

LIVING IN A TIME OF TRANSFORMATION. THE QUEST FOR SUSTAINABILITY AS A DRIVING FORCE

WE ARE LIVING IN A TIME OF TRANSFORMATION – IF NOT BY CHOICE THEN BY NECESSITY. THERE ARE LIMITS TO ANY PARTICULAR PATH OF GROWTH, THERE ALWAYS HAVE BEEN, AND WE ARE APPROACHING THE LIMITS OF THE ONE WE ARE ON.

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Many societies have succumbed to unsustainable strains on their environment and resource base. Others have succeeded in overcoming critical sustainability threats by transforming themselves technologically and economically, only to find themselves locked in new variations on this theme further down the road. The sustainability agenda is about the limits we are up against next and about the next wave of large-scale structural transformation.

The debate on sustainable development is often framed as a conflict between sustainability and economic growth. A conflict between ecology and economy, between caring for nature and caring for the fulfilment of human needs. This makes for a polarization where proponents of sustainability tend to come off as opponents to growth and vice versa.

On a deeper level, this polarization is supported by an often implied notion of how the world has developed until now, which is broadly speaking the story of a one way street. A development through history from societies of hunters and gatherers via settled agricultural societies, industrial societies and information societies to globalised societies based on knowledge, service and networks. This development is accompanied by an ever growing global population with a rising standard of living and – as a consequence – a growing claim on the global resource base and strain on the biosphere.

FORGET THE ARCHETYPICAL TALES

This underlying stylized story, then, is viewed in different ways. At one end of the spectrum we have an interpretation focused on economic development as a continuous alienation from nature: From a world where humans lived as a harmonious part of nature to one where nature is dominated by humans in increasingly unsustainable ways, and where humans live in built environments with little or no contact with nature. On the opposite end we have a focus on the increasingly better living conditions for

humans, and the view that further growth in prosperity, knowledge and technology is a prerequisite not only for human betterment but also for securing environment and nature with all its valuable qualities.

In order to deal with long-term challenges 20, 50 or even 100 years ahead, our understanding of the past is crucial. The way we perceive the driving forces of the past is invariably projected into the future. And so, we can start by asking which of the two archetypal views on history is the right one. The answer is neither one. Development is not a one way street, and it is not binary. Neither the past nor the future is about any straightforward choice between dynamic growth and harmonious sustainability. And transition from one type of society to another is by no means a simple result of cumulative growth but at least as much of dramatic qualitative changes on many levels, often fraught with conflict. Conflict between different political and economic interests, between different social patterns, and between different human mindsets.

By the same token, we need to realise that sustainability is not a harmonious or stable condition, but something which is constantly being renegotiated between society, humans and the surrounding environment. Growth is obviously a dynamic driving force in its own right, but so is what you might call the quest for sustainability. This quest is in fact a driving force which is at least as dynamic in its effects on social change, transformation, development and growth.

WE ARE THE SURVIVORS

We tend to forget the immense challenges humans have always faced in their interplay with nature, and how difficult the great transformations have been that they have caused in society, economy, culture and mindsets. The interplay with nature has in fact often come riddled with setbacks to humans. At the same time we need to be aware that the last two centuries represent a decisive break with the path of development stretching back 10,000 years of settled societies and 500,000 years of hunter-gatherer life forms before that.

WE ARE THE DESCENDANTS OF PRECISELY THOSE WHO MADE IT THROUGH ADVERSITY. THOSE WHO CAME BEFORE US ACTUALLY SUCCEEDED IN TRANSFORMING THEMSELVES AND THEIR SOCIETIES – CHANGING THE ENERGY AND RESOURCE BASE ON WHICH THEY RELIED, DEVELOPING NEW TECHNOLOGIES, NEW ECONOMIC SYSTEMS, NEW PATTERNS OF LIFE, AND NEW IDEAS ABOUT THEMSELVES AND THE WORLD.

We are the descendants of precisely those who made it through adversity. Those who came before us actually succeeded in transforming themselves and their societies – changing the energy and resource base on which they relied, developing new technologies, new economic systems, new patterns of life, and new ideas about themselves and the world. All in order to overcome the limitations that nature sooner or later would present to any given path of development.

It is possible to describe and interpret history from precisely this point of view, and in light of the current debate on sustainability, it is increasingly relevant. Accordingly, it is a theme that attracts increasing attention from academic scholars and science popularisers alike. The result is a vast body of work which is of course full of a myriad of details and facets, from how the Siberian hunter-gatherers pushed the mammoth to extinction to political complications in ancient Rome.

