BELGIUM
Environment and Heritage

Humans have always interfered with the environment, with nature, since the beginning. In a sense, the extent to which we bend the biosphere to our will is the essence of culture or civilisation. By trial and error, humans have learned to control fire, to transform stone and other materials into tools and implements, and have started manufacturing new materials, bronze at first, iron and other metals later, and still later synthetic materials based on carbon compounds from crude oil. In doing so, humans have continuously bent nature to their will. Initially, such interference was not of such a proportion so as to disturb the balance in nature. Even after a catastrophic forest fire, nature recovers rapidly. However, as human technical capabilities improved, meddling with nature became more extreme. Raw materials that are less harmless to the environment were discovered and used. As early as the Middle Ages, white lead was used in making paint. Aggressive acids were used for tanning. From the 18th century on, huge quantities of highly toxic substances, such as cyanogen and cadmium, were used to mix textiles dyes. However, the situation became very serious in the 19th century, when industrial processes were introduced on an unprecedented scale and of an unparalleled intensity. New chemical processes were applied to the production of steel, cokes, gas and synthetic materials. Then we learned how to handle radioactive processes. All those new developments involved an unprecedented impact on the environment.

Environmental awareness

In the last fifty years, the West has seen a complete change in the perceptions of the relationship towards the environment. Until then, human beings had always thought to have unrestrained power over nature. But in the 1960s, the general public gradually became aware of the limitations to economic growth and the burden on the environment. Earlier, it was quite normal to discharge poisonous products into groundwaters, to bury them or to pile them up in the open. Environmental movements have made us aware that we cannot continue dumping waste in an uncontrolled way without adverse effects. In most western countries, legislation has been changed by now and more rigid environmental standards imposed. Almost everywhere, owners are obliged today to clean up polluted soils before land ownership can be transferred. In spite of the good intentions of this legislation, conflicts with cultural heritage conservation may arise.

Industrial archaeology

In the last thirty years, interest in our industrial heritage and in industrial culture has grown exponentially. An understanding that the industrial revolution has effected an unprecedented impact on the life of every human being, has aroused the interest of scientists and voluntary workers in the remains of this human activity. The interest in industrial archaeology, which originated in Europe in Great Britain in the early 1970s, has spread quickly. A considerable number of industrial sites, such as the lift locks on the *Canal du Centre* in Belgium's Walloon region, the mines and coke factory of *Zollverein* in the Ruhr area of Germany or the industrial landscape of Blaenvanon in Wales, Great-Britain, feature on the UNESCO World Heritage list. They are listed alongside the pyramids of Egypt and Mexico and the Angkor temples of Cambodia, illustrating the importance allocated to industrial heritage.

When studying industrial remains, we are automatically confronted with the environmental pollution produced by these industries. Whilst industrial heritage is considered to be an object of study by archaeologists and historians, pollution is an inherent part of the site. Just as an archaeological survey of medieval cesspools reveals a wealth of information about the everyday life of people living centuries ago, analysis of the soil pollution can provide us with large amounts of data on the former industrial activities on a specific area of land. It is precisely at this point that the historian collides with the current environmental legislation, which naturally aims to end all possible air, soil and groundwater pollution. However, in so doing, the historical significance the pollution may have is often ignored. Moreover, the legislation often stands in the way of an industrial site being legally protected as a heritage site. In giving priority to rigorous environmental decontamination, valuable elements of historical heritage are often destroyed and thus denied future generations.

We would like to illustrate this with a few examples from Flanders.

