From green to brown: is brownfields use risk taking?

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Abstract Brownfields are commonly pictured as the hottest real estate property in the USA. Will the European market follow suit? Brownfields are properties long considered lost to reutilization due to their polluted condition. Federal and state governments in the USA provide incentives to foster redevelopment. But the risks involved still keep potentially interested parties clamoring for more legal protection. It may validly be asked whether recovery schemes may pose subsequent health or other problems. Communities involved may react quite differently; the attitude may be one of apathy, distrust or opposition, or, in sophisticated milieus, of realism. Much will depend on “education” and communication.

Introduction
It has become obvious that restoration to a pristine condition of large segments of our planet is utopic, particularly in former communist countries, where the regime ignored environmental aspects in favor of industrialization at all cost; there might perhaps better be a realistic approach such as partial remediation. In some cases the polluted areas cross international boundaries, in which instances the proposed International Court of the Environment could perhaps fill the role, when matters ran foul of sovereignty susceptibilities, of a court of arbitrage between nations. As there is increasingly interest in polluted, but perhaps tolerably recoverable properties, why not a glance at what has been done very recently in the USA in casu “brownfields”, the country apparently at the spearhead of the move.

From green to brownfield property?
The ideal view would be to return to “green” thousands of sites in industrial and developing countries, contaminated by dumping, spills, leaks, and so on. Leaving those unheeded, unrestored, unused seems illogical when many are amidst prime property areas. Thence thoughts of remediation strategies, environmental policy making and brownfield site redevelopment.

In contrast to “green properties”, to wit those which were not, or only mildly, polluted, or which can be restored at bearable economic cost, brownfields rather loosely designate impaired properties, with legal and financial liabilities, vacant, underutilized or tax delinquent. Impacted properties concern us in this paper. Of course brownfield properties often carry several liabilities.

The label brownfield is commonly given to an abandoned or under-utilized environmentally impaired property with financial, legal, tax, physical...
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Environmental redeeming
Cleaning up many a property is economically unbearable, leaving such lands rotting eyesores. Searching for an alternative appeared and appears logical if not downright necessary.

But in a litigation-prone country even official (i.e. government-issued) clean health bills are judged insufficient. When the US Army decided to sell historic Fort Sheridan on Chicago’s Lake Michigan waterfront, it “environmentally” cleaned it up. Neither federal nor state environmental protection agencies could find any trace of hazardous waste. Yet developers interested in acquiring the property decided upon additional clean-up and a.o. steps, and excavated landfills containing construction debris, to eliminate potential “negative perceptions.”

Community apprehension, perception and reaction
Education in its broadest sense plays a crucial role in residential development and brownfields marketing will not easily get the support of a community. Capping may be an excellent move in remediation and restoring a property but only a sophisticated community will understand its effectiveness. A practical decision to place back on the market a formerly impaired property, reasonably cleaned up might be to change its zoning from residential to commercial. It might, thus, have been simpler, and wiser to re-zone or even raze the European Union Brussels Headquarters (Belgium) than to extract the asbestos.

Superfund’s downsizing and liabilities
US federal government funding can be obtained for brownfields development. When the US EPA (Environmental Protection Agency) removed more than 25,000 properties from the inventory of Superfund sites, part of the stigma staining many redevelopments was simultaneously removed. But it remains the perceived risks, i.e. what the average person believes the risk to be, that will determine whether a property can be sold. That perceived risk adds to the actual risks associated with the brownfields.

The Superfund law sprouts forth from the dramatic, even traumatic, Love Canal case (Miller and Associates, 1998). The canal dug to bring hydroelectrical power to the Niagara Falls, NY area, stalled by economic depression, became a swimming hole and skating ring, but eventually a dump for 21,800 tons of hazardous products including 130 tons of dioxins. With the dioxin scandal, and accompanying health fear, that made Europe sizzle in April through June 1999, it is easy to envision the problem created in the area. The canal was in time encased in cement and ceramic capped. The potential danger did not stop school and a settlement construction on top and storm drains puncturing of the cement walls.
Health problems arose and 25 years after the school was built, a federal emergency was declared and governments bought all the houses. Recently New York State declared the site clean and marketed at low costs houses it had constructed there, notwithstanding large amounts of wastes buried on that “brownfield.” The Love Canal case contributed greatly to funds increases for the Superfund in the mid-1980s.

