers against harmful behaviors. Yet, lack of coordination persists and the errors are still frequent. But, there is a collective determination to improve, adjust and continue changing.

Politics, art of the impossible

Politics are now the art of the impossible. The best politicians are compulsive dreamer with a vocation of craftsmen. They dream dreams and heed that they come true. Politics became an honorable and ephemeral profession. All citizens have the responsibility and privilege to serve others at some point in their lives. Capability and willingness to learn, hope, humility, commitment, are the most appreciated values.

Govern, articulate, coordinate

The government abandoned uniformity. It no longer gives instructions, issues decrees and sets forth laws. It is no longer for the few, but for all. The new politics is no longer understood without accountability and participation. Even for a controversial decision, voting is compulsory. Relevant collective decisions are the outcome of a long process of deliberation, which requires time. Speed is just another outdated concept.

The capabilities of those in government to promote processes of self-organization, cooperation, sum of wills, change of opinion are enhanced. Respect is the language of the new politics. The problems are solved at the venue nearest to the people. Most citizens are aware that they are part of the crew of a ship on which we are all onboard.

The antennas of citizen sensitivity

There are sensors of citizen sensitivity all over. For complex or innovative matters they act as thermometers, measuring people's views on the subjects under discussion. It is enthusiastically debated how the system can collect the citizens' opinions in best possible way. They work very well for local affairs, but can be improved for more technical issues that affect higher jurisdictions.

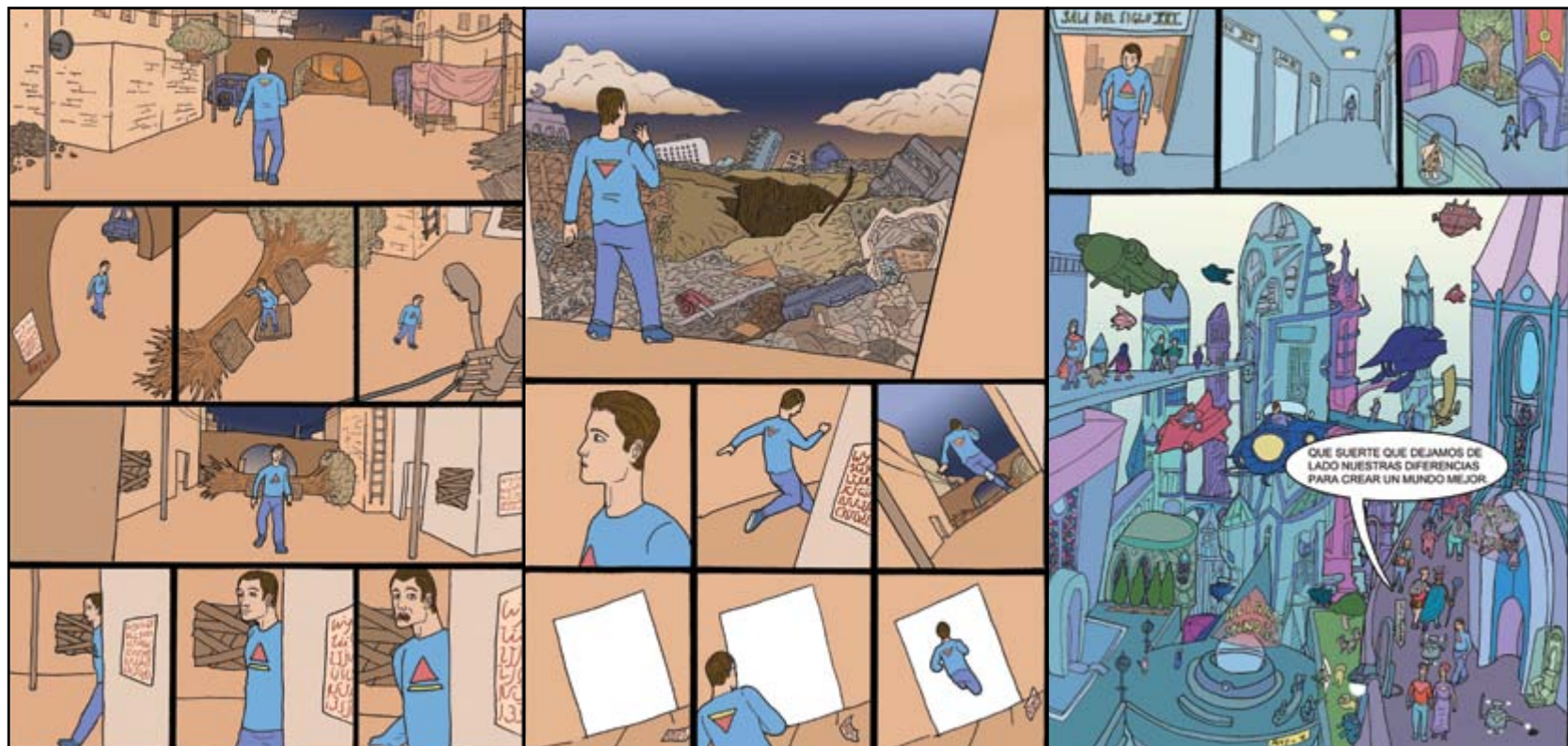
We are Gaia

There is a new global awareness that we are all part of the whole. The linear thinking in science, society, culture, and politics has disappeared. Empathetic, holistic, systemic and interconnected thinking is considered the only possible perspective for appropriate decisions. To govern is to change, but also to preserve the planet for future generations.

As an epilogue

The new government system is based on trust and production of empathy. The main challenges: not to leave anyone behind, ensure cohesion, foster reflective and transforming dialogues, avoid easy consensus, promote diversity, humiliate no one, constantly learn about new ideas.

Some years have gone by and world entropy has decreased. Even if major damage has been caused to Gaia, the planet will slowly recover. The capacity of self-management is improving daily. There is a healthy optimism in the air, without self-complacency. We still have much work to do, and much future ahead.



How lucky that we put our differences aside to create a better world. Crie Futuros Comics Contest. Alejo Curuchet Salvarey, Uruguay, 2011.

TAGS: city planning – architecture – design – fashion
– energy – neighborhoods – planned – cities –
ecovillages – transportation – distribution

4

INHABIT, MOVE, CIRCULATE

"If we don't change our direction we're likely to end up where we're headed."

Chinese proverb.



Science and Mechanics, USA, 1932.

CITIES¹

The present is the outcome of past dreams: it takes quite a while for ideas to come off the drawing board and become gain life.

Those uniform, closed, aseptic, mirrored skyscrapers were dreams of the first half of the 20th century. Today, in 2042, the city reflects the dreams of the 21st century: they are fun, irregular, colorful, diverse, changeable, with organic shapes and materials. An external re-

flection of the apparent chaos from which creativity originates. Which desires for the future have guided the design of our cities for the last thirty years?

HAPPINESS

Cars are no longer the central axis in the design of cities, which now focus on Nature, on people, and on how to make them happier. This, by the way, has been a public commitment since the **4DxT GNH2** – the **four dimensional index of Gross National Happiness** – the new way of measuring the wealth of nations. Studies on the subject revealed the mistake made in the 20th century, which confused privacy and autonomy with isolation and individualism bringing about much unhappiness. In the communities (formerly called shanty towns) groups of children playing in al-

2 GNH – Index of Gross National Happiness, replaces GDP – Gross Domestic Product. Here our concept of 4DxT is added: indicators organized to balance the four dimensions: economic, environmental, socio-political, and symbolic-cultural. See article "Nobel defends the creation of a Happiness Index", *Folha de São Paulo*, April 3, 2012. <http://www1.folha.uol.com.br/ambiente/1070841-premio-nobel-de-economia-defende-indice-de-felicidade.shtml>



Square Energy = Movement. RAI, 2008.

leys, doors open and receptive, people talking on every corner contribute to the GNH 4DxT; nets of collaborative, affectionate, and lively relationships. However, behind the threatening, guarded walls of the wealthy neighborhoods, the GNH 4DxT decreases, because high levels of loneliness, boredom, loss of autonomy were recorded due to excessive protection and the in-

Profession: Processor of Emotions

While flying over the cities to take a poll on people's emotions and feelings, the processor of emotions has the power to seize them and distribute them according to demand, taking more joy and amusement to those who are sad and depressed.

Raymundo Barros and Helio Fernandez Júnior, *São Paulo, Brazil*, 2009.

1 We start from here, because since 2011, most of the world's population has been concentrated in cities.



Floor that absorbs the energy of movement / Generator that concentrates and distributes / party-operated Telecenter / Party: generates energy. RAI, 2008.

ability to feel satisfied with what they have. Much has been done to straighten out this misunderstanding by diminishing isolation and increasing autonomy.

Tens of Energy = Movement Squares have greatly contributed to this achievement. These are open places where people run, dance, and turn their surplus calories into energy that is absorbed by the special floor³ and supplied to the **TransTeleMedia Public Centers**. A

³ Floor - <http://springwise.com/weekly/2010-01-27.htm#pavegen>. Nightclub with a floor that generates energy: http://www.springwise.com/eco_sustainability/dance_powered_eco_nightclub

big hit on these Squares is the weekly **Thematic Party**, always tied to the culture and tradition of each location in town, which promotes social mixing and contact.

Much has been done to **counterbalance the “anti-beggar architecture”** that prevailed at the beginning of the 21st century, for example, by turning squares into empty and cemented spaces to

prevent the homeless from using benches, shade, and the likes. Once city planners realized that by doing this they were throwing out the baby with the bath water, they started devoting themselves to “oldeities”, such as the **Reinvention of Gazebos**.

At risk of extinction due to poor services rendered, Publicity started to perform more accordingly with its name, “Publi + City”, and to focus on boosting citizenship instead of consumerism, using all its enormous talent and quality in campaigns and actions to make the city truly public and sus-

tainable. One of these successes was the **“CONFIDENCE AND CREDIT” Campaign**, since shortly after the **Great Bubble of 2013**, it became clear that the solution was not bank credit, without backing at that time, but rather, people confidence. Quotes, images, and stories about people who believed in it, made it possible – wherever it was extensively used – to counteract the widespread fear and distrust dis-

Reinvention of Gazebos

Today, gazebos and squares are fulfilling their functions.

Those round constructions that look like buckets in squares are no longer empty, but full of people instead, making speeches, expressing their ideas, and bands are playing. The square of the future is a very special place, where one can sit under a tree, on a bench and meet new people. The gazebos are symbols of all that squares and urban life can offer: a meeting place of differences, space for creation, exchange, fun, a place where anything can be displayed. Over the past few years, the Square has become a place of synthesis. People are finally occupying the streets.

Claudia Cezar, Matheus Gropp, Harold Hellmuth, Sergio Napchan. Brazil, 2009.

THE RENAISSANCE OF

THE 21ST CENTURY¹

Jorge Wilhelm, Sao Paulo, Brazil, 2008.

Architect, city planner, public manager, writer.

My proposal is a new civilizatory and cultural cycle: the Renaissance of the 21st Century. Its economic regimen would, in the future, be called the Market Socialism or Social Capitalism and it would be monitored by a new Social Contract signed by the State, the Market, the Producers (manual or intellectual workers) and by a society that in an organized way would “occupy” its space as development actor.

To make this century become that of knowledge and creativity it is important to know how to transfer data and information supplied by computer programs to the level of knowledge, and this capability is a challenge to the universities. The new Renaissance requires a cross-sectional and universal outlook, that is: the Renaissance person integrates different data and disciplines of knowledge and these disciplines provide, in addition to his specialty, a base easily understood and integrated with the knowledge of other specialties. Teaching institutions will offer subjects that are common denominators, ensuring, for example, that the biologist talks to the city planner, the engineer to the physician, because all share common views in the Renaissance outlook.

The new Renaissance is based on a worldview, a cosmogony which uses the current globalization, reinterpreted at a human and social level, to explain the occurring phenomena. This outlook demands the establishment of a set of human

values. In the 15th century, these values were courage/ boldness and conduct/ ethics. In 50 years, they might become: the courage to create, the spirit of solidarity, democratic ethics, enhancement of knowledge and learning of pleasure (although there is the pleasure of learning, the inversion of words indicates that perhaps an effort may be forthcoming to increase the quality of personal life).

This Renaissance will be more easily observed in cities with a healthy environment, a social integration that reduce the current gap of opportunities, an urban landscape that meets our aesthetic point of view, improving the quality of life of the urban dweller. The public space will be enhanced as the main meeting point for a solidary society. On the subject, it should be noted, for example, that if the children on the streets are a problem, rather than take them off the streets we should design streets for children... Books will be left all around, such as at bus stops, for someone to pick them up and read them. And people who teach something to someone will be appreciated and be called master citizens.

The new Renaissance will not come unless we build it. There are many actors on the urban stage who prefer retardation, if not retrogression. This construction is a political project and requires a generous outlook, creativity, sense of human and social solidarity.

seminated by the mass media for over a century.

Another interesting case was **public art using optical illusion**, showing that everything is a matter of perspective; we choose what we wish to see. From that arose the amusing **Rethink!! Sidewalks to stimulate a change of outlook**: when you walk on them, lights turn on under your feet displaying the following proposition: *"Are you sure? Think about this idea again from the opposite point of view: how can the problem be the solution, how can today's misfortune bring tomorrow's good fortune?"*

The **Forums for Consumption Reduction** reversed the use of advertising: instead of creating the desire to consume a product, it discloses, in an objective manner, what is behind it: the product's function, origins, meaning. This strategy also aims at overcoming that inner feeling of emptiness that compels people to buy what they don't need. In this way, all association with status, success, and belonging to privileged groups was eliminated.

Edgar Morales and Jose Aldana, Guadalajara, Mexico, 2010.

TIME

A key for happiness is to **optimize time**, since the things that make us happier happen in **time**: relating, creating, understanding. In the past, we directed our efforts to gaining space; now we want to save time – and the city and its services have been thus reorganized. Airports, for example, were unsustainable, because they were built according to the space rationale: each airline with its boarding gates, resulting in kilometric and deserted airports. Or even abandoned ones, like in Spain, in the early 2010s⁴. Today, the rationale is to share all spaces, better administrating time and thus saving resources of all kinds. The factories have shifts used by different enterprises: and because what singles out each enterprise are its intangibles, like brand and concept, they are free to share space, inputs, and equipment. Saving time is not only the motto of all urban planning and real-estate developments, but it also encourages

⁴ See research in Basurama.org, on the metabolism of cities: many new and already abandoned airports <http://www.6000km.org/#3>



A kiss or a vase?

the creation of apps to facilitate home offices, job hunting in the neighborhood, and reduced commuting time.

Believe it or not, up to the twenties, in apartment buildings or urban blocks, residents performed all their tasks by themselves! Shopping, cleaning, repairs, children and elderly care; none of this was shared, like today, thanks to **all the apps that group people by affinity and needs within a giv-**

en neighborhood. The result was that back then, people did not work to live, but lived to work. The biggest losers were children, because young parents were caught up in a vicious circle: working too much, because being unable to take care of their children on their own, they had to pay for the outsourced affection with “babysitters” – persons who merely watched over children. Today, they have been replaced by the professional **Poly Caregiver**, a person with a degree in Curiosity, Collaborative Games, and Enthusiasm. Note that this took place before the **Program of Male Affection**, aimed at involving more men in care activities, one of the answers found to enhance the culture of sustainability.

INTERDEPENDENCE

Since 2014, when the post-Rio+ 20 premises were finally implemented, **Interdependence** has been the essential, overruling word.

We are aware that, just as in Nature, everything in our lives is interconnected, so solutions must be systemic.

For example, this strongly affects security and violence. Investments in gated walls, guards, and guns were replaced by **massive investment in education and culture**, mirroring the success of cities like Medellín, Colombia⁵ that once fought against drug trafficking.

The Interdependence logic resulted in **drastic change of public management priorities**, which no longer focused primarily on infrastructure, the “hardware” part, and began to invest in people and processes, the “software” part. This seems quite logical, because hardware does not work without software. Fewer monumental engineering works, more education and research, less focus on enterprises producing goods and more on providing services – after all, when other countries besides China⁶ adopted the Creative Economy as a strategic priority,

⁵ 40% of the official budget is invested in education and culture http://elpais.com/diario/2011/09/10/catalunya/1315616842_850215.html

⁶ In China, Creative Economy and Green Economy have been strategic national priorities since the 2011 – 2016 Five Year Plan. <http://www.worldbank.org/content/dam/Worldbank/document/China-2030-complete.pdf>

Profession: Official Caretaker and Territorial Caretakers

Representatives of specialized civil society organizations that participate and represent collectives from certain territories in relevant themes. They conduct and define a plan of action for the territory in partnership with the Official Caretaker (today’s mayor). They carry out the plan in their jurisdiction by combining public funds with intangible resources (knowledge and the like) provided by private initiatives.

Created during the Innovation in New Economics Workshop, carried out by “Fundação Avina”, October 2010.

the shift from the **era of HAVING** towards the **era of USING** became evident. That was how a large portion of the housing demand was supplied, pulling along issues such as security, transportation, and social equity. Aware that the housing deficit was lower than the number of vacant dwellings, a process to **occupy the USW** was carried out, since vacant dwellings were also considered

OPTECNIA: NATURE AND CULTURE WITHOUT A SEPARATION

Jacques Dezelin, São Paulo, Brazil, 2012.

Filmmaker, independent researcher on economics.

“Optecnia” is the name created, in the absence of any other, to identify the socio-bio-technological organism to which man belongs, and upon which he is dependent as from his birth. This because all of his biological functions depend on technological extensions, be it a spear to hunt for food, an animal or plant species domesticated for nourishment or clothing, or a bullet train to move around. The socio-technological environment is an exo-organic extension and thanks to it the limits imposed by genetically programmed biology are extended by the OPTions offered by TECHNOlogy; our 5km/hour walking pace is extended to the 20km/hour of the domesticated horse, to the 100 of the car and the 800 of the airplane; tele-phone and tele-vision expand our hearing and vision on a scale that is commonplace nowadays; energy, food, digestion rely on networks ranging from oil wells and refiners, power stations and networks of electricity, water and sewage. The cities, cultivated fields, roads are technical extensions of the organic needs of each “individual” of the human race, who without them cannot possibly exist - and vice versa.

The name was created to describe and explain this biological phenomenon, and is composed of:

OPT from the verb to Opt, which shows that technology allows the exercise of free will, delivering us from the bonds of genetic biology.

TECN (Techno = art, craft), which shows that human societies invented the

skilled work, the craft whose outcome are products of technological organs, created as an extension and expansion of our individual biological potentials, which grants our release from the slow biological evolution, since the inventions allows rapid and more efficient solutions.

Thus, an artificial physiology was created, in a curious paradox that extraordinarily favors the variety of options of the “people” integrated and developed in it. The single species not genetically programmed, in an increasing part of its functional activities, the human being integrated in the **Optecnia** may choose his way of life in a diversity of which today, as “clicking” beings, we all bear witness.

The study of biological reality, so far unnamed, which comprises **Optecnia**, has been developed in recent years, mainly from the so-called “ecological” standpoint, mobilizing researchers of Nature and inventors of technologies. We believe that scientific research should have as its core reference the allotment of human time, and how in this allotment the payment system played and plays a role of extraordinary importance and as such it has to be studied.

In the author’s experience, if the most elementary premises of the scientific method were applied to financial “science” much of what is being taught would have to be excluded, with severe damage to the financial myths that, like religions, played and play a huge role in creating our experiential reality.

to be **USW: Urban Solid Waste**⁷. The real-estate market began to act as the **Facilitator of Housing**: mediating relationships with owners, renovations, and space adaptation and their financing, with the possibility of payment in 4DxT values (payment through community service, time, knowledge).



Transported Hotels and Cities. Bruna Lima, Oi Futuro, Rio de Janeiro, 09/06/2009.



City overpasses transformed into leisure areas. Angela Léon, São Paulo, 2012.

Other Solid Urban Wastes were given new functions (“software”) for their structures (“hardware”), as it was the case of many monstrous elevated expressways that were converted into gathering spaces, with open air markets for food and local products sales or recreation areas for the population. In cities distant from the sea, the greatest success was: the overpasses were turned into beaches and the supporting pillars into open air art galleries and playgrounds.

Still under the software rationale, all through those years we saw **the expansion of the concept of technology and innovation to include and value “soft” technologies and innovations**: everything related to intelligence and function, such as socio-cultural technologies, management, innovation processes and design.

Focusing on interdependence, the “metabolic” approach to development is expanded, considering that each human organization is an organism, with

⁷ See work of the Basurama group proposing that everything without use is SUW (overpasses, public and private spaces) <http://basurama.org/destacado/publicacion-rus-residuos-urbanos-solidos-basura-y-espacio-publico-en-latinoamerica-2008-%E2%80%93-93-2010>



its various physiological systems. One of them is the concept of **Optechnia**⁸ that proposes the technological environment as an extension, or complement to human functions: satellites complement our senses; the Web complements our mind, the sewage system complements our digestion.

⁸ An interesting concept developed by Jacques Dezelin, in several publications, see box attached.

FLAWS

Interdependence also implies **thinking about flows**: if everything is interconnected, each obstructed process interferes with the next. Calculations made in 2015, for example after the problems with the World Cup held in Brazil, in 2014 revealed steep losses caused by the lack of urban flow impossibility to move about the city (transportation); inadequate knowledge flow (inadequate training); lack of business oppor-

tunities flow, which were concentrated in large companies, especially foreign-capital enterprises, resulting in the outpour of funds abroad, rather than stimulating local MSEs. The notion of flow leads to the rethinking of the very notion of “dwelling”. Why not live in houses, or even cities, that can be moved to other places⁹ where they can

⁹ See the interesting work by the Dutch architect who proposes floating houses. <http://waterstudio.nl/home>

be plugged into a network for water, power, and information services?

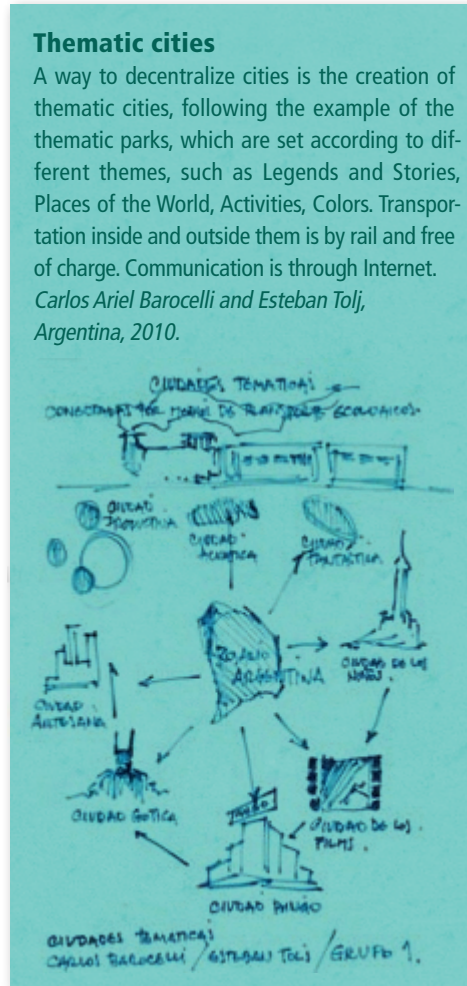
DIVERSITY

A much greater emphasis was given to **diversity**, remembering that differences promote evolution¹⁰. Recognize and celebrating diversity has become one of the vectors of all planning, including that of cities. Every angle has many depths, textures, and reliefs. The symmetry of planning straight lines and uniform buildings is no longer the city planners' guideline. Phew! What a delight no longer having those endless, boring rows of houses or same-looking buildings. In the past, the city was the place of the invisible and anonymous; today, everything does its own storytelling. The windows are asymmetrical and reflect who is behind them¹¹; buildings, especially the public ones – often built to confuse and alienate citizens – now tell what goes on inside, and how; side-

Thematic cities

A way to decentralize cities is the creation of thematic cities, following the example of the thematic parks, which are set according to different themes, such as Legends and Stories, Places of the World, Activities, Colors. Transportation inside and outside them is by rail and free of charge. Communication is through Internet.

