Actors and orders: The shaping of landscapes and identities Carsten Paludan-Müller, maj 2008

Carsten Paludan-Müller er arkæolog og direktør for NIKU, Norsk institutt for kulturminneforskning. Følgende paper er skrevet i forbindelse med Inspirationsmøde # 2: Kulturarv og Forandring samt konferencen "The protection and development of the Dutch archaeological-historical landscape".

Landscape is a word of Dutch origin,¹ and a phenomenon with many interpretations. It is a constantly re-configured frame, and medium of human aspiration and action.

There is always more to the landscape, than meets the eye. Basically, our perceptions of and actions in the landscapes are shaped by who we are. And who we are is in many ways shaped by our relationship to our physical environment including the landscape. In other words, there is a dynamic interplay between formation of landscape-identities and formation of human-identities. In the following I shall first attempt a simple grouping into three of the different positions from which we can act in the shaping and interpretation of the landscape.

From there I shall move on to deal with different types of order in the landscape.

ACTORS

Natives

The natives are those that live and work in the landscape in question. They represent, at least in their own perception, a long local continuity of use and interpretation. Not necessarily a continuity of unchanged land use, but rather a living tradition of land use and attitude with emphasis on whatever economic activity would make sense for the natives in a particular time. The category of "natives" emphasises the local community but conceals conflict within it. This could be conflicts that manifest themselves as conflicting land use patterns. Such internal conflicts could also translate into fractional strategies of alliance with interests outside of the local community against the interests of competing fractions within the local community. In our own highly urbanised society the term "native" holds mainly positive connotations and is commonly ascribed attributes such as immutability, ecological sustainability and social balance or justice. Native communities are thus frequently idealised to serve as platforms for the critique of our own civilisation and its immodest dealings with landscapes, cultures, and resources.

Settlers

The category of "settlers" covers a different approach. For them the landscape frequently represents a neglected or miss-used potential. It is the settlers' mission to release the perceived potential. Settling is by implication often accompanied by a shift in land rights and in land use. Often, but not always, new land use means intensification. The earlier land use, as practised by the natives, is sometimes characterised as wrong, neglectful, or simply as unsophisticated. We often recognise such narrative patterns in the context of colonial endeavours, in need of justifying taking possession of new land. This was the case with the 17^{th} to 20^{th} Century European settlement of the North American continent, the 19^{th} Century French Colonisation of the Maghreb and the 20^{th} and 21^{st} century Jewish settling in Palestine. An example to the contrary could be the change of land use from mainly agricultural to mainly pastoral in El Andalus following the Christian "Reconquista" and the expulsion of the Muslim population.

¹ From 16th Century Middle Dutch "lantscap", a term promoted widely over Europe by the Dutch paintings from the period. See also Lorzing, H. (2001): The Nature of Landscape, a Personal Quest, Rotterdam, 010 Publishers. p. 25–26.

A violent contemporary example is currently playing itself out in Darfur. Here pastoral tribes, that were previously semi nomadic have become fully nomadic, driven from the North by climate change (radical loss of pasture mainly due to drought) compete with Southern agricultural tribes for land. The farmers traditionally burn the grass and weed vegetation from fallow lands in a cyclus to release stored nutrients from the vegetation to let the soil carry a new crop. To the pastoralist this represents a misuse of a grazing potential for their starving herds. This is a basic conflict about landscape resources and their use – but frequently perceived as an ethnic or religious conflict – which it is in fact only its surface.²

However, there are also other forms of new-settling taking place over shorter distances, culturally and geographically. This for instance takes the form of the urbanisation, suburbanisation, or leisurisation of rural landscapes within the ever-expanding fields of gravity surrounding or separating our cities. These processes transform landscapes from fields and pastures to suburbia with new infrastructural tissues and nodes facilitating the physical flow between urban centres and between them and their fields of gravity.

It brings in new people with different ways of using, and perceiving the landscapes. These may or may not conflict with those of "the natives". Often the "natives" are leaving, or at least abandoning their traditional land use due to socioeconomic and cultural macro-processes having undermined their viability or attractiveness.

Settlers will sometimes acquire their new home in some sort of deal with member of the native community. It could imply buying lands from a major feudal landowner who chooses to abandon his tenants, such as the Jewish purchase of property in Palestine. Or a deal along the scheme of the famous/mythic Dutch purchase in 1626 of the Manhattan Island from a native chief for the equivalent of 26 \$. However, it could also be a more direct purchase from a small property owner selling his old village home to an urban buyer looking for a weekend home. Evidently, some of the purchases mentioned above are almost bound to leave themes for conflict in their aftermath as we see it in Palestine.

