WIRED TO TECHNOLOGY

IDENTITY AND FACTORIES – THE MODERN DILEMMA

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VICTIMS, PRODUCTS OR PATIENTS

A good friend of mine, an economic historian, once visited a factory. It was one of those industrial sites that now was abandoned and had been so for many years. In the heydays from the 1920's to the early 1960's it had been a lively site with hundreds of workers. The place was very isolated, in the southern hemisphere, far too south to be warm. So the cold climate had preserved the factory halls in rather good shape even if they had been without maintanance for more than 30 years. Rusty, broken windows, remains of human activity. What my friend experienced was, however, a new kind of activity that had overtaken the old plant. Inside the rusty halls, the air was filled with terrible smell and noise, deep bass noises like grumbling.

In fact, the factory halls were filled with activity, not the quick and co-ordinated activity of workers, but slow and heavy - some would rightly call it lazy - activity of a new kind, unknown to the designers of the factory. In the dark and stinky atmosphere, my friend could verify that this no longer was the territory of the Antarctic hunters and their processing of oil, meat and glue from their pray, but instead the pray had taken over the whole complex for their own purpose. The giant elephant seals had found a nice home where formerly their grandparents and greatgrandparents together with numerous whales were turned into oil and other useful products for the international market.

The factories at South Georgia were an important part of the whaling business in the Antarctic, and had now been reclaimed by its former victims. The factory halls were excellent places for staying on shore, but the bizarre view of a factory hall full of murmuring and stinking elephant seals is nevertheless a very post-modern sight, or, if one prefers to think in another way, a sight where modernity is developed in its radical and reflexive phase.

Such a view may of course signify the obvious: that factory production is a thing of the past - it may embrace all those who argue for the post-industrial society. Not so obvious, maybe, but of similar importance is the fact that it also reflects our own world view, our own preconceptions of the world. It is surprising to find a factory manned with elephant seals. The only thing that makes it unsurprising is that the reader at once recognises that I have started this paper with something that is intended to be a surprise. In our western tradition of writing papers, a start like mine here is recognised by the readers as a way to use a surprising episode as an introduction - it is a well known rhetorical way and as such it is not very surprising.

Let's put this little note on reflexivity aside and concentrate on the factory once more. The building is there, the machinery is in its place, there is activity going on, a culture is at work. But still it will not comply with our concept of a factory. Elephant seals in a factory building do not make a factory. A factory is, first and foremost, a human endeavour, it has to be interpreted as a human institution of tremendous importance to our history. At the same time, it is also an important part of our culture; the reason why a factory staffed with elephant seals does not make sense is that it is without meaning in the traditional cultural framework. In our time, however, such a scene may be given significance as a symbol of the fall of industrial age, as nature claiming back what man had taken from her, as a symbol of human hubris in the modern age, and so on, depending on the subculture you want to refer to.

As a topic, this reversed thesis of Leo Marx is not new.¹ Marx talked about the American pastoral idyll and then placed the ugly machine in this environment, The machine in the garden. In the scene described above, the garden is coming back inside the machine in the form of seals. The post-modern version thus becomes reversed: the garden is in the machine. As a topic, we know this from the paintings of the Enlightenment: sheep and goats grassing among Greek columns

The giant elephant seals had found a home by the old factory in South Georgia, Antarctic, where their grandparents together with numerous whales were turned into oil and other useful products for the international market.



and remains of Roman temples.

Another image: A small hospital in the mountainous region of middle Norway. It is Wednesday, and the production line for left knees is established early in the morning. Slowly the line starts by the first patients being transferred from the reception to the waiting room for the preparatory stages. The line is a type of moving conveyers: the product – sorry, the patient – is moved around in small vehicles, movable beds. This kind of containerisation saves a lot of time, as the patient is moved from workstation to workstation down the line until he or she is finally shipped out by the evening. Who said the factory was dead?

