

in:

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The Rebel City: Radicant Design through Civic Engagement

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**Radicant Design through Civic Engagement**

**Processus radicans par engagement civique**

*What reason do we have for thinking that the future will resemble the past?*

*David Hume*

Civic engagement is the key to life in communities.

Ever since the 1878 publication of "Gemeinschaft und Gesellschaft"<sup>1</sup>, Ferdinand Tönnies' pioneering work in the field of German Social Sciences, we have known why communities have the potential and strength to create the oldest model for success in human history: the city.

Tönnies wrote of three scales of human communities. Growing from the family to the neighbourhood to the elective community, these unfold from the vegetative to the material and then to the philosophical and political level and, during this process, they develop their common denominator of fruitful perseverance, *the unity of human will*.

The existence of this unity of will, this ability of collective decision-making to constantly and successfully adapt the public realm to changing needs is the basic assumption of this essay - and I am fully aware that this assumption is, in itself, a statement of hope. I will reflect upon design processes which, driven by this unity of will, enable the realisation of sustainable living space. And I will develop this reflection further, testing the ecological, social, economic and cultural performance of these design processes because I consider these to be the very foundation of sustainability amidst the complex patterns and order of our times.

In contrast with radical late-modernist doctrines that knew - and still know - everything better, I will not list a thousand points that should be followed. Instead, I will simply chart four errors that should be avoided.

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<sup>1</sup> Tönnies, F. (1878) Gemeinschaft und Gesellschaft: Grundbegriffe der reinen Soziologie. 2<sup>nd</sup> edition 1912, latest edition 2005. Darmstadt: Wissenschaftliche Buchgesellschaft

## Don't cut down more trees than can grow in the same time Towards Ecological Sustainability

Tönnies lived during the period of transition from a rural to an industrial society and observed the transformation of the self-sufficient and eco-equilibrated circular metabolism of the pre-industrial Agropolis<sup>2</sup> into the un-natural, un-healthy and un-ecological linear metabolism of Petropolis, the city-type that would depend upon an external supply of energy and resources and produce waste and pollution of any kind and quantity, regardless of the consequences. Petropolis would not survive more than a hundred years before mutating into inhuman arrival cities and megacities built on the unstable foundation of a false definition of progress.

No late modern urban theorist has yet paid much attention to the valuable Agropolis treatise of Tönnies' contemporary, the geographer Johann Heinrich von Thünen<sup>3</sup>. We should re-read and learn from this today. Agropolis was self-sufficient in terms of food, fertilisers and farming. It was built and nourished in a systemic, complex relationship with the landscape and a location which was wisely selected in terms of such resources as soil, water and wind. Morphologically, it had no need to be centralised. Rather, it could use organic forms of growth and densification (which Yona Friedman would call "complicated"<sup>4</sup>) and be linear, reticulated or polycentric as demanded by geography and geology. Today's fashionable adjective "resilient" describes this morphology perfectly.

Ecopolis, the self-responsible city which I advocate, could be the revival and progression of Agropolis: an eco-sophic<sup>5</sup> and regenerative living space that embodies a new culture of simplicity, recycling and sharing and a new mindset of values for *nativity*<sup>6</sup>. In morphological terms it will have to work with existing structures and infrastructures, adaptively reinventing and

<sup>2</sup> See the terms *Agropolis*, *Petropolis*, *Ecopolis* introduced in: Revedin, J. (2014) *The Radicant City: why sustainable living space grows like ivy* in: Contal, M. H. and Revedin, J., *Sustainable Design III: Towards a New Ethics for Architecture and the City*, Paris: Gallimard Editions Alternatives

<sup>3</sup> von Thünen, J. H. (1842) *Der isolirte Staat in Beziehung auf Landwirtschaft und Nationalökonomie. Erster Teil: Untersuchungen über den Einfluß, den die Getreidepreise, der Reichtum des Bodens und die Abgaben auf den Ackerbau ausüben*, Rostock, transl.: Human Geography: Culture, Society and Space by de Blij, H.J. and Murphy, B. (7<sup>th</sup> edition, 2003)

<sup>4</sup> Friedman, Y. (2008) *L'ordre compliqué et autres fragments*. Paris-Tel Aviv: Editions L'éclat, pp. 29-35

