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# Urban sustainability as a political instrument in the Gulf region exemplified by projects in Abu Dhabi

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## Abstract

The states of the Gulf Cooperation Council (GCC) are highly urbanised. The urban areas in the Gulf are nationally and internationally the focal point of economic development and political attention. Gulf cities are under rapid transformation and spaces of social, economic, ecological and political conflicts. While such dynamics gave rise to a differentiated debate on the political and social dimensions of urban sustainability in post-industrialised countries elsewhere, the narrative differs radically for the Gulf region. Urban sustainability in the Gulf will be discussed in this paper along three case-studies from Abu Dhabi that relate to the terminological and practical inception, adoption and transformation of the concept: The selected examples are modern residential neighbourhoods, the Abu Dhabi Vision 2030, and the eco-city model of Masdar. In combination with the general urban planning history of the city, these projects allow to trace the concept of urban sustainability in time and to understand its adoption into the Arabic language and the interrelations of the term to the Gulf regions' specific political, ideological, and socio-cultural structures. Based on the works of Gunder (2006), Davidson (2010) and Brown (2016) the case studies reflect the concept of sustainability reduced to 'sustainable development'. As such, it is becoming an 'empty signifier' that can be applied or instrumentalised by the ruling elites. This paper argues that the concept of urban sustainability in the Gulf is a foreign 'import' that serves in situ as a political instrument controlled by the ruling elites to stabilise the existing hegemonic power structures and to legitimise the political order.

## Zusammenfassung

Die Staaten des Golf Kooperationsrats (GCC) sind hochgradig urbanisiert. Die städtischen Zentren stehen national und international im Mittelpunkt politischer sowie ökonomischer Aufmerksamkeit und Entwicklung. Dadurch sind die Städte des Arabischen Golf einem rapiden Transformationsprozess unterworfen, womit sie unweigerlich zugleich auch Räume sozialer, ökonomischer, ökologischer und politischer Konflikte sind. Während diese Dynamik in post-industrialisierten Ländern differenzierte Debatten um das Politische und Soziale urbaner Nachhaltigkeit auslöste, zeigt sich in den Golfstaaten eine radikal andere Narrative. Dieser Artikel untersucht den terminologischen und anwendungsbezogenen Umgang mit dem Konzept urbaner Nachhaltigkeit in der Golfregion anhand von drei Planungsbeispielen aus Abu Dhabi: Moderne Wohngebiete, der Entwicklungsplan 'Abu Dhabi Vision 2030', sowie die Eco-City Masdar. Diese Planungsprojekte erlauben es, zusammen mit einem Blick auf die Stadtplanungsgeschichte Abu Dhabis, die Entwicklung des städtischen Nachhaltigkeits-Diskurses sowohl zeitlich zu skizzieren als auch dessen Übernahme und Adaption in den sozio-kulturellen und ideologi-

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schen Kontext der Golfstaaten zu verstehen. Ausgehend von den Arbeiten von *Gunder* (2006), *Davidson* (2010) und *Brown* (2016) reflektieren die Fallbeispiele das Konzept von Nachhaltigkeit als reduzierte ‚nachhaltige Entwicklung‘, die zwangsläufig als ‚leerer Signifikator‘ der Praxis der Machthaber unterworfen ist. Die Hypothese dieser Analyse lautet, dass urbane Nachhaltigkeit in der Golfregion zum einen einen entkontextualisierten Import im Sinne einer neokolonialen Logik darstellt; zum anderen als ein politisches Instrument der herrschenden Eliten fungiert, welches die bestehenden hegemonialen Machtverhältnisse stabilisieren und die politische Ordnung legitimieren hilft.

**Keywords** urban sustainability, the urban Gulf, sustainable planning and development, Abu Dhabi

### 1. Introduction

The states of the Gulf Cooperation Council (GCC) are highly urbanised. This is particularly true for city-states like Kuwait, Bahrain, Qatar and the United Arab Emirates, with urbanisation rates ranging from above 85% to 99.2% (Qatar), according to the UN World Urbanisation Prospects 2014 Revision (*UN* 2015). The urban areas in the Gulf are the national (and international) focal point of economic and social development and politics. Since the discovery of oil and the onset of modernisation, the degree of urban development has become a measure for societal progress. Today's cities in the Gulf emerged under similar circumstances of the rapid oil modernisation process in the region since the second half of the 20<sup>th</sup> century. Therefore, and due to their history as tribal societies, they represent a relatively comparable political and societal context. Thus, the urban Gulf has to juggle several challenges simultaneously: the timely pressure and the endeavours to implement the national economic, social and ecological strategies for the future of the development process in the GCC states.<sup>1</sup>

Most recent urban planning projects in the Gulf use sustainability as a branding strategy for new developments and 'place making', promising a highly modern and sustainable living environment for future generations. These examples include Kuwait City, Manama, Abu Dhabi, Dubai, Muscat, Riyadh and Jeddah. The city-branding and -marketing is often performed through iconic structures like museums, opera houses or mosques as in Doha, Muscat, or Abu Dhabi, culminating in the world's tallest buildings such as Burj Khalifa in Dubai. Apart from the spectacle of iconic architecture and the representation of power through an "economy of fascination" (*Schmid* 2009), Arab Gulf cities radically reconstruct and build new residential 'neighbourhoods'<sup>2</sup> according to principles of eco-sustainability.