THE BACKPACK OF MEANING

In his book Landscape and memories, Simon Schama has tried to convince us that there is no such thing as a culture-free landscape or nature for that matter.² Of course, he is not implying that pure nature would not exist or that nature would not develop according to its own laws etc. His main point is that human beings usually go to nature or admire the landscape with "all the heavy cultural backpacks that we lug with us on the trail".³ The healing wilderness is as much "the product of culture's craving and culture's framing as any other imagined garden".⁴ First there is culture, then there is landscape. Schama goes on carving out the myths, memories, and meanings of three very distinct type of landscapes: the forests, the rivers and the rocks. Whether the Classical period, Renascence, Enlightenment, or Romanticism, the landscape has always been assigned meanings and myths that made it interpretable to the contemporaries.

Human intentions and actions follow, not

from the raw material of nature, but from the interpretation of this 'raw material', using the content of the backpack of culture, the mystical glasses through which the 'raw material' is seen. This is of course done in an intelligent way – we can all say that this forest is only a group of trees and not dangerous at all; it does not determine the interpretation but it inflicts with it.

It is without doubt possible to go some steps further than Schama. Even language itself is filled with cultural meanings and differences.⁵ And not only words, but also the structure of our stories have this inherent cultural meaning attached to it, like the start of this paper. The tropes are not neutral as Hayden White would have said.⁶ The way we configure a story is dependent on culture, knowledge of myths, and tropes in our part of the world.

There is nothing new in stating that the world is conceived in ways that are culturally determined. The old story was, however, a story of disenchantment according to Weber – the *entzauberung*. The myths, meanings, and memories would lose their power as the modern society and its rationality made their way. Never before has there been so many incompatible subcultures, beliefs, or cultural remixes as today. The Swedish anthropologist Ulf Hannerz has coined the concept of "cultural complexity" for the late modern society, a cultural complexity based on the "flow of meaning and meaningful forms" - another of his concepts.7 All the variants of new-ageism, nationalism, and, less dangerous, localism that bloom everywhere tell us that the disenchantment process is not at all completed in the late modern society - and that it probably never will be. The factory staffed with elephant seals or doctors is an essential point - both the late debate over whaling and the eagerness to preserve the landmark (the factories, that is) at South Georgia as a monument of an heroic period is part of this, as is also the crisis of health care. Values, myths, culture, politics and institutions mix in the most remarkable way. The factory as a museum may be another turn of the myth machine, it is (sic)



An abandoned industrial site in Fredrikstad, Norway, which used to be a lively area with many engineering works and harbour activities. Photo: Tuija Mikkonen. an example of the heritage industry! It is the picture of a picture.

It is exactly within this mess of myths, symbols, and subculture that the question of the factory and identity should be raised. Factories and factory production are becoming so distant that it is possible to be nostalgic on behalf of this institution, to long for a past that never has been. Factories in the modern meaning of the word have been with us for at least a couple of hundred years. It has been argued to be one of the most important institutions of modernity, a source of wealth, and a sign of human reason and capabilities as well as of suffering and suppression.

Factories are no longer the obvious institution they used to be. Today, not so many people in the western world have daily experiences with factory halls. It is not trivial to us anymore. As we all know, to some people this is a regrettable fact, to others a sign of a better future. To modern westerners, the factory has started to acquire a meaning parallel to the wilderness - a fantasy place (hell or heaven) that few actually have experienced, except on film or television. Factories have become scenes for music videos and house parties. Factories are becoming historical in a radical sense, they are no longer a part of everyday life for a large number of people in western Europe. As a parallel to this, we find the factory principles well at work in quite different institutions that usually are not associated with the factory: hospitals, universities, the heritage industry.

As historians, our task is to demystify the development of the factory, hence we want to use the concept of the factory analytically, defining its content and extensions, and to be able to say what a factory is and what it is not. This is a noble task which should be done, but it is also a very difficult task, a

task that needs historical sense and awareness. My thesis is that we all too often try to create some kind of standard history of a factory, which only partially is true. To be able to handle the concept of factory we have to exclude things that should not be excluded and use standard tropes in order to let our stories to be understood by our contemporaries and colleagues. One very simple example is the focus on localism and local "identity". In a way, we are bringing our backpack of cultural myths, meanings, tropes, and metaphors to the analysis, and we have problems of letting ourselves free from them or at least of being reflexive about them. This goes not only for historians but also for those whose task it is to teach the lessons, the heritage industry.