<sup>5</sup> "L'écologie environnementale devrait être pensée d'un seul tenant avec l'écologie sociale et l'écologie mentale, à travers une écologie de caractère éthico-politique" (Environmental ecology should be treated as one with social and psychological ecology by means of an ethical-political eco-sophy). See: Guattari, F. (1989) *Les Trois Écologies*. Paris: Galilée

<sup>6</sup> The "Right to have Rights": Hannah Arendt invoked the 'right to be part' of a political and civic community as the opposite of, as she interpreted it, "Heimatlosigkeit" or "Weltlosigkeit". This right is for her the fundamental human articulation that is only enabled by life in communities. See: Arendt, H. (1949) *Es gibt nur ein einziges Menschenrecht*, in: *Die Wandlung*, Hg. Dolf Sternberger. Lambert Schneider, Heidelberg 4. Jg., Dec 1949, p. 754-770 (translated from: *The Rights of Man: What Are They?* in *Zs. Modern Review*, NY 1949, 3 (1), (24-36) p. 760

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upgrading them. It will re-transform the linear metabolisms of today's cities into circular metabolisms of maximally reduced consumption and pollution.

"Don't cut down more trees than can grow in the same time". This simple mathematical equation, be-aware-what-you-consume-and-calculate-the-time-and-cost-to-reproduce-it<sup>7</sup>, says everything about Ecopolis! It is the synthesis of the first manual on sustainable forestry which was published in 1713 by Hans Carl von Carlowitz<sup>8</sup>, a Saxon Mining Engineer in the service of Elector August II the Strong. In the light of current global political instability the demands of the Club of Rome in its 1972 essay "Limits of Growth" for "a world system that is: 1. sustainable without sudden and uncontrollable collapse and 2. capable of satisfying the basic material requirements of all of its people"<sup>9</sup> appear far more pretentious and far less realisable than Carlowitz's humble agrarian recipe of two and a half centuries earlier.

Ecopolis cannot "satisfy all basic requirements". But, there again, what could?

Ecopolis starts small, grows "bit by bit" and seeks to learn along the way<sup>10</sup>. Yet it can transform what already exists by considering the most important contextual element - people - and adjusting its method depending on its effect<sup>11</sup>. Most of all, Ecopolis can and must raise new, uncomfortable questions rather than offer wrong, unrealisable and complacent answers.

Ecopolis is driven by one common will: the desire to survive on an unequally shared and badly exploited planet. Hence, the first question it should raise is: how can the social mixity, the condition for urbanity proposed by Tönnies' contemporary Max Weber, and the various advantages of Ecopolis be re-enriched? And the second question: is Ecopolis necessarily urban? Can the revival of the hinterland and countryside solve the dilemma of the arrival cities and megacities by offering the three essential qualities of human development: inclusion, education and work?

### **Don't plan cities for darlings Towards Social Sustainability**

<sup>7</sup> See an anthology of the concept of sustainability in: Revedin, J. (2011) Sustainable or to age well, in: Contal, M. H. and Revedin, J., "Sustainable Design II: Towards a New Ethics for Architecture and the City". Arles: Actes Sud

<sup>8</sup> Carlowitz, H. C. von (1713), reprint (2009) of the 2<sup>nd</sup> Edition from 1732. Sylvicultura Oeconomica oder haußwirthliche Nachricht und Naturmäßige Anweisung zur Wilden Baum-Zucht. Leipzig: Verlag Kessel

<sup>9</sup> Meadows, Dennis L.; Meadows, Donella H. (1972): Die Grenzen des Wachstums. Bericht des Club of Rome zur Lage der Menschheit. Stuttgart: Deutsche Verlags-Anstalt, p.158

<sup>10</sup> See Charles Edward Lindblom, one of the early developers and advocates of the theory of *Incrementalism* in policy and decision-making. This view (also called *Gradualism*) takes a "baby-steps", "muddling through" or "Echternach Theory" approach to decision-making processes. In it, policy change is, under most circumstances, evolutionary rather than revolutionary: Lindblom, Ch. E. (1959) The science of 'muddling through', in: Public Administration Review, 19, pp. 79–88

<sup>11</sup> See the PERT Program evaluation and review technique described firstly by Fazar, W. (1959) Program Evaluation and Review Technique in: The American Statistician, Vol. 13, No. 2, p.10