Carlos Ariel Barocelli and Esteban Tolj, Argentina, 2010.



Carlos Ariel Barocelli and Esteban Tolj, Argentina, 2010.

walks, which obviously have large earth areas to absorb water and prevent imperviousness, are planted with scents and colors, like tea herbs and spices.

Diversity is also reflected in the types of business and services provided in the city: **the focus is on creative economy** and organization in **collaborative MSSSE (Micro and Small Social and Sustainable Enterprises** whose purpose is the common good)¹² **networks**. More details in the following chapters.

¹⁰ As Darwin points out in his Theory of Evolution

¹¹ As proposed by the ingenious Hundertwasser http://www.hundertwasser.at/index_en.php

¹² See examples of the B Corporations, that already have this scope <http://www.bcorporation.net/about> or of Social Business : <http://www.artemisio.org.br>



Sidewalks planted with seasonings.
RAI and Adriana Klisys, 2008.

Talent Exchange Center

Today, the Talent Exchange Center was inaugurated with a great celebration. This center will operate every day of the week. There, each person may choose the period(s) when talent exchanging is more convenient. You! who can cook, sing, model: bring your talent and take another home. Everybody has a talent.

Magda Lucia de Lima, Hélia Mana and Regina Tavares, Brazil, 05/11/2010.

IN THE NEIGHBORHOODS

An “oldeity” desired by many and finally achieved is a more intense community life, where everything is exchanged, communitarian, shared. The **Sharing Workshops**¹³ are places for collective production and interdisciplinary experiment, open to the entire community. There, people encounter, exchange of ideas, knowledge, tools and materials, as well as solidarity-based work, are promoted. Next to them, there is a **Warehouse of Exchange**, for exchanging raw materials, tools and products, where people can donate what they have to offer and take what they need. Within the logic of abundance, everything taken is renewed with the new creations that originate from them.

Each community, school, condominium, and community center encourages and promotes **making games and toys out of recycled material**¹⁴.

¹³ http://criefuturos.com/futuros_criados/Encuentro_Taller

¹⁴ http://www.wikifuturos.com/Futuros/Construindo_brinquedos_e_um_mundo

Games are developed to foster inclusion and not exclusion, also teaching the values of cooperation, constructive negotiation, creativity, motivation, and achievement.

Neighborhoods also have **Multi-language Art & Entertainment** spaces, adaptable to different artistic languages, which integrated form a circuit that allows the overall production to be appreciated and circulate. To promote greater contact and flow, these Spaces are located next to **Markets of Organic Urban Production**, which distribute produce grown in city vegetable gardens that have become widespread since the year 2014, as well as its complementary products. In all the spaces, exchanges and payments may be made using **4DxT currencies**, that is, with economic, social, cultural, or environmental currencies.

All buildings are coated with **paint that turns any surface into a solar energy receptor**¹⁵ which, coupled to technology that prevents energy waste in

¹⁵ http://www.wikifuturos.com/Futuros/Solar_energy_for_household_and_transportation_means_supply

Cars and houses painted with ink that captures solar energy. Fabiana Victor, Nilton de Lima and Giovane Mendonça, São Paulo, 2009.



transmission, assures that the energy generated will meet all the of energy/ electricity requirements: light, electro-electronics etc.

Most of the **water comes from rain harvesting**, not only in buildings, in tanks, but also in public spaces, inspired by the work of architect Gaudí for the Guell Park.¹⁶ On top of buildings there are open areas for gardens and events, whose permeable floor covering collects and filters the water prior to distribution. Note that even though this idea seems so obvious, it took almost 150 years to be put in practice. Other obvious points long overdue in household water management: washing machines that use the same water that is filtered

and recycled¹⁷ in adjacent containers, so that a washing machine that used to consume about 4,500 liters of water per month now consumes only 15; the water used in baths and sinks filtered and stored for uses that do not require 100% clean water, such as plant watering, outdoor cleaning; or toilet flushing (for those who still don't have access to permaculture dry toilets).

In every neighborhood there are needs and desires networks that are exchanged. See the interesting list found by one of our researchers.

All forms of coexistence are more fluid and permeable; therefore, if a

OFFERED	DESIRED
Time to go for a walk with the dog on Sunday mornings;	Company to get to know the city and to travel;
Playing with 6 to 8-year old children on holidays;	Company for watching movies;
Company to go dancing;	Spooning and fondling in sleep;
Five o'clock tea with elderly people;	Foot massage on Saturdays;
Tea with handicrafts, movies, and chatting;	Vegetable garden,(having and keeping one) and offering produce to neighbors;
Taking care of plants in other people's homes;	Weekends without technology;
Book-lending;	Cultural chats;
Part of personal production of: bananas, tangerines, tomatoes, etc;	Chat groups to exchange information, gossip, and the like;
Fertilizer for your vegetable garden.	Bike-borrowing on Sundays.

Beatriz Telles and Elaine Ribeiro de Oliveira, São Paulo, 2010.

neighborhood is starting from scratch, rather than start by raising walls, as in the past, it should begin in interaction with its surroundings. First, check what the common dreams are, because they might generate bonds of trust that will

¹⁶ http://en.wikiarquitectura.com/index.php/Park_G%C3%BCCell

¹⁷ Already exists, invented by Rubens de Oliveira Filho <http://www2.tvcultura.com.br/reportereco/materia.asp?materiaid=124>

later be strengthened through shared cultural and creative activities. When there is trust, we are ready for the next step: creating entrepreneurial opportunities that are identified through an initial mapping of local knowledge and practices. The priority is to promote interaction and exchange: the city has transformed the shell of its walls into skin: social fabric woven from relationship networks.

IN THE COUNTRYSIDE...

Today, many people live in ecovillages. Ecovillages of all possible and imaginable kinds, where communities organize themselves by affinity. As such, there are old people's ecovillages, rockers' ecovillages, vegans' ecovillages, deluxe ecovillages, and so on. But above all, there are ecovillages of a multi, trans, pluri character (multicultural, transnational, multifunctional), where all possible combinations co-exist, since the time of the "mono" activities and living is over!

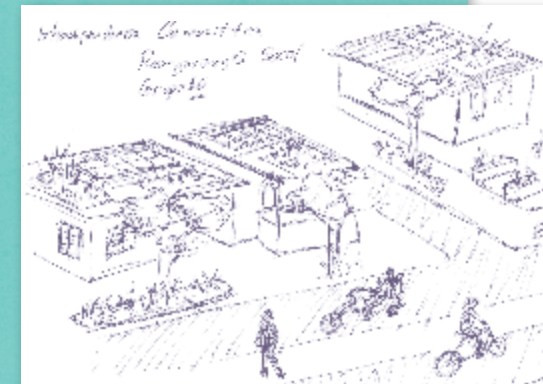
Ecovillages were widely adopted, because we are aware that the coherent and competent solutions and possibilities of shared management and governance are possible on a smaller scale. The solution lies in the local aspects.

These ecovillages are organized into networks, where there is exchange and interchange of services, products, and skills. These networks also function as a form of political representation, as they continuously gain in size and scale: moving from the local to reach Macro Socio-Environmental Ecosystems (that were once called a "nation", which today no longer have borders and are defined by socio-cultural characteristics), until they become global networks.

Exchanges are made within these networks by using a variety of currencies with convertibility and parity among them. These currencies also correspond to values on the social, cultural and environmental dimensions, for example: time, collaboration, diversity, reputation.

Within a radius of 120 km, small clusters of homes and conviviality coexist, where families carry out agro-economic and sustainable activities. With community vegetable gardens, their food supply is self-sustainable. They have integrated culture, education and health centers. Power is generated right there by biomass technology that uses pulp or any other local vegetation. There is also a composting plant (solid waste) that serves as fertilizer for the land. There is a Logistics Center to wash, pack, and distribute agricultural production. And an Environmental Center that ensures preservation of the micro-climate: orchards, agroforestry, etc... The nearest large city supplies the centers with general services, so no one needs to travel more than once a week.

Maria Angêla Baria, Sergio M. Barbosa and Renato Ribeiro, São Paulo, 2009.



Integrated System for Natural Areas Protection

A law was passed providing for the recognition, mapping, and delimitation of ecosystems and natural areas' fragments. The latter will be connected to promote biological exchange of seeds, increased food availability, and greater protection of wildlife and green areas, which will cover the territory, bringing about greater diversity of use in spaces where, today, urban, agricultural, and cattle breeding activities are massively prevalent.

Thiago Vinicius da Silva and Mariângela Portela da Silva, São Paulo, 2009.

Laws have set the limits for city growth and decentralized production and distribution of products and services in areas of 30km², and small businesses in areas of 2 square kilometers. Each family should have an area of 600m² to live and plant, where all will have their own garden and all the homesteads will have 50% of the ground covered with earth and vegetation typical of the region. Thus, in addition to facilitating water drainage, families will live in contact with nature and have better quality of life.

Francine Sayuri Segawa, Criar workshop, 2009.

MOVING AROUND

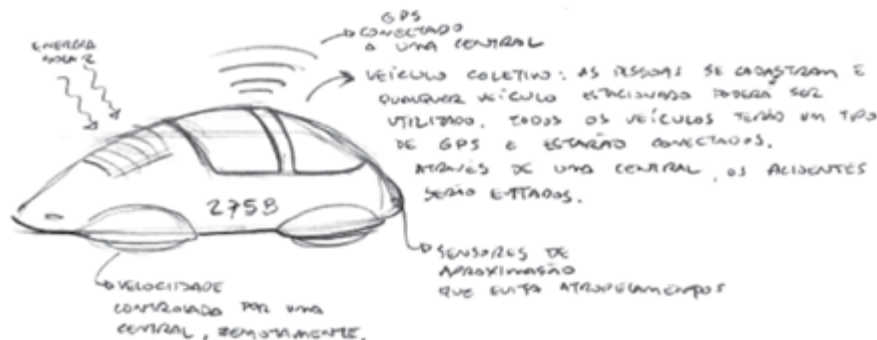
Today, there is a prevalence of bicycles and their variants, for instance, those that rely on a solar-powered battery and have roofing made of recycled materials, with UVA and UVB protection. Weary of waiting for official decisions, bike activists from several cities, based on existing studies, organized night meetings to paint the cycle lanes needed. They were quickly occupied by thousands of people who had long waited to move around safely. Cycle lanes "hacked" by the population have been more respected than expected, because they are beautiful and diverse,

since they were painted with the help of graffiti and urban artists.

It all began by drawing on experience from the early 21st century with bicycles belonging to the municipality, which could be borrowed and returned at predetermined points, usually near public transport stations. Later, this was extended to other types of **Public Vehi-**

When one of these approaches another, it is possible to chat and exchange files while driving, creating a network of relationships and environmentally correct cars.

Jessica Nascimento, Criar Institute, São Paulo, 2009.



cles, which are now for **“use”** and not for **“possession”**. With a **Single Transportation Ticket**, any person can use a vehicle and drop it off at the many stops available, typically one per block. These vehicles are also coated with paint that captures and stores solar energy and

Building streets, building sidewalks, building cars? How old-fashioned... Public transportation has evolved greatly since the convergence of it all. Today there are moving lanes. Now it's the street that moves and not the car...Slower lanes for senior citizens and faster ones for those who like stronger emotions.

Anonymous, Wikifuturos's archive, 2010.

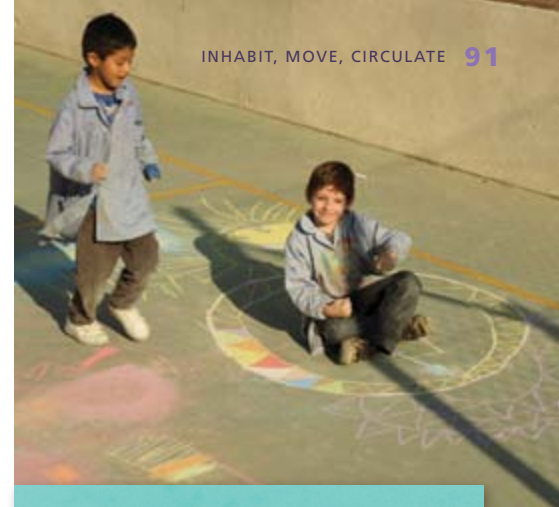
After anxious waiting, the people of the city of São Paulo will participate in a mega event to inaugurate moving walkways over the Tiete and Pinheiros rivers. At every kilometer, we shall see a service and convivial station focusing on the modern fishing station, with digital and holographic fishing rods.

Zenir Ramalho, Maria Lins and Graziela Valentino, Brazil, 5/7/2010.

have a system for transforming and storing the kinetic energy released by their movement. Most of them are derived from mini and small cars that were common in the past.

Another major change in transportation, brought about by the shift from the logic of **form (vehicles)** to that of **function (transport)** was the creation of the **Moving Walkway**, replacing many of the city streets, an old and sensible dream.

End of the 19th Century: Imagining Life in the Year 2000



We will be flying to school! We throw a CD on the ground and it becomes a flying saucer to fit our size. *Carlos and Cristian, Barcelona 2009.*

Coming and Going: A Sustainable Right

A new subway station was inaugurated and it looks like it is going to be a model for others to come. Entirely built with environmentally-friendly materials, it has an ultra-sensitive floor, which as a result of the friction of the users' feet, generates the energy required to operate the station. The train tracks are made from recycled weapons and the wagons' seats of coconut fiber. And hail to the future! *Roberta Alves de Souza and Iuri Barbosa Ribeiro, São Paulo, 04/20/2010.*



Pain and suffering. Racism. Deaths. All this is over. There are people that don't even know what a disease is, don't understand the meaning of wars. We are a new world. We are better people, but what matters is that we are what we are. Crie Futuros Comics Contest. Nicolás Ríos, Uruguay, 2011.

Comics and Illustration Contest Crie Futuros, 2011

It took place in partnership with Ocus Media and Montevideo Comics, from Uruguay and with the UDG Virtual (University of Guadalajara), Mexico. The proposed theme was related to the Millennium Development Goals. We selected a few comics for the book and the other winners are in the right, with the corresponding link. Thank you and congratulations!

Geraldo Antonio Barba Rios, Mexico
http://criefuturos.com/futuros_criados/Concurso_M%C3%A9xico

Bruno Garcia Olivo, Uruguay
http://criefuturos.com/futuros_criados/Un_Cambio

Denise da Costa, Brazil
http://criefuturos.com/futuros_criados/Ave_da_paz

Pablo Carrera Piritto, Uruguay
http://criefuturos.com/futuros_criados/Aprendiendo_a_volar_con_la_raza_humana

Cristina Hare, Brasil
http://criefuturos.com/futuros_criados/No_futuro_ser%C3%A1_Golli

TAGS: anesthesia - body - consumption - cultivation - empathy -
family farms - food - fountains health - hospitals - joy - medical
- nature - nutrition - four elements - recycle - relationships -
remedies - sensitivity - sources - take care - thought -
urban - vegetable garden - waste - water

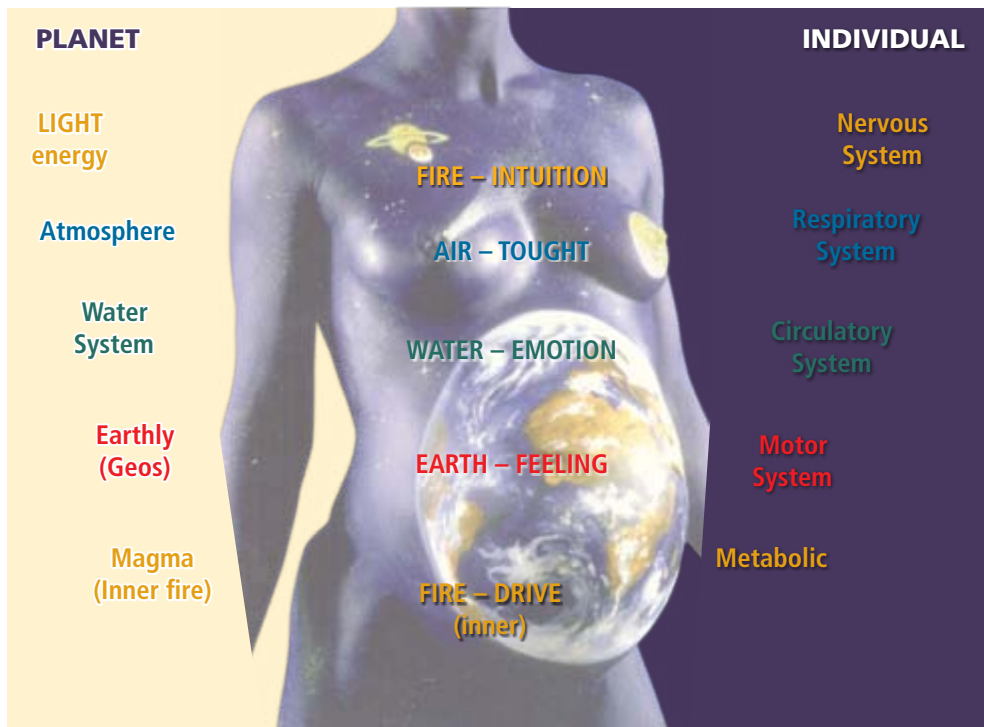
5

CARE, NOURISH, REGENERATE

"Never doubt that a small group of committed people can change the world,
indeed, it is the only thing that ever has."

Margaret Mead

FEELING WITH: OUR NATURE AND NATURE



Relationship between the four elements, basic psychological functions, physiological systems, and planetary components. Lala Deheinzelin, Vitae research, 1992.

It is difficult to determine when we became aware that **TO CARE** was the verb that should guide our actions. Most probably, perception concurred to the realization that sustainability would only happen if we were actually capable to “feel more” and “feel with”. To feel one’s own body and feel its resemblance to the planet’s body. **To feel our nature with Nature, and realize the correlation and interdependence between them.** As if our circulatory system corresponded to the water system of the Earth – clogging rivers with garbage and waste is like clogging the arteries with junk food that does not nourish; polluting the Earth’s atmosphere and our lungs; benefitting from the creative energy of the sun relates to the creative energy of the mind.

This type of **approach – which seeks to sense the world in a concise and analogical way¹** – has expanded in recent

¹ These analogical studies are part of a survey I carried out from 1991 to 1992, when I was awarded the Vitae Fellowship. The objective was to find ways to close the gap between abstract/theoretic and concrete/practical elements. The interest in the Intangible/Tangible relationship was already there.

years due to the need to understand and decide by intuition, since the velocity of changes is ever increasing. They bring about association exercises to stimulate a comprehensive outlook and creativity. By analogy with our “layered” physical makeup and its association with the four elements, we are able, for example, to correlate the latter with the basic psychological functions, as formulated by Gustav Jung, which further point out the stages of a process.

🌀 First we have **Fire: In the individual’s Metabolic System**, and **Magma, inside the Earth**, which corresponds to the psychological function of **Drive**. That is to say: processes like, for instance, education, or creating a sustainable world that must begin with desire, motivation (that is why our book is called *Desirable New World*²). Desire is our driving engine, without it we would get nowhere, it shows us **why and what for** we are doing what we are doing.

🌀 Then come the **Motor System in the body and Geos, the earthly**, which corre-

spond to the **Earth element**, tied to the **Feeling** that supplies us with information **about what** we are dealing with.

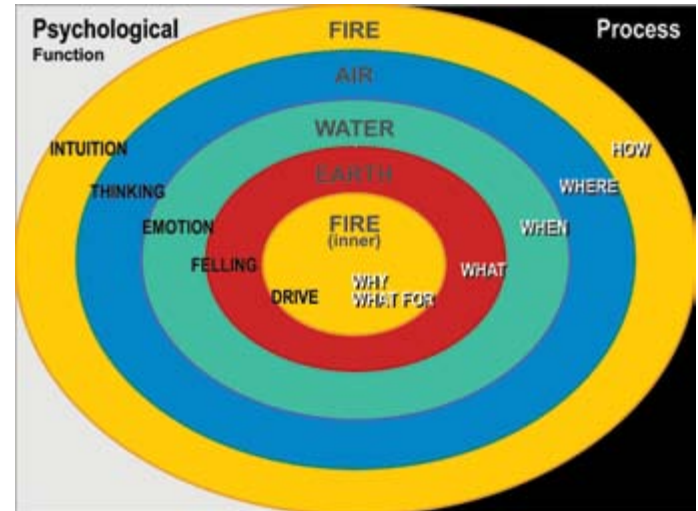
🌀 **The Water System in the planet and the Circulatory System** correspond to the **Water** element, linked to **emotion (in motion, in movement)** that helps us understand the **when**, i.e., the process over time.

🌀 **Atmosphere and Respiratory System** correspond to the **AIR** associated to **Thought**, which guides us, positions us, and is linked to the **Where** in our process.

🌀 And finally, back to **Fire**, now the **Light** and **Energy** fire, which corresponds to the **Nervous System**, the **intuitive intelligence** that shows us the “Hows.”

It is remarkable that, until the beginning of the 21st century, most processes already began with thought (emphasis on content and informa-

tion), for example, education or even the construction of a sustainability culture. Really deep changes were achieved, when both started with motivating, working on the desire to change (this was the objective of the Criar Futuros Movement with its desirable futures), then broadening perception through the five senses, resulting, for instance, in greater ability to “read”



Relationship between the four elements, basic psychological functions, and stages of action. Lala Deheinzelin, Vitae Research, 1992.

2 The title is also a counterpoint to “*Brave New World*”, by Aldous Huxley, 1932, that portrays a tragic outlook of the future.

the world, then attention to emotion, for example, through affection.

When something affects us, we start to act and eventually come to thought, but thought grounded in desire, experience, and feeling – which reduces the risk of allowing us to operate immersed in a world of disconnected and meaningless ideas and information.



LATEST INVENTIONS, AERO-MECHANICS, SHOP KINGS, TELEVISION, ENTERTAINMENT, FORMULAR, CHEMISTRY, WOOD AND METAL, CRAFTS, RADIO KINGS

Contest awarding the Best ideas for use of auto parts. USA, 1932.

FROM RECYCLING TO EMPATHY: INSIDE OUT SUSTAINABILITY

In the **primordial times of sustainability** the focus was on the tangible, material, and attention centered on controlling CO₂ emissions, saving energy, and managing wastes. In the first decades of the 21st century, curiously enough, these subjects were almost synonymous to sustainability. After Rio + 20, in 2012, the need to overcome this idea became evident, because many institutions and governments limited themselves to it and did not change their processes and socio-cultural relations, while, nevertheless, claiming to be “sustainable.” Undeniably, these were important years for environment care, and years when everything had to do with “recycling”, which is perceived

in the boom of enterprises and consortia working in this field, particularly between 2015 and 2025. Recycled materials were widely used in general construction, in an effort to find good use for the tragic legacy of the 20th century, with its misguided policies that led to the destruction of railway networks, to lack of investment in public transportation, and where everything revolved around the centrality of the automobile. This misconception was, moreover, strongly spurred by our collective dreams. Look-

Life in the year 2000 = cars! France, the 1930's. See at www.paleofuture.com.



ing at the past of the future, what catches our eyes are cars, of all kinds and shapes.