The first time I personally encountered this problem was when I wrote an article about the industrialisation of the town in which I'm now living. Using traditional statistics and qualitative studies I argued that Trondheim followed an average pattern of industrialisation in the 19th century. This view was met with criticism that emphasised that Trondheim, in fact, was not industrialised due to the lack of large-scale factories. The average factory was rather small. In other words, there were some preconceptions of a "real" factory at work, a kind of prefigured conception of what was qualified to be called a "factory".

Concealment by conception is not a new thing at all. On the contrary, it was a sign of modernism in science and humanistic studies and a reaction to historicism. Windelbandt's discussion of ideographic vs nomenalistic disciplines apart, we can never get away from generalising concepts, since our subject would not be conceivable without them, simply because language does not work without these concepts. However, and

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this is the central point, we should not forget that concepts like 'the factory' is never precise in any way. Even if we give it a rather good definition, the reader will always have a picture of what a factory really is in the back of her head. It is this preconceived image, not an abstract definition, we have to fight when making our studies understood. This is simply a consequence of how our language works as a communicative medium.

To me, a factory has two main characteristics apart from the production aspect: it is a social institution and it is a cultural unit. Any of these is homogenous. As a social institution, the factory is linked to several other institutions in different ways: to the world market as for factors of production and output, to the state with regard to regulation, politics, labour relations, and education, and to the local community with regard to local politics, housing, labour market, and infrastructure, just to mention a few.

As a cultural unit, 'the factory' is assigned meaning and thus identity by several cultural subgroups and societal groups: workers, white collar staff, local community, neighbours, managers, business partners, owners, engineering groups etc. They all conceive the factory in different ways and they all engage in some form of relation to it. As human beings in the steady flow of meaning and meaningful forms it is no reason to believe that their conceptions of the factory should be the same. However, framing this flow of meaning, it is possible to think, like Schama does about nature, that there are some uniting elements, some common myths and meanings that may have assimilated.

These two perspectives, the factory as a social institution and the factory as a cultural construct, are the basis of my conception of the factory. As a social institution it is part of a social structure with which it interacts

causally and intentionally. People attach meanings to the factory as a cultural construct, they conceive and interpret it and they give it a place in their interpretation of the world. This interpretation is the key to understanding their actions. From this it should be clear that I use 'culture' more like Hannerz and Sahlins⁸ do than in the way of Lévy-Strauss or Clifford Gertz.9 Culture is fluid and manifold, the backbone of action. It could be argued that the factory as a social institution yields causal explanations and more or less deterministic approaches while the factory as a cultural construct implies more intentional, hermeneutic approaches, a more voluntaristic attitude. At the theoretical level, this leaves the factory in a mixed situation partly determined, partly voluntaristic.

Intentions, actors and uncertain cultural values make history open-ended, not determined. On the other hand, structures present frameworks for actions, frameworks that sometimes are impossible to transgress. The problem is, of course, that this approach will seem too eclectic, too opportunistic with respect to what "fits" the facts. Besides, cultural elements may be very strong and behave like structures (à la Levy Strauss and to some extent also Clifford Gerz) and structures may be weak and negotiable, like undeveloped markets or technical traditions.

However, as newer cultural studies insist on the fact that all aspects of human life and experiences are embodied in culture, a new problem arises: If culture claims priority, how can we treat other aspects of human life as independent?

Antony Giddens has tried to develop a concept which may be a way out, even though it gives structure an overhand: he likes to think about the process of structuration.¹⁰ This concept is a solution to the

structure actor problem, to conceive people as structured by culture, institutions etc., but at the same time preserve agency. This approach would, of course, be problematic to a post-structuralist, but to me, it seems a fruitful way of thinking with regard to how we should conceive 'the factory' both as culture and as a social institution.

To sum up, as for the problem of conceiving 'the factory' as a historical object, two rather different aspects has to be taken into consideration:

- First, to approach it both as a social institution that creates material goods, wealth, power and power-relations, and as a cultural construct with all the values, meanings and myths that human beings carry with them. In the centre of all this is the factory, the place where technology takes place.