In Max Weber's era Germany lost World War I but then gained a social-democratic system that would establish reforming planning policies based on precisely these three values: inclusion, education and work. Friedrich Ludwig Jahn, widely known as the "father of gymnastics"<sup>12</sup> had discovered the active use of the public realm – of gardens, parks and greenbelts - as a health-giving resource for a maltreated working class. The Lipsian physician Moritz Schreber and his pedagogical follower Heinrich Karl Gesell would define urban gardening as a source of self-support and self-development for rural migrants. These findings were the subject of interdisciplinary discussions with architects, space and city planners and combined into a way of managing the public realm which is uniquely relevant. With their *Siedlungen* embedded in actively used open spaces, Magdeburg, Hamburg, Cologne, Berlin and Frankfurt still prove today that, if needs are clearly identified, planning processes can find socially sustainable solutions which perfectly stand the test of time.

What was the early German Avant Garde's concept of *open space*<sup>13</sup>?

Let us take the example of Martin Wagner, the East Prussian architect and theorist and pupil of Hermann Muthesius who titled his dissertation *Sanitarian Urban Green Space: a contribution to a theory of the public realm*: "The sanitarian and physiological value of urban green space is only appreciated at the moment in which it is physically used, in which it is appropriated by sports, games and gardening work"<sup>14</sup>. As the city planner of, first, Rüstingen and then, after 1918, Berlin's Schöneberg district, Wagner did not merely oversee the planning of his cities. Rather, he would plan and be responsible for them himself, supported by an explosive interdisciplinary team of urban rebels: not only Heinrich Tessenow and Bruno Taut but also Mies van der Rohe, Hugo Häring, Hans Scharoun, Hermann Gropius and Hans Poelzig as architects, Leberecht Migge and Erwin Barth as landscape planners and the gardening firm Jacob Ochs as agricultural consultants. Ochs were the developers of the 200m<sup>2</sup> "everyone-becomes-self-sufficient-kitchen-garden" which Leberecht Migge would define as "a garden made of physical work: simple, economic, varied and creative, healthy, social, educative and protected, which rescues the poor and poorly integrated."<sup>15</sup> It embodied the respectful and successful transposition of rural life, its culture of rational sharing and its aesthetics of simplicity, into urban space.

This policy of creating *Siedlungen* is not to be confused with the British Garden City movement.

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<sup>12</sup> Jahn conceived the idea of restoring the spirits of his countrymen by the development of their physical and moral powers through the practice of gymnastics. The first *Turnplatz*, or open-air gymnasium, was opened by Jahn in Berlin in 1811 and the *Turnverein* (gymnastics association) movement spread rapidly. See: Jahn, F. L. (1816) *Die Deutsche Turnkunst*. Berlin.

<sup>13</sup> Revedin, J. (1991) *The Concept of Open Space in the Reformatory Architecture of the German Avant-Garde*. Master's Diploma Thesis. Rome/Milan: National Library/Milan Polytechnic

<sup>14</sup> Wagner, M. (1915). *Das sanitäre Grün der Städte: ein Beitrag zur Freiflächentheorie*. Berlin

<sup>15</sup> Migge, L. (1927) *Der kommende Garten*, in: *Gartenschönheit* 8

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The housing, working, educational and leisure elements meant that these were 'mixed-use' settlements rather than mere 'residential paradises'. They were blended into the existing urban tissue, puzzle pieces to be merged with the collective memory of the city and not masterplanned, foreign bodies forced upon 'untouched nature', irretrievably devaluing intact agricultural land.

What was Martin Wagner's planning process?

Before putting pen to paper, a detailed needs analysis was carried out with the help of local associations, cooperatives or interest groups such as sports clubs, urban farmers and allotment-holders, workers and after-work cultural clubs. This bottom-up research led to the drawing up of a profile and the identification of the most adequate site within the urban tissue. Now the participatory design workshop with specialists from many fields could begin. This realisation of semi-public governance in the shape of housing and development cooperatives was just the beginning of this process because *Siedlungen* soon needed to be adapted, densified, serviced and enriched by, for example, public cultural or educational institutions such as the famous "*Hallenbauten*", the drivers of the human right to education and, hence, incubators of civicity<sup>16</sup>. There were dance halls, theatre schools, writing circles, craft workshops, fruit and vegetable markets, flower shows and vintage fairs which, often combined in multifunctional public halls, brought the social classes together on the basis of their common talents, aims and interests in a beautiful preview of Hannah Arendt's *vita activa*. This revival of the active, manual creation of values<sup>17</sup>, an antidote to the depersonalisation of industrialisation, promoted skills, knowledge and objects that, unlike commercial products, embodied the dimension of time: "An object is cultural to the extent to which it can endure: this durability is the very opposite of its functionality."<sup>18</sup>

Engaged by people's feedback the planning team would respond with a long-term design approach.