The city of Abu Dhabi (and capital of the United Arab Emirates) exemplifies our analysis of urban sustainability as a political instrument. The city offers eminently suitable examples for the development and planning of new residential neighbourhoods into parts of an 'eco-city'. The development can be traced back to distinct phases that correlate chronologically with the introduction, adoption and transformation of the urban sustainability discourse in the Arab Gulf. The chosen case studies physically manifest this transformation process: The first phase 'Planning of residential neighbourhoods' in Abu Dhabi started in 1970. The second phase saw the emergence of the 'Etidama Emirati Neighbourhood Design' as part of the Abu Dhabi 2030 vision and the third phase is the futuristic *Masdar City* project. Similar residential neighbourhoods can be found from Kuwait to Muscat.<sup>3</sup>

The promoted concept of sustainability in the Gulf is based on post-industrialised models and modern lifestyle and consumption patterns that conflict with the local scarcity of resources, as well as with Arabic culture and its traditional adaptability to the environment (*Nebel and von Richthofen* 2016). This conflict is utilised to propel a vision of the newly modernised Gulf societies. Urban sustainability is construed and applied as a concept of eco-sustainable use of scarce environmental resources (space, water, energy, material, etc.) – and less as a concept of political participation, aiming for societal consensus etc. Although the citizens are considered as the target group for the newly built projects, promising convenient and attractive places to live and work, they are not given an active part in the planning or decision taking processes. The sustainability discourse in the Gulf is a dialogue between planners, investors and rulers, and mostly excludes the citizenry.

Terminologically, urban sustainability in the Gulf is imported as a neocolonial concept based on the early

reductionist definition of the Brundtland report, but focusing, eventually, only on the two pillars of economic and ecological sustainability. The concept of sustainability in planning used here is based on the works of *Gunder* (2006), *Davidson* (2010) and *Brown* (2016).

*Gunder* traces how planners in the West gradually adopted sustainability as an “organizing principle of one of the discipline’s most important new discursive fields” (2006: 209). This process replaced former concerns about social justice, environment and emancipation as leading discourses. The uncritical and widespread adoption of sustainability created a “potentially pernicious interpretation of sustainable development, an often dominant or hegemonic take on sustainability, and how governments have used this interpretation to justify policies that are not necessarily sustainable or even socially just” (*Gunder* 2006: 209). He further argues that “the definition of sustainability can be and often has been deployed selectively by planners or politicians as a materialization of dominant institutional ideologies supportive of growth and capital accumulation that maintains the existing status quo of class inequalities, with limited regard to the environment” (*Gunder* 2006: 209). Regarding the Brundtland report and subsequent interpretations of sustainable development *Gunder* argues that “diverse socioeconomic and environmental issues are constituted under one mantle of a triple (economic, environmental, equity) or quadruple (plus creativity) bottom line of accounting constituting an all-embracing, sustainable-development rubric” (*Gunder* 2006: 209). As we will see, the ‘sustainable-development rubric’ is unilaterally mobilised in the Gulf by the ruling elites to sustain the status quo.

Based on a concept developed by *Zizek’s* reception of *Lacan*, *Davidson* (2010) describes sustainability as an ‘empty signifier’: “by explicating the master-signifier (e.g. sustainability) we perform an inversion that causes the master-signifier to be ‘no longer a simple abbreviation that designates a series of markers but the name of the hidden ground of this series of markers that act as so many expressions effect of this ground’” (*Davidson* 2010: 392). *Davidson* further argues that “[...] we no longer have a marker that designates certain qualities; for instance, that sustainability is concerned with lower emissions, more community trust and more resilient economies. Rather, the master-signifier becomes the cause itself, losing its necessary qualities” (*Davidson* 2010: 393). Sustain-

ability understood as empty signifier will be used in this text to deconstruct the specific emergence, adoption and use of sustainability development in the Gulf.

With the positive connotation of ‘saving resources for the next generations’ the discourse also pretends to show some links to the ideas of political ecology that emerged in participatory, democratic contexts (e.g. *Latour* 1998). In the Gulf region, sustainability is politically constructed and has been turned into an ambivalent assembly: the dependence of the Gulf economies on non-renewable resources is high, while the environmental adaptability of the new consumption pattern is low. Sustainability is portrayed as an inevitable strategy justifying the obvious wasteful use of resources – and instrumentalised as an ‘eco-branded’ marketing strategy to positively connote and sell new urban planning projects as ‘clean, smart, and efficient’. This politically instrumentalised sustainability serves to justify the modernisation process and therewith also the hegemonic power structures of the ruling elites. The latter coordinate and enhance this modernisation paradigm to further their power and economic prosperity. While *Gunder* and *Davidson* remain pessimistic about sustainability’s potential to engender true change, *Brown* proposes to “consider the likelihood of its future re-emergence as a powerful political concept” by reverting the traditional definition of sustainability ex-negativo (2016: 116). While *Brown* invokes “critiques and the grassroots movements [...] as major sources of dislocation for dominant models of development and progress” (2016: 121), he argues for the civil society to ‘mature’ the concept of sustainability as a positivistic empty signifier. While this is a possibility in the West this text will demonstrate that this is precisely the opposite in the Gulf’s sustainable urbanisation project, where, given the lack of an empowered civil society and the prevention of its formation, the hegemonic rulers co-opt sustainability’s function as empty signifier for the proliferation of the status quo.

## 2. Contextualising urban sustainability in the Gulf region

The Gulf regions’ specific political, ideological, and cultural structures are defined by the hegemonic power system of hereditary monarchies, and thus a top-down principle in decision-taking and policy-making is taken. In other words, the Arab Gulf countries have “limited formal but considerable informal

political representation" (Sillitoe 2014: 6). This informality is also mirrored in "informal contracts between the rulers and the ruled, which may generate and prevent the collapse of a regime" (Demmelhuber 2015: 96). The social order and the legitimacy of the ruling families constitute a mutual agreement and stability in the Gulf – that stands in opposition to the republics in the Middle East that have seen the revolutionary upheavals of the so-called Arab Spring. This durability of the political order in the Arab Gulf states is mainly stabilized due to the wealth and the rent system that allows direct relocation of the oil and gas rent to the citizens and the absence of a taxation system. Furthermore, the legitimacy of the rulers in the Gulf is based on the fact that the monarchies, having emerged from tribal societies, were established at the same time the modern states were founded. Hence, the states were built "from scratch and did not make use of an existing polity" (Demmelhuber 2015: 99). This turns the monarchs into personified representatives of the social and economic modernisation of the twenty-first century. In other words, they appear as "modernization managers" with the overall narrative of "making the impossible possible" (Demmelhuber 2015: 105).