Removal from Superfund eligibility list and municipal efforts to bring them up to environmentally safe standards removed properties’ stigma. PCBs and other dangerous chemicals removal, jointly with infrastructure improvements, in Pittsburg, Pennsylvania, USA, made it possible to transform a 17 ha abandoned industrial plant and scrap yard into Washington’s Landing, a lush residential island for the rather well to do. The RBCA, Risk Based Corrective Action, strategies bring a site up to federal and state EPA standards, though some degree of contamination persists.

All impairments of a brownfield, when put up for sale, must be spelled out and any remaining hazards disclosed. Owners of lightly to moderately contaminated brownfield properties may be held retroactively liable by official agencies but even by employees, tenants, neighbors. However, recent modifications of legislation limit future liability and likelihood of third party lawsuits.

Comfort letters issued by several states constitute an important guarantee. But the guarantee is not iron-clad as third parties are not bound by the letters and even the state reserves the right to revert to legal action in case of spills or accidents. High cost insurance is tailored to the specific circumstances and the risks covered constitute a long list of “options” (Anderson, 1998). Often partnerships with the selling owners provide a tighter protective umbrella, as they assume part of the liability (Rubin, 1998), a formula selected for the site of the defunct Chicago Bridge and Iron Company whose brownfield is the largest residential project of that type in Chicago.

The voice of the community
There are no norms, there is no manual that applies to all situations. As a physician friend of mine once said: “There are no illnesses, there are patients.” Similarly there are cases and approaches must be tailored to them.

In an effort to improve communication, and probably in response to regrettable incidents, such as, for instance, in Chatain (Charente Maritime Department of France), Corinne Lepage, French Minister for Environment, set up a Chart of Concertation to which parties involved are to subscribe voluntarily. It may be a substantial step forward to avoid conflicts. The basic principles foresee that concertation must occur prior to any decision and must involve all who want to participate. Where a project proposal is tabled by any party other than a public agency, such party must notify responsible official instances that a concertation is being set-up and its modalities be specified to everyone; discussion must be nurtured and alternatives brought out. The concertation itself will address whether the project is opportune and what it
embodies, its definition and realization. A competent, impartial, independent referee, well versed in communication is to report on concertation sessions, which themselves will be the subject of intermediary and final reports and will be widely publicized.

In November 1996, N. Grosjean of the Eco-Counsel Institute (Institut Eco-Conseil) stressed that being an environmentalist encompassed being concerned with the interaction between environmental factors and the different “actors,” i.e. parties. There are no, said he, directives, just a few leads, and he proceeded to list ten:

1. help to make a decision is not substitute for a decision;
2. a conflict is not to be a problem itself;
3. it is not always possible, nor necessary, to negotiate;
4. information may turn out to be, sometimes, a double-edged knife;
5. gathering the “actors” around a table is often, but not always, a good idea;
6. the negotiator, the mediator, the referee have different roles but lead the same combat;
7. the enemy is the problem, it is not the other fellow;
8. focusing on starting positions leads to losing sight of underlying interests;
9. exchanging ideas is not a commitment in decision making; and
10. putting aside criteria is frequently setting solutions aside (Les Cahiers de l’Ecomanagement en region wallonne, 5, pp. 7-11, included in Eco-Manager 29 Dec. 1995).

Besides recovery for land-use of property commonly considered as “lost,” the scope of brownfield projects may provide outlets for activities in many professions and trades. Site remediation is par excellence a multidisciplinary field; as “ingredients,” or contributors, one should include civil, mechanical and chemical engineering, and among the sciences geology (particularly hydrogeology), geophysics, chemistry and toxicology. If getting at the fundamentals is a primordial step, planning is an equally demanding and varied task: it involves sampling, site characterization, risk assessment, clean-up criteria, but also, and not least, public participation. A great saving can of course be achieved if treatment in situ is possible (Nyger, 1996; Sellers, 1999; Soesilo, 1997).

Considerable funds are involved in re-development of current fields. The Brownfield News, quoting the US EPA as its information source, tallies 450 brownfield sites in the USA which “could be worth, conservatively estimated, some $200 billion (2 x 10^10”).

Similar valuable properties probably dot Europe, but prior to eventual development a “state of play” report on brownfields is needed that informs on
brownfields development frequency, clarifies contaminated sites and brownfields development regulations, and identifies the national organisms (agencies) that do or will handle brownfields, in the light of such a slogan as “what world I would like to see.”