A typical situation is the abandonment of traditional land use in rural or coastal settlements due to macroeconomic processes. If this takes place in landscapes not to far from major population centres, it is likely to translate into a suburbanisation or leisurisation of the landscape. If it takes place within the urban area itself, we may see a redevelopment along the lines initiated during the 1980'ies in the London Docklands. It heralded a worldwide – but often uninspired redevelopment of vast urban harbour lands that had lost their previous use in the reshuffling of global transport-systems.

Remote-controllers

The last category of actors in the landscape consists of those affecting it from a distance. They are a diverse group, spanning from more ore less anonymous investors, developers, high profiled rulers, over planners, antiquarians, conservationists and policymakers to NGOs, activists and artists. Increasingly – with the integration of still more local communities in the global market – decisions affecting the use of a particular landscape are taken in locations far from them. Those decisions will sometimes be specifically

² Welzer, H. (2008): Klimakriege. Wofür im 21. Jahrhundert getötet wird, Frankfurt a. M, Fischer, p. 94 – 99.

targeted towards the particular landscape as an administrative act of planning or investment. Often, however specific local effects will rise from general decisions about international trade, agricultural, fishery or transport policies.

Often remote controllers act in alliances with natives or settlers or fractions of these in the pursuit of common interests against other local interests. An example could be the alliance between the Central government of Sudan with the pastoral "settlers" against the sedentary agricultural "natives" in the current Darfur conflict. The Central government on its side is opting for the support of another type of "remote controllers", such as Chinese oil interests.³

In our particular context, it is worth being aware of the role many of us have as planners or antiquarians for the shaping of the landscapes in which other people live.

ORDERS

Order is semantically opposed to chaos. However, in the context of landscapes it may be more rewarding to distinguish those landscapes, dominated by one singular principle of order from those formed by competing, interlacing or superimposing orders. Evidently, chaos may often be the impression conveyed to us by landscapes formed by the mixing of several orders. Nevertheless, the concept of chaos has little heuristic value to our understanding of how such landscapes took their chaotic shape.

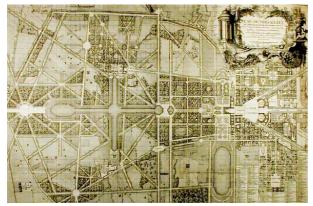
Singular orders

When a singular ordering principle is imposed upon a landscape it implies that a single actor or a single, coordinated group of actors (e.g. farming villagers) define the use of that landscape. The order imposed may extend to varying degrees in time and space. We have landscapes that for a short term may be strongly dominated or taken over by one ordering principle. This could for instance be a landscape, where an army is preparing itself for battle by eradicating or manipulating as many pre-existing structures as possible and construct new ones in order to maximize tactic advantages in the terrain. Such an order is highly unlikely to outlast the short-term perspective of the battle, and is likely in its aftermath again to be supplanted by a predominantly civilian (e.g. agricultural) ordering principle. Though in some cases the former battleground will (also) accommodate a new ordering principle in the form of the memorialisation of the battlefield, such as we see it in certain landscapes of Eastern France, where some of the bloodiest battles of the First World War were fought. In such cases the memorial symbolic dimension may become the dominant ordering principle to which all other logics of land use may have to accommodate.

Other forms of symbolic landscapes may be grand designs constructed with the overriding purpose of accommodating political power in a scenography expressing the unboundednes in time and space of that power. A prominent example is Versailles, the baroque palace, garden and park constructed

³ Victor, J. C., Raisson, V. and Tétart, F. (2007): Le dessous des cartes. Atlas d'un monde qui change, Paris, Tallandier, p. 140.

by Louis XIV outside of Paris as a new residence for him and his government and as a ceremonial stage for the exercising of control over the nobility and for the radiation of French diplomatic, military, technological and cultural power over the European continent. With that in mind, Versailles was created as a complex networked symbolic landscape of webs and nodes of meaning arranged around a central main axis. Strong geometric order with lines of vistas radiated far out in the landscape from a focal point and was an important part of the communication of unbounded power.