With this specific state-building context of the Arab Gulf countries in mind, we find, accordingly, a general acceptance of sustainability from the society as a political target rather than an individual responsibility or option to participate. A comparable civil society and ecological movement that gave rise to the concept of sustainability in the West is non-existent in the Gulf where material and spatial resources are seemingly limitless. Yet, sustainability is indeed invoked to 'obscure irreducible conflicts'. What one group calls 'sustainable' might be highly inimical to the interests of other groups" (Brown 2016: 117).

Claims to actively participate in politics in order to shape the future of the country remains a Western idea grounded in liberal, democratic structures. It should also be considered that the era of modernisation just started in the middle of the 20th century in the Gulf and is still in full swing. We can grasp the current 'role' and understanding of sustainability in the Gulf region with one aspect of *Bruno Latour's* 'political ecology', in the sense that sustainability "requires to be understood as an alternative to modernization" (1998: 222; emphasis by the authors). Both can hardly be achieved at the same time as they are mutually exclusive. In most development strategies of the Gulf, priority is given to the modernisation of infrastruc-

ture and economic activities. Sustainability, precisely ecological sustainability, is highly valued, but appears as a subordinated goal or claim in the practical implementation of the development plans. This applies, e.g. for scarce resources like water or land use, for the sake of economic profitability or representation of prosperity (the display of water e.g. with fountains or water works in public is still highly common in the Gulf). As *Gunder* (2006: 209) argues, "[t]hese are pro-market interpretations of sustainable development that water down the concept of sustainability to literally that of business as usual, with, at best, an objective to partially reduce urban-consumer energy consumption and waste outputs while still maximizing the potential for all-embracing economic growth with little regard to overall resource depletion" (2006: 209).

When talking about urban sustainability in the Gulf region, the official narrative addresses ecological and economic sustainability; the latter is mainly understood as sustainable development (i.e. modernisation) project as criticised by *Gunder* (2006). If we think of the Urban as a social space and the cohabitation of heterogenous social groups, Gulf cities can be regarded as alarming examples of the idea of globalised integrative societies: places where different groups and people coexist with similar rights, e.g. the right to belong which can also be expressed as the right to purchase land property, to get permanent or resident visa status, etc. *Davidson* further argues that "[t]hrough interpreting sustainability as quilting point, it was argued that both social policy and praxis have been changed" (2010: 404). We can see how the hegemonic Gulf state policies do not envisage the (permanent) integration of transnational migrants as they clearly offer only temporary stays for foreign employees (*Deffner* and *Pfaffenbach* 2013). Social or cultural integration is not offered to foreign employees.

As a result, social politics in the Gulf neither show convincing efforts nor signs of dealing constructively with the increasing challenges of social and cultural pluralism and differentiation along citizenship, nationality, origin, social status, etc. Those challenges emerge from the persistently high dependence on a foreign workforce and expertise. In addition, non-national employees and their families, especially migrants in the second or third generation, are staying for longer periods, impacting their feelings of belonging to the country. Gulf citizens fear being 'overlaid' by foreigners in their own countries, as they are by far and large outnumbered by foreigners in most GCC



countries, except in Oman and Saudi Arabia. Xenophobic tendencies are less publicly expressed or of little concern in everyday city life. However, the last years have seen considerable movements towards strengthening national identity and endeavours to nationalise the labour markets (i.e. to replace foreign workforce with nationals). This leads naturally to increased tensions in the societies. Therefore, it cannot be denied that social sustainability – in its general understanding of social integration, promoting pluralism and diversity, which aims for an improvement of the welfare and living quality of people and their communities (considering equitability, health, convenience etc.; see e.g. *Kristensen and Roseland 2012*) – is a major concern for the future of cities in the Gulf. Yet, it is not a topic being explicitly addressed by leading voices in the still young urban sustainability narrative.

There is no doubt about the economic sustainable ‘value’ of Gulf cities. Within the realm of the GCC states’ endeavours to diversify their economies away from the hydrocarbon revenues cities are the centre points for economic activity, development and as knowledge producing places to recruit own, i.e. national, human capital.

In contrast, ecological sustainability of cities appears as an oxymoron per se: Gulf cities are the most resource-depleting inhabited areas. Thus, they can hardly fulfil the ideal of systemic equilibrium between consumption and resource regeneration, as most ecological sustainability definitions imply (*Sillitoe 2014: 19ff.*). Therefore, ecological sustainability in cities is rather based on efficient, minimalistic resource depletion, as well as application of renewable energy alternatives, even though *Berger (2014)* points out that the cities even under the sole lens of economic and material economy, by definition, can never attain a truly sustainable state. Based on this regional context, we grasp urban sustainability from an urban planners’ perspective, firstly, as a guiding principle for city planning and regional development that superseded previous leitmotifs in planning such as fairness, equity and social justice (*Gunder 2016*). We do not confine our focus to the material side of the use of resources; but extend it to the societal consequences of built residential areas and urban spaces. We analyse the production of urban space as inclusive or exclusive spaces, i.e. the ability of those spaces to enhance urban life and to enable (or disable) encounter, exchange and communication of strangers with each other – if desired. Needless to say that the lat-

ter aspect should take into account that Islamic culture has distinguished socio-cultural features that contrast with a Western democratic understanding and use of open public space. Values and traditions regarding ‘the right to the city’, i.e. for free, open, public exchange and encounter, still differ from liberal ideas of city life. In the case of the Gulf, these values are unilaterally crafted by “those who speak the hegemonic language [who] are better able to temporarily fix its meaning” (*Brown 2016: 117*), namely the ruling elites.

Secondly, our understanding of urban sustainability derives from the concept of ecological sustainability in the sense of eco-efficiency in the use of scarce resources. We acknowledge the primacy of the economic development as eco-efficiency or ‘sustainable development’ as it represents the main motivation for the ruling class to induce action. “Consequently, for planners and others who still give primacy to the ideals of progress, growth, and continuous wealth accumulation, and perhaps more importantly, for their institutions that provide legitimization for their planning agency, sustainable development’s acceptance of this highly utilitarian market imperative makes it the only acceptable, hence hegemonic, articulation of sustainability” (*Gunder 2006: 215*).