What to do with all the remains of these vehicles? Since the beginning of the 20th century, it was clear that this would become a serious problem and to use them to make toys could be a solution. Tons of tires had to be recycled and, besides toys³ they could be made into road pavement and incorporated into other materials widely used in civil construction, and designer objects.

But when we begin to think of sustainability, also “from the inside out”, with the awareness of our body, the sustainable practice proved more effective than just taking care of the external environment.

Many mechanisms have been used, beginning with the **activation of Empathy** in people to develop their ability to



Action of the Coletivo Basurama utilizing SUW (solid urban waste). Lima, Peru, 2009.

experience their surroundings and thus be ready to **act as co-creators and not just observers of life**. In schools this was intense, bringing about a change in education that increasingly led teaching what really matters⁴. Children who grew up with this profound capacity for empathy became those who actually implemented the recent changes, in all

sectors. Artists played a major role in this empathy training, especially those involved with theater and dance: regardless of area or theme, people **played theatrical games by putting themselves in other people's shoes**. Personally feeling like planted earth within the monoculture system; putting themselves in the place of that teacher you could not stand; feeling like a stomach being washed with soft drinks; feeling like

a good idea that nobody accepts; because it would lead to a change in routine. Feeling as if they were the wall of a house painted the color of dirt (to prevent smudging...); feeling unable to move arms or legs; listening to the dialogue between a permaculture house and another with features dictated by the massified real-estate industry. And, finally, feeling as light as a dancer, or as one who enjoys autonomy, because he or she works collaboratively and will al-

³ See an example in the city of Lima, using “Solid Urban Waste”: an unfinished bridge.

⁴ See Project with this same scope from Ashoka, Network of Social Entrepreneurs.

ways have the support of others. There are very interesting registers: executives performing drama exercises who put themselves in the place of their various stakeholders, at a time when large corporations had to break up.

Feeling like water was the easiest, since we are indeed made up of 75% water, just like the planet. Can you imagine? Hordes of tourists in tears on beaches filled with junk? Traffic jams on the freeways alongside rivers becoming even more unbearable, since no one could look at the polluted river without experiencing what it really meant? So much crying had a positive outcome and, today, city rivers are parks and surfers lead task forces to clean the beaches.

Communicators collaborated to render visible and evident everything that was related to each product and that used to be hidden: the “before” (where and how it was made) and “after” (its cultural and environmental legacy). For example, detailed descriptions of the contents of processed foods that looked a lot like a witch potion’s



The Tiete river, in São Paulo, is now a leisure park! Angela Léon, 2011.

recipe: from blood to beetle shells.

The **Talking Shelves** were very effective, and an emblematic case was the elimination of water packaged in small bottles, 15 years ago. When you picked up a bottle from the shelf you would hear it say: “Hello! I am one of tens of billions of bottles consumed annually, at a cost of hundreds of billions of dollars

that could be invested elsewhere, such as, for instance, to solve the water distribution problem of the world”. Or “Hello! I cost five times more than my ‘look-alike’, for my cost includes the hiring of a celebrity to make you believe that, if you had a retouched slim body like hers, you would be happier”. Or a cauliflowerer saying, “Hello! I am organic and was

grown by a micro enterprise of families that used to be outcasts in large cities." Shortly after, the shelves stopped being so politically correct and boring, and started saying things with much more humor and in a more effective way.

In the past, strategies to force consumption were allowed, as was the case with supermarkets and shopping malls that were designed to mislead; airports exits leading into duty-free shops or shelves filled with trivia and goodies creating chutes that led to the cash registers. In these situations of strong compulsion to buy, mobile phone apps regulated consumption by playing the role of a super ego for people who lacked self-control: when you reached for some candy, the app warned: *"Do you really want candy or is it a hug? Talk to the person next in line because he or she is tuned to the same frequency, and let it go, it will only make you fat and give you pimples!"* At the same time, when it became obvious that the impulses masked other deepest desires of consumers, the same apps helped to promote meetings, contacts, joy. One of

their functions: you selected a number of things that interested you and when somebody nearby was on the same frequency your phone would vibrate. Artificial, indeed, but necessary in those peculiar decades, when people were afraid to relate to each other.

More recently we have seen **"I'm feeling..." mobile apps**. Should you want to interact with others or with **Feeling Panels** (remember that the city is interaction and conversation?), you program your mobile phone with data that, put together, will reflect your feelings for that day. The **Feeling Panels** map out the feelings of those who pass you by in the street and turn them into visualizations⁵. Let's say that every feeling is a colored dot and that the whole reveals itself in shapes made up by the united dots. This helps public officials that are committed "to feel" the people under their care, and promote a greater sense of belonging by identifying those with similar feelings. The Feeling Panels

⁵ Example: human emotions mapped on the Web and transformed into data visualizations, <http://www.wefeelfine.org/>

also select quotations related to the sensed feeling: *"Nothing is more powerful than an idea whose time has come"* – Victor Hugo

WATER

We moved significantly ahead, when our perception of and relationship with our bodies changed and each one became fully aware of their choices regarding food, drink, movement. The first change was in relation to water and in most places we already have rainwater harvesting, cisterns, water reuse, and sanitation, and dry toilets⁶. The process was accelerated by the **Young Water Managers Program**, where trainees from the university guide elementary and high school children to practice and disseminate rational use of water. The program, implemented shortly after Rio + 20, resulted from a partnership

⁶ See the experience of the Center for Popular Culture and Development, which works to integrate the issues of water, energy, food, housing, work, education and culture through the application of sociocultural technologies.

between the Education and Environment Departments (this kind of division still existed, and it was not until an integrated and systemic action was introduced that these compartmentalized sectors were eliminated) in association with the Water and Sewage Utilities. Some ideas have been particularly successful, such as those that used old PET bottles to sterilize unhealthy water⁷, or others where similar bottles were placed in gutter systems, becoming water storage containers⁸.

Elimination of bottled water was due to the adoption of refillable bottles. In fact, most of the food went back to being sold in bulk and placed in containers brought by the users – an easy “oldeity” that was quickly adopted and resulted in lower prices, better space utilization, production, and packaging disposal. As far as water is concerned, one of the most interesting benefits was the relational aspect, thanks to an-

7 See one of the winners of the Social Technologies Award. <http://www.rc.unesp.br/lib/premiacao/premia.htm>

8 http://www.likecool.com/Rain_Drops_by_Evan_Gant-Design-Home.html



The Public Fountain is where everything happens!
Angela León, 2012.

other “oldeity”: the return to **Public Fountains**, which turned them into a space of conviviality and exchange. Flirting and dating, neighbor organizations, work opportunities, everything happened near the fountains.

Some were playful and collaborative: on warm days, people would hold hands and move around them and, the

more people and the faster the speed, the higher the water jets rose, spraying the surroundings⁹.

For cleaning and water renewal there were a wide range of procedures, ranging from the most technological to

9 This was carried out at the Zaragoza Universal Exhibition, in 2008, with water as the subject, with technology developed by Barcelona Media.

Water is a common good, not a commercial one

The Virtual World Parliament yesterday sanctioned a law stating that corporations can no longer sell water for their own profit. Factories and enterprises that in the late 20th and early 21st centuries tried to monopolize natural sources will now have to give up their facilities and operational structure to be managed by cooperatives in their place of origin. These cooperatives are part of the new governance model, Participatory Meritocracy, that finally reached a third management model, a public and private mix. Seventy percent of the proceeds from the sale of water (which is done in a sustainable manner since, for example, bottles and glasses of mineral water were abolished) will be invested in water system renewal programs, as determined by the Waters Council. The remaining funds will be kept by the corporation's cooperatives as compensation.

Claudia, São Paulo, Brazil, 2010.

others that investigated the purifying potential of the waves produced by the human brain and by language. This was based on research developed by Dr. Masaru Emoto, who, in the 20th century, did some very interesting work by submitting water to emotions and found that meditation, music, and other forms of language were able to produce positive changes in polluted water¹⁰.

10 <http://www.masaru-emoto.net/>

WE WANT MORE THAN JUST FOOD!¹¹

One of the reasons why we freed ourselves from the severe distress situations in which humanity had been immersed for millennia was our relationship with "eating", now replaced by nourishing yourself with proper food or having fun with gastronomy. Once accessibility to food became a given, mainly industrialized food, the world entered into a crisis: we acted just like our primitive ancestors, eating everything in sight, as if there were no tomorrow. We acted

11 Taken from the lyrics of the Brazilian group Titãs.



Do you want to get to know a culture? Drink its culture-flavored juice. Breilin Montes and Luis Santana, Dominican Republic, 2009.

LE SOU PEBROEUVOU
INVENTA UM ROBO
QUI SOLTA COMIDA
EVAI AQUEL BAR COM
AFOMENO MUNDO



Electronic Language
International Festival. Pedro,
Rio de Janeiro, 2011.

Healthy and sustainable food is now a reality in condominium

Today we celebrate the success of the “Healthy and Sustainable Food” program. About 70% of city condos have implemented gardens, orchards, and gardens on the roofs of their buildings for growing food, providing a production free of pesticides and inorganic fertilizers, while also offering the freshness and variety of products for a healthier and self-standing life.

The distribution process is accomplished by electronic-mechanical means. Each unit selects the desired products and places their orders through an electronic billboard. Food is collected just in time to ensure tasty, nutrient-filled, healthy and enjoyable meals.

The production of food is defined by a nutritionist that responds to the desires of the residents and organizes the growing activity.

This project made it possible to create community restaurants that prepare meals for the residents, preparing innovative recipes and facilitating the residents’ day. Besides improving the quality of food and meals, another benefit of this initiative was to provide better quality of life for condo residents.

Luciano Borghesi, Maria Cristina Rodrigues and Ricardo Rodrigues, Campinas, Brazil, 2010.

like children, lured by the quantity, diversity and attractiveness of products that were indeed ingested, but which were far from nourishing. Dissatisfaction – the driver of change – was anesthetized, or stifled, in many ways, with eating/drinking being one of them.

Studies have shown the role played by poor eating/drinking habits in the state of numbness and inertia in which a large majority was plunged, which worsened after the Great Bubble of 2013, whose impact resulted in more obesity, and in the sale of more alcohol and mood regulators with their consequent social and public health problems. In the first decade of this century,

the number of obese people had exceeded the number of the undernourished¹² population, and it was sad to see how obesity, cardio-vascular problems, diabetes, and other conditions associated with poor eating habits helped to reduce the world population, contrary to the earlier predictions that spoke of a mushrooming population.

As soon as the concept of sustainability expanded, the “eating vs. nourishing” issue had to be seriously faced. First, because it caused losses in the economy and other 4DxT dimensions: social, environmental, and cultural.

¹² http://www.bbc.co.uk/portuguese/reporterbbc/story/2006/08/060815_obesosxsesfomeadosebc.shtml

Then, because it was essential to regaining physical and psychological fitness and well-being. Because to be personally sustainable was the key for sustainability to gain momentum. Drastic regulatory measures had been adopted: junk food was shunned and, similarly to old cigarette packs, the damage caused was stressed through text and image; taxes were levied on edibles with calories but no nutrients, and advertising encouraging consumption of sweets was banned. Food services in businesses, schools, and universities were forced to offer only fresh and light food suitable for those who sit for hours.

In the early twenties, pricing of all products already included the 4DxT cost. For example, beverages were formerly made from dyes, sugar, and water, and sold at a lower price per liter than natural water! This distortion was corrected when environmental (e.g., sugar monoculture results), social (e.g., medical and dental care), cultural (e.g., loss of cultural diversity and habits) and

even economic (e.g., productivity loss because of poor health) costs were incorporated.

Shifting from eating to nourishing was more important than expected, since it developed skills fundamental for the implementation of sustainability as a system: Listening and learning about one's nature and needs, developing discipline and self-regulation by making wise choices; being aware of future consequences of present actions.

There was a dramatic increase of, more or less radical, vegetarians, and all sorts of vegan diets that took into account the physical and cultural peculiarities of individuals and communities.

Gastronomy has grown to be a refined way to enjoy and learn about food, especially since "quantity" has

Community Agriculture Fair

The fair consists of a space for distributing organic foods produced and harvested by organized residents within their neighborhood.

This possibility of abundance and beauty is due to the bill passed by the city that contemplates the donation of land for food production, provided there is an organized management group in place.

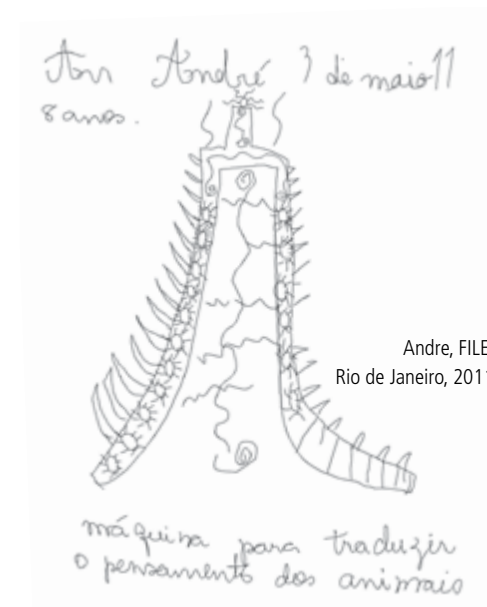
The fair takes place once a week in the neighborhoods, and in addition to supplying fresh and healthy food, it fosters integration and exchange of skills that feed community life.

Daniela di Grazia, Lucilaine Oliveira Campos and Inês Soares Campos, Campinas, Brazil, 2010.

BigVegan Network.

Reunites the BigVegan supermarkets, commonly known as Super Veganão, and the Vegano Soni Restaurants that feature solar heating, vegan bio-green garden, cistern, rain water collection, orchard, library, bicycle yard, fantastic cuisine, live music on moonlit nights.

Lolita Sala and Rodrigo, Brazil, 2010.



Andre, FILEI,
Rio de Janeiro, 2011.

been replaced by originality, diversity, and quality. Eco-Chefs proliferated to become a rage and after them came the development of hundreds of food-related businesses niches.

All this, of course, led to new ways of producing and marketing: fair trade, family farming, both sustainable and organic. Following the overall change of pattern (mass production/centralized to niche /decentralized production), small farmers organized in networks

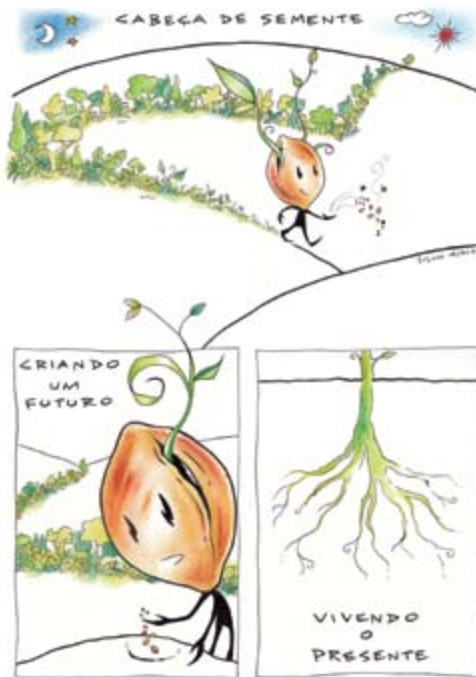
Solidarity Productive Clusters

Three organic farmers: an Asian, an African, and a Brazilian rural dweller met yesterday, holographically, to chat about trading original seeds produced in their communities, to strengthen their local gene bank collections to guarantee the preservation of biodiversity. Authors: Claudio and Sergio M. Prospero Barbosa

For a future where people do not need to sacrifice lives to feed themselves, let us recognize the animals as siblings and educate children for non-violence, instead of fighting evil with evil.

Claudio Próspero and Sergio M. Barbosa, São Paulo, Brazil, 2009.

have been gradually gaining scale and replacing monocultures and the agricultural industries of the past, proving that it is possible to produce, distribute, and supply all demands using other models.



Seed Head: Creating a future, living in the present.
Crie Futuros Comics Contest. Sylvio Ayla, Brasil, 2011.

MULTI, TRANS, POLY HEALTH

This is the “century of care” also characterized by being “multi” and “trans” – and with Health it could not be any different. In recent decades we managed to retrieve quite a bit of the time, knowledge, and lives lost by denial and/or opposition between different types of medicine. Now, there is close cooperation between them, each contributing an aspect. Allopathy, with its successful repairing and sewing; acupuncture, with the ancient knowledge about the relationship among organs; herbal medicines, for its accessibility and affordability, etc. They are widely used today, ever since the blending of millennia of traditional knowledge with the scope of modern science. Medical decisions are taken by a multidisciplinary group of caregivers / physicians, who can no longer restrict themselves to a single specialty.

One of the major changes observed was in the pharmaceutical industry. The peak of its unregulated

growth was reached in the mid-20's, when it was found that drugs such as antidepressants, sedatives, mood and hunger regulators, and stimulants were loosely prescribed, in any context and sold in such quantities that action to remedy the situation had to be taken. In an effort to answer the basic question "But, after all? Why don't we change the world?" We found replies such as "Because creativity and nonconformity, mainly in children, are treated as diseases"; "Because we anesthetize or hide our dissatisfaction and desire for change with the easiest available subterfuge." Much has been written about this in order to better understand mass phenomena such as consumption, sports, celebrity worshiping, and other chronophagic activities.

Today, the vision of life is less mechanistic and deterministic than in the previous century, and therefore healing processes are multidimensional, less related to chemistry and more related to physics. Vibratory patterns obtained by high-tech technologies are

Fun Ideas for Hospitals

Bed Fashion: workshop on fun pajamas and healthy fashion.

Garden of delights: a mixture of oriental with Brazilian gardens, herbs, spices, fragrances, varied stones, a garden with sand and rakes to draw.

Workshops memories: for visitors and companions.

Toy Workshop: toys are donated to the pediatric section.

Closed Circuit TV: internal programming with the support of Journalism Schools. Scripts are collective creations of patients and technical staff.

Life Story: rotation of patients in the rooms to exchange experiences. Patients vote on life stories to become scripts for the closed circuit TV.

Hospital Culture: weekly programming for social interaction areas featuring story tellers, magicians, music, lectures on nutrition, health, art, culture, history.

Game library: skill games, puzzles, both classic and modern.

Library: literature, arts, sciences and "books for the eyes."

CD library: stories, jokes, music ...

Traveling Studio: Mobile furniture to circulate around the rooms with art materials: watercolor, chalk, crayon, paper, tape, cutting and collage materials, clay, drawing boards, etc. Mirrors for self portraits, dress up costumes and other paraphernalia.

Exhibition Panel: to show the work by patients and companions.

Massage: a lot!

Adriana Kliscys, specialist in games + science + art1, São Paulo, Brazil, 2010.

1

<http://www.caleido.com.br/adriana-kliscys.html>

used just as much as **Quantum Tuning Processes** that recognize and tune the pitches of any person, including those achieved through meditation, sound, color, movement.

The advancement of mankind, which went from the "survive" stage to the "live" stage, brought about major changes: organizations tied to War became organizations dedicated to Peace,

and medicine a lot more devoted to learning about and promoting health instead of dealing with disease.

In the post-Great Bubble burst, in which people, institutions, and enterprises agreed that sustainability would be the guiding principle of all activities, it became evident that it was no longer possible to waste resources, time, and enthusiasm with diseases that could be avoided. More than ever, life was too good to be lost, and there was a great increase in the number of Health Care groups comprised by volunteers and professionals using socio-cultural technologies¹³. Thus, networking and socializing networks were established, preventing insecurity, poor nutrition, lack of hygiene, information, peer-pressure and bad company from becoming causes of disease.

It is interesting to see that, between the 20th and 21st centuries, medicine experienced an evolution similar to the leap from 19th century photography to the 20th century cinema. Before, tests

and caregivers/physicians relied on data obtained mainly at the time of interaction with the patient, i.e. “a picture” of that moment. Then, access to data about a variety of human functions, combined with everyday life, observed through layer overlapping systems (such as those used in graphic design software) allowed diagnoses that were more like a “moving picture”, making it possible to follow progress over time. To perceive illness and health as historical processes changed significant concepts, for example, concepts related to aging and to what was “natural.” For a person in the Middle Ages, it was “natural” to die at 30, to lose teeth, and have skin disorders – a scenario that changed with better hygiene. Today, we realize that aging and illness are not synonymous and that disease is more a consequence of poor living than of long living.

HEALTH IN 2042, FROM THE OUTLOOK OF "NONSENSOLOGY"

Wellington Nogueira, creator of the Doutores da Alegria¹ and business consultant. São Paulo, Brazil. 2012.

Nowadays, we “nonsensologuers”¹ are confused: WHERE DOES THE HOSPITAL BEGIN? AND WHERE DOES IT END? This confusion takes place because we see a number of diseases being cultivated in our relations with life. Therefore, what reaches the hospital had started much earlier, e.g. in the hustle of big cities, in many homes and in the workplace (which is where the adult is interned, as was so well diagnosed by the renowned “nonsensologue” our distinguished colleague, Dr. Ferrara). Just one visit to the emergency rooms of public and private hospitals is enough to give an X-ray of the social problems we face in the day to day and that are unloaded there.

At the same time, there was never so much talk about sustainability as now. Where does this so-called sustainability begin and end? Definitely, it begins with the quality of our relations with life. Each

¹³ An example is the Pastoral da Criança, <https://www.pastoraldacrianca.org.br/>

¹ Professional clowns cast members of the “Doctors of Joy”, who are trained to perform with excellence in hospitals, in portuguese: “besteirologistas”.

of us is the starting point. I look, I listen, I know myself, I accept myself and so I'm able to look, listen, understand and welcome the other. If the Earth is threatened today, it is because we do to it what we do to ourselves – we treat it badly! We reproduce in the outside world what we cultivate within ourselves! So let's go back to what master Gandhi said: "Be the change you want to see in the world" and read once more the beginning of the Earth Charter, where it is clearly stated that we are interdependent beings. Okay, from these interconnected points we can begin to think about desirable futures in the area of healthcare.

When we develop our awareness, we enjoy healthy living, eating well what we plant in our collective gardens, which, in turn, also serve as classrooms for children and young people. Yes, food awareness is now a school subject, along with healthy and tasty cuisine – in an activity that also involves the families! Without wasted food, all live well fed. Because of this trend, the agrototoxic industry reinvented itself and became a disseminator of organic planting techniques, since the huge plantations lost their centrality after people took for themselves the responsibility for growing food.

This entire revolution in eating habits also made room for collective entertainment: a lot of people have fun together and this makes life much better. Families that have fun together generate more lasting friendships and care. In a neighborhood, everybody knows one another and takes care of each other, therefore, urban violence dropped incredibly. People tear down their high walls and electric fences because they are no longer needed. A city that takes possession of its streets and public spaces for leisure, art and culture reveals itself. This generates a healthier, happier population, aware that everyone is building collective health, day to day. In schools, the subjects are all about how we can be better and more harmonious. We are aware of the legacy that we leave at every breath we take. Moreover, use of breathing techniques is one of the first things one learns in school!

We also saw a devastating impact on the relations of people with work! Yes, because at this stage of the game, no one is working to survive or to get rich, but pursuing his aim in life by means of work, which rescues crafts considered extinct such as itinerant artists who make going into the street an experience of beauty and gracefulness. Musicians, poets, sculptors, painters, singers, clowns, actors, all of these artists are part of everyday life, stimulating conversations, debates, discussions and thoughts. Since we choose to work to make the world better, working is a pleasure and an honor, and we are all actors in that same great spectacle we create every day, by means of our conviviality.