Versailles around 1700

Washington D.C., the 1901 plan

The Versailles plan gave inspiration to the grand design of Washington D.C. by Jean Pierre L'Enfant⁴ at the end of the 18th Century. This inspiration was further emphasized with the 1901 plan.

The two share not only the main structures in the geometrical layout and the use of former wetlands for the establishment of waterworks and reflective basins. They also share the principle of offering a total world interpretation, reaching from the political to the cosmological through a network of interpretative nodes or "hotspots" each addressing a particular aspect or issue.

In Versailles, it was the Baroque-rationalistic world interpretation with the aid of mythological allegories (statues) but also with media more readable for us such as the "Orangerie" and the "Menagerie" (the latter no longer exists) bringing in exotic plants and animal from distant ecospheres.

In Washington D.C., it is the enlightened, modern world interpretation which is offered. Grouped along the central axis (the Mall), we find the Smithsonian museum-institutions, that each interpret a different set of phenomena, spanning from the National Museum of Natural History and The National Museum of Art to the National Air and Space Museum. Also organised along the Mall we find a system of monuments commemorating the foundation of the United States (the Founding Fathers) and its expansion and rise to a global dominant position (the war memorials). In our context, the National Air and Space Museum can be seen as a particularly significant demonstration of American possession of an unrivalled technological capacity to exercise control over global space.

⁴ Jean Pierre L'Enfant grew up in Versailles and fought on the American side in the war of independence. The striking thing about Washington D.C. is not how the architect got his inspiration for the layout, but that Versailles was accepted as a suitable model for the capital of the revolutionary American Republic. It is tempting and justifiable to read into this choice an early self-awareness on the side of the United States of its imperial potential.

Versailles and Washington D.C. offers illuminating cases of singularly ordered landscapes. However, most of the landscapes dominated by a singular order have been designed for more mundane use than the power-symbolic representations embodied in those two.

Landscapes reclaimed for human use by controlling high energies in the natural environment Landscapes that require a high investment of labour to accommodate a particular form of land use tend to be dominated by a singular order. Good examples would be landscapes where water management is of special importance such as the irrigational landscapes in the arid zones or the drained and diked landscapes of the Netherlands, the Po, and Bangladesh. These landscapes may have developed for thousands of years along the same line of land use logic.



Polder landscape in the Netherlands. Developed during hundreds of years the polders are now under increasing pressure from urban growth.



Bangladesh, Dhaka Region. Left: rice paddies during the dry season at Panam Nagar. Right: NASA satellitegenerated map of the Dhaka region during the monsoon floods.

The changes that have occurred may more be quantitative than qualitative in response to the need to increase agricultural output and to the availability of new technologies. Sometimes however, when the environmental constraints have been pushed to far, human land reclamation may be rolled back and the landscape reverts to an earlier condition. In such cases there is no intermediate alternative between the highly organised human landscape and a landscape with an appearance almost entirely dominated by the forces of nature.

Colonised landscapes

Landscapes settled by a new population may often have a strong regularity dominated by a singular order. Examples could be the US Midwest with its grid shaped property boundaries.



Colonised land: Grid shaped field layout/property boundaries in the Midwest, USA.

Another example could be the landscape around Timisoara in today's Romania. It became the administrative centre of the Banat province conceded to the Habsburg Empire by the declining Ottoman Empire at the Peace Treaty of Passarowitz in 1718. Much of the province was evacuated by the Ottoman population and resettled by people of various ethnicities from other parts of the Habsburgian Empire. On the initiative of Maria Theresa, large-scale drainage and embankment projects were initiated in the marshy lands surrounding Timisoara. The land was dotted with regularly distributed new established neatly organised road-villages. Nearly all Ottoman structures in the city of Timisoara were eradicated and an entirely new city built.





Left: A city under metamorphosis. Plan of/for Timisoara at the beginning of the 18th Century, around the time of its inclusion in the Habsburgian Empire. There is a Dutch and a French text in the legend indicating that specialist in fortification and waterworks have been brought in for the purpose of developing the city and its surroundings. The layouts of the new fortifications are partly represented, whereas the grid layout of the street system has yet to be designed. Right: 17th Century dike in the regulated riverine landscape surrounding the village of Padra near

The planned city

When their layout was established over a short period of time by decision of a strong (central) authority cities tend to be dominated by a singular order. Such planned cities are particularly characteristic of certain social and political situations, and can be found widespread in time and space. Prominent examples are the Greek and Roman colonial cities with their characteristic grid layout. However, the grid layout was also employed in non-colonial cities like Piraeus in the 5th Century BC. Aristotle in his "Politics" book 7 emphasises the advantage of new planned cities compared with the old unplanned (such as Athens).