In this kind of process it is clear that every association member, inhabitant or user was just as important as the members of the *Bauhütte* - as Wagner's design teams called themselves<sup>19</sup>. The principle was common learning rather than top-down-dictates. At every possible opportunity Wagner would instruct his *Bauhütte*: "Don't plan cities for darlings!"

The definition of progress was a house, kitchen garden, education and workplace - for everyone! It is wonderful to see how this definition spread through the Scandinavian countries. At the

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<sup>16</sup> Revedin, J. (2000) Monument and Modernity: *Hallenbauten* as Elements of Construction of the Democratic Town". Doctoral Thesis. Rome/Venice: National Library/IUAV

<sup>17</sup> Revedin, J. (2012) The Importance of Making, in: Architecture in the Making: The gau:di student competition on Sustainable Architecture" Paris: Gallimard Editions Alternatives

<sup>18</sup> Arendt, H. (1961) *Between Past and Future*. New York: The Viking Press

<sup>19</sup> A reference to the medieval *Bauhütten*, building corporations that worked by closely and continuously exchanging knowledge, signing their projects as a team.

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foundation of the Swedish *Folkhemmet* ('People's Home') in 1928, Per Albin Hansson announced – and here we also feel the influence of Tönnies' treatise - that: "The home is commonality and the feeling of togetherness. The good home knows no privileged and no slighted, no darlings and no outcasts. There, no one despises anyone. There, no one tries to gain advantage at the expense of others. The strong neither oppress nor plunder the weak."<sup>20</sup>

Between 1918 and 1930, the creation in Berlin of more than 200,000 housing units and the associated services, urban gardens, sporting and educational areas gave work and homes to innumerable people. Yet in 1930, after the deepest recession in history was followed by the takeover of power by the National Socialists, Martin Wagner had to resign from his position and leave his city for the USA. One regret remained with him for the rest of his life: "In 1926, as the smallest unit in Britz (47m<sup>2</sup>), which had a monthly rent of 45 Reichsmarks, became *available for all*, we believed, full of hope, that things were now looking up. However, what went up more than anything else in the following months were bank interest rates."<sup>21</sup>

History, at least, rewarded Wagner's vision: UNESCO named Berlin's *Siedlungen* a World Heritage Site in 2008 and they remain today the areas of housing in the city with the highest rate of tenant satisfaction and lowest rate of turnover. His final initiative, the 1930 group exhibition on the ecologic building technology of '*Das wachsende Haus*'<sup>22</sup> - the "ecological" self-developing house which was notable for its innovative use of energy and materials - marked his farewell to a Germany that, given the limited taste and perspective of Adolf Hitler, would chose the petit-bourgeois garden city as its "blood-and-soil" settlement model.

### **Don't be hasty**

#### **Towards Economic Sustainability**

It is needless to say that my "Radicant" Design methodology<sup>23</sup> follows the steps of Martin Wagner's incredibly convincing planning process: 1.) responding to a community's call, 2.) filtering true needs through a long-term interdisciplinary urban analysis 3.) installing participatory design laboratories "with the people by the people"<sup>24</sup> 4.) scaling up the results and catalysing them in the direction of circular economies.

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<sup>20</sup> Speech during a 1928 debate in which Per Albin Hansson first created the expression "Folkhemmet". Source: Wikipedia-folkhemmet, translation courtesy of Ola Swardh.

<sup>21</sup> Revedin, J., (1991) op. cit. page 22

<sup>22</sup> Revedin, J. (2011) Sustainable, interdisciplinary, participatory: architectural processes for a society in change, in: Revedin, J., op. cit.

<sup>23</sup> Revedin, J. (2014) op. cit.

<sup>24</sup> Friedman, Y. (2011) Architecture with the people, by the people, for the people. Barcelona: Musac/Actar. In the introduction Yona Friedman explains: "I chose this title paraphrasing Lincoln's definition of democracy, a definition that is just but seldom implemented."