And thirdly, our definition is based on the hypothesis that the discourse of urban sustainability aiming for eco-efficiency goals is instrumentalised for political-economic interests. “In many sustainable-development discourses, the marginalized concerns for this third criterion of social equity are inherently political and outside the techno-rational scientific approach central to and dominant within considerations of market efficiency and environmental protection” (*Briassoulis 1999 in: Gunder 2006: 215*). The instrumentalisation occurs precisely at the moment when the hegemonic ruling elites claim authority over how, when and where to ‘fix’ the empty signifier function of sustainability.

This morally unassailable narrative helps the ruling systems to strengthen the existing hegemonic power structures and to justify the ongoing economic diversification strategies and the continuing high dependency on international consultancy and neocolonial influence in the private economy. “Sustainability as an ideal societal goal in itself, as captured and embodied by ecological modernization’s sustainable development, well may protect only the status quo of competitive globalization and facilitate the maintenance

of the interests of groups or individuals who already largely have achieved what they desire and want" (Gunder 2006: 218).

Two general questions are underlying the presented analysis of the narrative of urban sustainability in the Gulf: *Who* is speaking or leading the discourse about sustainability? And *for whom* is urban sustainability targeted?

Although the Gulf monarchies represent a radically different historic-political context, we refer to the idea of the "post-political dimension of urban sustainability" (Mössner 2016: 973). It offers great parallels of how "[d]eveloping, promoting, exporting and implementing models of urban sustainability must be understood as a process of gaining political power to decide, to exclude, to construct hegemonies, and to create and maintain social inequalities" (Mössner 2016: 973).

### 3. Modern residential neighbourhood planning in Abu Dhabi

The origins of modern residential neighbourhood planning in Abu Dhabi are linked directly to the times of economic growth and demographic development initiated from the income of the oil-rents from the 1950s onwards. Until then, cities in the Gulf had only small numbers of inhabitants living in traditional settlements. These were either trading points in the interior or port cities along the shores of the Persian Gulf and the Gulf of Oman. Thus, with the sudden modernisation boom and the increase of inhabitants a swift era of building and extending the infrastructure and residential areas began.

Sources regarding the early days of modern urban planning and development are scarce (Cantacuzino and Browne 1977; Elsheshtawy 2016). But the predominance of foreign ideas in the planning process of those new residential areas is obvious. *Bani Hashim* (2016) traces the influential foreign planners that arrived in Abu Dhabi in 1961; one of the companies involved was the British firm John H. Harris. As a first measure, they cut generous roads and intersections through the traditional neighbourhoods of Abu Dhabi and, thus, destroyed them forever (*Bani Hashim* 2016). The 'tabula rasa' approach was a common practice in post-World War II urban planning in the West, and subsequently also in the Gulf. The approach aims at

creating irreversible facts in favour of modern planning.

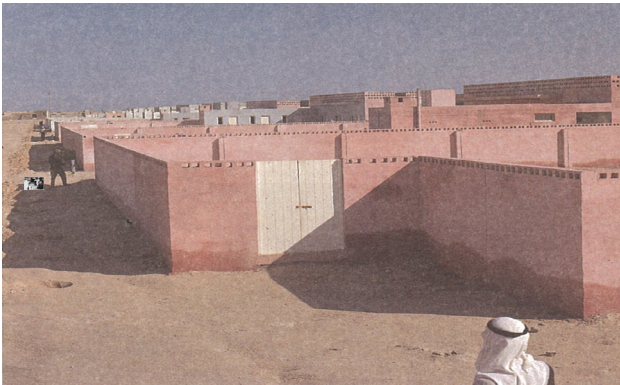
*El-Aswad* (2016) analysed the changing size of the plot-sizes and housing types in the city of Al Ain (UAE). The original courtyard houses gradually covered the plots which sprawled over the boundaries of the city. In a country where there were seemingly endless swathes of desert, the distance between places became the constraining factors for development. The resulting urbanisation patterns in Gulf cities, as studied also in neighbouring Oman by *Al Gharibi* (2014), resemble American suburbs in its proliferation of detached houses, car-dependent mobility and social and functional segregation. This settlement pattern is not only contrary to the socio-cultural heritage in the Gulf region but wastes resources such as space, water, energy and material.

Yet, this type of development planning, running contrary to existing resource scarcity, has not led to any remarkable contestation from the citizenry. The improved standard of living due to modern infrastructure and available technology has naturally not resulted in any protest. On the contrary, it has underpinned the loyalty to the ruling leaders and increased appeasement due to the provision of housing as part of welfare services paid for by the welfare state. The 'Abu Dhabi Real Estate Market Forecasts' study projected a residential demand growth of 5.2% or an annual addition of 48,400 units to a total of 277,500 residential units needed by 2013 exclusively geared towards Emirati nationals (*Abu Dhabi Urban Planning Council* 2010). In 2011, Saudi Arabia had an estimated requirement of 1.65 million units by 2015 (*Smith and Freeman* 2014).

The urban design of the city of Abu Dhabi seemed to be influenced by pragmatic answers to the problem of large numbers. With respect to the planned road grid *Makhlouf* explains, "[w]ith a grid, you can easily add to it as a city grows" (in: *Reisz* 2013: 10). The result is still visible in Abu Dhabi today. A 'Manhattan-grid' of roads bakes in the Arabian sun. *Reisz* calls this urban planning technique "Master Planning with a Land Rover" (2007: 168). The functional city and its potential endless proliferation along the shores of the Gulf had reached its limits as an adequate plan.

This example shows the strong influence and import of foreign, non-autochthonic concepts on modern residential areas in the Gulf. Many urban concepts were

developed ex-novo while its designated residents had just recently been introduced to modern lifestyles. Arbitrary decisions regarding urban design (street-grids, block sizes, building heights, urban density, etc.) were legitimised only with references to a vernacular Pan-Arabian architecture. But the new residential neighbourhoods failed to include socio-cultural parameters relevant to national and expatriate residents such as intimacy, privacy of the family houses guaranteed through clustering of families like in vernacular settlements. Most of today's Gulf's citizenry is the younger generation born after the oil-boom, benefitting from the sudden national wealth and used to its social and economic development, which is embracing technological progress (see *Photo 1*).