The grid layout is reoccurring many times through history almost as the hallmark of a strong political planning authority. Outside of Europe we find grid-shaped cities in India, China and Japan, whereas they are absent from the Arab world.

From medieval Europe periods Aigues Mortes in South France was founded in 1240 by the Louis IX (Saint Louis) to serve as the first Mediterranean port of the expanding French State, and as the gathering point for the Seventh Crusade led by King Louis.

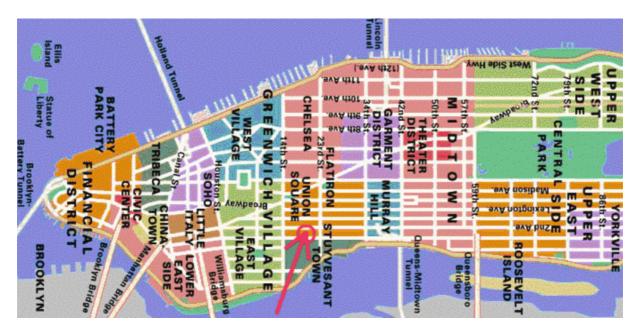


Aigues Mortes: A grid street system behind strong fortifications, founded 1240.

During the early modern period of centralisation of the European states, planned cities grew up as new foundations or re-foundations all over Europe. For instance the Danish-Norwegian Christian IV initiated a period of urbanisation during the early 17th Century in Norway. Prominent examples are Kristiansand, Kongsberg and Christiania (a re-foundation and relocation of the medieval Oslo).⁵

In the United States most of the towns founded by the colonisers were grid shaped. The best known example is New York City.

⁵ Lexau, S.S. (2007): Kongens byer. Den internasjonale bakgrunnen for Christian 4's byplanlegging i Norge, Bergen, Fagbokforlaget.



The grid layout of Manhattan in New York City developed from the South tip of the earliest Dutch settlement, with Broadway – an old native Indian footpath – as the only major deviation. New York became the city of the 20th Century, an icon of urban modernity.

With the regeneration of Europe after the Second World War, grandiose urban planning experienced a new flourishing. In the East, it was the new socialist planning and in the West the welfare state that initiated urban development inspired by the ideas of le Corbusier and driven by the rationales of mass produced housing plus functional segregation of work, residence and recreation.

Since the 1970's the concrete suburban landscapes of the welfare state have increasingly turned into social problems rather than the social solutions they were meant to be. Because of that, we now have to deal with them also as heritage objects – monuments of the Post War 20th Century, as documented by English Heritage.⁷

Redistributed landscapes – up or down scaling the number of ordering principlesWithin a landscape reordering may take place as a consequence of the redistribution of land from one social group to another. In rural landscapes this may take the form of increasing or decreasing the amount of logics operating to structure the layout. For instance the quite diverse reregulation of rural Britain from the 17th to the 19th Century referred to as "the enclosure" generally substituted a communal pattern of land use by an individual (Parliament Acts of Enclosures passed 1750). This on the one hand left more opportunities for the individual farmer to shape his land use according to his resources and needs, and greatly increased overall productivity and revenue for the landlords. But on the other hand it also reduced the social diversity, squeezing out the considerable fraction of poorer fraction of the rural

⁶ Homberger, E. (2005): The Historical Atlas of New York, New York, Henry Holt and Company.

⁷ Penrose, S. (2007): Images of Change, an archaeology of England's contemporary landscape, London, English Heritage.

population, who had previously been able to make their modest imprint on the landscape.⁸ Similar land reforms took place over much of Europe during the same period, generally leading to increasing complexity in the ordering of the landscape and to an intensification of rural land use that went hand in hand with industrialisation, urban growth and mass migration from the rural countryside to the industrial cities and to the Americas, Australia and New Zealand.

Today, a new redistribution of rural landscapes is taking place over much of Europe and North America. This time a dramatic up-scaling of the size of individual farm units has severely reduced the number of individual farm holds. This in turn translates into a reorganisation of the rural landscape that accommodates an increasingly more specialised and capital intensive farming, competing on the world market. In countries like Denmark still fewer and bigger farms are responsible for the layout of the rural landscapes. This leads to an ongoing loss of diversity visually, culturally and biologically, only modified by other regulatory mechanisms such as landscape conservation.