- Secondly, to take care of our own preconceived ideas of the factory. Like the people we study, we will ourselves carry with us meanings, myths and values with regard to what a factory is. In Giddens words: the typical thing in a late modern society is to be reflexive about our own world view.

TALES ABOUT THE FACTORY

'The factory' – the word itself invokes a whole range of images: noise, smoke, dirt, machines, physical work, hierarchy. Who associates a factory with a silicone forge, with production of pharmaceuticals, or industrial robots? A factory is, it seems to me, more like an industrial museum than anything else, although the museum has removed the smoke, dirt and noice and thus sterilized the factory for us. I might very well be wrong in this, but to me, the standard and unreflected conception of a factory is associated to a modern enterprise of the turn of the 20th century, combined with Fordist and Taylorist elements. The point is simply that the concept of factory is, from the outset, not a clean, analytical construct, but contaminated with 200 years of use with the whole stream of meanings and significance attached to it. This makes, on one hand, interaction easier, but it makes it also more unclear. The factory as a metaphor is metonymic in the sense that the word invokes some particular qualities that are essential for the factory as an experience: noise, smoke, dirt, machinery, hierarchy.

The factory may be a part of historical research and as such it is a part of an analysis, a process of change. Usually we cast such an analysis in the way of a commented narrative. A great many of these narratives involve just a part of the factory (in time, space, functions, etc.) leaving the other parts at the mercy of our preconceived ideas about what the factory is about. We could maybe talk about concealment by narration as a parallel to the earlier concealment by consept.

It may be useful to try to sketch at least some of these standard narratives and to pinpoint their relation with the factory. This is a dangerous endeavour, and I will not claim that my categories are the best, only that they represent one way of doing this.

Let us start with the story of the factory focusing on technology, *the technology story*. This story is focused on either production or process technology, leaving much of the factory concept as a scene that stages the different technologies, or as the product of the relevant technology: a new innovation creates factories. According to the old meaning of the history of technology, this corresponds more or less to the *progress-oftechnology story* built upon technological determinism. Technology had become some kind of *deus ex machina* in the development

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of the factory system since the industrial revolution. Later research has often showed the shortcomings of this approach, including the industrial revolution.

A second story is the *entrepreneurial* or *inventor story*. This will most often use the factory as either the product or the background of the innovation. It will most often focus on the inventor or entrepreneur and his or her intentions, ideas and thoughts. We all know a lot of examples of this type of stories. Probably the ideal type would be Thomas Edison or the Krupp family. While setting up the electricity supply system Edison had to create a number of factories for the production of installation equipment, wires, generators etc. We have heard about them, but we know little about them as factories.

Then, of course, there is the social history or the class struggle approach with its variations. This often fits into the post-Bravermainian¹¹ tradition involving struggles over Taylorism, Fordism or welfare capitalism. Again, the factory is more like a background for the struggle. Technology may have a central role as battlefield, but the important thing is the local social struggle.

As a parallel or subgroup, depending on the specifications, we have another sort of social history, belonging more to the tradition of *Alltagsgeschichte*, or the anthropological history, or the cultural history of localised factory communities.¹² Here, the factory is often seen as the core institution, but the focus is on understanding the factory not so much as an institution, but as a stage for the local dramas.

Business history forms another category covering fields that the other approaches do not cover. The factory as an economic agent with focus on management and owners, their rationalities and goals, their links to markets and institutions, that are not local, are some of the traditional characteristics.

A new category may be the environmental history with emphasis on nature and the legacy of nature in interaction with the human creation, the factory. My introduction to this paper might be an example: nature takes back what it previously had possessed.

I'm not claiming that all stories about factories have to be cast in one or the other form. There may be different combinations, and some do not fit at all. On the other hand, I think that these categories are the most usual. Inside each group we could go on analysing the stories according to the structure of their plot, the topical foundation and the way they implicitely portray the factory. An approach like Hayden Whites' analysis on metahistory could be of important value here: the entrepreneur as hero, victim, traitor, or hope in the darkness; the factory itself as a metaphor for society at large, as the destroyer of either the romantic landscape or the enlightened ecosystem, and as the creator of wealth or impoverishment (or both) - a blessing and a curse at the same time.