In such a world, hospitals have become centers of cultivating health, retrieving from ancient Greece the knowledge of Aesculapius, who used the arts to heal people. Physicians and health professionals began to receive artistic training so that caring could become an art. Listening and Looking are first order disciplines! This brought about a general reformulation of the concept of hospitals and hospitalization. After all, aware of their purpose in life, physicians, nurses and other health professionals understand that the encounter with each patient is an opportunity to, together, become better human beings. Technology makes the treatments rapid and far less invasive, leaving time to build healthy relations in harmony with the movement of life.

In 2042, we have learned to celebrate every day the meeting with our fellow-man, because we know that no two human beings are alike and that we are the manifestation of a miracle that so far science has not fully unveiled. Celebration became a lifestyle. We motivate ourselves for something that is very strong: the will to do better for the other. This is health in practice.

CARING A LOT

Silvina Martinez, permaculture architect whose work brings together permaculture and creative economy¹. Buenos Aires, Argentina, 2012.

In the future I imagine that the magic word will be “Caring.” It’s a kind future, caring for each person and creates conditions enabling them to develop their best. Where babies arrive with a handbook (a fantasy shared by many parents!). And where success is measured in levels of satisfaction. A world where I would feel more at ease, and I will describe below:

(...) I belong to the first generation born in the program Great Care. It took 25 years to put it into practice, but not to develop its technology: the real revolution consisted in overthrowing the myth that it was not possible to attend each individual in its particularity.

Even though they followed the entire process together, my mother will never forget the expression of astonishment and dismay of my father when the Reception Team handed them my Vital Document.

The Document

When I came to this – new – world, the team checked in silence, my vital functions on the screen, at some distance, and watching to see if any of us three required some assistance. Then the team approached to share the results disclosed by the Sensitivity Analysis System.

As such my parents were given a brief summary of my “Sensitivity Coordinates”: a list of my Primary Talents and that of Potential Risks (enemies of my psychophysical health).

My parents remember with some shame that in addition to making an effort to recognize themselves in my talents, they had no idea of what to do with the information received, since it does not say she will be a “physician” or “florist”. The list of skills was as extensive as inaccurate and, furthermore, the professions and crafts were already quite different from those known in their... The second part was more enlightening, “Hypersensitivity to disorder” “Difficulty to digesting yellow colored foods... ”.

The school

The education system was reformed concurrently with all this new available information. Also, if someone asks for it or needs it, it can take a life time. In the early years there is not much mobility: each child has classes according to the skills shown in their document.

So, my willingness to abstract thought has shaped my relationship with all Sciences and at the end of my basic schooling I had acquired knowledge that the previous generation could only have at the university.

My artistic skill, however was quite low, therefore I had classes on “Perception and Aesthetic Pleasure” in which I developed enough sensitivity to enjoy all the forms of art, and was able to produce simple works with rather satisfactory results.

Until the middle of high school most of us, influenced by new friends or because of personal inquietude, exercise their curiosity in areas that hitherto had

not been of interest. I started to participate in the school band as a drummer, since I had developed a certain rhythmic quality ... That's when I fell in love with a musician. Perhaps due to the relation between Arithmetic and Harmony...

Subjects such as "Ethics" and "Creativity" are taught in all disciplines. The more heterogeneous and colorful classes are Humanities, in which all converge: the New Planetary Agreement (the document that underlies the entire program) it places the Human Being as primary responsible for all care.

Other classes were a bit anarchic, "Social Sciences" and "Habitat", which were constantly reformulated, and "Intergenerational Relations" – because even then it was considered an affair of state.

"Cultures" is given each month by people who are a reference in their communities, who report their identity traits by means of oral tradition storytelling. The subject is a celebration, where we learn to dance their rhythms and of course, the secrets of their cuisine.

The Census

After 20 years of the program were completed the First Global Census of the New Era was organized. New Vital Documents of the entire population were issued with the following results:

- The list of Talents increased in relation to the first measurement, confirming the hypothesis that to know the skills "of origin" improves the ability, even in not particularly gifted areas, and prevents many frustrations.
- Regarding Potential Risks, decrease of zones of extreme sensitivity was also noteworthy, thanks to prevention and for dealing with the most

common elements, the majority became a planetary objective and were fought against until their disappearance (abnormal pollution, UV radiation, etc.).

It was most interesting to show that, with some nine billion people registered in absolutely all of them, talents and potential weaknesses are found at birth. When their similarities are checked in "basic" conditions, the need to equalize development opportunities throughout the world is clear. And the fantasy (semi assumed) of the existence of "super men" faded, imparting new self-esteem in the population.

But the revolution has only just begun:

Nobody can foresee what will happen when the levels of dissatisfaction drastically drop. Or when the word "useless" will be finally deleted from the vocabulary when we refer to a fellowman.

There was a decrease in the levels of disease and violence, so budgets for Health and Security have already decreased.

We no longer hear the nostalgic "... in my time, young people were...": the older feel that this is also their time and are proud of leading at the moment when the planet changed Power for Care.

But one thing has not changed at all: in consultations with the psychoanalyst, people still talk about their mothers!

Cheers!



A Neat World / They would launch the Dial-a-Psychoanalyst. / A software that would allow to download musicians over the Internet. / Street names would be more amusing.
Adão Itusgarrai, 2009.

6

LEARN, CREATE, COMMUNICATE

TAGS: learning-cycles - competences - knowledge -
convergence - creativity - diversity - education -
emotion - school - expression - stages of life - web
physiology - intuition - language - thinking - drive
- feeling - synthesis - technology qualitative

"The visions we offer our children shape the future. It matters what those visions are. Often they become self-fulfilling prophecies. Dreams are maps."

Carl Sagan

WHERE ARE WE?

ANOTHER READING OF

THE PASSING OF TIME

Until recently, a visitor who came from the distant past would find it difficult to recognize our buildings and professions. But the school would be recognized immediately. For far too long they have remained the place where we were confined and isolated – as if being a child were a disease, a disease of incompleteness, which is cured when we become adults. What is more, a recurrent evil that affected us when we started to be affected by another thing that was also viewed as a disease: aging.

The change began with the very notion of the passing of time and the words that define it like the term “infancy” (*in-phonos*, without voice) phased out, as well as “Adolescence” (*adolescere*, double meaning in Latin: to grow and to get sick). We know that there are three “adolescences”, one for each passage in life, which today are called **First, Second, and Third Transition** (the fourth is the definitive one...).

The stage once known as Childhood **today is Potentia**, that of **all potentials**. It is when all kinds of in-depth, qualified, consistent information is received – after all, this is where it all begins. The opposite of what was believed for some time, since there

used to be this idea that for the little ones (... suffering from incompleteness) everything could be silly, trivial, and of poor quality. Quality and diversity are guaranteed, as stated in the African proverb “It takes a whole village to educate a child” and indeed, they are cared for by all.

After the **First Transition** (quite interestingly, it can last from 13 to 31) comes the **Frutificare** stage, the **raising children and consolidating work phase**. It is no longer so difficult, because, fortunately, the idea that autonomy is synonymous to isolation was abandoned and, today, domestic and everyday life are shared. Inspired by mutual-aid cultures, mainly those from the East, family and friends collaborate with start-off endeavors and households (in their multiple formats) undertaken by young fruitifiers.

The **Second Transition**, around the fifties, has proven to play a key role in the shift toward sustainability. Since increased life expectancy is no longer the time to stop, but to start another life, since children are educated and

Neither table, nor chair

In this new way of learning, human beings will be taught to be and not to do.

Instead of being a Teacher, he will play the role of Connector to transmit knowledge through affinities.

Children take to the streets and go everywhere to learn by practice about the real issues. The parents are with them and together they learn and participate in this process, expanding their horizons.

The rooms are empty, free of tables and chairs, and children and young people can decide how they want the walls, the room, patio, etc. to be, creating a personalized space with their digital imprints.

Alessandra Mara Vidotti, André Stangl, Dudão Melo. São Paulo, 2008.

careers consolidated (or not...). The evolution of the Male Affection Movement came together with a better understanding of this phase, facilitated by the until then almost nonexistent study of andropause. As they better understood their hormonal fluctuations (something women do all their lives), men became less vulnerable and more at ease.

Maturity is now called **Selectia, selective phase, search for depth**. The previous phase is one of quantity and of “conquering your place”; this one is of quality, which becomes possible through “making the best of time” – one that allows for bonding, depth, refinement. It is an age that adds together vigor and experience. This is one of the reasons why there is no “retirement” – financially unsustainability because of disease and depression, and mainly, because work is no longer seen as pain to be endured. We do what we like and therefore do a good job of it. And work is good for us.

In the **Third Transition**, we are welcomed by the community, which takes



Peru, 2009

care of us, seeking the wisdom and experience we have accumulated. This phase is called **Distributie, because it is a time to distribute**. As today's intergenerational exchanges are a priority it is the time when the wisdom of the elderly nurtures and guides children. The young keep the elderly updated while learning their craft. When it was still believed that aging brought inevitable deterioration, the elderly withdrew. But when we realized that this was a time to distribute and disseminate all that was harvested throughout life, the dynamics reversed and required steady training. The discipline on how to age gracefully

Chain of solutions

Creation of social software that enables contact between those who have problems / questions and those who are able to provide solutions and answers.

The implementation and acceptance of the suggestions offered involves starting a debt: to provide answers and suggestions to other problems and questions.

The answers and suggestions should follow the criteria of collective sustainability.

The network has a working group to create mechanisms and ways to widen the reach of the proposed solutions.

Lilian Ana Favarsan and Sergio Teixeira, São Paulo, 2010

starts early on to ensure quality of life from fifty to a hundred. Discipline in eating, regularity of movement, mental challenge, enjoyment of beauty, search for the new, entertaining positive thoughts, cultivating relationships.

In the past, people got married at fifteen and died at forty – we were forced to mature quickly. The Taoist and other ancient traditions say that the phases of life are measured in cycles of 7 x 4 years. Childhood / Potentia, up to 28; Youth / Frutificare, up to 56; Maturity / Selectia, until 84; and Old Age / Distributie, up to 112. We're almost there.

When the perception of the passage of time changes, the notion of "learning and teaching" also changes. Each Transition requires adequate knowledge and creativity. We create, learn, and teach all the time. This is one of the reasons why everything had to be reworked.

*Esclarecimento. Sobre tudo. Mas
não demais, pouca que a vida ainda seja
possível...*

Fernanda, File São Paulo, 2010.

TECHNOLOGY:

MEANS AND NOT END

At first we might think that technological advances were the major spur for change in learning and creativity, but by now no one believes that inventions and products are the solution for everything. Today we emphasize processes, changing mentalities and habits. However, the role of digital technologies is undeniable, especially after they became sensory.

Interestingly, computers and digital systems originally came from the former U.S.A and so, when they were created they retained some of their cultural traits: individual (personal computers...), rational, made to exchange information, predominantly for texting and for audio visual and competitive games. That changed, as technologies were developed by less

FIL -Free Interactive Learning

Through the World Office for Education, an innovative form of education, was approved and launched in the Chamber of Governments. The new model, called "Fil" Free Interactive Learning allows to revolutionize the act of educating.

- How does it work?
- * The school, as such, does not cease to exist, but the educational activities no longer centered there.
- * The new model does not depend on the teacher, but involves all social environments, insofar as they are adapted to the new technologies.
- * Standards and rules remain, with only minor changes geared to learning in a desirable instead of a mandatory way, where time and space do not set the boundaries for new knowledge.
- How will students want the school to be?
- * With incentive programs and cultural approaches based on "young" contents, something that attracts just like a dance party does.
- * Scholarship programs, even in the public school system. It is not payment, but a student allowance. The scholarships are limited to those who actually want the school: those who attend classes receive them, those who skip them, don't.
- The physical spaces will be: the school headquarters, and school fragments in every social environment.
- The virtual mode will employ all forms of communication with student access via mobile phones, television, and all communication means.

Jacyara C. R.Mardgan, Dayana of O.Rosa, Wyuder da Silva Rodrigues, Victoria, 2010

rational and more intuitive and sensorial nations. Today, our computers also transmit emotions and feelings, smells, sounds, movements, tactile experiences – just take a look at the amount of smell, sound, kinetic, and other "emoticons" we have. So much so, that they

have turned into another language. Someone asks: "Did you manage to prepare material for your thesis?" And you reply: spiral, spiral, soap bubbles, purple with fuchsia, rock and roll, slides. Not the most concentrated phase...

🕒 Incoming sensory data are "translated" into experience by a triple combination: **3D Enclosure Screens, 3D Printers / 5S (three dimensions and five senses),** and the **5S (five senses) Chairs**. The 3D + sound sea image on the screen is accompanied by its smell, emitted by the printer, and the swing + spray droplets coming from the chair. All optional, of course, and with a group option as well... They are simplified versions of virtual reality, which incidentally has advanced and has spread, ever since the massive adhesion to open-source and free software. This adhesion took place shortly after chaos was triggered, when each culture decided to charge copyrights for their inventions. Supposedly, anyone using the alphabet, numbers, mathematical solutions, paper, compass, gunpowder, toilet, airplanes, pasta, ice cream, etc., etc.. should pay the countries that invented them. There was a general and global paralyzation, since **Knowledge Blackout** is even less manageable than an energy blackout.

Nowadays, **Web Physiology** is already better known, with its pulsation that alternates expansion and diversifi-

cation phases with concentration phases – once again, the same concentrate/mono vs. decentralized/pluri pattern we've seen so many times.

Listed below are some of these pulsations.

(I apologize to the experts for this daring and improbable exercise; indeed, I wish to apologize to all the experts for all the daring and improbable exercises that make up this book...).

👁 expansion, when it started, scattered among universities and technical centers; contraction with the first mega sites and providers;

👁 expansion with Web 2.0 and its diversity of wikis and blogs and intense collaborative knowledge production; contraction with the social networks that used up all the cognitive surplus of people in ephemeral posts;

👁 expansion in the late '10s, when **3.0 blogs and wikis return, georeferenced this time around**. People stop posting information (since it was lost...) in social networks that now have only a relational function; concentration when few digital platforms allow qualitative rather than quantitative contact with the web.

👁 Expansion in the early '20s, when the web was no longer a sea of indiscriminate data where one navigated without a map. All the new interfaces were already using data visualization systems and, when we started to deal with qualitative data, it was possible to gain depth. With it we create something like a "relief, or topography of the web." Where there is relief and depth, one can discern the relevance – that had been lost in the early '10s. Contraction when only a few, knowledgeable about the morphology of the Web, are capable of studying its physiology.

Conversely, the recent history is better known: in-depth of the data reading, with relief provided by overlapping layers, starting with georeferencing real-time layers. This was crucial to enabling the **4DxT Economics and Management** referred to in earlier chapters, in addition to multidimensional education, communication, and creativity that are the subject of this chapter.



Crie Futuros Comics Competition. Javier Milles Sierra, Uruguay, 2011

Now I am a teacher

This morning, a Chip that can automatically teach how to fly helicopters, drive motorcycles, cars, and even do math was invented.

- And what about Schools?

- And since when do Chips teach human relationships?

The schools were replaced by relationship city squares that allow people to talk about their own lives, what they want for their future, what they think of themselves, what they think of everything.

- And so, did things improve?!

Only the future will tell.

Leonardo Almenara, Thiago de Oliveira, Vitória, 2010.

CONVERGENCE: ART + SCIENCE + ECONOMICS + SOCIETY + TECHNOLOGY + ENVIRONMENT

We are talking here about learning, creating, and communicating in all spheres of life, all ages, venues, and times. When these activities became ongoing, daily, and integrated, new lexicons (words al-

ways fail to express the new...) were required. The multiplicity of forms and the progressive acquisition of multidimensionality may be noticed in the evolution of acronyms.

From Information Technology (IT) to ITCs (+ communication); then to Science, Technology, and Society (STS) to which were added the Arts (ASTS) and today we finally have **ASESTE: Art, Science, Economy, Society, Technology, and Environment**. Phew! It is noteworthy that these words encompass the four dimensions. The name is so long that it already became a verb and adjective: "This project does not contemplate the D/Environmental; we must **"asestetize it"** (make it four-dimensional). Or "Wow, this project is great, very **"asesteing"** (meaning, covering all 4DxT dimensions).

Today, then, the processes of learning, research, creativity, and communication are integrated. They are ASESTE. Since this is still a not widely known lexicon, we will at times use most current terms such as Educreative, owing to its elegant simplicity.

TOOLS FOR EACH LAYER OF THE EDUCREATIVE PROCESS

How to work the Educreative under the current perspective of emphasis on the organic and the biomimetic? Here we can avail ourselves of the same scheme that introduced the previous chapter and follow the order that organizes our nature and the surrounding Nature.

LAYER ONE:

DRIVE – TRANSFORMATION

Today's science shows that what characterizes the Human Being is his symbolic representation ability and the learning, communication, and creation capabilities that stem from it. The essence of our nature is to create, and therein lies the probable reason why all traditions refer to human beings as "created in the image and likeness of the divinity." The movement toward a sustainable life revealed that our health as individuals and as a society is related to the practice of

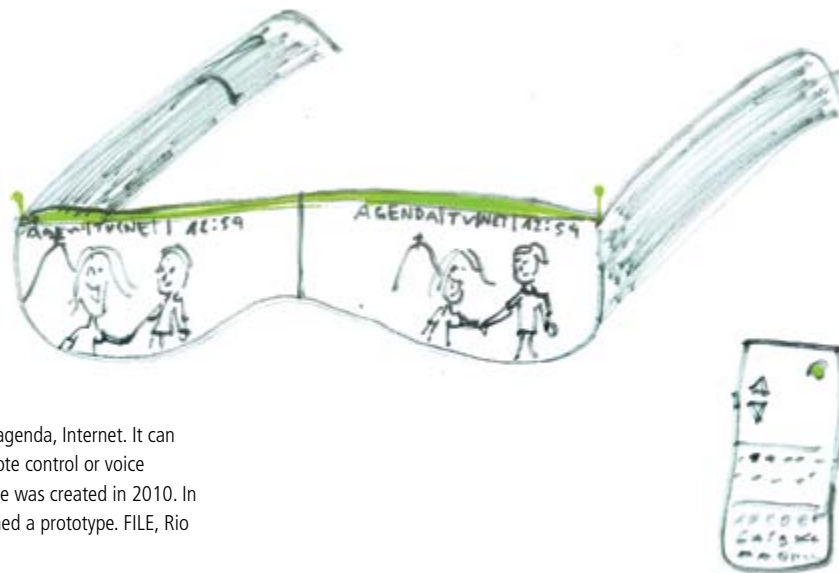
Individual of the Future

Thanks to the Internet, experiments have picked up momentum, and this is why "Education" and "Work" institutions are outdated. Soon, schools and enterprises will have to change, especially in the way they operate.

From then on, to work in groups, people will have to deepen and develop the following skills and values:

- Culture of tolerance,
- Citizenship relation, practical, clever and useful;
- Opportunities to learn and overcome prejudices;
- Inclusive work logic, a kind of knowledge does not preclude others; they add up;
- Knowledge constantly available online.

Maria do Carmo, Aracy Machado, Fabrício Jabar, Natascha Penna, José Sávio, Alindo de Oliveira, Miriam Hunnicutt, Ronaldo Gonçalves Alves, Jaci Lopes da Cruz, Jaron Rowan, Alexandra Araujo. São Paulo, 2008.



Eyeglasses with TV, agenda, Internet. It can be activated by remote control or voice command. This future was created in 2010. In 2012 Google launched a prototype. FILE, Rio de Janeiro, 2012.

For Play School

Adults today are very tough, that is, they don't have much fun; they take life too seriously. Moreover, children are very technological, with little interaction with others. That's why the For Play School was created, where adults can learn with the children, the technological games and languages they don't know, while the adults teach the children how to be more spontaneous and free and "analogical" street games. Truly different exchange!

Anna, Elena and Paloma, São Paulo, 2010

creativity, the ongoing transformation that is the foremost characteristic of Life and Nature – and, therefore, ours.

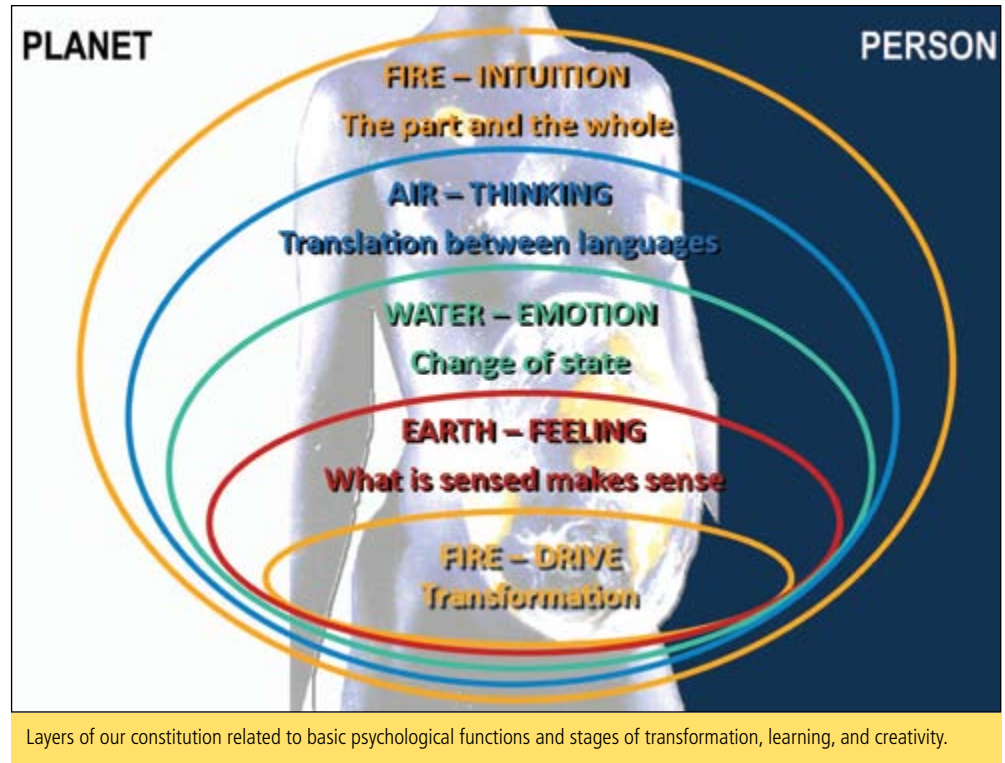
But we live in a continuous impasse: our Culture, and therefore our education, viewed transformation, continued movement, as something threatening and difficult to handle. We would change, if it were easy. It is not. Changing habits is much harder than changing one's mind. Breaking the patterns of everyday life is difficult, since it sustains us as well as hinders us. This duality is

even apparent in our body: the leg that supports us is in the present while the leg that strides forward is looking for the future. The outcome is instability – and walking.

Reducing resistance to change and expanding the ability to transform were possible thanks to memory, using even **remembrances from the Future!** Three major mechanisms were used:

🌀 **Simulator of Consequences: Helps us Make Conscious and Consequent Choices.** It is fed with data regarding the choice in question and then it displays the consequences. Example: you double parked for just a minute – how big was the traffic jam you caused behind you? How much (in 4DxT currencies) does that traffic jam cost? Today the Simulator is fed by high school students, since everyone has to take the “Choices” and “Consequences” subjects. The program is also available for mobile devices, provided with a barcode reader.

🌀 **Memorial of Current Barbarities: Look at the Present with Tomorrow’s Eyes.** When we look at the past, we clearly see the barbarities perpetrated. And what about the ones being perpetrated today?