At the other end of the scale we meet the redistribution of land through reforms that divides the properties of manorial systems and distributes it to small individual farmers. Changes like this are typically seen in revolutionary situations – they will tend to translate into a more diverse landscape with more individual orders within the same space.

Landscapes of multiple orders

With the rolling back of state power during the last decades of 20th century, big planning has again retreated as the dominant choreographer of landscape. A multitude of orders has emerged, increasingly driven by global market mechanisms. This affects not only urban space but also rural space. Global trade politics have high impact on the viability of different types of agricultural production and therefore on the use, or indeed the non-use of the rural landscapes. Urban space itself expands constantly with more than half of the global population now living in towns. More and more agricultural zones fall within an expanding urban field of gravity and are gradually transformed and integrated into the urban zones. In many parts of Europe, it is arguable that there are no longer any rural zones as opposed to urban zones. Rather there are urban zones and then there are the transitory zones between one urban zone and the neighbouring urban zones. This is evidently the case in such densely populated areas as the Randstaad and other parts of the "blue banana". On the other hand, outside of the propulsive urban areas we find vast zones, where marginalisation, depopulation and functional depletion of entire landscapes and local communities are a grim reality. We meet this in the North of Scandinavia and in many of the mountain regions of Central and Southern Europe.

A particularly accentuated situation arises in the "global financial cities", such as New York, London and Tokyo. They have developed an economy that in many ways has decoupled from the traditional hinterland. The cost of housing has ejected many ordinary citizens from the urban centres, and created

⁸ Newman, R. (2001): The Historical Archaeology of Britain c. 1450-1900, Phoenix Mill, Thrupp, Stroud, Gloucestershire, Sutton Publishing, p. 106-112.

a high degree of social segregation in space. A classical von Thünen hinterland-analysis would produce a map of London's economic hinterland, where the South of England would probably weigh less compared to the South of China. Likewise, the farmers of the Shanghai region would be less relevant to the development of Shanghai City than would be the City of London, New York and Tokyo.

If the international urban centres are decoupling from their traditional hinterlands they are still dominating them, meaning that they take over land for urban development and on top of that, the population depends on the metropolis for jobs. It has been estimated that 25% of U.K.'s BNP is generated directly and indirectly by the City of London. For the Randstaad the figure is even more dramatic with an accounting for more than 50% of the BNP of the Netherlands. Continued growth is necessary for these urban centres.

But growth potentials are determined by the market, and the market does not respond to long term big planning. For this reason, urban development today is very different from urban development during the post war heydays of the welfare state.

The Dutch architect Rem Koolhaas has dealt with the new reality of the networked global city¹⁰. For Koolhaas, the global city is a place without a specific identity emanating from a local development. One could enhance Koolhaas' argument and claim that a localised history and cultural heritage becomes of decreasing relevance as a means to understand the particular development and character of a particular city in the same way at it is irrelevant to the understanding of the shape and layout of a new airport city.

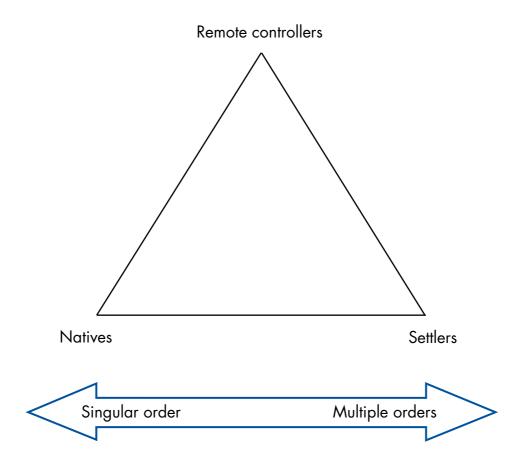
To work with the long timelines of our landscapes in our present period confronts us with two fundamental challenges. First, the development of our landscapes is increasingly driven by an urban logic. Second, this urban logic is increasingly global, and freeing itself from an organic contact with a localised past. Cultural heritage may thus have to assume a different role and significance if any, since the inhabitants of the contemporary urbanised landscapes may no longer live in memorial collectives that continue localised traditions.