What, you may ask, is the position of architects with their scientific, technical and creative formation in this self-developing process? Yona Friedman has an answer: "Architecture has to be conceived with the people, materialised as much as possible by the people. This does not mean that the architect has no role in the process: he can provide ideas, techniques, new aesthetics – but these will only be validated by the people." The architect as a generally trained but individually and emphatically acting mediator and companion: this is the common vision of a new generation of planners that I try to realise in my teaching through long-term, participatory community projects in developing countries and through "Living Urban Laboratories" in my Swedish University town of Karlskrona<sup>25</sup>.

My chosen analogy for this self-developing morphology is radican plants. This analogy links the architectural design process with the bionic sciences. Radican plants - ivy, strawberry, wisteria - develop in a convincing, "open work"<sup>26</sup> morphology. They are multi-rooted and, thus, intelligently adaptive to milieu changes. They can overcome inhospitable, unhealthy and even poisoned ground by rhizoming and they grow in complicated, non-linear orders in the same way that our human unconscious forms our individual and collective memory.

But Radican Design also tries to push Wagner's process further. "Don't build cities for darlings" will become deeper, richer and more precise if our process of urban analysis is given more time. Wagner had to rush in order to satisfy his politicians and investors.

What if we could use the political detachment of academic work to slow down these processes?

What if we stressed the understanding of individual needs and of collective memory more deeply and used both drivers to promote individual engagement – Tönnies' *unity of human will* - to the point at which Arendt's *vita activa* was triggered at the very start of the design process?

What if we managed to engage people to participate in the very creation of the public realm? Encouraging them to work not only, as in the *Siedlungen*, *inside* it but also *for* and *through* it?

What if, given that we know that anything donated is not *erarbeitet* – acquired by individual work - and can thus end up unappreciated, mistreated and economically unsustainable, we never again thought of or measured development aid in terms of money but in terms of knowledge transfer?

And what if, finally, we tried to directly involve the promising next generation of critical minds by

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<sup>25</sup> Revedin, J., editor (2015) *The Living Urban Laboratory Karlskrona 2014/2015: Participatory Design for circular growth and social inclusion*. Karlskrona: BTH and Revedin, J., editor (2013) *The Living Urban Laboratory Karlskrona 2012/2013: Participatory Design for circular growth and social inclusion*. Karlskrona: BTH

<sup>26</sup> Eco, U. (1989) *The Open Work*, Cambridge MA: Harvard University Press. The idea of the Open Work was developed by Umberto Eco in the 1960s: Artistic or literary works were purposely left unfinished, generating an "openness" of interpretation. The author invited his public to participate through an "open end" – the interactive process of creativity and transfer of interdisciplinary knowledge could start. See also the transposition of the Open Work concept into Urban Design followed in Sennett, R. (2007) *The Open City*, in: Ricky Burdett and Deyan Sudjic (editors), *The Endless City*, London, New York: Phaidon Press, p.296

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teaching not only Academic Social Responsibility or *Mit-Leiden*<sup>27</sup> - the compassion for peoples' difficult situations - but also Academic Economic Responsibility - the handing-over of our findings to communities and those responsible for city planning<sup>28</sup> so that they can carry on the process *by themselves*?

Radicant Design could, slowly but surely and starting from the very bottom – the land, the natural soil - eradicate autocratic top-down masterplan doctrines through the simple fact that any development would happen inside a given place and through the place itself, creating a circular economy out of that place's own potential. The only skill we would need to re-learn is that of how to include time in all phases of the design process.

Time is free. Haste is costly.

I had the opportunity to experience this important difference in two related projects a decade ago. Since January 2005, in the wake of the previous month's Tsunami, I participated voluntarily in the reconstruction of Banda Aceh, Sumatra's most north-westerly city, by guiding the design process for an Orphan's Hostel and Polyclinic that the Austrian Social Ministry had decided to donate. I left Austria with students and technical assistants for our shared "Sumatra year".

Even though this was an aid project with inherent limits to self-empowerment and self-responsible engagement, we managed to win acceptance for the project and, hence, ensure its longevity by simply shifting the focus of our initial analysis. The questions 'What do you need?' and 'How should it be?' were directly followed up by such even more relevant queries as 'Who will use it?' and "Who will take care of it in the long-term?"