Which commonplace attitudes are actually foolish; squander our 4DxT assets; consume enthusiasm and joy; break up ties of trust, in short, are unsustainable? Excellent training to stop our bad habit of accepting

the unacceptable¹. It became a daily practice, until barbarities became more and more scarce.

¹ At the time of writing I received a gem: I had to sign a Disclaimer of non Unfitness

Memorial of the Future - Simulations for Decision Making


It is an Intangible Exhibition, in which any person that has any future issues to solve can bring his/her box of problems and solutions containing photos, objects, etc. creating a future simulations memorial. It can be done in vacant public or private spaces, where images, sounds, costumes, and others, are also available for people to build their installations. The entire simulation will be registered, and a Memorial of the Future site will be created, where the most creative and different solutions to common problems will be featured.

Robinson Borba, Araci, Claudia Cezar, Jaques Faing, São Paulo, 2008.

Historian of the future

He has a helmet (solar powered), which allows him to return to the past and warn people about the conflicts, disagreements, and past wars to avoid their repetition in the present.

Carlos Rossetto and Carlos Bonbonatti, Brazil, 2009

 **Preventive Obituaries²: What's Your Legacy?** Even more effective than 4DxT Footprints, it is something like a newspaper notice describing what hallmarks in your life will remain. Based on a true anecdote about Alfred Nobel: a newspaper erroneously reported his death, describing him as "the merchant of death" for having made his fortune manufacturing explosives. This is where his decision to award those who leave legacies for the future came from. Since nobody wanted to be deserving of a preventive obituary, there was a time when they generated some paranoia. Nevertheless, they were effective.

Besides memory, the desire to **ASESTE and the Educreative drive come from pleasure**. Whatever is proposed must be **diverse and amusing**. Diverse, since this is the hallmark of contemporary life, since "from differences comes evolution". This famous Darwin quotation today also applies to personal, social, and international relations. Differences (as well as change) are no longer perceived as a problem or threat. Com-

binations of differences are the basis of life and of all that – like life itself – is dynamic, creative, pulsating, and healthy. Diverse, because we know that diversity is the key to creativity and harmonious coexistence among people. For example, the time of education like an assembly line, going over the same contents at the same time, in the same place for people of the same age and profile is long gone³.

The **ASETE Multi Inter Spaces** are currently intergenerational and within them "hardware" and "software" are mobile and adaptable. Walls and furniture are modular, very colorful, and get new configurations for each type of activity. Contents vary according to context and participants' choice.

Amusing, because we have left behind the idea that seriousness is synonymous to tediousness. When, on the contrary, it is obvious that the more pleasurable and amusing, the greater will be commitment and participation.

2 The good Idea comes from Gilberto Dimenstein

3 In www.escoladaponte.com.pt discover an education proposal that meets diversity.

Knowledge is the result of aesthetic mobilization – in the original meaning of the word, that is, relying upon feelings and affection⁴. Fruition precedes analysis, which does not often occur. We learned to analyze works of art even before we developed the pleasure of enjoying them....

The desire to understand - **know** - has to be stimulated by the feelings and sensations - **taste**. The connection between to **know** and to **taste** is revealed, for instance, by the fact that they were both experimented and disseminated by means of the tongue - an organ, or language. **Educreativity comes from the inclusion of knowledge and taste, information and experiencing**. When learning was separated from taste, the results were terrible: after years in schools, young people still came out as functional illiterates⁵. To

⁴ See research by Monique Deheinzeln on the subject "Conhecimento de Si, Conhecimento do Mundo", Editora Hedra, 2012.

⁵ Find at www.saresp.fde.sp.gov.br/2011 the results of the systematic evaluation done annually by the state government.



At school, a mix of big and little ones learn together. The big ones help the little ones. Francesc, Marina, Rosó, and Victor. Barcelona, 2009.

learn language usage by memorizing what an "adjective subordinate noun phrase" was, was not exactly efficient. However, when motivated to use language to create newspapers or write scripts, they really managed to appropriate language use.

In Educreativity, taste and pleasure are priorities, and so is purpose: the clearer the function of that activity, the better its utilization. To enjoy a work of art to expand points of view, to polish sensitivity or to manage languages. Understanding geometry to develop

Education in Treatment

Education is undergoing treatment, in a few months it will leave the ICU, fully, totally revamped.

In the "New School" public and private education will be unified. Classes take place in the yards, rather than in classrooms. Teachers will be the managers of knowledge, creating subjects called "Stimuli", where students will be encouraged to listen, cook, etc., before choosing.

The best qualified teacher will be the one who watches ten movies, and not the one with more academic titles. Field trips every week!

Each month a culture coach will be invited to talk and play with students.

Body care will be part of daily life, particularly the practice of Yoga, which encourages students to become better acquainted with themselves.

The eighth day of the week will be invented! A special day for experiments, experiencing, and incentive to philosophy.

Adriana Klysis, Camila Margusi, Vitor Haggar, Christina, and Reinaldo Pamponet, Brazil 2009.

abstract thinking – crucial at a time when we "read" the various aspects of life through volumes arranged in overlapping layers.

Adding taste and knowledge, diverse and amusing is impossible without a combination of education and culture, hence the origin, two decades ago, of the word Educreativity. The sum of combined ASESTE tools – art, science, technology, and play – makes the process even more exciting and allows playfulness to continue to be part of all the stages of our lives. Just go to any **Adult Play Ground, Party Playeries**, or just attend the **Playful Relational Spaces** that exist in every type of institution or enterprise. The **Meeting Rooms with Trampolines** and **Blindfolded Eyes Coffee Shops** have collaborated to develop new psycho-motor abilities.

Develop capabilities to be happy

What humanity wants (and probably other species do too if one could only understand them...) is happiness. So the main function of schools is to develop capabilities to be happy. For example, with intense training in humor, subjects like Joke Telling I, about crazy people, Joke Telling II, about parrots, and Introduction to Clown Studies and Advanced Clown Studies.

Anonymous, Brazil, 2010.

LAYER TWO: SENSATION – WHAT IS SENSED, MAKES SENSE

In recent years, we have become alert to all kinds of waste and many things could be much simpler if we did not waste the elucidative meaning of common everyday phrases. Just by paying attention to the word "lovable", we immediately grasp that it means easier to be loved. Likewise, for the longest time we wasted one of the key expressions for the cultural change toward sustainability: "That makes no sense."



The rooms will be very large, with different environments and even sofas (places to rest), just like in a home. Ada and Monique, Barcelona, 2009

Indeed. How many things did not make sense because they were definitely senseless? Or because at the time, the senses were not being used? Too many things did without the use of the five senses, at the beginning of the 21st century and perhaps that is why so many people found life senseless. While at the same time, they got a good dose of optimism simply by drinking hot choco-

late, dancing to nice music, laughing at a joke. **Only what is sensed makes sense.**

For too long we dedicated ourselves to the rational (forgetting that the way to the head is through the heart...) and forsake the body and its sensations. As if it were a lesser thing (oh! this Judeo-Christian heritage...) and not something of unrivaled sophistication and perfection⁶. If we don't feel, we are unable to give meaning to experience, therefore, information is sterile. And where might this take place? It is in the body, this fabulous wonder that for centuries has been considered the villain of the story...

Things began to "make sense" when the senses were better used. It is only through them that we could sense ourselves and the world, and the sixth sense only developed from the other five. It is in the body that this happened, and that is why the body was crucial for

⁶ A human being can perceive the smell of one trillionth of a gram of musk! A taster of Port wine identified 500 different samples without a single mistake. (Silva Mello, "Alimentação, Instinto e Cultura")

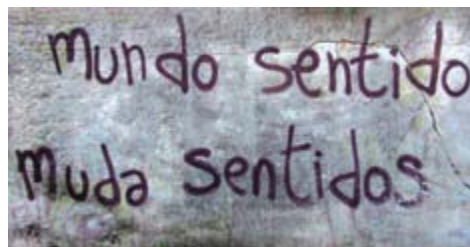


The Visionary Book. When it is opened it provides a tridimensional, sensorial, and interactive view
Rafael Reyes and Andrés Moreno, Rep'

Store smells

- My desirable future is to safeguard precious smells
- smell of mother's food
- perfume reminiscent of childhood
- smell after rain
- smell of a newborn child
- smell of our love that only we know...

Shirley Shilikix, New York, 2012.



"A sensed world, changes senses". Grafitti, Morro do Querosene. São Paulo, Brazil, 2012.

the leap towards sustainability. The body is our first nature, our greatest asset, our starting point (and perhaps end-point...). The change had to take place from the inside out.

The lifestyle at the beginning of the century led to all kinds of de-sensitization and anesthesia and, indeed, we only broke with the past when, at the end of the '10s, we became aware of how deeply anesthetized we were. The records of this time are highly entertaining: there was a return to all kinds of sensitizing exercises, like those of the '60s and '70s of the past century. Groups of blindfolded people sniffing their

way along a path were commonly seen in the parks, holding on to their neighbor, or hugging trees. Until **Sensory Playgrounds** were created, where senior citizens were those who had most fun... **Awareness and Expression Of Line**, were practiced in all enterprises and education institutions.

This was when the **Experiences Stores** emerged, where instead of having (to consume) we practiced experiencing (to enjoy) all kinds of scents, textures, and kinetic and synaesthetic experiences were offered. It is worth recalling the evolution of stores: when we realized that all that packaging did

not make sense (!) bulk sales returned. And, consequently, the delight to see and smell the boxes of spice in bulk; dip the hands into sacks of grain; hear the gurgling of liquids refilling our jugs. That was the source of inspiration for the very sophisticated Experience Stores of today that exist both in the luxury category (wrap yourself up in the soft cashmere from goat; smell Chanel number 500, limited edition; hear the clink of gold doubloons salvaged from the seabed) and the radical sports category (hugging sweaty sumo wrestlers, running in the rain after a taxi wearing 10-cm stiletto heels). The Tactilerantes were the next step, especially when campaigns against obesity showed that eating and drinking together was the main leisure activity in large cities. After gastronomy, Tactilenomy was welcomed with the refinement and variety of tactile experiences offered to groups of friends gathered together.

As a counterpoint to anesthesia we have **synesthesia: various senses working together**. Through synesthesia, we expand the states of consciousness and

perception, so valuable in the civilizational passage we are experiencing. Before, we learned through conditioning and changed when forced by suffering. Today, we have come to learn and change by choice and co-authorship. By expanding our repertoire of perceptions we expanded our repertoire of meanings.

If life is movement, creation, and expansion; its opposite is fear that promotes paralysis, repetition, contraction. We evolve when we cease to fear, because fear is the greatest enemy of creation, transformations, cooperation, collective. The offspring of fear - distrust, blame, judgment, envy, fear of ridicule, of losing, of being wrong - prevented transformation processes, since they blocked experience, knowledge and, hence, understanding.

The task of moving from fear to trust is arduous, after all, the culture that fosters fear and separateness has been with us for millennia. Just as commonplace as “passing the virus” was **“Passing the antifear”**; in any action or activity, ask yourself: “Does this strengthen confidence or spread fear?

After “delete” came **“defear”**. The process of unraveling the fear that permeated all kinds of communication, education, creation. The evident positive results bear witness to the success achieved. Which makes absolute sense.

In ASESTE activities, surrender, trust, openness, and boldness at the time of the experience are dealt with. The experience is a moment of synthesis, of wholeness. Analysis only takes places in the next steps, of reflection, to benefit from what was experienced.

LAYER THREE: EMOTION – CHANGE OF STATE

In a previous chapter we mentioned **“To be, or being: that is the question”**, stating that if Shakespeare had written in Portuguese, probably this would be the enunciation of his famous phrase. One of the first steps towards the desirable world was the realization of the enormous difference between “to be” and “being.” A characteristic of ours (fat, depression, shyness) is a feature of **is** or of **being**? **War is inevitable or being inevitable?**

Inauguration of the Cart of the Senses School

Today will be the inauguration of the “Cart of the Senses” School, whose mission is to use the five senses to provide enjoyable education.

The school and its faculty (students, teachers, supporters, family and community) will gather for a great community game that will celebrate the senses and memory.

Practices such as these will be held in the day-to-day of the school, by stimulating the senses, promoting integration between human beings and nature, as follows:

- Sight: stimulate games and exercises in observation and contemplation of colors, shapes, nature, and human beings;
- Hearing: will be exercised by listening to each other and by encouraging the perception of the sounds of nature;
- Smell: use of scents and aromas in the environment and nature to awaken, encourage; and share the recollection;
- Taste: stimulating tastings and exchanging stories and memories, with time to savor;
- Touch: daily hug sessions, exploring touch between people in daily life.

João Fabio Scabora, Haydée Agostini, and Maria Cecília de Campos, Brazil 2010

Discern truth from lies

The empowerment of people starts in schools, from the development of critical thinking and learning to distinguish what is true or false for each individual, based on the knowledge one has of oneself, and of the community to which one belongs.

Fernando Beda, Valentino Ruy, Maria Cristina Meirelles, Margarida Maria A. Prado; Hellmuth, Israel José Eloy Ferreira. Brazil, 2008



In "Tactilerants" one can try out all kinds of experiences of the five senses. Angela León, 2012

Fantasy and imagination hint at how things could be – propose processes, disclose potentials. Knowledge and experience show how things actually

are – make diagnoses, limiting possibilities. We adopt sustainable mentality and habits, when we realize that everything in nature (and therefore in us...) is

cyclic and changing. When we realize that things are being and not only are, we notice that changes of state are possible and, therefore, we could move

from where we were to a state of sustainability.

Move from paralysis to action, from idea to practice, from potential to performance, from individual to collective. Our culture was unsustainable, because it did not realize that changes of state are possible, besides being necessary. Failure to differentiate “to be” from “being” was due to the separation between the **static What, and connected to the to be the, dynamic How connected to being**. Not by chance did we devote ourselves more to theory and results (What) than to practice and procedure (How). But to know (theory) things is not the same as to understand them (theory + practice). We got out of the impasse by developing technologies in their original sense - *techné* as art and skill, technology. The expanded concept included “hard” and “soft” technologies, tangible and intangible, theory and practice, to know and to experience.

We then developed **Soft Technologies To Facilitate Changes of State** and most of them stemmed from contact

with emotions. Observing **Humors and Flows** is something practiced from early on, ever since the observation of water and its cycles. Emotions or humors are revealed through our inner waters, dry with fear; dampened by excitement; overflowing with sadness. If we mirror ourselves in the changing states of water in Nature it is easy to see that sometimes we are vaporous and airy, in others we flow and surrender, or in other still, we are steady and frozen. However, often we do exactly the opposite: we are vaporous and ambiguous when we should be as firm as ice, or frozen when we should let go. Simple. But it was extremely effective not to be a cloud in Council meetings, or frozen in the wedding anniversary.

Another technique used was the aforementioned **Activation of Empathy**, an humongous effort that lasted nearly two decades, but was successful. Today, no learning process or transformation is possible without an affective and emotional foundation. We know that emotion sets us in motion, mobilizes us. In - motion, moving.

LAYER FOUR: THINKING – CONVERGENCE AND ANALOGIES

Note that only now we have reached the layer corresponding to thinking. Before, the educational process started from here: contents, information, thinking. Today, they are much more effective, because we desire knowledge, which is worked by our feelings, mobilizes our emotions and, when it reaches thinking, it already has a solid basis...

Our earlier history was constructed relying on choices between this OR that: patriarchy OR matriarchy; science OR religion; reason OR emotion; local Or global; economy OR humanism. Comprehensive theories and practices promoted the effective transformations we experienced and that allowed differences to be a solution, not a problem.

From **Or to AND** was the other Soft Technology widely adopted, whose function was essentially linked to language: every time an OR appeared in the conversation, we would ask: “Is it really OR, or could it be AND?” For example, “I don’t know if I will play the harp or dedicate myself to massage”, adding

Global Emotional Training Program for Schoolchildren

This morning, the Ministry of Education officially approved the Global Emotional Training Program for schoolchildren, which aims to put children in touch with their emotions. This will enable them to identify them and accept them. The purpose is to facilitate integral human development in the areas:

- Environment;
- Conscious Economy;
- Social Relations;
- Mind-body-spirit Relationship.

In so doing, the idea is for individual achievements to be translated into collective well-being through education.

Giselle Barilleau, Andrea Jacome, and Veronica Muria, Mexico, 2010

Empathy

Include basic exercises in school programs to increase sensitivity and sharpen the perception of children to bring them much closer to one another. For example, if a child hurt someone, the pain she inflicted will fall back upon her. The child will feel appreciative toward the other by experiencing, first hand, the other's pain. With telepathy, everything will be much easier; imagine what our world would be if we managed by means of meditation exercises, music, yoga, and others, to develop more sensitivity in children and adults, eliminating distances, differences.

Only then, would we sense the community we are and the interdependence among us all.

Érika Mota, Eliane Roemer, Leila Garcia, Ronnie Campos Mello, São Paulo, 2009.

merly the State) one must have to be a **Black Belt In Convergence**, since the art of converging resources and ideas is the basis for cooperation, vision, and action related to the collective. After centuries of a culture of exclusion, we are finally thinking and acting only in a comprehensive⁷ way and only in Memorials and Museums is it possible to know the past forms of communication, which interestingly enough, used and abused of the word "exclusive", as the best one might wish for.

The **Trans Language Translation Apps** were the 2.0 version of the traditional translators. For example, the very structure of this text, constructed through the association of Jung's basic psychological functions, the four elements, our physiology, and the stages of an Educreative process. These apps help us to understand the similarities that exist between each language or activity. For example, the seven colors of the rainbow and the seven musical notes are similar. As such, the "language of color" can be translated into the language of "sound". Once again, biomimicry served as a guideline: Nature has

⁷ Find at www.portal.mec.gov.br the policy for inclusive education by the Brazilian government

AND resulted in innovation: a technique for finger and rhythmic massage. Just as essential **Intensive Convergence Training**, where practitioners receive belts according to their competence increase. All individuals practice convergence, with greater or lesser mastery. To act as manager in the Macro Moderator (for-

many examples of similarities and synthesis. For instance, compare the spectrum of electromagnetic waves to the development of a fetus, where there is a recapitulation of the evolution of species⁸. This translation of one language to another can be done at many levels and allowed the choice of the most appropriate language to work on a particular aspect. Chromotherapy, aromatherapy, music therapy began to be commonly used not only in healing places, but also in decoration and even in conflict resolution.

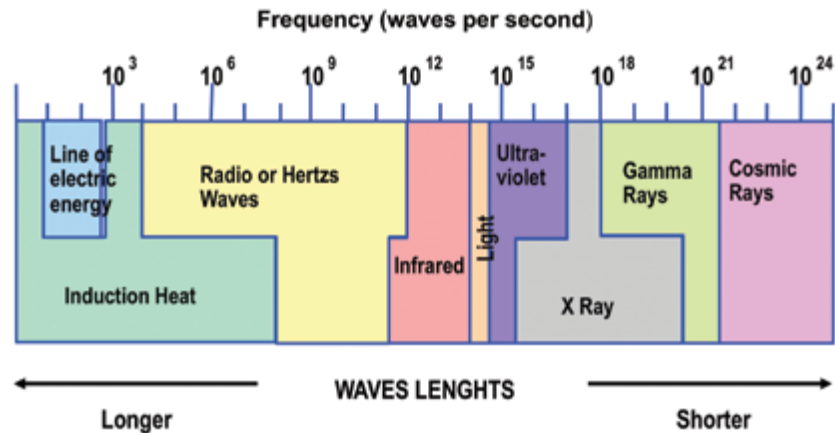
The function of these synthesis exercises was to simplify processes, develop abstract thinking, and prepare **Translator of the Universe Apprentices**, people capable of drawing parallels⁹, comparisons, convergences, and similarities. Through this practice, reading the world becomes less com-

plicated, which gives us more confidence to decide and act. This empowerment, directly proportional to uncomplication, was so obvious that it became a campaign: Uncomplicate to be more complex. It was found that the more complex an issue, the simpler should be the way to approach and

describe it. To give up complicated language as a way of showing off knowledge has turned many a Pluriversity thesis into a best seller.

Just as the synthesis exercises, obtained by analogue processes, also seek the How corresponding to each What, so the gap between theory and practice

The Spectrum of Electromagnetic Waves



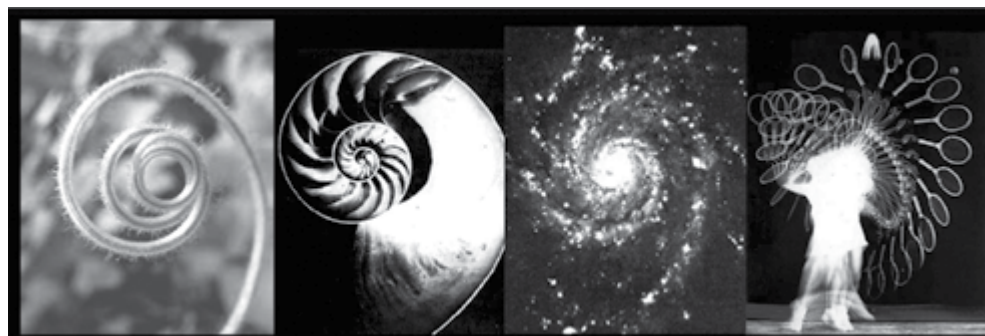
Looking at the spectrum of Magnetic Waves it becomes evident that much of what surrounds us is similar: electricity, sound, light, star dust; all have the same nature with varying wavelengths.

8 Recapitulation Theory: "The ontogeny recapitulates phylogeny".

9 This is the title of the research carried out by the author with the support of the Vitae for the Arts Fellowship award, 1990-92. From them came the analogies that inspired this chapter.

Mobile Peace: Zeppelin that Heals Through Beauty

We are in 2051, and a Zeppelin is being launched to fly over zones of conflict and cities. On the body of the vehicle are illuminated signs with transforming phrases and images. The lights, sounds, and scents are emitted by the Mobile Peace to take chromo therapy, aromatherapy, and music therapy to the community it's flying over, spreading well-being. Furthermore, it sprays nano petals that touch the positive side of people, encouraging generosity, ethics, affection, solidarity, and creativity. Lafayette Álvaro do Amaral Lapa and Tania Plaper Taran-dach, São Paulo, 2008.



Similarities: the spiral is one of the basic forms of life, manifest in movement, in galaxies, or in what grows and buds.

LAYER FIVE : INTUITION – THE PART AND THE WHOLE

Sustainability is no longer an adjective and has indeed become the culture that drives our daily lives, when, through the previously described practices – a multidimensional 4DxT outlook of interdependent and collaborative daily living – we were finally able to feel, and not just understand, the obvious. **We are Part of a Whole.** A child may question, “Does the cell of my elbow know that it is an elbow

cell? Does it understand what I am, my city, country, and planet?”¹⁰

Our organism is a microcosm that enables us to understand the macrocosm. And to understand, as we have seen, is crucial to choose and act. Understand (= to know + to experiment) the Universe is impossible, but if the part contains the whole – as shown by genetics, fractals, the holographic principle –

¹⁰ This was one of the questions that most intrigued me in my childhood, I mean, my Potentia.

decreases every day. We are also carefully prepared to find the most appropriate language to deal with each issue, one that best combines form and content. Recognizing patterns, feeling rhythms, understanding cycles prepare us for the next step.

to understand yourself is a way. This is not merely a lovely philosophy: it is a functional principle of Nature, whose forms and functions are built according to patterns that repeat themselves and are similar.

Perception of these similarities facilitates understanding and, therefore, choice and action. After centuries of analytical culture and education, we have finally developed our synthesis capability, built upon the search for similarities, the most essential and simple part, because therein lie the points of convergence.