*Photo 1* Image from the late 1960s in Abu Dhabi showing the final stages of constructing a sha'bi house. Source: Abu Dhabi Company for Onshore Oil Operations – ADCO

Political arguments for this kind of modern planning were grounded in the technical expertise of the planners, while those same planners would refer to the rulers and state that they only execute the ruler's 'vision' (see *Photo 2*). The inception, planning and implementation of these early modern residential neighbourhoods, justified by the improvement of modernised living standards, laid the ground for a sustainability discourse that could easily be grafted onto the technocratic planning approach. In other words, "[b]ehind the idea of modelling sustainable cities stands a deep belief firmly rooted in a technocratic planning tradition, whose central idea is linked to the possibility and necessity of reconstructing, transforming and reassembling new cities" (Mössner 2016: 973). This planning tradition is imported by Western or westernised planners to the Gulf. Thus, we cannot talk of a geographically and historically in situ grounded development in the Gulf cities, which could be deemed as a prerequisite for a locally embedded sustainability discourse, claiming to save or wisely use local resourc-

es. Rather, the idea of sustainability is a disembedded and hybrid version that continues uninterrupted as a neocolonial practice: On the one hand, it sustains the interests of global economic powers to keep a foothold in the region. On the other hand, the unquestioned belief in technological progress from the Gulf citizens is instrumentalised by the rulers in the region to establish their hegemonic politics.



*Photo 2* Sheikh Zayed and other officials pay close attention to Dr. Makhoul as he presents his cardboard model of his proposal for Abu Dhabi's northern shore. Source: Photograph courtesy of Abdulrahma Makhoul's private collection, email correspondence 16th Nov. 2016

The notion of neocolonialism herein derives from a twofold new dependency of the Gulf region's development in the era of late modernity: First, a dependency of foreign expertise and workforce. The discovery of oil was realised with the technical help and expertise mainly from the UK and the US; international companies started to modernise the infrastructure to extract the natural oil and gas resources. And yet, the economies are still heavily reliant on international expertise, represented by highly skilled international expatriates. Moreover, the labour markets are also dependent on high numbers of foreign low-wage workers. Second, the notion and discourse of sustainability as a useful target was introduced in national development plans without emerging out of national values and beliefs; rather, it was surfaced and adopted behind closed doors with strategies and plans suggested by foreign planners and development advisers.

Here it is helpful to re-examine "Laclau's (1996) definition of an empty signifier which is a 'signifier without a signified'" as mobilised by Brown (2016: 117). Based on Laclau and Lacan, Brown argues "in being named, the empty signifier gives meaning to each of the previous moments of dislocation and, indeed, de-



finer the system as a coherent (though threatened and incomplete) whole" (Brown 2016: 119). In the context of Gulf hegemonies such a strategy is highly appealing as it can preserve the status quo and justify future decisions of ruling elites. As Brown continues, "Laclau (1996) is quite clear that the process by which one signifier comes to dominate as representative of the entire system is subject to hegemonic struggle and this within the context of a field of uneven power relations. What Laclau does not appear to state directly is whether the grouping function of the empty signifier (the manner in which it expresses relations of equivalence between diverse, threatened signifiers) should also be regarded as arbitrary in practice" (Brown 2016: 119). Thus, sustainability in the context of Gulf cities became an empty signifier in the practical realisation of so-called sustainable projects.

#### 4. Abu Dhabi Vision 2030 and Estidama

The Abu Dhabi 2030 Vision marks a new chapter in urban development in Abu Dhabi and the Gulf Region. Holistic in scope, it explicitly references ecological sustainability as means to achieve a new economic branding strategy and as a political instrument for its realisation (see *Photo 3*). It developed as a response to the stagnating urban and economic development faced by Abu Dhabi in 2000. By then, the bureaucratic administration of master-plans expanded and executed the development of Abu Dhabi. This repetitive process assured constant work for the planners and ministerial officers and provided investment opportunities for the construction and real estate industry. But the 1990s saw economic stagnation and fluctuating oil-prices while the populations in the Gulf states kept on growing. The city-states of the Gulf realised the necessity of comprehensive economic development strategies centred on urban and regional development (as *von Richthofen 2016* also elaborated by the example of Oman).

As one of the first Gulf cities, Abu Dhabi adopted the 'Plan Abu Dhabi 2030 Urban Structure Framework Plan', also known as Vision 2030. The plan for Abu Dhabi placed the development of the city in the center of the national economic development strategy. The Framework Plan consisted of a series of eleven manuals and guidelines to cover all aspects of urban design from the 'Urban Street Design' to 'Coastal Development' to 'Utility Corridors' to 'Community Facility Planning' to 'Middle Income Rental Housing' to 'Safety

and Security Planning' and 'Public Realm Design'. Critique aimed towards rigid two-dimensional 'guideline + zoning-map' concepts that further complemented the plan had already emerged in Europe by the late 1980s. The US developed a so-called 'form-based-code' in response to it by the 1990s (*Parolek 2008*). But it was not until the 2000s that urban planning embraced sustainability rating concepts in the West: LEED (1994, USA), BREEAM (1998, GB), Minergie (1998, Switzerland), HQE (2009, France), DGNB (2009, Germany).<sup>4</sup> These rating systems exemplify the advancement of ecological and economic components of the sustainability discourse in Europe and the US at that time. The intersection of ecology and economy offered space for technical solutions targeted as 'eco-efficiency'.