The Orphan's Hostel and Polyclinic became a successful project – rather than one of those many ghost towns which is built by international donors and then deserted - because we placed it inside a rural community that wanted to host it. We inserted the programme into an existing village and, even if we were unable to involve the inhabitants in the building work itself, we at least engaged them in the planning process from day one.

To enable this process which was based on community discussions, interviews, area mapping,

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<sup>27</sup> Luise Rinser cites Willy Brandt in „Was, wenn wir ärmer würden?“ (What if we became poorer?): „Die wahre moralische Kraft einer Gemeinschaft beweist sich nicht in einer hohlen Programmatik von Parteien, einer politischen Führung, einer geistigen Elite, sondern in seiner Bereitschaft zum *Mit-leiden* – in seiner Fähigkeit, denen zu helfen, die Hilfe brauchen – und in seiner Toleranz gegenüber den anderen. Frieden ist, so verstanden, kein Zustand, sondern eine Lebenshaltung.“ (The true moral strength of a community is not demonstrated by hollow party programmes, political governance and an intellectual elite, but in the readiness for compassion – in the capacity to help those who need help – and in tolerance towards the other. Peace is, understood in this way, not a condition but an attitude to life.) (Translation by the author) In: Rinser, L. (1974) Was, wenn wir ärmer würden. Percha am Starnberger See: Verlag R.S. Schulz, pp 51-52

<sup>28</sup>The conceptual findings of my "Living Urban Laboratories" at Karlskrona are collected in annual course publications and handed over to inhabitants, project stake holders and the City Planning, see note 25.

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historic studies and material research we stayed for weeks in the field, hosted by the small Sultan Hotel, the only hotel left standing in the centre of Banda Aceh and two blocks away from the devastated 50 square kilometres of the formerly densely developed coastal district. In the evenings, all NGO workers and UNHCR officers met at the Sultan Bar while my students met other students who had returned home from nearby Kuala Lumpur to bury their relatives and help their families. It was here in this small bar that I understood that time is much more than money that can be invested only once. Time is endless and re-invests itself.

We had to hurry with this Austrian project because politicians wanted to see results – any results – within a year. At the same time, however, we were given an incredible second chance. The local students represented a range of disciplines. There were economists, geographers, engineers, social scientists – and some were architects and planners – and they were involved in a locally formed Tsunami NGO. They invited us to join their evening walks through the “forbidden grounds” – the devastated flooded area placed off-limits by the Indonesian military – where they joined their relatives and friends for sit-ins on the foundations of their former homes. Individual grief became collective and we would pass hours singing local folk songs. During those evenings the idea arose of creating temporary settlements for the survivors who wanted to stay here rather than move into the UNHCR tent camps outside the city! The idea was totally illegal but this did not prevent us from starting to outline a possible zero-cost reconstruction project. During the day the students would map the huge mounds of waste created by the 30 metre high waves within the city in order to identify reusable scrap material: trunks of palm trees, hardwood, bricks, metal sheet. We would then spend the evenings in the Sultan Bar matching these materials into “kits-of-parts” for self-build housing based on a structural skeleton of three possible sizes which respected cultural habits and local building technology and was accompanied by a system of collective basic services. Any finishes, wall or floor materials, windows, colours and decoration would be decided by the self-building team itself.

This small rebel project turned out to be endlessly flexible, recyclable and totally free. But my role was to do nothing more than to ‘not be hasty’ and to invest some time in listening to those young people, sending them out to map the trash of their former homes and sketching kits-of-parts on the paper napkins of the Sultan Bar.

These self-build homes, which were never intended to be there for long, are still there today. They spread, illegally and in a radicant manner across the coastal district. They densified, changed, developed, progressed further and came to embody the combined principles of *unity of human will* and *vita activa*.

“This kit-of-parts self-build catalogue of bits and pieces for those wishing to rebuild an emergency house on the foundations of their former property resulted in a self-perpetuating

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model project. We discovered the manifold possibilities of building out of flotsam, scrap metal and uprooted palm trees and we discovered the respect of individual memory, enabling it to become collective.”<sup>29</sup>

Community projects of the following years, the street lighting of Cairo’s Garbage City or the community centre in Rio’s Vale Encantado Favela offer different interpretations of economic sustainability. Yet they share the common denominator of replacing money with the strength of dialogue, innovative “low-tech” or, better, “right-tech” and the precious beauty of simplicity.

