

Dirty Imagery - The Challenge of Inconvenient Reality in 3D Landscape Representations

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1 Introduction

We all are aware of the dubiousness of glossy architectural and landscape architectural magazines, showing a polished design world that simply doesn't match with reality. New projects are documented before inauguration, without the merest hint of users or everyday derangement of order, shown in best weather conditions or perfectly floodlighted for the professional photographer. When going to see these projects, the visitors are sometimes shocked and disappointed by the inconvenient reality that they meet. Well-intended details of the designer are changed or converted by the users, aesthetic arrangements are disturbed by unforeseen pragmatism, ugly traces of usage are becoming visible or aging of material surfaces. Where wood is chopped, splinters must fall – where people live and work, disorder is guaranteed. Where users act out, waste is left behind, vandalism occurs and alteration by use happens.

Not only the design-professional print media seem to ignore reality in an inscrutable way, also digital representations and designs apparently debase to depict intended reality in a naive and ludicrous way. Happy skaters jump through the foreground of perspectives or scenes, glibly and invariably young people peer 'into the camera', the weather is always fine and not a single speck of dirt or waste is visible – poor or homeless people don't exist, that goes without saying. In these babyish projections even the – in reality – most crowded public space is fitted out with the maximum of a handful of overdressed yuppies, carrying fancy handbags on their way to whatever office. In interactive scenes manifestations of human or animal life are often missing because of the lack of adequate billboard or 3D characters. Otherwise – even worse – stiff avatars are limping through the virtual worlds as if they would move on rails or just came fresh from Doctor Frankenstein's laboratory – as well as from persiflage and burlesque virtual worlds such as SecondLife.

All this has nothing in common with landscape and urban reality. This means a big challenge for research on *authentic* three-dimensional landscape imagery and scenes, no matter if these projections are interactive or static, rendered in real-time or pre-produced. The authors are searching for picture languages that bring back inconvenient reality into the aseptic worlds of digital designs or representations, trying to find suitable indicators of everyday life and horse sense. Our main problem: In the field of digital landscape visualisation we can hardly build on existent auxiliary examples. That's why we have to study other visual disciplines, how they portray or give weight to true reality, fraught with beauty as well as serious problems, ugly things, poverty, waste, decay.

1.1 Patina – Dirty Chic

In the ancient world, the phenomenon of aging metals was already known while no technical term had been established. One undeniable definition of modern times states that

(natural) patina is visible evidence of aging which arises from the alteration of a material with its environment. BALDINUCCI (1681) calls *patena* a term used by painters for universal darkening that time makes on pictures. Time may make patina or it is an artistic fake. Dematerialised definitions have been developed, inspired by picturesque images and connotations of ruins and wilderness, where aging has become a stylistic device (SCHRADER 2003).

In post-modern and post-industrial societies, patina as a used-look has become lifestyle and feature of pseudo-individual consumer items. Since the 1990s, digital dirt and weathering phenomena and its effects on appearance have represented topics of growing interest in computer graphics. In the production of Pixar's computer generated movie "Toy Story", weathering effects such as scuffs and dirt were added to the surfaces by painting textures and by compositing, using programmable shaders (FRENCH 1995). While these kinds of shaders are definitely interesting for landscape visualisation, they have the flavour of old Photoshop filters in new skins. Methods beyond digital patina of materials are of vital importance.

A different notion of ('Geographical') dirtiness is given by CARTWRIGHT et al. (2005) who relate 'dirty' to the complexity / level of detail of urban elements in virtual worlds.

2 The World Out There

2.1 Images of Misery and Adversity

To translate the hardship of reality into impressive as well as realistic pictures is one of the most important challenges for international aid organisations. They depend on donations of people, who usually never saw the countries and places, where those people or institutions are situated, that finally receive the money. These kinds of pictures of reality always constitute a delicate tightrope walk between hardness and hope. If they are looking too shocking, they will scare off even the sound do-gooder. If they are looking too harmless, the street passer or reader of promotion material will ignore them. And if they are too *beautiful*, they entail lack of understanding on the part of the political correct donor. If we – as landscape planners, landscape architects and graphical communicators – replace the above mentioned donor by the *client*, and the aid organisation by the *planner* or *designer*, we can see, that those professional images (Fig. 1), depicting misery and adversity, frame a suitable starting point concerning a serious search for *dirty imagery*, which can show the oftentimes inconvenient reality in 3D landscape representations.

Alice Smeets, winner of the international photo competition "UNICEF-Photo of the Year" (2008), copes with the mentioned tightrope walk in a convincing way. Although the little girl has to live in inconceivable conditions between dirt and rubbish, she is wearing a clean white dress with matching ribbons in her hair, rushing barefoot through the mud towards some festive occasion. The photo illustrates the living conditions of the girl in an unadorned way, but it also shows her courage and positive energy (UNICEF 2008).