Synthetic thinking has become central to the extent that life was becoming increasingly complex and accelerated. It was no longer possible to collect and analyze data calmly before making decisions. The rational was too slow. It was necessary to develop intuition, because it was the only means to achieve the agility and breadth needed to act harmoniously in such unstable times.

We started to practice “listening”, fundamental when one is part of a whole... There was a return of ball-

room dancing (indeed, one of the most effective forms of therapy in today’s hospitals). Furthermore, women and men have learned to listen to each other and it did much to resolve the crisis of affection, at the beginning of the 21st century.

Furthermore, there was a boom in all kinds of artistic work to arouse what was still dormant and potential in much of the population. All kinds of bodywork. Martial Arts, Yoga, and all that required contact with the inner universe. Mythologies from all sources, since they are an extremely refined way to contact symbolic language. There was a proliferation of **Dream Registration and Dissemination Techniques**, as well as of **Dreameries**.

ABOUT EDUCREATIVE

SPACES

Educreational, Educommunication, Educultural, Edutainment, Edutechnologic, Edusustainable, Educreative Spaces (former schools) now have all the possible

Personal Dreameries

The Personal Dreamos allow retrieval and retention of the best dreams of each individual. Now available also in shareable version, in the universal language. To access them just...

Silvina Martinez, Buenos Aires, 2008

Spreading of Skills

A law which states that all individuals must share (teaching, showing, sharing) with at least five people, a piece of knowledge, a cultural product, or a skill, was enacted.

This will occur in technology centers/communities that will occupy urban cultural centers, former car parking buildings (which no longer exist...) etc. In these centers, all the technological resources will be available to enable cultural exchange.

There is also the possibility for this exchange of knowledge and skills to occur at times when cultural equipment is idle, thus promoting visitation.

Maria Candida Di Pierro and Daniela Vianello, Brazil, 2010.



Authors: Tania Sabaget and Mauricio Sabra,
São Paulo, 2010.

aspects that should be covered in this transition phase that that we are in. Early in the '10s, it became clear that "environmental education" could not cope with all aspects that needed to be addressed in the transition stage we were undergoing. From then on, the "Sustainability" discipline was introduced. Later, though was also devoted to "Educational System Sustainability". Gradually it became evident that, similarly to what had happened with the economic and political systems, mere adjustments to the old model would not suffice. Adjusting did not bring about results: another model of education was needed, where sustainability was concept and practice. This would be the element able to change mentalities and habits. Teaching how to make harmonic choices and to be aware of the consequences. To awaken in people the desire for change and to empower them to do so. And to do all this in a collaborative, diverse, and amusing way.

Of course, this is too long a subject to be covered in such little space. But we believe that it may be helpful to

Nonviolence School

A school of practices and knowledge that foster harmonious coexistence for all groups (from couples to nations!), creating a world without violence in relationships. This awareness comes from a view of school, where everything is negotiated, starting with what the space is like, methodology, including what will be transmitted. There is no pre-established model, each venue develops its own version, forms its own knowledge and practices. It is possible to have schools operating in the current model, or schools located in parks.

Ana Terra, Vandrê Brilhante, and Víctor Estevão,
São Paulo, 2009.

share at least a small part of the skills that were dealt with in the '20s. We selected those associated with "Lending a Helpful Hand to the Future" that are included in this book and were part of Crie Futuros, a movement of the early 21st century that addressed subjects on the civilizatory transition of that period¹¹.

11 And that are described in Chapter 1.

LENDING A HAND TO THE FUTURE

A new operational “system”: Changing Mentalities to Change Habits.

Operate from the perception that our world is not just “environment”, but also “society” and that everything that exists has an interdependent relationship.

- 🕒 Be able to feel interdependence as experience and not a mere concept;
- 🕒 Develop a sense of belonging and feel connected;
- 🕒 Develop systemic and synthetic thinking;
- 🕒 Seek the functional principles common to the Universe (macrocosm) and to our own universe (microcosm).

TWO equivalent coordinates: tangible/structural and intangible/ procedural

Operate through the perception that every product or process always has a tangible/structural aspect and another intangible/procedural one; that there is

equivalence between them and that they must be identified to ensure that they are in equilibrium.

- 🕒 Develop the ability to identify tangible and intangible components in any product or process;
- 🕒 Differentiate structural and procedural, product and process, form and function, to have and to use;
- 🕒 Be a connector, “modem”, integrating and articulating languages and areas;

THREE phases of time: past, present, and future

Seeing processes in time, realizing that everything that exists in the present is an outcome of the past and determines what will happen in the future.

- 🕒 Understand the value of time and be able to manage and enjoy it;
- 🕒 Find oneself in time: understand the past, live the present, see the future;
- 🕒 Understand the cyclical nature of processes;

It's time to eliminate clocks.

Time schedules were eliminated from schools. They have become places of leisure, where one learns by playing. With doors open all the time, anyone can come and go anytime, day or night. One can stay as long as desired. Without pressure or external impositions.

Ana Carolina Ayué and María Florencia, Rosario, Argentina, 2010.

FOUR dimensions of sustainability in the processes and values

Act considering the various forms of wealth, and therefore sustainability, considering social, environmental, economic and cultural heritage and results.

- 🕒 Be able to acknowledge the social, cultural, environmental, and economic dimensions in all aspects of life;
- 🕒 Be able to recognize resources and value in these four dimensions of sustainability;
- 🕒 Guide choices according to the balance between the four dimensions;

FIVE “Hows” of sustainability: care, trust, potencies, flow, and collaboration.

For each “What”, make sure there is a “How”, avoiding theories detached from practice.

- 🕒 Prioritize “care” as a purpose;
- 🕒 Hold trust as a premise;
- 🕒 Recognize, enjoy, and recombine the existing potencies;
- 🕒 Promote the balance of four-dimensional 4DxT flows;
- 🕒 Create collaborative environments and relationships.

Educational Server

Created to establish a quality network connecting the schools, where grades are no longer used, instead, intangibles are now used for evaluating, and now the final end-of-the-year tests are based only on three key questions:

- What did you think of this school year?
- What have you learned?
- What do you think we could do to improve?

From these, parameters can be set to improve the quality of teaching and student involvement, and education with fewer hierarchies and programs.

Marcio Ferreira de Araujo, São Paulo, 2010.

The school will have a swimming pool, covered in Winter discovery and open in Summer. It will be surrounded by chimneys with tubes of hot air outlets to dry us. Adriá and Mark, Barcelona, 2009.



EDUCATION AND FUTURE

Rosa Alegria, São Paulo, 2011

Vice-Chairman of the NEF - the Future Studies Center at PUC-SP

Director of the Brazilian Node of the Millennium Project

“The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.”

Alvin Toffler

It is in the schools that new generations will learn to create the future they desire. After all, we have been learning only about the past. How about also learning the future?

Looking back and going over the last twenty-five years in an imaginative flashback, it is possible to have a fair idea of how immense are the changes we are living today and that will from now on advance at an even faster pace. We had no AIDS, no genetically manipulated food, no mobile phones, and no internet. The sheep Dolly, the attack on the Twin Towers and the invasion of Wikileaks would have seemed the result of a delusional imagination. If current trends point to acceleration, this century will see technological changes on a scale 80 times greater than in the 20th century. Facing this new world, what can schools and learning centers do to avoid that the future shock, foreseen by Alvin Tofler in the 80s, be so intense? How can we take advantage of these changes?

Studying for the Future - A definitive feature of a society is its attitude in relation to time. Do our schools prepare people for what's coming? Certainly not! The changes we are constantly undergoing can only be refined into solutions if we are able to look to the future.

New cognitive realities – Studies disclose that constant exposure to digital stimuli, such as games, mobile equipment and overlapping images may affect the brain and the way it perceives things and processes information.

Learning to unlearn – The time of the specialist honored by the industrial era is coming to an end. The knowledge era requires latitudinal, multifunctional, multicompetent profiles.

The school that comes from within – There is no school that deals with interiority. It is as if we were living only one side of reality and throwing away the entire creative potential. After all, we are complete. The only species able to face the outside world (horizon of changes) and the inner world (mental horizon of imagination).

Study of the Millennium Project – Possible Futures for Education and Learning 2030

The South Korean Ministry for Education and Human Resource Development has asked researchers from the Millennium Project, an international network of futurists researchers to which I belong, for an evaluation of future possibilities in the field of education and learning for the year 2030. What can we do today to take advantage of these new possibilities? Since new ideas can lead to unexpected routes, it is prudent to ask: what might be their negative and positive outcomes? These are some of the possibilities aimed at high-tech world for the education in 2030:

- Just-in-time knowledge and learning
- Individualized education

- Use of simulations
- Continued assessment of individual learning processes to prevent emotional instability and mental disorders
- Individualized nutrition to improve cognitive development
- Genetically enhanced intelligence
- Use of global on-line simulations as tools for social research
- Use of public communications to support the pursuit of knowledge
- Artificial Intelligence Portable Devices
- Complete mapping of human synapses to map the learning processes
- Mechanisms to keep adult brains healthier for longer periods
- Chemistry for brain enhancement
- Web 17.0 – integration of data, analysis, discussions, forums, into an organized and semantic structure. The Semantic Web that uses virtual reality and contains an intelligent sub-system
- Integrated lifelong learning system
- Programs aimed at eliminating prejudice and hatred

- E-teaching: electronic intelligence systems for teachers
- Computers with extra-human intelligence
- Artificial microbes to enhance intelligence
- The teaching of morals and implementation of new metrics (emotional intelligence and spiritual intelligence)
- The global brain: the development of collective knowledge on the way to forming a global brain and new stages of human consciousness
- Inter-religious and inter-cultural Studies
- Increased use of games for learning, including online games
- Modular units of knowledge: management tools allowing each student to download what he needs

They probably will not be implemented by 2030 due to cost issues, political interests and especially to the fear of institutions of losing their installed power, when faced by new educational capabilities. All these possible futures signal strategic pathways leading to a new system of teaching and learning. These are assumptions of a sustainable economy, viable only with the appearance of new leaders that will arise from a new educational system.

TO MAKE OF THE WORLD WE HAVE THE WORLD WE WANT

Maria Arlete Gonçalves, 2008
Journalist, Culture Director of Oi Futuro.

Communication technologies are the so called suppressors of time and space foreseen by the ancient Vedas, bringing people together and reducing geographical distances. With them it is possible to work towards approximating those different, bridging social gaps. To work with and for youth, the heirs of this world that we also inherited and are pledged to pass on as one that is more positive, constructive, balanced, fair and healthy. A world that gives clear signs of what needs to be rethought, reinvented, recycled, shared. A world that increasingly seeks humanity. To carry out this mission requires the imagination that creates and the technology that leverages, which makes it, happen.

A desirable future is the one we create every day, thinking of our great-great-grandchildren. A future where there will be more equal opportunity for those who are part of the social fringes. The so-called common urban youth, now considered a victim or perpetrator of society, will have increased access to technologies and contemporary languages. As such, instead of being portrayed, it will be able to portray in a competent way their outlook of the world, the reality of the communities where they live, and thereby change the surrounding environment. In the world we desire, the youth will have voice and chance: it will be the protagonist. After all, the future belongs to them.

We believe that the democratization of access to culture, the fostering of citizenship and the new technologies will bring about significant changes, not only

in content and aesthetics of mass media, but also broaden horizons, break down prejudices, narrow the differences. This is because, even though we live in a mediatic era, of knowledge and of information, in which we are flooded by news of what happens in the world in real time, the images and reports we receive are still in the hands of small groups comprised of large corporations. The wide world of the poor, the underprivileged, the deprived is only shown from the perspective of those who dominate the media.

Corporate social responsibility will progressively increase in the future. Business ethics, transparency, commitment to the environment and to sustainable development, the social private investment, social actions that make their knowledge and technologies available to the community from which they extract wealth will be fundamental conditions for the survival of enterprises, when consumers will be increasingly aware and less avid. The contribution of citizens will be a brand attribute and major differential at purchase. Power, success, glamour and status will no longer be arguments for sale and will be replaced by recycle, reuse, exchange, respect and responsibility. Enterprises will consistently encourage volunteerism among their employees. I see the creation of a **Leave for Social Cause**, in which enterprises make available time and remuneration for employees to carry out projects that contribute to human development.

For a desirable future, I see a Museum of Humanity Values, which will show future generations examples of the wealth of human thought and behavior so that these are not lost in time. Values such as generosity, honesty, ethics, love, solidarity, word, trust and everything that may ensure humanity to the man of the future. Creating a museum to preserve, store and disseminate the values of humanity, since many are in a process of rapid extinction, such as Honor, Faith, Principles, Word (in the sense of commitment), Heroism, etc. . .

In this wonderful exercise that is the Creation of the Future, some other ideas occur to me for tomorrow's bank of ideas. For example: The PEV (Place for Experimenting the Void) to detoxicate people from the excess of information they are submitted to daily. Their slogan: "*Delete to delight.*"

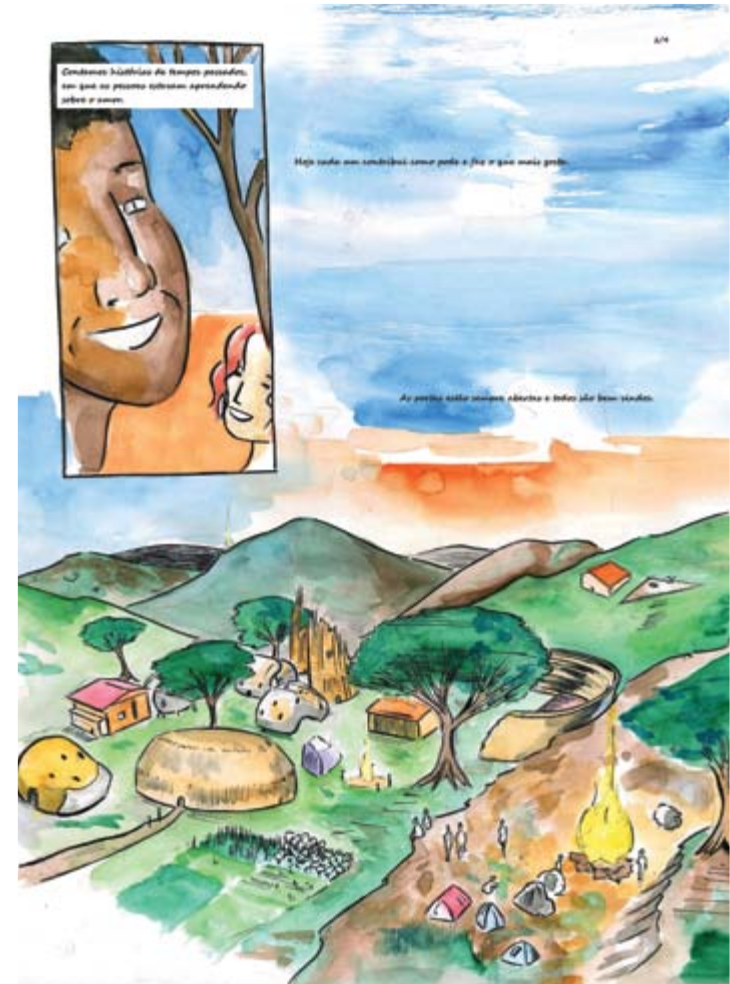
Along the same line of thought, I suggest the **PCS – Place of Consumerism Slowdown**. In the near future, where there will be greater awareness of being and not having, there will be units of re-education for sustainable living, which will teach people to understand and free themselves from uncontrollable and insatiable desire to buy, and to learn new ways to live better with less.

Passion Leave – enterprises grant leave to collaborators who are in a state of being in love, that is to say temporarily incapacitated for activities that require concentration, focus, reflection and production. This way, enterprises will also collaborate to sustain the level of enamoration, without which the world would be dull and much sadder.

The sky is the limit when it comes to imagine a better world. Is all of this just a fantasy, a dream? How about seeing them come true in the future? We just have to start!



Museum of Human Values. Illustration by Kathryn Cabrera, Dominican Republic, 2009.





Alexandre Szolnoky, Brazil, 2011.

TAGS: affection – autonomy – choice – connection –
convergence – creativity – culture – cycles – fundamental
rights – family – fear – flows – gaia – interdependence –
love – kronophagic – means and ends – standards –
regulation – self knowledge – synapse

7

BE, RELATE, CONNECT

“Optimism is a strategy for making a better future. Because unless you believe that the future can be better, you are unlikely to step up and take responsibility for making it so.”

Noam Chomsky



Adão Itusgarai, 2009.

A Neat World / End of body dictatorship: bald, cellulitis, belly, buttocks are a "must" / Genetically engineered vines, yield wine bottles / Scientists have discovered the anti-guilt pill.

CURIOSITIES OF THE FORTIES

The dear reader who has followed us this far must be curious about details on communication, design, fashion, and the arts in our time. This is such an encompassing subject that it will be addressed in the next volume, where we will discuss how culture, communication and their tools contributed to the transition we underwent in recent years.

Just to give you a small sample, we listed some interesting inventions and processes. For instance, in matters of fashion, much has changed. The recent experiments with **Teletransport Color Change** gave us new options in post-disintegration atomic rearrangement. Now it is possible to choose, for example, skin color (violet has become a success) or hair type (straightening is over!). Soon we will be able to choose our skin shades on the Pantone scale. Indeed, it is noteworthy that the policies of quotas or any other such thing associated

with physical or racial form ceased to exist long ago; now the type of wrapping humans come in is unimportant. We believe that there was a contribution by the **Memorials of Current Barbarities** and the **Simulators of the Future**. We could watch puzzled physicians examining little shrunk old ladies, with fake bouncing breasts and buttocks popping out of their wrinkled skin as if they were soccer balls. Perhaps, the decline of interest in cars also changed the relations with the body; no longer does a chassis have to go to the

auto body shop for refurbishing in order to be more coveted.

The much dreamed of **Flying Backpacks** exist today and carry us, but we can also use **Flying Attire**. In a nice tangible / intangible balance, the invention of **Eye Drops for Myopia of the Eyes** was followed by **Eye Drops For Myopia of the Glance**, increasing the ability to see with the soul.

Soon after Rio + 20, other compensatory credits were created – the first attempts to regulate flows in 4DxT dimensions. **Dread Credits**, paid for activities that used to generate fear and eroded trust. **Credits for Time Consumption**, paid for **kronophagic**¹ activities that wasted excessive amounts of people's cognitive surplus. **Diversity Credits** were the first, and soon showed heavy impact on audiovisual production. At the beginning of the century it was common for the same show to be featured in almost all theaters, jeopardizing diversity. The credits paid fueled a strong independent production. Soon, sexy TV

hosts that influenced their children audience through their ways of acting and dressing disappeared, and a curious result was that there was a drop in teenage pregnancy.

Increasing acknowledgment of diversity as a hallmark of more sustainable and harmonious times has even led to the formulation of **Fundamental Diverse Rights**: having rights to mass education, housing, or healthcare only is not enough. We now have the **Right to Diverse Housing, Right to Diverse Healthcare**, and to diversity in Education, Family, Work, Citizenship and all other areas of everyday living.

Very significant and big changes occurred in terms of love relationships, such as the new profession known as **Lust Plunger**, a therapist for those cases in which no one took the initiative; or the reform of the **Foreign Affairs Office**, which progressively took over the increasingly frequent cases of distance love. In the '10s, we saw a multiplication of sexual options, reaching a total



Caio Castello (left) and Sarah (right).
FILE Rio de Janeiro, 2011



Frank R. Paul, 1928

1 That consume time: Krono - time; Fagos - eat



Carlos Dala Stela, 2011

of fifteen², not to mention the most bizarre preferences. Family formation followed this diversity, especially thanks to In Vitro Fertilization and the like. In the years twenty, this overload of experiments led to a return to more ordinary patterns, also because genders were relating better.

Elements that caused quite a stir and discomfort, but had undeniable effect, were the **Affective Footprints** and the **Index of Love Relationships Sustainability (ILRS)**. Actually, these matters were sometimes addressed with mathematical coldness. "Coefficient of variation of partners vs. annual amount of unhappiness generated." "Coefficient of age difference vs. bank account of one of the partners", "Coefficient of

Demassification of tastes

An extensive demassification of tastes and preferences will occur. This process will begin with the democratization of the media, the appreciation and protection of cultural products, and freedom of expression. The "World Day of Small Cultural Production" will be instated and all neighborhoods will get organized to make it a great and important integration event.

Carlos Eduardo, Leandro, Tais, and Olindo Antonio, São Paulo, 2010.

balance of giving and receiving." Or even a few more simple ones: "What did this relationship cause? Restricted? Expanded? Diversified? Nurtured? Did you feel more confident? ". The truth of the matter is that some differences have surfaced, for example, the number of defenders of sustainability that had actually been consumers of people, with very low ILRS and **Negative Affective Footprint**. Fortunately, this phase is behind us. In the early '10s, it was evident that we were living a moment of **Sexual Liberation and Repression of Affection**. So, an intense **Affection Liberation** and

² Hetero; bi; transvestite; transvestite - bi; transexual; transexual - bi; bachelor and this two times (each gender) in addition to the hermaphrodites!

Sex Sophistication release operation was launched. In this, as in other areas of life, we dedicated ourselves to fighting against trivialization, in all forms, and moved from quantity to quality.

Profound and surrendering affection and love relationships, have an extraordinary sensitizing potential. With them came all the other changes that were already under way, mainly in the learning and communication processes. The history of Humanity, which already has a steeply increasing pace accelerated even more.

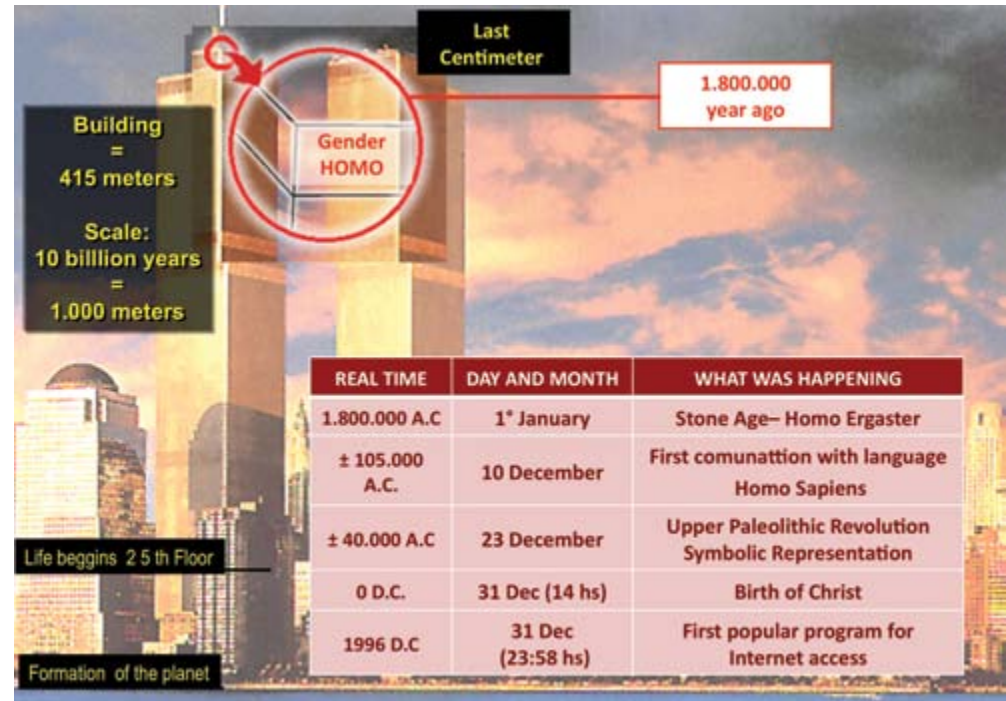
OUR HISTORY IN A YEAR AND A DAY.