### **Don't colonialize**

#### **Towards Cultural Sustainability**

Could there be anything more colonializing than the British export star, the Garden City? I don’t think so. What was created as a small scale new town for some happy few grew to a global urban epidemic, eating up more ground, water resources and infrastructure than any other urban settlement concept. It imported geographical, geological, ecological, historical, aesthetic or - in brief - cultural connotations from another part of the world and declared them to a model of “progress” or a “standard”. It led to suburban sprawl, gated communities and social and ethnic segregation.

It could be that the global damage wreaked by the Garden City is only surpassed by that wreaked by a Swiss invention: the so called machine-for-living-in and its related machine-to-zone-human-activities.

Radicant is the opposite of colonial. Radicant plants root from a singular, specific ground and place. Yet radicant plants also follow a universal pattern of growth, resistantly rooting, bravely rhizoming and developing in a multi-layered way. They are, all in all, amazingly adaptive to a place and its character.

Translated to the world of design, this becomes a continuous dialogue with the site - or “locus”, as Aldo Rossi put it: “The singular but universal relationship between a local situation and the constructions found in that site” - a relationship which is “written analogously *between the lines*, in a fabric of feelings.”<sup>30</sup>

Translated to our design process, this means walking the streets and squares of a city for

<sup>29</sup> Wojciech Czaja (2013) The right development aid: Know-how, patience and other precious resources. Vienna: konstruktiv 291

<sup>30</sup> In the introduction to the American edition of „L’architettura della Città“ (1966) Peter Eisenman will write “Rossi’s analogous drawings, like his analogous writings, deal primarily with time. They represent the suspension of two times: the one processual, the other atmospheric.” Rossi himself, regarding the urban-message-in-between-the-lines will write in this edition’s introduction: “Like the figure in the carpet, the figure is clear but everyone reads it in a different way. Or rather, the more clear it is, the more open it is to a complex evolution.” In: Rossi, A. (1982) The Architecture of the City. Cambridge: Massachusetts Institute of Technology, p. 19

months and years as true *planners-in-residence*, experiencing them through our own and the inhabitants' senses. Many paths may seem difficult to understand because they are the cultural bonds of the people, but a slow, profound process of urban analysis will replace imported foreign geometries and energy or traffic schemes with patterns that we organically grow from the context.

Let us remember that the masterpieces of the public realm were created by neither planning nor planners but were responses over time to waves of innovation and revolution, destruction and reconstruction, abandonment and migration. They developed over centuries. Take Venice's Saint Mark's Square which took 500 years to complete.

As it is rooted in a place and has to individuate the only possible drivers for change, the inhabitants of that place, the design process must remain an open-ended, complicated order or "the absence of preliminary rules: architecture must conduct the creation of rules on its own."<sup>31</sup>

Once again, the projects in Cairo or Rio are not universal solutions. They are individual, small-scale models of a complexity formed from random additions, vicinity and neighbourliness, mutuality and lively disorder which can be scaled and transposed to similar cultural truths: "The land", as Christopher Alexander beautifully puts in the epilogue of this book, "solidifies. The community deepens."

When we were called in in 2009, Cairo's garbage collectors community didn't want a new city. They wanted a new image of - a new attitude towards - their existing, illegally built city.<sup>32</sup> Hence, our two-year-long mapping exercise addressed all potential sources for this new image, from childhood memories to future visions. The enrolled project partners and stakeholders ranged from the garbage workers themselves to representatives of the Coptic Church and the local women's association.<sup>33</sup> Many immaterial and material roots were individuated and activated and many, even in the roughest political conditions, held their ground. Or at least, and this is the important point, held some of it.