If we practise our change of part again, imagining, that we intend to confront our clients with reality that is free of cosmetics – dirty imagery – but also sell the positive impact of our planning or design projects – project-based 3D landscape visualisation –, we would be

almost there, if we could generate a multilayer complexity that is comparable to those of the documentary photograph of Alice Smeets.



Fig. 1: Little girl in the largest slum of Port-au-Prince, Haiti. “UNICEF-Photo of the Year 2008” by Belgian photographer Alice Smeets. (Source: UNICEF 2008)



Fig. 2: Lingang City, China. 3D perspective by GMP architects, Germany. (Source: Shanghai Harbour City Development Group 2005).

2.2 Images of Never-never Land

Lingang City, a sub-city of Shanghai, completely emerging from the drawing board since 2003, is a major distribution centre of Yangshan Deep Water Port in China. “The design inspiration coming from GMP – an international designing corporation from Germany, goes like this: a crystal bead falling from the heaven arouses ripples which form the major structure of the whole area” (Shanghai Harbour City Development Group 2009). Gerkan, Marg and Partners, situated in Hamburg, won an international competition for a *city-style expertise* (WELLERSHOFF 2003) and delivered the explanatory images and perspectives for this ideal city of 300.000 inhabitants (in 2020). These generic 3D computer graphics can be seen as a role model for big-scale investors, seeing the urbanizing world through rose-coloured glasses (Fig. 2). Not a single detail indicates any realistic aspect of the sober Chinese urban reality. Even the pasted-in business-style comrades of cardboard, lingering along the Hamburg Alster-like but palm-lined promenade, don’t show any attribute of local Chinese people. This is how never-never land looks in the eyes of a western-oriented Asian city investor, featuring the correct membership-book. And this is what German colleagues deliver in an obsequious and unhesitating way. It could not be more naïve and mindless. Not surprising, that the reputation of computer generated scenes and images becomes increasingly ruined.

Grumping and complaining is always easy, doing it better however is difficult. In the whole field of landscape or architecture visualisation we cannot build on any existent auxiliary example. We should better study other visual disciplines and how they portray reality.

2.3 Photography Beyond Fashion

Although photography does not generate but rather captures real things, only few photographers represent severe reality in their photos. Nevertheless professional photography forms a crucial benchmark for the assessment of *successful realism* in picture representation. Interesting and relevant for us are those professional photographers, who not only try to picture reality but also implement their own “project” and “message” into their images.

The French photographer and artist JR tackled the field of poverty, misery and sorrow – without any acted consternation and without losing his sense of humour. In his project “28 mm : Women” he tried to underline the pivotal role and dignity of women by photographing them in their daily lives in Kenya, South-Sudan, Sierra-Leone, Liberia and Brazil. Afterwards he is posting huge reprints on the walls of the home environments of his human motives (Basilic Studio 2009). In Rio de Janeiro JR photographed women – asking them *to make a face* – who live in the Favela “Morro da Providencia”. He chose those mothers, wives and daughters for whom crime, violent loss of loved ones and arbitrary repression are part of everyday life. The enlarged photographs of them were then mounted on stairs and walls of the favela (Fig. 3).



Fig. 3: Architecture and environment with faces. Favela “Morro da Providencia”, Rio de Janeiro (2008). Project “28 mm: Women” by French photographer JR. (Source: jr-art).

It is a successful attempt of giving reality a face and simultaneously raising interest for a project and purpose. What we learn is that this kind of multilayered impact only can be achieved by the combination of technical and artistic skills and methods. The picture itself

is not sufficient, it has to be combined with the context and it has to be authentic. Authenticity is the key for realistic images and it always includes some dirtiness. The sad eyes on the walls of the favela in Rio de Janeiro remind us on the fact, that every building, every urban open space and every urban landscape only can look authentic, if authentic life and authentic people are included and visible. That is why the glossy architecture magazines are so clownish, they display environments and buildings, which are made for people, but all people and their traces of living are removed.

Another example of a very successful *overlay* of real outdoor environment with *real destiny*, was a publicity campaign of Amnesty International (2006) with the title “It’s not happening here, but happening now”, which brought the worldwide abuse of human rights straight to Swiss doorsteps. The displays of selected bus, tram and train stops as well as of phone boxes in Switzerland were used to manipulate the viewer’s awareness. 200 posters, each one adapted to match its surroundings, displaced brutal scenes from China, Iraq and other countries into the middle of spotlessly clean Zurich (Fig. 4+5). The awarded campaign showed how a single scene or detail could dramatically change the reality perception of the viewer – and the *reality content* of an image. Such disturbing scenes have to be well selected and perfectly arranged, only then they can serve their purpose.