"EN LIEU" OF A CONCLUSION

If the above to the reader seems defeatist, I can assure him that it is not meant to be. Rather I think it is important to sum up the observations made through this paper by pointing to the fact that the regimes that have shaped our landscapes have been constantly changing through history. I have tried to define two fields within which the parameters determining the shape of landscapes (urban or rural) can be defined. One is tri-polar and describes the actors; the second is bipolar and describes the nature of the order in the landscape.

⁹ Graham, S. a. M., S. (2001): Splintering Urbanism, Networked infrastructures, technological mobilities and the urban condition, London, Routledge.

¹⁰ Koolhaas, R. a. M., B. (1995): S, M, L, XL, Rotterdam, 010Publishers.



The relation between the tri-polar and the bipolar fields still needs further investigation, beyond the limits of the present paper. It is by no means a simple and straightforward relation. It is evident however that at the present time we see a regime of multiple orders affecting the landscapes in many parts of the world. It is also evident that in many parts of the world shifting configurations of remote controllers and to a certain degree settlers are more important in defining the premises for land use than are natives. The irony is that because all actors are operating (and competing) under the same rationale of an increasingly globalised market, the resulting palimpsests of multiple orders to a certain degree produce a monotonous repetitiveness in the arsenal of elements constituting the seemingly chaotic processes shaping our cities in ways that tend to obliterate any specific localised identity of theirs. This has been convincingly illustrated by the photographs of Peter Bialobrzeski that demonstrate the stunning similarity of urban development across the world.¹¹

There is however no reason, except for lack of imaginative power, why we should suspect the present situation to be of permanence. History provides us with ample evidence for alternating periods of singular order and multiple orders, dominating our landscapes. Likewise, we see periods of high mobility of people, labour and capital alternating with periods of more contracted interaction, leaving more room for natives to form their local landscapes.

¹¹ Bialobrzeski, P. (2007): Lost in Transition, Ostfildern, Hatje Cantz Verlag.

Memory and oblivion

The cognitive process of memorising is intimately connected to a process of forgetting. If we forget nothing, we will be overloaded and unable to remember anything. The filters that relieve us from being overburdened by information also make it possible to structure and remember the information that remains in meaningful matrices that relate to, or even constitute, our identity. But if we forget everything, we will loose our identity. So memory is something that is formed in the interplay between remembering everything and remembering nothing.

Likewise in landscapes; they are shaped in ongoing processes of deleting old structures and adding new ones. Sometimes this metabolism accelerates, and old structures are deleted over vast areas. This is what may happen when an entirely new ordering principle is introduced in a landscape, for instance with the rapid urbanisation of rural landscapes. But sometimes this is done purposefully to eradicate a specific identity. An extreme example would be the Papst plan for the systematic annihilation of historic landmarks in Warszawa during WW II. The idea was to construct a new minor city with a fully German identity. 12

An overwhelming – though slow and not complete devouring of the past took place in Rome during the 15 centuries following the fall of the empire. Mainly the construction of the papal Rome with new monuments during the renaissance and the baroque took their toll on the splendour of the imperial capital. Marble from antique buildings, monuments and statues were burned to serve as raw material for the production of high quality chalk, or reshaped to ornate the magnificent new monuments of the Holy See¹³.



Planners and antiquarians are special breeds. Emotionally we often sympathize with the natives. However, the decisions we recommend, or make, may point in different directions and may not always reflect sympathy with the natives. They may often rightfully see us as belonging to the vast group of remote controllers tampering with their landscape and with their ideas of meaningful land use.

Antiquarians are generally preoccupied with preserving as much memory in a landscape as possible. Sometimes even against the will and ambition of a local population more preoccupied with the future than with the past. The planners are basically preoccupied with planning for the future. Depending

¹² Tung, A. M. (2001): Preserving the Worlds Great Cities. The destruction and renewal of the historic metropolis, New York, Three Rivers Press, p.77 - 83

¹³ Tung, A. M. (2001): p.36 - 50

on current ideologies this may or may not include the memory of the past as it is represented in the landscape, and it may or may not include the interests of the natives. During the heydays of modernisation, and big planning the ideal was certainly to shape a new and better landscape, rather than preserving traces of the shortcomings of the past. Le Corbusier's famous plan for a new Paris is a prominent example of this ambition of total substitution of a historic cityscape by a totally new construct.

Under the current early 21st Century ideological regime in Europe, both the ideal position of the antiquarians and that of the planners have been softened and frequently converge on a position where the remains of the past are seen as an asset for new development. The remains are thus seen as valuable – though not to a degree where they can not give way to the ongoing process of rewriting the script that is our landscape. However, though the ideals may converge, the reality of the 21st Century as it develops now and during the coming decennia may confront both planners and antiquarians with different possible dynamics and questions to confront.