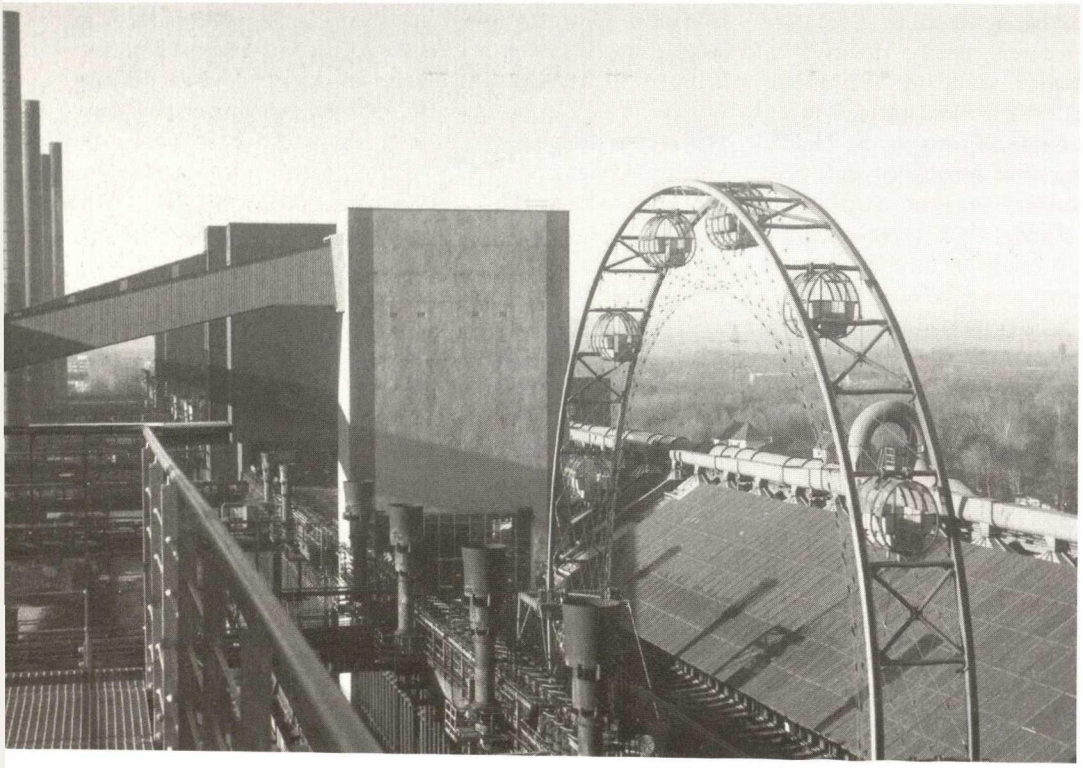
Case 1: Creosote Yard in Ostend

In 1995, the Flemish Minister of Culture signed the definitive protection order with regard to the Belgacom Creosote Yard. It concerned a plant in the back harbour of Ostend, where since the early twentieth century, telegraph poles and railway sleepers were treated against wood rot by impregnating them with creosote oil under pressure. The buildings housing the steamer, the steam pumps and the 21 meters long autoclave,[1] and the part of the site where treated and untreated wood was stored, were legally protected as a heritage site. As the site remained in use until only a few years earlier, it was fairly intact and certainly unique of its kind. The installation was the property of the Belgian telephone company (Belgacom), who no doubt did not give priority to actively managing its industrial heritage and opening it to the public. The company made an in principle agreement with the Flemish Association for Industrial Archaeology,[2] stipulating that the latter would take the site on a long lease for a peppercorn amount, with the aim of opening it to the public with the creation of a separate foundation. A few years ago, however, a law became effective in Flanders prescribing that everyone who transfers land ownership has to prove that the ground is free of contamination. This proved to be a problem in this case as for three-quarters of a century, poly-aromatic hydrocarbons had been used lavishly in this area on this plot of land. Creosote oil is of course a derivative of coal, obtained during coke production. Since the time of the site's legal protection, a number of expensive studies have been undertaken on the site and the remaining oil has been removed, which has already cost the owner a small fortune. And yet, no definitive solution has been reached. The ground should be dug up, the soil decontaminated and the original land relaid. Moreover, the heaviest pollution is said to be inside the building, around the autoclave where an underground oil reservoir was once located. This poses a huge technical problem in itself. How should one proceed to excavate the soil to a depth of two to three metres in a building of 30 m x 5 m, containing a steel tube of 2 m x 21 m, without endangering the building's stability? Technically, almost nothing is impossible but everything has its price. The present owner cannot take the financial risk to invest