*Photo 3* Billboard advertising new Emirati housing development at the foot of Jebel Hafet in Al Ain, Abu Dhabi. Source: Photographs by Yasser Elsheshtawy (C) NPUAE 2016

In response to emerging global, yet nationally tailored, sustainability rating systems in Europe and the US, the Plan Abu Dhabi 2030 introduced its own sustainability standard: The 'Pearl Rating System' for sustainability. The name was both a branding strategy and program in one since it approximately translates as sustainability or 'Estidama' in Arabic (تَمَادَتْسَالَا). This new rating system was designed for Abu Dhabi and was geared towards becoming the exclusive rating system for the Gulf. This competitive advantage was a central argument in the branding strategy for Abu Dhabi. In comparison to its Western siblings the 'Pearl Rating System' has relatively soft criteria to allow a certain malleability in case its residents had yet to fully develop the necessary eco-consciousness.

The 'Estidama' system is an incentive driven collection of twelve measures towards sustainable neighbourhoods. It collects so-called passive measures to reduce energy demand by self-shading, natural ventilation, smart orientation towards the sun, etc. with



existing technological solutions such as solar panels. The base unit consists of a single family home of up to 300m<sup>2</sup> inhabitable surface on a 600m<sup>2</sup> plot. A wall protects the privacy, narrow alleys within the neighbourhood allow for pedestrian circulation, yet the neighbourhood is accessible only by car – following the traditional pattern of street life and privacy in the Arabic-Islamic city. The residential character is maintained by granting a minimum of commercial and public service directly attached to residential needs including small shops, schools and mosques. Besides that, no work opportunities exist in the ‘Estidama’ scheme. The neighbourhood is reserved for nationals; foreigners and non-residents have no incentive to visit it.

The ‘Estidama’ residential neighbourhood is a direct evolution of the previous ‘national house’ developed in the 1970s. The main resource-consuming urban typology remained unchanged, exemplified by the waste of resources such as space, water, energy and material. The increasing socio-economic segregation worsened due to expensive gated community residences which target an affluent middle class – independent of nationality. ‘Estidama’ supports a narrative of sustainability that underlines the feudal social contract and inhibits change or development as dissected by *Valeri* (2013) and *Wippel* et al. (2014) for the case of Oman and applicable to Abu Dhabi and other Gulf cities as well.

‘Estidama’ can be read as a reaction to, and continuation of, post-colonial processes introduced by Western planners to Abu Dhabi and the Gulf from the 1970s onwards. As the word sustainability does not have a direct Arabic translation, the whole idea about sustainability led to repeated confusion about the semantics of the term in the Gulf context. In response to this problem the Western planners that developed the framework chose the term ‘Estidama’ as the closest and most common denominator of the idea. As *Brown* states “while sustainability [in the West] has intellectual roots in environmentalism, as it develops historically, it gradually ‘empties’ of its attachment to specifically environmentalist identities and develops as a signifier that can represent the concerns of diverse stakeholders” (2016: 120). By translating the term sustainability into ‘Estidama’ it was successfully stripped from its participatory and political component. The ‘Estidama’ sustainability rating system was a direct attempt to invent, define and market urban sustainability for Abu Dhabi and the Gulf Region. This

self-designed sustainability rating system was then used to confirm the sustainability of the ‘Estidama’ urban development plan. Urban sustainability in the guise of ‘Estidama’ is used explicitly as a branding strategy and as a political instrument.

## 5. Masdar City

Masdar City is a futuristic planning project (designed by Foster and Partners), modelling a masterpiece of a sustainable eco-city in Abu Dhabi, located next to the airport, thus relatively far from downtown Abu Dhabi. The original plan was very ambitious and proposed a 6 km<sup>2</sup> large zero-carbon, zero waste ‘eco-city’ for 50,000 residents and as many daily commuters. In the context of the UAE, that ranks among the worst per capita CO<sup>2</sup> footprints and solid waste polluters this seemed a noble goal. Masdar City features a new ground level personal-rapid-transit system of electric pods. Conventional cars were not supposed to enter Masdar City – a revolutionary system in Gulf cities which are characterised, unlike other urban regions in the world, by individual car-based mobility. The city itself is raised on a platform above this transport and technical level where a pedestrian network of narrow alleys and plazas connects low-energy buildings. The architecture of these buildings for commercial and residential use refer to traditional motifs of Arabian, notably Egyptian, Syrian and Yemeni architecture with climate responsive design strategies (*Masdar* 2008) (see *Photos 4* and *5*).

The ‘eco-city’ label was awarded by *BioRegional* and *WWF* (2008) which endorsed the scheme in light of the ‘Sustainability Action Plan to deliver the world’s greenest city’. Interestingly, the label was awarded *before* the city was built. “Through the ‘One Planet Living Communities’ programme, BioRegional and WWF UAE will work with Masdar to ensure the city meets the highest standards of sustainability, including specific targets for the city’s ecological footprint. Masdar City’s ambitious plans aim to exceed baseline criteria of the programme, making it a global benchmark for sustainable living” (*BioRegional* and *WWF* 2008, no page given). These standards clearly referred only to technical aspects of energetic optimisation. The eco-certification was the physical manifestation of “Abu Dhabi’s multi-faceted, multi-billion dollar investment in the exploration, development and commercialisation of future energy sources and clean technology solutions” (*BioRegional* and *WWF* 2008). Sultan al Jaber,

CEO of the Masdar Initiative, said in 2007, “Masdar City will question conventional patterns of urban development, and set new benchmarks for sustainability and green design” (*BioRegional* and *WWF* 2008 no page given).



Photo 4 'Masdar Development'. Source: Foster and Partners 2017, [www.fosterandpartners.com](http://www.fosterandpartners.com)

Curiously, the UAE branch of World Wide Fund (WWF) endorsed the project. WWF is a non-governmental wildlife advocate and not an urban sustainability expert. WWF benefits from being associated with this project because of its media profiling. The urban sustainability targets set forth by WWF can be met by *any* urban development project, as long as the coffee served in the shops comes with a fair-trade certificate. Knowingly or not, WWF became a facilitator of a hollowed concept of sustainability. Moreover, non-technical targets are deliberately weak or simply not applicable because of conflicting legislation as strategy that has been criticised as 'green-washing' (*Brorman Jensen* 2014: 53). The WWF endorsed weak criteria which do not fulfil the multi-dimensional urban sustainability indicators (*Thorpe* 2015). This is a blunt example of an eco-development organisation co-opting sustainable development for economic benefits and perpetuation of the status quo.