Needs and visions were filtered through a highly diverse *Bauhütte* of local and external students, researchers and professionals which developed widely rhizoming ideas. The most economic and yet most enchanting common goal turned out to be light. Lighting the streets meant security,

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<sup>31</sup> Friedman, Y. (2008) *L'ordre compliqué*. Paris: Editions de l'Eclat, p.13, translation by the author

<sup>32</sup> The author established the LOCUS Foundation in 2009 to support research and participatory design processes for sustainable urban development. The organiser of the international architecture prize the Global Award for Sustainable Architecture™, LOCUS enjoys the patronage of UNESCO and is supported by the Gdf-SUEZ Foundation and Bouygues Batiment International. The Community Project in Cairo started in 2009 and is still ongoing. LOCUS brought the Indian architect Bijoy Jain (Global Award for Sustainable Architecture 2009), an expert in low-tech design into the planning process in 2011. [www.locus-foundation.org](http://www.locus-foundation.org)

<sup>33</sup> Research and project partners were the Swedish Umea University, the French Centre and University in Cairo, EQI Environmental Quality International Cairo, APE the Association for the Protection of the Environment, the Coptic Church and the Garbage Collectors Association Moqattam. For the technical support and installation of the solar plant the author thanks Synergie Solaire, France. See a more detailed description in: Revedin, J. (2014) op. cit. pp.14-19

sociability and a new self-value but, on top of this, it also meant a hint of the sublime, of untouchable beauty.

How did we arrive at this result? Cultural empathy demands that one reinvents the toolbox of dialogue for every place. In Arab contexts such as Cairo one cannot list and count, discuss in public or document in photograph and film. Here, one has to turn to individual interviews, draw by hand, play a piece. Where private spheres are untouchable, fancy Western visions of sharing are out of place. Where self-building techniques have been lost, they can only – and softly - be re-introduced by the provision of role-models, by setting an example.

This is how I came to be sitting in the workshop of the Women's Association, cutting recycled metal sheets into what would become the skin of our street lamp, inviting the working women to take up this "male" activity. Today in Garbage City not only the main square and a further street are lit by solar energy, but the lanterns are exclusively produced by women. A brand new production line has been installed and sells small-scale lamps as design objects, squaring the circle of the project's own economy.

For the Brazilian favela there is a totally different story to tell. Here, the cultural driver was not a new image of the city, combined with women's empowerment by design, but the right to education. Rio's remotest favela which overlooks Ipanema Beach at the end of the road to the Tijuca Massif is inhabited by 40 families. They partly live as guides to the Tijuca Forest which is now classified as a National Nature Reserve. This native rainforest was replanted by Emperor Dom Pedro II and his enlightened engineer Manoel Archer in 1862 after decades of ecologic devastation caused by the lucrative but, over the long term, damaging monocultures of the coffee plantations which had been established in the early 19<sup>th</sup> century. The forest, which served as a model for such large urban parks as the Bois du Boulogne and Central Park is today known to botanists, orchid collectors and eco-tourism enthusiasts from across the globe but its history is so forgotten that it is not even mentioned in Brazilian schoolbooks. The community wanted to build an information centre and small Tijuca Museum which could also be used for community meetings and social events<sup>34</sup>. Here, the cultural challenge was to find a structural system that would suit the steeply sloping and highly inaccessible site better than the usual Niemeyerian concrete-frame systems. Our participatory workshops enabled us to individuate the unexpected potential in some locals who were former welders in Rio's shipyards. Echoing our experience in Sumatra, they proposed another kit-of-parts solution: a flexible and easily transportable metal-frame structure completely made from used profiles from the harbour's scrapyards.

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<sup>34</sup> LOCUS Project partners are the Gdf-SUEZ Foundation, active in the community since 2012 as the supporter of the multi-ethnic Jazz Festival Encantado Alto da Boa Vista and the local associations Associação de Moradores e amigos da Taquara do Alto da Boa Vista and Vale Encantado Turismo Sustentavel. LOCUS brought the Malaysian architect Kevin Low (Global Award for Sustainable Architecture 2013), an expert in light structures for tropical climates, into the planning process in 2013.

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The project is still a building site because the façade has yet to be designed and the recycled windows and louvers have yet to be chosen but the shell of the stilted building which soars over a vast and shaded public square already draws members of neighbouring communities up the hill to inspect and to comment. What if this lightly structured building which was reclaimed from the scrapyards and gently touches the ground were to become a durable yet economic typological model?

None of the open processes shown here can prove or promise anything. What they wish to do, however, by constantly learning from their own errors and results, is to endorse Saint Exupéry's century-old conclusion:

"If you want to build a ship, don't drum up the men to gather wood, divide the work and give orders. Instead, teach them to yearn for the vast and endless sea."<sup>35</sup>

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<sup>35</sup> Saint Exupéry, A. de (1948) *Citadelle*. Paris: Gallimard

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