The present need for a fundamental transformation of our current path of development is far from being unique to our era, but it is a basic condition for human existence throughout history. The question is not if, but how the coming transformations will unfold. It is also a question of which type of development we want. We have to consciously prepare ourselves for great changes over the coming century in society and economy as well as in our relationship with nature. Equally great changes as those that have taken place over the previous century – and the centuries before that. And we have to do it according to the conditions specific to our time.

THE ROAD AHEAD: TRIAL AND ERROR

It is only in retrospect that past developments may appear as following a straightforward trajectory which lends itself to being described by growth rates and apparently smooth trajectories. And it is only in retrospect that, say, the agricultural societies of 18th century Europe, or prehistoric hunter-gatherer forms of life appear stagnant and/or idyllic according to temperament. Every generation and every society has always had to painstakingly muddle its way

through to finding solutions to the problems at hand.

For 99 percent of human history we were hunter-gatherers. Whilst hunter-gatherers live in close contact with and dependency on nature, they are not necessarily in harmony with it. They are also at its mercy. They have to follow animal migrations. They have to protect themselves against harsh weather, dangerous animals, hostile tribes and diseases. They need to develop skills on how to read nature, assemble knowledge on useful and edible plants, continuously develop and refine their tools. Prehistoric hunter-gatherers were able to take advantage of more fruitful and diverse ecosystems, but in spite of that they needed access to large territories to sustain their way of life. It has been estimated that the hunter-gatherer way of life requires about 25 square kilometres per individual (varying with specific conditions). This compares with even early settled societies which sustained 25 people per square kilometre. i.e. hunter-gatherers needed 625 times as much space as early farmers.

When humans spread out from our ancestral homeland in Africa, a sense of adventure may have played its part, but the rule of 25 square kilometres undoubtedly also had its say. When population in a given area grew, it became less sustainable and trying your luck further afield became attractive. And luck really was a large part of it. We know that our ancestors survived in sufficient numbers to reproduce – eventually resulting in us – but we do not know how many attempts at crossing deserts, climate zones, rivers and oceans failed.

Similar lessons apply for agricultural and industrial societies. Their development has been marked by ongoing processes of learning that entailed numerous setbacks, large and small. Cultivation methods and technologies frequently failed until more stable solutions were ultimately found. These, in turn, invariably ran into new problems that had to be solved sooner or later. Answers and solutions often required the system to change.

A central driver of both early industrial society and our present globalised knowledge economy is the market mechanism. This is one big, continuous trial-and-error-



At the first In100Y-seminar in June 2011 we asked the participants: "Imagine that you are now in the year 2112 and looking back at the 21st century. If you were to put a label on the last 100 years, what would it be?" Some of the answers were: Tectonic shift of values and paradigms/The century of biology/ Change/ Shame/ Humanity went from egoism to collaboration / The most decisive 100 years in history/ From Consumerism to sustainability/ We did it!/ Sustainable Growth/ The green revolution/ Explosion of energy and non-sustainable growth/ The downfall of an arrogant culture of growth/ Happiness/ Reconstruction years/ Transformation of urban living.

machine which rewards those developments that meet with a sufficient market demand. The results and side effects of the market mechanism constantly lead to numerous new agendas and transformations in everything from technology and internet to regulations, social protection and general political developments.

Politics and political trial-and-error processes on many levels will be crucial for how the sustainability challenge will be met in the future. And so will business strategies and patterns of consumption. This is true locally whether it concerns hypoxia in Danish coastal waters or the droughts and soil erosion of Uganda and it is true globally with global warming, exhaustion of non-renewable resources and threats to biodiversity high on the agenda.

THE NEXT TRANSFORMATIONS

Global warming is emblematic of the sustainability problems now crowding our agenda. And this is a problem where present high-income countries are by far the biggest culprits, presently as well as historically. There will be losses as well as benefits in this, and they will by no means be evenly distributed. Some parts of the world will see a higher fertility and longer growing season. Others will be

hit by a higher frequency of droughts, floods or hurricanes. So whilst we share the same planet which is going through these climatic shifts, we do not necessarily have shared interests vis-à-vis the consequences. This makes it even more necessary to develop our skills of taking the long view and looking at things in a broader context if we are to succeed in making the next transformations.

On the bright side, it is worth pointing out that there are a number of developments indicating that the transformation is underway – although possibly not as fast as is necessary. There are many signs of transformation. The widespread awareness of sustainability issues and the rising orientation towards non-material values of life are significant new developments as compared to earlier prevailing norms and mindsets. Perhaps these signs do not yet add up to the colossal proportions necessary to make a sufficiently radical transformation if we are to achieve genuine sustainability, but they are here, and there is something to build on.

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