Fig. 4+5: Amnesty International campaign “It’s not happening here, but happening now” (2006), showing scenes from China (left) and Iraq (right). Made by Walker Advertising Agency, Zurich. (Source: Amnesty International Switzerland)

3 First Attempts of Dirty Imagery

Photorealistic computer visualisations fundamentally entail exactness, perfection and authenticity – yet these aspects may be purely superficial (SHEPPARD 2001). Because of this, REKITTKE & PAAR (2005) propose theses of graphic reduction and abstraction of visualisations in planning, which objective is to reject any use of artistic license. While this still seems a crucial point, it comes into conflict in presentations of landscape architecture, especially in design competitions, where – rather than any scientific or technical criteria – artistic expression and fashions come to the fore.

3.1 Representing Bangladesh Reality #01

“Design must become an innovative, highly creative, cross-disciplinary tool responsive to the true needs of men. It must be research oriented, and must stop defiling the earth itself with poorly designed objects and structures“(PAPANNEK 1984/2000). Nothing could contrast more with our accustomed and comfortable western reality than a country like Bangladesh. Masses of poor people bustle about in public space, waste is laying around and the every day picture is busy, fast-paced and crowded. When representing a project or design, this reality cannot be hidden. It has to be included without losing focus on the subject that has to be highlighted – a difficult assignment. Together with Dutch students of landscape architecture, in 2008 the authors were working on the city of Khulna (1.4 million people) in Bangladesh (REKITTKE et al. 2008). With his results, Tomas Degenaar, one of the students of the Khulna studio, won the second prize of the IFLA Student Competition 2008. His strategic project was situated at the territory of the centrally located but heavily neglected railway and goods station of Khulna. Severe river flooding and heavy monsoons are threatening the people, living a precarious life at this low-lying ground. By proposing some basic landscape architectural interventions like shoreline stabilisations, footway connections, accesses to the water as well as to the hinterland and planting of trees for shadow and food, Degenaar is preparing the ground for a medium-term transformation of slums into semi-formal neighbourhoods – even when a potential date of expiry is implied (Fig. 6).



Fig. 6: Essential landscape design for a slum area in Khulna, Bangladesh, Tomas Degenaar, Wageningen University. (Source: Tomas Degenaar, IFLA Student Competition 2008)

By showing a large number of common people and displaying everyday scenes in his design perspectives, Degenaar reached a crucial balance that was everything other than easy to reach. Only the second sight of the viewer clarifies the included project ideas; the first sight is focused on peoples' characteristics and reality. The successful visualisation is predicated on the fact, that the shown people are integral elements of the vibrant scene. This is not the end of a long way towards dirty imagery, but it is a good start. The classic medium of photomontage made it comparatively easy to bring in all the different individuals and the dirt. But what happens, when we have to deal with true 3D scenes, where vegetation and people are the biggest challenge concerning realistic images?

3.2 Representing Bangladesh Reality #02

A second example shows the less successful attempt of generating dirty imagery of the Bangladesh environment. Although the method of 3D visualisation (Lenné3D technology) is very sophisticated in terms of interactive collage (REKITTKE & PAAR 2008) and representational realism of the vegetation and water, the final image sample looks *volitional* and stiff (Fig. 7). At the very end of composition of the images, the makers of these images, two Master students, forgot to play their cards right: they failed to remember Humphry Repton's before-and-after paradigm, and in their collages the extensive use of people photo cut-outs is distracting; the pasted-in people have the character of extras and they don't contribute to a realistic scene.



Fig. 7: “Ponds as Spatial Structuring Components in the City of Khulna, Bangladesh”. Master Thesis Work, Bas van de Sande & Pieter Foré (with Paar & Rekittke), Wageningen University. Basic visualisation using Lenné3D plant and software (Source: SANDE & FORÉ 2008)

3 Conclusion and Outlook

Realistic images – *dirty imagery* – result from realistic and authentic scenes. Undoubtedly, many of us are able to produce realistic and correct 3D representations of architecture and environment, but if we forget to include reality in the shape of realistic actions of authentic people – or animals – our images will remain escapist. If the image of a project appears unrealistic, the probability of unrealistic features – inadequacies – in the implemented project seems to be high. If a project is for the people, why not show the people?

The architectural disciplines have to overcome their split personalities. On the one hand, they proclaim that they design for individuals and society, on the other hand they want to appreciate the beauty of their products without the disturbing human factor. Turning this principle around means a challenge that can also produce multiple advantages. If project visualisation displays the disdainful reality with all details, it can disclose mistakes and deficits in a project. This is what visualisation is for, not for the production of beautiful images. If we prepare people for reality by the use of realistic scenes, we avoid disappointment during reality check. And this is something important for our guilds. At the end of the day, unrealistic images cause negative effects for those who use and produce them. Only one thing can be worse than misleading digital design representations, that is bad design. By telling authentic and plausible stories we can document and attest our competence in good design.

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