In order to set a time parameter, let's place the history of Earth, with its four billion years³, next to a building with more than one hundred stories and 400-meters high. We will then realize that the Homo genus would have ap-

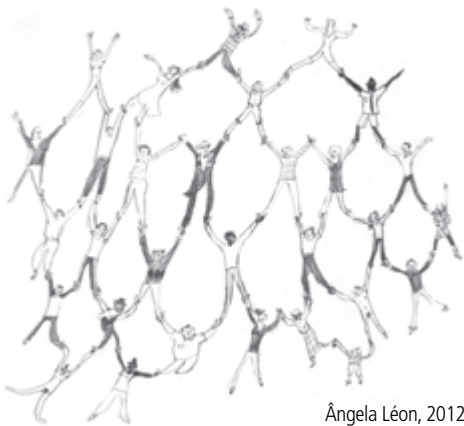
peared only within an inch of the top floor! We are very, very recent in the evolutionary history of life, and yet, we have an extraordinary ability to change the world around us. Why? What grants us this capability?

This becomes evident in another parallel, in which we transform the one million eight hundred thousand years of

that meager centimeter mentioned, into one year. We then find that we progressed very slowly, until what would correspond to December 10th of this fictitious year. On this day, would begin communication through language and, from then on, the story picks up speed. The 24th day corresponds to the Upper Paleolithic Revolution, with its cave



³ Peter Russel, in *The White Hole in Time*, available in video and book.



Ángela León, 2012.

paintings, incipient language, and symbolic exchanges. Our entire history, as we know it, takes place in the last day of this one year that corresponds to one centimeter! The birth of Christ would be at 2 pm, the Discoveries and the Press at 9:30 pm, the Industrial Revolution at 11:00 pm, and everything that our life is today, just a few minutes before midnight of the 31st day...

From this analogy it becomes clear that when we begin to communicate and exchange symbols, that is, finally becoming cultural beings, everything

speeds up greatly. Especially when potentialized by the use of tools like the media, or ICT. **Culture, Creativity and Communication are Our Nature.** Kangaroos jump, algae do photosynthesis, humans create. At the end of the '10s, the hypothesis that creativity, knowledge, culture – our much celebrated intangibles – are the one characteristic that defines us as biological beings has become widely adopted. **We are Culture and Creativity, and with them, we transform our surroundings.** Of course, there are other animals that have language or culture, but we have the chance to play with them, exchange, share, translate, remix, relate. And all this added to free will. Hence, the enormous transformative potential that enabled us, in such a short time of existence on the planet, to promote such a transformation.

What for? This was the question; for, after all, knowing the purpose of each thing is one of the premises for our sustainability. Could it be that we had a specific function within the social and environmental ecosystem of planet Earth?

GAIA, THE EARTH AS A LIVING BEING

In the mid-twentieth century, man walked on the moon and, for the first time, we had a full view of the Earth, beautiful and blue, moving through space at 107,000 kilometers per hour. This picture really was worth more than a thousand words and changed the world, because seeing the Earth from afar has given us the perspective that we are one. The responsibility and the feeling of oneness resulted in the advance of ecological awareness. And, at the same time, appeared the Gaia Theory, proposed by the scientist James Lovelock⁴, which was then expanded by others, such as the Nobel Prize laureate, Lynn Margulis.

The name Gaia is a tribute to the primordial mother-goddess of Greek mythology and, according to this hypothesis, Earth is a living being, because its biosphere has the capability to generate, maintain, and regulate the condi-

4 <http://www.jameslovelock.org/>



Medieval alchemical engraving.
Johannes Fabricius.

tions of its own environment. In recent decades, this hypothesis had greater acceptance, to the extent that the study and practice of interdependence made the interconnections among all living things more evident. As described by a child: "It is as though everything was a pool and in this pool there were some harder pieces, gelatin, that are the living things. When the pool water moves, everything moves. When a small piece of gelatin moves, everything moves. Everyone feels what everyone does. Everyone feels what everyone feels"

This is just what happened. We sensed. And all that is sensed makes sense. When we felt, we were affected and the Gaia hypothesis was confirmed. We were able to feel, to sense, because

we were all connected by the Web, communication systems, GPS, satellites, mobile phones that created a layer of information and communication in real time around the planet. And at the time, just shortly over one decade ago, we bought-in the Gaia hypothesis, we understood our function as humanity. In the evolution of live beings, the nervous system is one of the last things to be formed. We are Gaia's Nervous System. That is why we have this capability to transform everything so fast. That is why culture, creativity, and knowledge are our Nature.

This perception had a greater impact than the falling of a giant meteor. **The Earth is a living being and we are its nervous system. What a responsibility and what an opportunity!** Consequently, much has been elucidated and has given us the means to, in such a short time, change so much. If we are neurons, we need to connect and work in integration; synapses are made by ICTs, the circulation of information and knowledge allows us to feel and experience Gaia and its processes. Note that

here are the three pillars that undergird the framework of our book: Intangible + digital technologies + collaboration.

To feel part of the whole, connected, healed one of the great evils afflicting humanity and that in the past caused so much fear, pain and war and, of course, fanaticism. Finally, we feel that we belong, are welcome. And when the primeval deprivation was remedied, the way was paved for real autonomy.

The drive for change was there, there was a purpose: to be a good ner-



The Nervous
System of Gaia. Angela León, 2012.



Jaime Prades, Brazil, 2012.

vous system, able to feel with the greatest possible accuracy what happened to Gaia and all her creatures. We had to know the cycles, favor the flow, understand the time, and circulate information. Be affected.

This would only be possible if we could go beyond our culture, transcend it. Can a nervous system have neurons that refuse to “synapsetyze” with others, for whatever reason? Or have starving or obese neurons? Patterns had to be broken, to prevent us from falling into the same habits and mentalities that had generated an unsustainable world. How to change our mentalities and habits?

TRANSCENDING CULTURE

Convergence of Disciplines had disclosed the enormous power of habit and repetition. This revelation became explicit through search engines, like the late Google, which prioritized access to what happens most often: the video

that appeared in the search is that with the highest number of views. Something similar happens with our memory: we remember the things that are associated with the greatest number of referrals. The same process is repeated in nature: the more something is repeated, the more likely it is to last. Biologist Rupert Sheldrake⁵ raised the Formative Causation hypothesis, according to which Nature operates by “habit” and every element of nature contributes to a kind of collective memory, Morphic Resonance Fields, that act as matrices. Simplified, this means that the more often an apple grows round and red, the greater the probability that apples will be round and red. Habit and repetition shape evolution.

So, we converge. People and their languages, using all technologies – both hard and soft – to escape the shackles of our culture, to deprogram ourselves, to create other sensitivities and glances. **Some changes can happen by adjustment**, such as a ripening fruit. Others,

⁵ *Morphic Resonance, The Nature of Formative Causation*, 2009 edition.

MÁQUINA DE COMFORT. MÚSICA APENAS COM
O PENSAMENTO.



Lucas Buarque,
FILE, Rio de
Janeiro, 2011.

only by changing state, like the metamorphosis of a butterfly. It became imperative to change state and get over the caterpillar stage, both consumeristic and crawling. Change mentalities and habits, to deprogram repetition. Before, we learned through pain and by error; now, by choice and pleasure.

We started to leave behind our emphasis on the tangible, and it became quite obvious that money – in all its forms – was a means and not an end. Interestingly, billionaires no longer exist and there are few who want to devote themselves to the stressful activity of becoming millionaires. Much effort and little result, since one cannot take along assets to the hereafter, and the off-spring, usually ill-prepared, quickly squander the inherited fortunes. Why

buy designer-brand items, if everything was fake and the result was banalization and generalized accessibility? There is little distinction between the jeans that is worn by a millionaire and the one worn by a street vendor. Really valuable things are of another nature.

Affection, learning, experiences, creation, and care are the ends. All the rest are merely means. We seek inner comfort. Comfort for the soul and a clear conscience. A bountiful heart filled with affection, skin satisfied by soft touches, and a mind full of intense memories. The new and multiple values, metrics and 4DxT indicators that we developed helped us to feel that what matters are relationships; because it was through them that we improve and evolve.

Previously, the life of the nobility and celebrities was remarkable. Today, we know that nothing is as amazing as everyday life and no fiction comes near to what it has to offer. People no longer allow their desire, will, and good faith to be hijacked by the media. The media stopped showing bodies, persons and situations that were set up and unreal

and that rendered so many people powerless and unhappier about their lives and with what they had.

The first Renaissance came when we got united geographically, a moment of external knowledge; conquest of space; society and economy oriented towards tangible goods and processes. The second Renaissance came from inner knowledge, conquest of time and from the quality, understanding, and depth that it provides. From a new economy and society built upon the centrality of intangibles and the convergence between the areas and sectors it requires.

CYCLES, FLOWS,

REGULATION

When we “synapsetize” and were able to sense Gaia, we were also able to perceive flows and cycles in several 4DxT dimensions and, thus, regulate them. We note that in nature, in us, in processes, everything happens by **pulses**, alternating phases of expansion and con-

Profession PRISM MAN

To fight closed outlooks we need new perspectives on existing things. The Prism Man, with his utility belt that holds smells and other recreational tools, helps people to relax and to develop other outlooks beyond their reach, releasing the different prisms that each one carries inside.

Mario and Alberto, São Paulo, 2010.

The Gift that has changed the world

People of all ages, in all parts of the world, woke up with a gift at their side. It was an abundant and generous dose of good humor. Everyone – without exception – was affected. In the day that changed the history of mankind, we had the chance to recycle grudges, prejudices, worries, dreads, fears, sorrows, hindrances. Everything was transformed into lightness. And, as the packages were opened and the good humor apportioned, the world became better. We held hands. We added up talents. Found solutions, and did what had to be done to live fully. Today we celebrate it as the Day of Grace, Laughter, and Joy.

Monica Cristina, Brazil, 2009.

Listening

In the future, people will be able to hear one another in active, lively listening. They will be entitled to enter the mind of others, and will not be so worried about their ready-made ideas. Creativity does not blossom within what is already known. We will sail towards the unknown!

Rita Mendonça, São Paulo, 2009.

traction. Now we choose and, according to the context, we oscillate in a more conscious and harmonious way, between the Concentrated / Mono and Decentralized / Multi patterns. The Centralized is no longer called Dominant⁶, because **Power** itself is no longer of interest. **Of interest is the power of doing. And the power of being**. The myth of the survival of the fittest was overthrown. Nature is collaborative, cyclic, flexible, changing, interdependent. So are we, after all, we are nature, too...

⁶ As proposed by the previously mentioned Rianne Eisler, in "The Chalice and the Blade"



Gabriella Vallu, FILE
Rio de Janeiro, 2011.

Aware of cycles, we developed our **intuition** better and, consequently, made faster decisions according to the common good and common sense. We were able to **detect cycles and the timing of each thing**. Time needed for oneself and the other, respecting each other's rhythms. That changed personal, professional, political relationships and, of course, the processes of learning and production. We no longer suffer when we are in the "winter" phase, apparently barren, but where everything is dormant and germinating. We no longer want to be endlessly fruitful. We

know that nothing in nature grows forever. In the 4DxT economy, and society, the word growth was replaced by evolution. But evolution towards what?

HOMO ESTHETICUS⁷

For centuries we have devoted ourselves to criticizing, pointing out errors, identifying problems. The acidity of criticism was a measure of the intellectual competence of those who spread it around. But in order to connect to and form the nervous system, one had to love others. This required a new posture: to devote oneself to seeing the best and positive in each person or context. To work on existing potencies and see the glass half full, as I suggest throughout the book. We undergo intense training to see beauty in every situation of life, **to realize the beauty in ourselves and in others**. And through beauty we gain lightness and joy that pave the way to the possibility of finally establishing binding trust.

⁷ See philosopher Michel Maffesoli, and others

We quit the Internet for a while and dedicated ourselves to others. Practiced techniques, such as **"How Cool!"**⁸, where contact with others is based on listening and accepting, on the premise that what he or she is and does is really cool! And of course it is, since there are no identical human beings on the face of the Earth, or I should say, in Gaia's skin. **The game "Fortunately and Unfortunately"**⁹ was also efficient: to revise points of view on the facts of life it is enough to describe them sometimes with the word "fortunately" and sometimes with the word "unfortunately" The game **"What Could Go Worse?"** helped us to see that everything is relative and that one can always be bolder. In this game, the person that wants to do something but is afraid of failure comes to realize his or her current situation. Afterwards, the person compares the situation he or she would have to face if the idea actually failed, and ends

⁸ *Infalible relational technique, by Wellington Nogueira and his "Doctors of Joy"*

⁹ *Game by Adriana Klisy*

by seeing that there is nothing to lose or fear, because failure usually leads back to the situation in which we already are. And, making the effort, the person might just get somewhere else...



24- hours Wise Man Council. Can be telepathically contacted to answer questions. The users must multiply the advice received. Giselle Romano and Mariana Lafuente. Illustration Paulo Lara, Dominican Republic, 2010.



Bionic Talking Moustache.
Anonymous. Rio de Janeiro, 2011.

Sunday lunch

We realize the importance of contacts and welcome people who share a common history, DNA, roots, and decided to retrieve a tradition lost many years ago, the Sunday lunch. We have created an Exchange of Experience and Affection Network, in which each family shares a special moment forming a Bank of Fondness, Love, Experiences. Each family also has its own Materializer to ensure that beloved family members get together physically.

Fred Gelli and Roberta Jambor, São Paulo, 2010.

The colors, shapes, sounds, movement, and all sorts of experiences perceived through the (at least...) six senses, prepared us to see beauty, trust, and devote ourselves to affection. As for dressing, we left behind the classic little black dress or jeans and T-shirt, and carefully chose to wear what best shows who we are and what we feel each day. We no longer intend to be anonymous and invisible, but rather, we want to be noticed and understood in our uniqueness. The cities and places where everything communicates, speaks, and provokes, helped us. The forms of every thing were carefully chosen to be functional. Like the colors of this book, which combine the yellow of creation with the violet of transformation and with the green of healing. And honor the diversity, lightness, and boldness of the Brazilian culture.

Realizing that creativity is our essence and nature, we engaged in all forms of creation, expression, self-knowledge, and contact. This is how drugs and narcotics were replaced by sensory experiences of all kinds: create,

breathe, touch, move, like, transform, invent. **Synesthesia**¹⁰ replaced **anesthesia**, since neurons must work with the utmost sensitivity and perception.

Children play to learn and so, we devoted ourselves to playing to develop loving capacity and all forms of love. We expanded the repertoire of degrees and diversity of ties, previously restricted to friends, family, and spouses. Men learned about complexity, long-term, and care from women. Women, in turn, learned about simplicity, focus, and lightness from men. Women, always so serious and sometimes boring, are now learning to play and to have fun with men. Being together began to be more fun, and the kronophagic activities no longer take up much time, which is now dedicated to interaction and play to reinvent the world. Playing to find out what others like, what makes us happy, what is different, what brings us together, what we can build together. Again, diversity was hailed as the solution and not as the problem.

FROM FEAR TO THE NOW

Turning into the nervous system of this creature called Gaia meant to trust and surrender. Establishing contact and ties so that the flow of information and feelings could tell us what was happening in each part of Gaia, what she needs, likes, and asks for. We realized that this was love. When we did not feel welcome or that we belonged, or when we were not aware of our capacity to choose, we operated out of fear. Our commitment to building environments and ties of trust was successful, we freed ourselves from fear, and were able to experience love.

When fear transmuted into trust, the relationship with the future changed. Before, it frightened us: panic (from the Greek “*pan*”, all) in the original meaning of the word it is fear of the whole. This fear of the breadth of possibilities made us settle for the repetition of familiar patterns. Once we find this breadth fun and not scary we allow ourselves distinct choices. We forgive and accept *a priori*. We believe that each one does his/her best, ac-

GTT - Global Telepathic Thought _ TACTILE

A satellite that connects people in a global ritual was invented. People sit on the ground and when they put their hands on the ground, they become attuned with everybody else. In this way, it is possible to exchange positive and negative thoughts. The flow neutralizes and creates balance and, in the end, everyone goes away feeling lighter and empty, ready to start all over again.

Fred Gelli and Roberta Jambor, São Paulo, 2010.

ording to their way of being, context, time, and capacity.

Little by little we were breaking out of the model and, each new person that trusted and left fear behind, was one step closer towards the birth of that other desirable world. One more, one more¹¹ one more. To the extent that each person believed and adhered, flows of trust were created, currents became increasingly intense, until it was no longer possible to resist. We managed to break through that barrier where dreams are

¹¹ That perception appeared when accompanying the lovely collaborative financing that made this book possible



The Time Elevator. Lourenço P. Duarte Braga, FILE, 2011.

Profession: Living story

More than storytellers, we shall have people who will be “Living Stories”, who are able to be and convey the history of many cultures and people. Dressed as stars and planets, both male and female, interposing the light of different shooting stars.

Giovann Barontini, São Paulo, 2010.

no longer individual and become collective. And when they reached the collective unconscious they began to germinate and fertilize attitudes and choices.

The change foreseen by the prophecies took place, but it was not the end of the world but the end of a world; the end of a way of thinking and doing. The pregnant world has changed state. We went from surviving to living. Animals are instinctive and reactive out of fear. We, now driven by trust and love, could finally be creative, as is fitting for a species that dominates languages, has free will, and common sense.

We apply our creativity, free will, and common sense to create desirable futures. What for? To have desirable presents.

The future is a North Star, a compass¹². It's like a tuning fork that tunes and gives the tone of the present that we have chosen. For it is in the here and now that one can be happy, since the before has passed and the after does not yet exist. The **Education for Aware-**

ness that we had been practicing for years, allowed us to live in the present and enjoy time. The expression "**Give an F5**"¹³ became recurrent: its reference to the computer key with the "update" function was appropriate, at a time when we forgave the past and did not fear the future. To "**Give an F5**" in all our differences to enjoy the present better. And to better accomplish our mission as sensitive neurons.

What about war? Why don't we talk about war? Because it no longer makes sense. It was the outcome of ignorance and, today, nobody believes in it. There was even a time when some governments attempted to incite war, shortly after the **2013 Big Bubble**, and the **Data Blackout** created to cover up responsibilities. But, when called to serve, people chose not to go to war. And if no one goes, there is no war...¹⁴

13 This is one more of the awesome expressions "hacked" by the "Círculo Fora do Eixo" <http://foradoeixo.org.br/institucional>

14 See the one-minute film on this subject, directed by Légis Schartzburd and myself, in the early 1990s. http://www.youtube.com/watch?v=NRLu2cLx_NO

THE DESIRABLE AND THE PLAUSIBLE

Future scenarios usually start from conditions as they are in the present and project them into the future. They seek plausible futures. But what to do when we want to change the conditions of the present and project other things? Break with the present, and dream of the desirable. And why do we believe that the desirable is not plausible?

Choose a plausible future and ask yourself if it is what you want. If the answer is no, why consider that, although undesirable, it is plausible? Do the opposite exercise and think of a desirable future. Ask yourself if it is plausible. No? And why not, since it is desirable? Why not try? Usually, the worst that can happen in every choice we make is that failure can take us back to the same point where we started. Why not try, since the worst point of arrival is exactly the same where we are?

Why not? Why is that so? What is the purpose? This takes care of what?

12 From there the logo of *Enthusiasmo*: a compass is for orientation and the butterfly is for transformation.

We go back to being wise as children and doubt everything; back to seeing the many naked kings¹⁵. Our senses, now so sharp, today clearly understand whatever makes no sense in whichever area of life, society, economy.

We are creativity and choice. We have the ability to handle all languages. We recreate our future at any moment. It does not exist, yet. Anything is possible, even the desirable.

What does the future hold? We do not know. But we do know that the visions of a metallic, sterile, homogeneous, symmetric, cold, mechanical, uniform world of the past have encouraged us to do differently. We have changed direction and *that* future did not materialize.

All that we know about the world that is arising is that it will be collaborative. There is no other way to secure the time, resources, quality, and the harmony we desire. And that is possible.

15 From the children's fable, *The Emperors New Clothes*, where only a child dares to comment on the fact that the king is naked.

Many of the futures described in this work of fiction could be implemented. And soon.

Why not?



Dawn. Monique Deheinzelin. São Paulo, 2008.

EXTRACT FROM THE BOOK "IMAGES OF THE FUTURE", BY FRED POLAK

In 1961, Fred Polak one of the pioneers in futures studies wrote a masterpiece: Images of the Future relating the development (or not...) of a culture with how they imagine the future. Below are some paragraphs of the final chapter in which he synthesizes this relation.¹

(...) **First**, we found the positive image of the future at work in every instance of the flowering of a culture, and weakened images of the future as a primary factor in the decay of cultures. The image of the future has been represented as itself subject to a dialectical movement between the poles of optimism and pessimism.

Second, we found that the potential strength of a culture could be measured by measuring the intensity and energy of its images of the future. These images were seen to act as a barometer indicating the potential rise or fall of a culture.

Third, the concept of the image of the future has made it possible to move from diagnosis to prognosis. This is possible because of the intimate relationship between the image of the future and the future.

The image of the future can act not only as a barometer, but as a regulative mechanism which alternately opens and shuts the dampers on the mighty blast-furnace of culture. It not only indicates alternative choices and possibili-

ties, but actively promotes certain choices and in effect puts them to work in determining the future. A close examination of prevailing images, then, puts us in a position to forecast the probable future.

Any culture which finds itself in the condition of our present culture, turning aside from its own heritage of positive visions of the future, or actively at work in changing these positive visions into negative ones, has no future unless strong counterforces are set in motion soon. This view is of crucial importance for practical policy. It opens up new vistas for policy-makers in the areas where they still have freedom of planning and action.(...)

¹ Extract from <http://storyfieldteam.pbworks.com/f/the-image-of-the-future.pdf> Final Chapter: New Perspectives, paragraphs 4 a 7

CREDITS, ACKNOWLEDGEMENTS, AND HISTORY

"I'm interested in the future because it's where I'll spend the rest of my life."

Woody Allen

THANKS TO EVERYONE WHO MADE THIS BOOK POSSIBLE!

If it were not for the brave and unique outlook of my parents Gini and Jacques and my daughter Rita's, this book would not exist.

This book was a collaborative process, the fruit of networking and team work. Without the dedication of this extremely agile and enthusiastic team its realization would be impossible. Coordination and Supervision: Marina Alonso; Production: Dina Cardoso; Editorial Assistance: Felipe Jordani ; English Translation: Eugenia Deheinzelin and William Krell (Special thanks to both!); Graphic Design: Helena Salgado, assisted by Carol Lèfreve, Marília Glaffira and Marianne Lépine; English Version Proofreading: Martha D. Schlemm; Portuguese Original Text Revision and Proofreading: Antonia Schwinden and Rita Kohl.

I wish to thank the inspirational texts of Angel Mestres Vila, Arnaldo de Hoyos, Aron Belinky, Jacques Dezelin, Jorge Wilhelm, Joxean Fernandez, Maria Arlete Gonçalves, Melanie Swan, Silvina Martinez, Pichi de Benedictis, Rosa Alegria, and Wellington Nogueira. I call attention to the fact that most of them resulted from participation in *Crie Futuros* activities.