The following scenarios may serve as questions to reflect upon:

- 1st Scenario: The current trend of urbanisation continues. We will see an increasing pressure on our landscapes urban and inter-urban (rural). The pressure will be both one of volume and of speed of transformation. A main challenge, also seen from an economic perspective will be how to develop planning that allows us to develop cities that benefit from their diverse pasts as a resource for maintaining diverse identities. How do we make sure, that we can still see that we are in Amsterdam, and not in Hamburg? And how do we make sure that the mental ownership to the cultural heritage of a given place is opened to every citizen independent of his or hers ethnic affiliation?
- 2nd Scenario: The current agricultural policies continue. We will see an ever increasing pressure for more agricultural productivity to meet the growing demand for from the urban populations. The farmers will be competing on the same world market. They will be growing the same crops, breeding the same animals with the same technologies, requiring the same productive infrastructure (buildings and field layout). How do we make sure that we will still know that we are in the Central Polish farmlands and not in those of the American Midwest?
- 3rd Scenario: The highly globalised agricultural market economy suffers a set back or even a collapse. This may result from a growing competition for food between nations and regions such as we see it happening just now. It may also result from a loss in the ability to sustain the transglobal transportation of food, fodder and fertilisers. Such a collapse will probably translate into a lesser degree of specialisation in agricultural production, and impose its needs on the agricultural landscapes. Intensification of land use may follow as a necessity on soils currently regarded as too marginal. How will such a development affect the conditions for preserving traces of the past (including the current agricultural landscape). We might find it obvious to see such a development as favouring preservation but is it so obvious? With the addition of climate change and the potential of gene-technology in a situation of otherwise scarce supplies, we will surely not just see a reversion to European pre-1950 agriculture.

• 4th Scenario: The trend of continued urban growth and concentration is broken or even reversed. Such a scenario may result from shortages in foods and fuels on the world market. Both are needed to sustain highly urbanised populations. With the collapse of the supply lines for wheat from the provinces of Africa and Egypt during the fifth Century A.D., imperial Rome lost its ability to sustain its population of 1 million people. During the subsequent centuries Rome imploded to become a minor town with a population of no more than 30.000 inhabitants in the medieval period. Vast areas of the former imperial metropolis within the Aurelian Walls were converted into farmland and pasture. Today's mega cities rely on equally vulnerable supplies of food, energy and other goods from distant and highly specialised producers. It is a complex global logic of specialisation based upon whoever has the better position to produce the largest volume at the lowest cost irrespectively of geographical distance between production and consumption. Such supply chains may fail due for instance to rising costs of transportation or due to the producers retraction of food from the world market in order to secure supplies for the home market. How do we deal with urban devolution as antiquarians and planners? It would confront us with a massive situation of cessation of function in what we would consider important urban heritage. Buildings and infrastructures would loose their economic viability and there would probably be few resources available for investment in their delicate redevelopment to accommodate new use. Authorities may in such a volatile situation have their focus on different issues than the preservation of cultural heritage. Probably documentation would be the better response in such a case. It may seem unfair at all to pose the question of how to cope with such a dystopic scenario. It is however tempting, since we are aware of the fact that history does not always stick to its overall linear course of progress and growth. Therefore let me conclude with this last scenario as a memento, while we try to prepare ourselves for the previous three scenarios, which we may like to think we should be able to cope with.

Whatever the future brings, it will most probably be different from what we are able to imagine as realistic. We do however know that the coming years will bring us both the direct and the indirect effects of a changing climate.

Our landscapes will accommodate new species, both domestic and wild. Our cultural heritage will be exposed to the deteriorating effects of changing sea levels, temperatures, winds and rainfall. And the landscape will need to accommodate new infrastructures that can help us adapt to the adverse effects of rising sea level and extreme weather. Studying earlier adaptations to the dynamics of nature, as witnessed by our cultural heritage may serve as an important source of insight and inspiration.

Our civil societies will have to accommodate new immigrants from distant cultures with whom we must develop the ability to share a common sense of belonging to the places we share. In this task the cultural heritage, as it is imbedded in our landscapes, is an invaluable asset.

Carsten Paludan-Müller er arkæolog og direktør for NIKU, Norsk institutt for kulturminneforskning.