As for this paper, however, we have simply to accept that the above-mentioned potential histories exist and that they may be a rich source for a refreshed view at the factory. However, and this is important: all the stories might be true at the same time! The sources will not give us an answer to which is the most true, the most privileged story – only our contemporary questions will do that.

DENTITY

How should we interpret and present the industrial heritage in order to avoid the nostalgic turn of myths? What sort of identity and processes of identification should we foster, if any? This is not only a question of a correct interpretation of the history, it is also an ethical problem or dilemma: how should we do this in a responsible way to avoid nostalgic interpretations and to preserve a free and undetermined conception of the past.

I think we have two ways out of the dilemma: one that focuses on particular factories, another that focuses on more or less timeless problems that may invoke historical knowledge to answer questions that may be relevant to the future. In a way, these two approaches represent the extremes, and there may, of course, be combinations of these two.

In the case of the particular factory, one alternative is to present the multiple stories as described above. Also, I think it is important to show how the different levels – local, regional, national and global – relate to each other inside each of the stories in order to avoid too much "localism".

The other approach is to raise more or less timeless questions and then to try to relate artefacts and buildings to these questions. Take the question of risk and safety - how has it been handled through the years in relation to the factory community. Or the question of integration of large technical systems, like communication, energy systems, or information systems. Other candidates might be the relations between politicians, experts and local groups, as well as the role of science, gender, or human bodies. Diversity and standardisation are other topics that offer new approaches in various areas: products, design, inputs, work norms, work certification, methods, craft tradition. Dirt and disorder - candidates which offer approaches for both environmental perspectives and work discipline. The list could be made much longer.

In the end, I think, these perspectives or extremes will show that we don't have to end up with a simple notion of local identity or "identity politics" when we discuss the industrial heritage and its importance to people today. On the contrary: the industrial heritage is an example of a multiplicity of identities coming together – let us not reduce them to a simple essentialistic notion of a local identity. It is and will be, first and foremost, an experience of modernity and all that came with it – and still is with us.

⁵ Ricoeur, P.: Time and Narration, 3 vol. Chicago, Chicago Univ. Press, 1984-88. Foucault, M.: The Archeology of Knowledge, New York: Pantheon Books, 1972. Foucault, M.: The Order of Things, New York: Vintage Books, 1973. Foucault, M.: Power/Knowledge, New York: Pantheon Books, 1980. Todorov, T.: Mikhail Bakhtin: The Dialogic principle, Minneapolis: Univ. of Minnesota Press, 1984

⁶ White, Hayden: Metahistory. The Historical Imagination in Nineteenth-Century Europe, Baltimore: Johns Hopkins Univ. Press, 1973.

⁷ Hannerz, Ulf: Cultural Complexity - studies in the Social Organization of Meaning. New York: Columbia Univ. Press, 1992.

⁸ Sahlins, M.: Islands of History, London: Tavistock Publ., 1987.

⁹ Geertz, C.: The Interpretation of Cultures, New York: Basic Books, 1973. Lévi-Strauss, C.: Structural Anthropology, Harmondsworth: Penguin Books (2 vol), 1993-1994 (1957-1963).

¹⁰ Giddens, A.: Central problems in social theory : action, structure and contradiction in social analysis, Berkeley : University of California Press, c1979. See also Craib, Ian: Anthony Giddens, London: Routledge, 1992.

¹¹ Braverman, H.: Labor and Monopoly Capital, New York: Monthly Review Press, 1974

¹² Kaldal, I: Alltagsgeschichte og mikrohistorie, Trondheim, Skrift nr. 3 i skriftserie fra Historisk Institutt, NTNU, 1994

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¹ Marx, L.: The Machine in the Garden, Oxford, Oxford Univ. Press, 1964

² Schama, S.: Landscape and memory, New York: Alfred A. Knopf, 1995

³ Schama, S., p.7.

⁴ ibid