The illustrations for our book were made especially by our expert visualizers of the future: Angela Leon, in 2012, and Rai (Raimundo Guimarães Junior), in 2008. Special thanks to Adão Iturrusgarai, Carlos Dala Stella, Céu D'Ellia, Claude Giordano, Guto Lacaz, Jaime Prades and Monique Deheinzelin for the beautiful images ceded. Our special acknowledgment to the fabulous futuristic illustrator of the 1920's and 1930's, Frank Paul Rudolf and thanks to his grandson, William Engle Frank for allowing us to use his images. Valuable contributions also came from Paolat de La Cruz, from the magazine La Lengua, and from Montevideo Comics.

Partners and supporters who made this publication possible: the 288 crowd founding collaborators, listed below, as well as Pedro Molina and Ignacio Abbad Slocker, Centro Cultural da Espanha em São Paulo/AECID; Ricardo Resende and Ana Maria Rebouças, Centro Cultural São Paulo ; José Mauro Gnaspini and Kiko Azevedo, Virada Cultural/Prefeitura Municipal de São Paulo; Luiz Coradazzi and Liliâne Rebelo, British Council; Laís de Andrade Villela and João Sassarão, Pancrom Gráfica.

The partnership of Arnaldo de Hoyos and Rosa Alegria, Núcleo de Estudos do Futuro PUC/SP; Aron Belinky, Vitae Civilis; Sergio Miguez and Gil Torres, Livraria Cultura; Thiago Alixandre, Preta Ribeiro and Tati Almeida, Coletivo O12; André Palhano, Virada Sustentável; Luis Felipe Otavio Ribeiro, Catarse.

To all of those whose futures were collected in our *wikifuturos* or corporate workshops that fueled this book. It is possible to "wikilize" this futures from the boxes, using the search tool in www.criefuturos.com. A large portion of the researched futures have not been published in full, but they appear in my text – inspiring, amusing, and intelligent!

Crie Futuros Thanks...

This book is the result of the Crie Futuros movement, which is why we took the opportunity to publicly express our gratitude to those who believed and supported the project.

I start by thanking our “godfathers”, who made our beginning possible. It was a great encouragement for us to know that we were worthy of the much-coveted awards received: “Convocatória Aberta Permanente” (Spanish Agency for International Cooperation and Development) or “Novos Brasis” (“Oi Futuros”). Also for the invaluable conversations that helped to improve the project, our thanks to **Ana Tomé**, Director of “Centro Cultural da Espanha no Brasil/AECID”; **Alfons Martinell**, Director of Cultural and Scientific Relations of AECID; **Maria Arlete Gonçalves**, Culture Director of Oi Futuro, **Samara Werner**, Education Director of Oi Futuro, **Ana Toni Ford** Foundation representative in Brazil, **Marie Suzuki Fujisawa**, Culture Coordinator of Senac-SP. Special affection and admiration for Ana Tomé and Maria Arlete, great inspirers of Crie Futuros.

To all the people who, since 2008, have made or are still part of this team, to them also our special thanks. As it is impossible to list all of them we highlight Ricardo Lima, of Bess Multimedia, creator of our website and technology, helped by Ronaldo Gonçalves Alves. To those who have carried on the coordination over these years, my true companions: Dina Cardoso, Marina Alonso, Tatiana Dascal, Luciana Prieto, and the invaluable care of Marlene de Oliveira. João Sebastião Pavese, Bangalô Filmes for the audiovisual production over these years. Paula de Paoli for the graphic concept of Crie Futuros.



Perfume spray for bus stops. Cristian, Uruguay, 2009.

The unforgettable generosity of those who followed our journey: Cristina Meirelles, of Casa Sete, Maria Cândida di Pierro, Célia Sanda, Zeca Nunes; Gisele Schwartz, Ana Maria Wilhelm, Robson Ruy, Miguel Yasuyuki Hirota, Odara Carvalho, Daniel Pires, Pedro Caetano Guedes. Thanks to all of you who have been with us all these years!

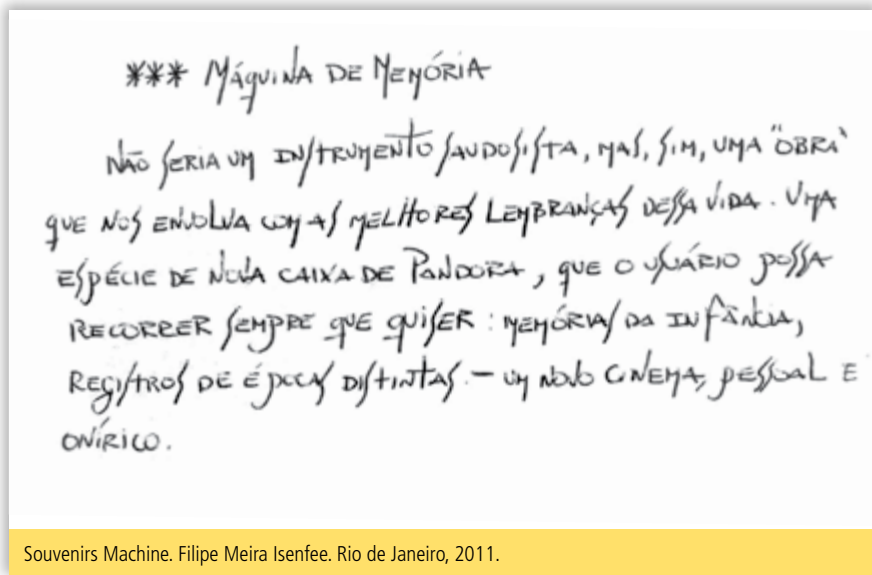
Crie Futuros expanded and acquired diversity thanks to the Crie Futuros Nodes. We emphasize and appreciate the excellent work carried out by Thomas Guido Illgen, Transit Projectes, Barcelona, Spain Node; Sergio Machin Cauda, Trafal, Canelones, Uruguay Node, Paolat de la Cruz, Revista Lengua, Santo Domingo, Dominican Republic Node; and the important collaboration of Mauricio Delfin and Lucia Cuba, Realidad Visual, Lima, Peru Node; Katya Padilha, Mosaico Cultural, Valparaíso, Chile Node and our “Honorary Node”: Centro de Expresiones Contemporáneas, Rosario, Argentina, Pichi de Benedictis.

To our partners, whose knowledge and vision helped to shape and carry out the project: Rosa Alegria and Núcleo de Estudos do Futuros/PUC-SP; Jordi Pardo, Barcelona Media; Angel Mestres, Transit Projectes; Bruce Mau e Bisi William, Massive Change Network; Ronaldo Lemos and Paula Martini, Centro de Tecnologia e Socie-

dade and Overmundo; Reinaldo Pamponet, It's Noon; Wellington Nogueira, Doutores da Alegria; Pedro Jatobá, Produtora Cultural Colaborativa; Fred Gelli, Tátil Design; Angeles Díaz, Fundación Simetrias; Guiomar Alonso Cano, UNESCO; Jesús Prieto de Pedro, Consultores Culturales; Incubadora Tecnológica de Cooperativas Populares da FGV; Cássia Navas, Teatro da Dança; Danielle Fiabane, Instituto Criar; Laura Topete and José Luis Mariscal Orozco, University of Guadalajara – UDG Virtual; Francisco Simplicio, Special Unit on South- South Cooperation; Yoshio Kakishima and Sanae Kosugi Bunka Fashion College; Ronaldo Robles, Cia Quase Cinema.

My brother, Daniel, always taking care of everything and everyone, my sister Monique and also caring-conceptual mentors of Crie Futuros: Graça Cabral, Eduardo Giacomazzi, Beatrix Overmeer, Thomas Buckup, Léo Brant, George Yudice, Sylvie Duran, Célio Turino, Fernando Rueda, Fernando Vicário, Sylvina Martinez, Silvia Villar Valverde, Ângela Hirata, Edson Natale, Julia Forlani, Anna Helena Altenfelder, Anna Claudia Agazzi, Alvisé Migoto, Lorriane Johnson, Michael Kundt, Ariel Kogan, and the guys from "Circuito Fora do Eixo".

And my very special thanks and apologies to those who I regretfully forgot to mention, and who I will remember as soon as the book is in print.



It was thrilling and fascinating to follow step-by-step the adhesion of the dear 288 crowd funding collaborators listed below.

Abel Falbo • Adélia Borges • Adélia Francheschini • Adriana Fortunato • Adriana Klisy • Alessandro Azevedo • Alexandra Aparício • Alexandra Schejelderup • Alexandre Andrade • Alexandre Gomes • Alexandre Rebouças • Alfredo Martini Júnior • Alice • Alice Junqueira • Ana Carla Fonseca Cainha • Ana Correia • Ana Luisa Lacombe • Ana Maria Wilhelm • Ana Terra • André Martinez • Angelo Filardo • Angelo Piovesan • Anna Helena Altenfelder • Anna Van Steen • Antônio Mafrá • Ariel Kogan • Ariston Batista • Arô Ribeiro • Aroldo Batista • Augusto Tiburtius • Beatrix Overmeer • Bento Andreato • Beto De Jesus • Beto Firmino • Bia Blandy • Branca Mandetta • Bruno Caramelli • Bubby Negrão • Cacá Machado • Cândido Azeredo • Carlos Dala Stella • Celso Pan • Cesar Piva • Chris Lima • Cibele De Barros • Cintia Carvalho • Clara Irigoyen • Claudia Missura • Claudia Proushan • Claudia Taddei • Claudio Alvarez • Claudio Guedes • Cristina Zaccaria • Cyrcé Andrade • Dani Lima • Daniel Deheinzeln • Daniel Domeneghetti • Daniel Lima • Debora Laruccia • Demétrio Luiz Riguete Gripp • Denise Chaer • Denise Scarpa • Diego Conti • Dina Cardoso • Diogo Melo • Dulce Maltez • Edegar Ferreira • Edgar Andrade • Edith Estela Pittier • Edson Natale • Eduardo Abramovay • Eduardo Barcellos • Eduardo Giacomazzi • Eduardo Kobbi • Eduardo Muszkat • Eduardo Shimahara • Elisa Grinspum • Elisa Stecca • Elza Tamas • Elzo Sigueta • Eunice De Sá Cesnik • Fábio Almeida • Fabio Feldmann • Fernanda Martins • Fernanda Rapacci • Fernando Belloube • Fernando Camilher Almeida • Fernando Grecco • Fernando Passos • Fernando Stickel • Fernão Ramos • Flavia Berton • Flavia Lemes • Fred Furtado • Frederico Elboni • Gesta Cultura • Gilberto Bergstein • Gisela Heizenreder Cury • Giselle Beiguelman • Gizeli Belloli • Glauca Rodrigues • Graziela Araújo • Graziela Peres • Harmonia Solidária • Henrique Schucman • Homero Prado Lacreta Jr • Homero Santos • Horácio Lafer Piva • Ibsen Costa Manso • Ignatius Abbad Slocker • Isabella Prata • Isis Palma • Ivenise Angelini • Jaime Prades • Jan Ghiraldini • Jany Vargas Da Silva • Jaques Suchodolski • Jasmin Pinho • João Caldas • Jorge E Rubles • Jorge Grinspum • Jorge Sototuka • Jose Roberto Sadek • Josiane Del Corso • Joxean Fernandez • Julia Forlani • Julia Zardo • Julian Monteiro • Juliana Bollini • Julio Nogueira • Kaka Marinheiro • Kecya Donnelly • Kelynn Alves • Kluk Neto • Laura Livia Calabi • Leeward Wang • Legis Schwartzburd • Liane Rossi • Lídia Goldeinstein • Lucia Merlino • Luciana Annunziata • Luciana Guilherme • Luciano Roxo • Lucinaide Pinheiro • Luiz Alberto Moris • Luiz Algarra • Luiz De Franco Neto • Luiz Dos Santos • Magda Pucci • Malu Ramos • Manuel Blesa • Mara Mourão • Marcelo Kahns • Marcelo Machado • Márcia Cristina Silva • Marcia De Barros • Marcia Matos • Marco Tulio Amaral • Marcos Renaux • Marcos T. Galvão (KALOY) • Margot Ribas • Mari Salaroli • Maria Cândida di Pierro • Maria Cecilia Lacerda De Camargo • Maria Elena Chan • Maria Fernanda Costa • Maria Ferreira • Maria Thereza Amaral • Mariana Garcia • Mariana Ochs • Marília Viegas Araujo • Marina Barros • Marina Alonso • Marina Leão • Mário Candido da Silva Filho • Mario Henrique Martins • Mario Tadokoro • Marisa Orth • Marise Cardoso • Mateus Mendonça • Mauricio Fernandes Pestana Moreira • Mauricio Iazzetta • Mauricio Pereira • Mayara de Castro • Milzo Prado • Minom Pinho • Mônica Mion • Monique Deheinzeln • Nani Semiseck • Nelcivone Melo • Nelson Patron Chapira • Ney Piacentini • Nirvana Marinho • Osvaldo Gabrieli • Osvaldo OZ • Osvaldo Pepe • Otavio Toledo • Paschoal Roma • Patrícia Fiori • Patrícia Bittencourt • Paula Alzugaray • Paula Lopez • Paula Marcondes • Paula Martini • Paulo Suplicy • Paulo Von Poser • Pedro Mourão • Photozofia Arte E Cozinha • Pico Garcez • Preta Ribeiro • Rafael Reinehr • Rangel Arthur Mohedano • Regina Ponce • Regina Silva • Reinaldo Pamponet • Renata Moraes Abreu • Renato Ribeiro • Ricardo Voltolini • Ricardo Albuquerque • Ricardo Farah • Ricardo Guimarães • Ricardo Penachi De Camargo • Ricardo Ramos Filho • Ricardo Viviani • Richard Geyer • Roberto Amaral • Roberto Hirsch • Robson Spadoni • Rodolfo Carreto • Ronaldo Gonçalves Alves • Ronaldo M. Silveira Silveira • Rosa Alegria • Rosalu Fladt Queiroz • Rosana Grant • Rosana Padial • Rose Ferraz • Ruth Klotzel • Ruth Slinger • Ryan Donnelly • Sabrina Gledhill • Sara Asséis De Brito • Schirlei Freder • Sergio Ajzenberg • Sérgio Barbosa (Case) • Sergio Mastrocola • Sergio Mattos Lomelino • Sergio Oeda • Sergio Roizenblit • Sheila Saraiva • Silvia Elboni • Silvia M. Do Espírito Santo • Silvia Rosenbaum • Silvina Martinez • Silvio Francisco • Solange Ferraz De Linz • Solange Salva • Sonia Lara • Sonia Sobral • Tadeu Jungle • Tais Tatit Barossi • Tânia Bustamante • Tania Nomura • Tatiana Cobbett • Tatiana De Simone • Tatiana Lohmann • Thiago Alixandre • Tuco Freire • Vany Alves • Vera Caetano • Vera Loureiro • Viviane Rodriguez • VM John • Waldir Martins • Wellington Nogueira • Yoshihiro Odo • Zita Carvalhosa • + anonymous

HISTORY

2008	JUN	São Paulo, Brazil.	Future and Innovation Crie Futuros - McKinsey.
	AUG	São Paulo, Brazil.	Crie Futuros Presentation at the Cultural Center of Spain.
	SET	São Paulo, Brazil.	Crie Futuros Encounter Spanish Cooperation.
			Crie Futuros Presentation Pecha Kucha Knight 2008.
			International Seminar Crie Futuros Creative Economy.
			Dynamics Crie Futuros Instituto Criar.
2009			Crie Futuros Evening.
			Crie Futuros and Culture of Peace.
	OUT	Rio de Janeiro, Brazil.	Awarded the price Novos Brasis, with support by Oi Futuro.
	NOV	São Paulo, Brazil.	Crie Futuros Evening 2.
	JAN	Belém, Brazil.	Crie Futuros Workshop - a better future is possible. Fórum Social Mundial.
			Awarded the price "CAP – Convocatória Aberta e Permanente", with the support of Spanish Agency for International Cooperation and Development.
2009		São Paulo, Brazil.	Crie Futuros Evening - Cultural Saturday.
	MAR	Buenos Aires, Argentina.	Crie Futuros Presentation at the Sixth Euro-American Campus for Cultural Cooperation.
			Launch of site Wikifuturos 1.0 - Collaborative Digital Encyclopedia of Desirable Futures.
	MAI	Valparaiso, Chile.	Crie Futuros and Creative Economy Workshop. Creative Industries Program.
			Creation of the Crie Futuros Network with members in seven countries: Argentina, Chile, Colombia, Spain, Peru, Dominican Republic and Uruguay.
			Crie Futuros Launch of social network. www.criefuturos.com.br .

2009	JUN	Rio de Janeiro, Brazil.	Launch of Web TV Crie Futuros. Simultaneous transmission of events.
			Crie Futuros Ibero-America Collaborative Technology and Production.
			Crie Futuros Ibero-American Games and Best Worlds.
		Denver, USA.	Meeting of social entrepreneurs and innovators with Bruce Mau, Denver, USA.
	JUL	São Paulo, Brazil.	Crie Futuros Ibero-America Body and Movement.
		Barcelona, Spain.	Crie Futuros – The Future of Literature - Cut and Paste Workshop.
		Canelones, Uruguay.	Crie Futuros Workshop in Schools.
		Denver, USA.	Presentation of Crie Futuros as node for the Biennial of Denver. With Bruce Mau.
	AUG	Toledo, Uruguay.	Crie Futuros Presentation at the Seminar on Cultural Dissemination and Management.
			Crie Futuros Evening for the Cultural Ibero-American Chart.
		São Paulo, Brazil.	Launch new version of Wikifuturos 2.0 - more collaborative and appropriate to the Wiki concept.
			Workshop Crie Futuros Sustainable Puc - DERDIC.
2009	AUG	Montevideo, Uruguay.	Crie Futuros Workshop in the prison for women.
		Barcelona, Spain.	Reflection on the future of literary forms.
		São Paulo, Brazil.	Workshop Crie Futuros Sustainable Puc - DERDIC.
		Montevideo, Uruguay.	Crie Futures Workshop on the futures of art performance.
	SET	Valparaíso, Chile.	Crie Futuros Workshop and Radio Program.
		Santo Domingo, Dominican Republic.	Crie Futuros Workshop Ibero-American Cultural Chart.
		Barcelona, Spain	Reflection on the future of art practices, "Centro de Creación y Pensamiento Contemporáneo" de Mataró Can Xalant.
		Lima, Peru.	Crie Futuros Workshop - The Future of Transportation and the City.
	OUT	Montevideo, Uruguay	Making-of the video "El futuro de La Web".
		São Paulo, Brazil.	Crie Futuros Seminar - New Banks and Currency.

2009	OUT	Madrid, Spain.	Reflection of the future of the independent cultural agents.
		Barcelona, Spain.	Crie Futuros Encounter- Spain. "El futuro de la cultura".
		Toledo, Spain.	Crie Futuros Workshop with educators.
		Montevideo, Uruguay	Criar Toledo: Workshop, urban action e shows Crie Futuros.
			The Future of Tourism.
	NOV		Exhibition: "nas Esquinas de Montevideo".
		Montevideo, Uruguay.	Gala closure of the presentation of the futures created in Uruguay in 2009.
		Toledo, Uruguay.	Crie Futuros Workshop with children.
		Barcelona, Spain.	Reflection on the future of audiovisual.
		Vitória, Espírito Santo, Brazil	Crie Futuros Workshop in the Seminar "Rede Jovem - Um Espírito de um Tempo".
		Santo Domingo, Dominican Republic.	Crie Futuros Workshop: the future of design and Photography
		São Paulo, Brazil.	Crie Futuros Workshop, Feira Preta.
		Lima, Peru.	Crie Futuros Workshop - What is the future of the relationship between technology and society? Plasma 2009.
		Embu, Brazil.	Crie Futuros Workshop and Lecture Rede Globo - Trends for desirable futures.
		Santo Domingo, Dominican Republic.	Crie Futuros Encounter Dominican Republic - "El futuro del design y de la Fotografía". Special issue of the Lengua magazine with created futures.
		Guadalajara, Mexico.	Lecture "Crie Futuros: Redes Virtuales y futuros deseables" at the 18th International Meeting on Distance Education.
		São Paulo, Brazil.	Crie Futuros At The Sixth International Conference on Innovation and Management (ICIM 2009).
	DEZ		
2010	JAN	Rosário, Argentina.	Planning of the Ibero-American Cultural Virtual Parliament.
		Montevideo, Uruguay.	Crie Futuros Meeting with Uruguay Facilitators.
	FEV	São Paulo, Brazil.	Crie Futuros Tátil Workshop.

2010	ABR	Rosário, Argentina.	Ibero-American Virtual Parliament Workshop.
		Campinas, Brazil.	Crie Futuros Workshop at the Social DNA Forum.
	JAN-MAI	Brazil e Dominican Republic.	Development of Pocket Future based on the Creative Economy Seminar.
	JUN	São Paulo, Brazil.	Wikidélícia - Meeting for conversation and exchange of experiences and creation of futures.
	JUL	São Paulo, Brazil.	Crie Futuros FILE.
		Parati, Brazil.	Crie Futuros Workshop at the FLIP ZONE (Parati International Book Fair).
	AUG	São Paulo, Brazil.	Wikidélícia - Meeting for conversation and exchange of experiences and creating of futures.
	NOV	São Paulo, Brazil.	Workshop Melanie Swan.
		Tokyo, Japan.	Creative economy, sustainability and the future, Bunka Fashion College.
		São Paulo, Brazil.	Workshop BASF.
2011		Guadalajara, Mexico.	Workshop: "Crea Futuros: redes virtuales y futuros deseables", Nineteenth Encounter on Distant Education.
	FEV	Montevideo, Uruguay.	Launch of the site: "Cree Futuros las Americas 2011" and Crie Futuros Workshop.
	ABR	Rio de Janeiro, Brazil.	FILE Games Rio 2011 Address the future - Create Desirable Futures.
	MAI	Porto Alegre, Brazil.	Crie Futuros Workshop in VIVO enCena POA.
2012	JUN	Salvador, Brazil.	Crie Futuros workshop in VIVO enCENA Salvador.
	MAR	Chascomus, Argentina.	Crie Futuros Workshop in REM 2.0.
	MAI	São Paulo, Brazil.	Gathering of futures in Virada Cultural.
		Barroso, Brazil.	Shadow shows Crie Futuros in Virada Cultural.
			Crie Futuros Workshop Minas Retroverso.
	JUN	São Paulo, Brazil.	Gathering of futures in Virada Sustentável.
			Crie Futuros Workshop Ecoação Cultural in Centro Cultural São Paulo.

Between its inception and distribution, this book was completed in 90 days by a frantic and happy team. We thank you for having come this far and apologize for any inevitable slips that you may find. We take this opportunity to say that the desirable futures, both plausible and implausible, were printed by Pancrom, on the day of the Venus eclipse of 2012, on Couche Kroma Gloss paper using Frutiger and HandTimes fonts.



Jaime Prades,
2012.

"If everything was possible, how would you want things to be?" This is the question that gave rise to the desirable futures upon which this book is based and organized according to everyday-life themes:

- ♦ Gain, Value, Negotiate ♦ Govern, Decide, Coordinate
- ♦ Inhabit, Move, Circulate ♦ Care, Nurture, Preserve
- ♦ Learn, Create, Communicate ♦ Be, Relate, Connect

The creative outlook on life, in 2042, has three pillars that are essential to sustainability in the future: Creative Economy, an economy based on intangible resources; information and communication technologies; and collaborative processes plus new ways of organizing a network society.



ENTUSIASMO



Produced with the support of 288 people by crowd funding at the Catarse website plus:

Support:



Partners:



ISBN 978-85-908592-7-7