In conclusion, the realisation of Masdar to date is much less spectacular than the grand plans and promised renderings. Masdar City is praised for advancing technological solutions in light of climate change and post-oil scenarios (*Moore et al.* 2011). The architectural and engineering solutions indeed integrated passive design strategies to mitigate the energy footprint. But for all its technical advancement, the Masdar experiment did not yield innovative approaches, nor integrated solutions that were not already state of the art elsewhere in the construction industry.



Photo 5 Masdar City, central square and 'wind-tower'. Source: Photograph by Aurel von Richthofen 2014

Furthermore, the urban support systems are externalised to the 'hinterland' of Masdar (*Brorman Jensen* 2014). Industrial products, energy and fresh water, agriculture and labour are relegated outside the city boundaries where the soft eco-targets do not apply. The designated inhabitants of Masdar would probably fly in and out and could hardly be restricted in their energy consumption and life-style patterns that, in the UAE, demand car-based mobility outside the confined Masdar space. From a technical aspect, the confined space of Masdar gives the illusion of a controlled ecological footprint yet the full balance of externalities in construction and maintenance make it hardly sustainable. On the social level, the plan's compactness is at the same time a violent form of spatial and social segregation. Mildly put, *Ouroussoff* criticised Masdar as the evolution of the 'gated-community' phenomenon (2010).

Masdar City exemplifies the shift in 'urban sustainability marketing' in the Gulf region from a national level – as the residential neighbourhood planning demonstrated – to a global level with high media and political impact. Masdar City becomes the sustainable development project par excellence. This political strategy

is depoliticising the urban sustainability discourse by withdrawing any possible access or participation of the citizenry from the very beginning of the projects' planning or implementation (see Mössner 2016: 972).

### 6. Urban development and sustainability discourse in the Gulf region

The understanding and use of urban sustainability in the Gulf has seen different stages. The continuing thread in the sustainability narrative is that it is always seen in combination with development, i.e. modernisation, and that it has a political function. The ruling elites in the Gulf use this uncontested, (morally) positively connoted idea of saving scarce resources to underpin the ideology of the protective welfare state, which is aiming to guarantee its citizenry a best possible future. We have seen that "the discourse of sustainable development often is deployed simply to further the interests of the entrepreneurial supportive state and its institutions" (Gunder 2006: 209) in the Gulf as it has been in the West. In its practical application, urban sustainability is reduced to technological sustainability. There is no space for debate on urban development and urban sustainability in the Gulf. The only discussion occurs unidirectionally between rulers (paying clients) and planners (executing professionals) and is devoid of the idea of social justice or real environmental concern. In its realistic outcome, urban sustainability in Gulf cities is conflicting with socio-political and economic realities and interests. Urban sustainability has been introduced into the vocabulary of urban planning and regional development projects in the Gulf region since the 1990s. This idea of sustainability primarily emerged from a political context of democratic and participatory structures. The socio-political reality in the Gulf monarchies is characterised by the rentier state system and the protective welfare state (no taxes and full beneficiary service for citizens at the cost of top-down decision taking). The economic reality in the Gulf as a neocolonial setting (as introduced in chapter 3), is one of the major risks for the GCC states' internal political stability today. The high reliance on international expertise and work force comes hand in hand with the persistent lack of a local human workforce (in terms of quantity and skills). This is endangering the social contract between the state and its citizens, which was visible during the sporadic, albeit moderate, protests and uprisings since 2011 (e.g. in Bahrain, Sohar/Oman, Doha; Valeri 2012). They arose parallel to the

dismantling of public benefits due to the economic pressure from steadily falling oil prices.

Urban sustainability in the Gulf offsets socio-cultural values. Urban sustainability as a Western concept has been viewed critically by emerging economies, in particular those with rapid development based on massive use of fossil resources. Initially, urban development and urban growth were prioritised to house the rapidly growing Gulf population migrating to urban areas. System boundaries such as space, water and energy resources were not perceived, nor were social discrepancies acknowledged. A Western rhetoric of preservation of resources seemed irrelevant considering the massive gains to be made from exporting fossil energy and permitting any kind of growth. This view is vividly expressed by the chief planner of Abu Dhabi *Makhlouf*: "Sustainability is like a dance. The word is a fallacy. Nobody is buying it except for rulers. They are saying 'we are making things sustainable.' I say sustainability is only for God." (Reisz 2013: 7). *Makhlouf* indirectly acknowledges the ruling elite's hegemonic quasi-religious incorporation of the sustainable development debate. However, the unquestioned power of religion and its immediate link and self-claimed representation through the ruling elites mirrors the exploitation of religion for political purposes as well.

The three examples demonstrated different dimensions of instrumentalisation in socio-political, economic and techno-ecological spheres of sustainability in Gulf cities based on the case-study of Abu Dhabi: The fragile socio-political capital of Gulf cities is compromised by coopting economic development under long-term sustainable development via state-sponsored housing projects. The interpretation of sustainability as social capital is the endeavour to empower its own skilled human resources, to reduce the reliance on foreign employees and, thus, also to guarantee sustainability in the economic diversification process. The latter goes hand in hand with endeavours to nationalise the labour markets (i.e. replacement of foreigners by national employees). None of these goals are applied in the development and implementation of Gulf cities. In conclusion, techno-ecological utopias as capital like Masdar City become ornamental symbols further underpinning the authority of the rulers. The narrative of sustainability in the Gulf became a political instrument for social control and for justifying spatial reconfiguration to control and to represent ideologies and power through visions.