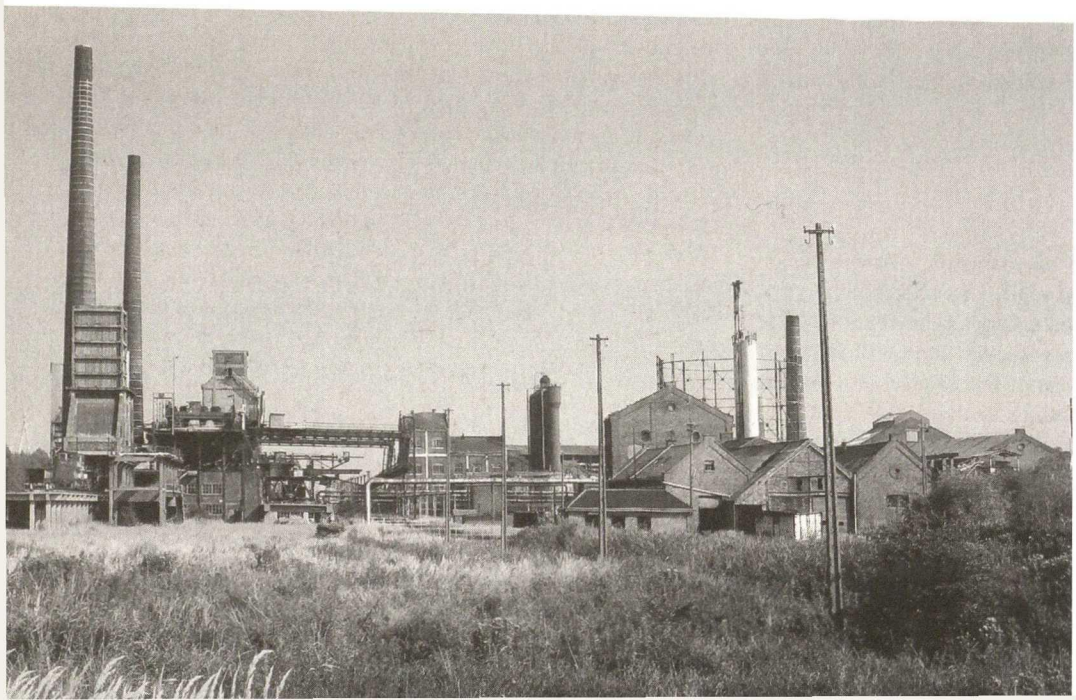
such an enormous amount of money in the block of land's clearing. Since the legal protection does not provide for a grant for such works, things are in abeyance pending some alternative ruling.

Case 2: Coke factory in Zeebrugge

In 2002, three Belgian regions, Flanders, Wallonia and Brussels-Capital, each inherited a disused coke factory from the obsolete industrial company Cockerill-Sambre. Flanders thus becomes the owner of a unique plant in the harbour of Zeebrugge, where since 1906 British coal is converted into coke for the Ruhr basin steel industry. The Public Flemish Waste Products Company (OVAM), a semi-public enterprise, is charged with the management of the site, with the aim of decontaminating it and bringing it back on the market as a harbour site. The Flemish Association for Industrial Archaeology once again sounded the alarm, and together with a few other associations, brought the historical value of the site to public attention. In December 2003, a proposal was submitted to protect the site as heritage because of its historical, technical and social interest. At the same time, some alternative adaptations were suggested.



Former coke factory Zollverein, Germany. Since its listing as UNESCO World Heritage in 2001, it had already more than 500,000 visitors. Environmental burdens do not necessarily stand in the way of opening up a site to tourists.



Coke factory Zeebrugge, Belgium. Because of environmental problems it does not qualify for protection as industrial heritage.

The Ground Decree has again played a damaging role in this case, since it prescribes that the soil be free of contamination when it changes ownership or use. Among others, the Bruges administration, in whose jurisdiction the land is located but which cannot be held responsible for funding the clean-up, is insisting on the implementation of the strictest possible environmental standards. Even though this business is situated within a harbour area, standards are required that are usually applied to residential areas. Because of the specific soil conditions, the ground should be dug up, at some places to a depth of even 10 metres, which would make the conservation of the buildings and the equipment impossible. This argument is now being put forward to refuse legal protection. The argument that protecting and converting the buildings might lead to a cheaper solution,[3] on the condition that reasonable environmental standards in keeping with a new function be applied, commands little or no esteem.

Towards an adapted regulation

Let us be clear: this is not a plea to abolish or mitigate environmental legislation. It is not our intention to engage in a controversy between environmental conservationists and heritage conservators. On the contrary, we plead for a dialogue between both, since their interests should not necessarily be incompatible.

Adapted standards

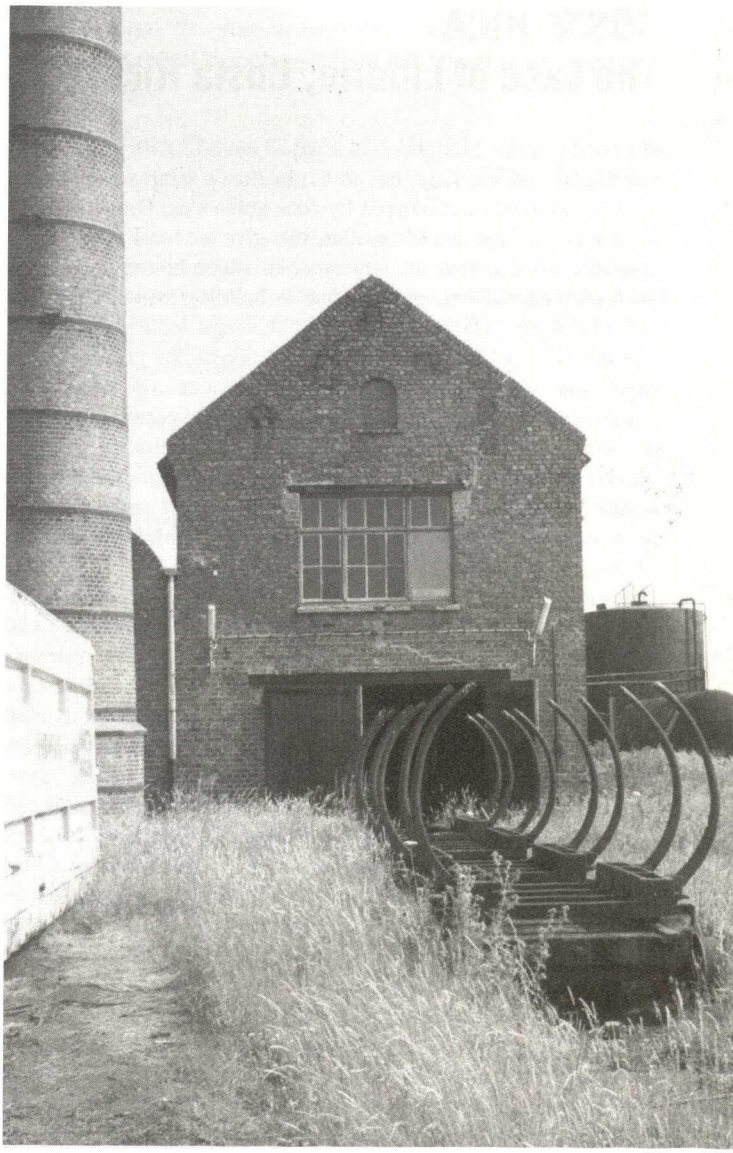
First and foremost, we wish to argue that other standards be applied to cleaning up the soil and the buildings in specific cases, such as when sites of an outstanding historic interest are concerned which qualify for legal protection as industrial heritage. These standards should be in accordance with the new purpose of the site. First, we are thinking of confining the particular area, combined with an adequate control and possible purification of the groundwater. In doing so, polluted groundwater contaminating adjacent ground can be prevented, to an extent that has not yet occurred before. If necessary, digging up of the surface soil, and storing and encasing the polluted soil on the spot, might prove a much cheaper alternative to requiring deep excavation and transport of the polluted soil, which also involves serious environmental risks. Would it not be advisable to apply other standards and to find out what the real health consequences are for those who will use and visit the site in the future, rather than continue to apply strict theoretical standards?

Adapted legislation

What prevents the legislator from making an exception to the Ground Decree for specific cases of land transfer which concerns the site's opening to the public? As long as a polluted site does not change ownership or function, soil sanitation is not required. Would it not be possible to state that there is no question of conversion when the workings of such an operation including its environmental pollution are shown to the public in a museological and educational context?

Environmental-educational surplus values

The opening to the public of such historically polluted sites under specific controlled conditions can even be invaluable in the environmental-educational field. Is there is better way to illustrate that the soil grows leaner under the influence of unrestrained industrialisation? Is there a better way to visualise the evolution in our environmental awareness, or to demonstrate the regenerating capacity of nature, than by means of authentic evidence? After all, the sterilised ground that is left behind after decontamination hardly lends itself to an enjoyable nature experience.



Former creosote yards at Ostend, Belgium. Legally protected as a heritage site, although not yet open to the public because of the environmental legislation.

ICOMOS Belgium
(with thanks to Stefaan Heyse,
Coordinator Flemish Association for Industrial Archaeology)

1 autoclave: a tubular steam kettle into which wood or other material is steamed under pressure for opening the cells.

2 VVIA: association of volunteer workers, founded in 1978. Forms a platform for local and thematic associations devoting themselves to the study and maintenance of industrial heritage in Flanders and Brussels.

3 Based on the current plans, the cost for decontamination and demolition is estimated as 50 million euros at the start of the works.