## 7. Conclusion

It seems to be evident that urban sustainability is an inevitable element in the discourse for the Gulf region. Depleting finite resources, growing population, climate change and fragile international relations are likely to increase the pressure on Gulf states in general and Gulf cities in particular to define their path for the future. Therefore, the urban sustainability agenda will likely continue to dominate the discourse on urban, spatial and societal development in the Gulf. Yet, the notion and use of urban sustainability in the Gulf has to be seen as radically different to critical academic, in particular post-political, debates (e.g. *Krueger and Agyeman 2005; Swyngedouw 2009*). Urban sustainability has neither been a societal request, nor a political agenda as a serious alternative, applicable as bottom-up concept. Rather, it is a hidden political programme in the region using the positive and participatory reputation the term generally stands for. Sustainability in the Gulf does not represent a new hegemony – it is a political instrument to stabilise the existing hegemonic power structures and political order of the monarchies. As we have seen in the Gulf on the case-study of Abu Dhabi, “sustainability’s radicalism is subverted, as it has been hegemonised by the narrower concept of ‘sustainable development’” (*Brown 2016: 116*).

As demonstrated by the case-studies from Abu Dhabi, the ecological dimension of urban sustainability is reduced to, and commodified into, eco-branding strategies such as the ‘Pearl Rating System’ or Masdar City. Urban sustainability is integrated into the sustainable economic development strategies of Gulf states as a mechanism to diversify the economy in light of a post-oil future. If we consider the inhabitants as target group for urban sustainability in the Gulf, there is a divide between a majority of foreigners living and working temporarily in the Gulf cities; and a smaller share of national citizens. Only the latter ones can be deemed as the target group for the visions of the rulers to guarantee a sustainable, i.e. healthy, attractive, convenient, safe urban living environment. We have demonstrated that urban sustainability in the Gulf has become “the chief empty signifier of planning discourse, replacing concepts such as ‘social justice’ and ‘public good’ as the central goal towards which all planners should aspire” (*Gunder 2006 in: Brown 2016: 116*). These are (Western) values that can effectively not be contested due to their moral integrity (see also *Swyngedouw 2007: 20*). The citizens are

not supposed to become participants in planning the future. The political structures rather keep the society passive and a-political without seeking societal consensus, but providing welfare for everybody. This preempts the “likelihood of [sustainability’s] future re-emergence as a powerful political concept” (*Brown 2016: 116*) in the Gulf.

The way the sustainability discourse has been silently implemented and accepted in the Gulf is similar to the critics of the recently emerged alternative perspectives on sustainability patterns and politics (see *Krueger and Gibbs 2007; Freytag et al., Gössling and Mössner 2014*). The most obvious commonality is, to lean on the critics of *Swyngedouw*, that “there is only debate over the technologies of management, the arrangements of policing and the configuration of those who already have a stake, whose voice is already recognized as legitimate” (2009: 610). The recognised voices in the Gulf are only those who pay and invent (foreign investors and experts), and those ruling the country.

Yet, a slow but steady change within the Gulf societies can’t be denied. Critical voices arise, notably amongst the younger generation, who question the inflexible, hyper-bureaucratic governmental structures and the lack of institutional control and efficiency. The awareness of the finite nature of the oil and gas resources and sorrows about the post-oil future in the Gulf are high. In this light, futuristic visions and urban projects that consume (and waste) vast amounts of public money are starting to be questioned by the citizens, who are also asking for more political transparency.

However, the young generation in the Gulf, who have only known an era of affluent oil wealth with steady progress and infrastructural and social development, believes firmly into modernisation and economic prosperity, which is also reflected in the discourse about, and faith in, economic diversification. This belief in material and technical solutions enhances the hidden power mechanisms of the instrumentalised urban sustainability discourse in the Gulf. While the general idea of sustainability emerged in post-industrialised contexts and started to be negotiated around political participation, such setting is not given in the Gulf. The political instrumentalisation occurs precisely when the participatory aspect is repressed from it. Therefore, we can’t discuss urban sustainability in the Gulf in post-political terms as there hasn’t yet been a political discussion.



The study of the inception, adoption and transformation of urban sustainability in the Gulf offers a critical perspective on power relations in the region. Urban sustainability in the Gulf is a political target rather than an individual responsibility. Urban sustainability in the Gulf is the continuation of the states' modernisation programme. It might become political when it will be discovered from rising critical voices amongst citizens in a foreseeable future to express their desires and own ideas of their future with a suitable, eventually more liberal political order in a post-oil era. This would be the case if the sustainability discourse becomes more social, and thus more political, embracing questions of the social spheres of the Urban (e.g. living together, living diversity, dealing with less state sponsored housing and allowances, etc.). Such a scenario would turn the current instrumentalisation of the term upside down: It could serve the citizenry as a voice to express their aspirations for more transparency, and eventually political change and more participation.

## Notes

- <sup>1</sup> By talking of the Gulf, we specifically refer to the modern Arab Gulf States, i.e. the six countries that form the Gulf Cooperation Council (GCC), namely Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. At the time of writing and publishing this paper, Qatar is still a member of the GCC. The political tensions in June 2017 might lead, eventually, to its resignation as a GCC member.
- <sup>2</sup> We use the term 'neighbourhood' referring to urban planning vocabulary which chose it intentionally to trigger the association of a socially grown urban quarter. Critically, we see a more appropriate term for these neighbourhoods e.g. as 'newly built residential areas' as they don't show the character of a lived, social community yet; but, due to their planned character they offer homogeneous structures. Named as 'neighbourhoods' they are part of the branding and marketing narrative of new planning projects.
- <sup>3</sup> Both authors lived and worked in Oman between 2010 to 2014 where they were involved in education, research and consultancy projects as geographers and urban designers. Throughout this time, they travelled within the six GCC states extensively and gathered empirical data. While most of their previous research work on Gulf cities is anchored around case studies in Oman, this paper chooses Abu Dhabi to exemplify one of the earliest and most consequential adoptions of sustainability in the Gulf.
- <sup>4</sup> The abbreviations stand for national rating systems, e.g. 'Leadership in Energy and Environmental Design' (LEED). The bracket indicates the date and place of inception. All

ratings have been harmonised under the ISO 14000 'environmental management standards' developed by the International Organization for Standardization (ISO). These rating systems have been marketed from the beginning under their respective abbreviation also in light of a growing global competition in the construction and real estate sector and are now synonymous with eco-planning standards in the industry.

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