Acceptance of rehabilitation of a site is far easier than that of a transformation to merely a brownfield. It can be gained through a low key educational-information approach whereby economic advantages can be pointed out but which stresses safety and no-danger-to-health considerations. Communities are more aware of environmental aspects of a project and local activists are particularly suspicious of developers’ schemes. A candid presentation may pay off better than what Americans call boiler-room salesmanship.

The importance of education and of enrolling community acceptance of any project has been stressed above. Indeed there are pitfalls with land recovery schemes involving brownfields. The former use of the building and property plays a determining role, while contaminants may migrate from an adjoining property, and not uncommonly engineering issues are worse than environmental ones involving for instance soil quality.

The general public, though sometimes apathetic, expects some personal advantage from redevelopment, as it affects it directly, and wants its say in contaminants removal or capping. New tools are put to work for the handling of brownfields. The Geographical Information Systems (GIS) is the first tool to bring together a variety of resources in one convenient pack (Loose, 1998). It provides environmental records to developers, banks, environmental engineers and consultants.

Brownfields and development

Some decision makers look at the development of brownfields as a jobs-generating scheme, though challenges are still high notwithstanding loosening of regulations and a reduced stigma of health hazards. It still takes courage and money to redeem contaminated properties.

On the European scene it seems that we are far from brownfield development; the “polluter pays” plan of the European Commission put a damper on immediate prospects (Johnstone, 1998). Page (1997) examined the prognosis for Eastern and Western Europe, particularly for Great Britain, Germany, and The Netherlands. It is currently looked at as a major new market, in Belgium, Italy and France. A major development is handled by ABO, a Ghent (Belgium) Company with outreach in The Netherlands, Germany and France. The focus is placed on liabilities, both financial and environmental. Though land redevelopment, utilization, removal of community blight, and perception of environmental hazards represent a large market, steps remain hesitant. Consulting engineers have a major role to play in identification of liabilities associated with brownfield site development including scope and range of issues and remediation. The contemporary character of the issue is
illustrated by the decision of FIDIC (International Federation of Consulting Engineers Associations) to modify its rather recent “White Book” to take it into account.

In Denmark the potential of the brownfield market fosters interaction between accountants; lawyers and engineers. Germany requires that in development brownfields be given the preference over greenfields. In the UK, though less stringent, such regulations prevail also. Both countries require detailed site investigation. On the other end of the spectrum the very strict construction and land zonation laws of Switzerland restrict availability of sites for redevelopment.

Perhaps unlike in the USA, public enthusiasm for restoring contaminated property to the real estate market is not widespread in many areas of Europe. The St Charles and Bayemont coal-tailings cones (terrils) in Marchienne Docherie were approved by the Charleroi (Belgium) City Council for “valorisation” (i.e. put into usable condition and exploited) by Exterbel under very specific conditions. Neighborhood residents contend that ensuing nuisances would be considerable, and that only the bidding company would benefit from such valorisation.

The opposition is much stronger for the St Chades site and since apparently the council refuses to come back on its permit delivery, the public living on the edge of the terril examined the respect of environmental law and discovered that an environmental impact assessment had not been conducted, as required for properties covering more than 15 hectares (37 acres).

In The Netherlands the original enthusiasm for soil decontamination seems to have waned even if in 1997 some 1.5 millions of polluted sites were treated. Voices have been raised asking whether the government policy is decontamination or mere camouflage no matter what the ultimate aim of a property. Policy pertaining to soils seems to be ruled by the rather elastic principle of “active soil management.” The avowed aim is to see more soils cleaned-up at a faster rate. Decontamination is to be tailored to the final use of the property, which ought to make it less expensive. Thus, only non-stabilized pollutants would be removed provided it is financially paying-off and to group in situ contaminated soils whose pollution would not spread.

Provinces and municipalities would be responsible, instead of the central government, for decontamination projects and programs. However, local powers are more concerned with economy so that contaminated sites not infrequently are returned to the dump ground category. The central government runs the risk to lose any real control on polluted sites.

The part of the European Union’s environment expenditures allocated to soils is minimal (1 percent), and soils are but one of the real estate matters considered in the brownfield optic.

Brownfield News, a leading US publication on brownfields, plans release of a paper examining the European market (Colangelo, 1999). The US Environmental Protection Agency is helping with the project. Yet hardly any papers on the topic are released in Europe itself and those which are, for
example, on soils remediation, deal more with it as a corollary subject. *Eco-Manager*, a French language monthly, has been silent on the subject. The unavoidable conclusion is that across the ocean opportunities are detected which are less than obvious to Europeans themselves.

While the interest exists and the appetites are whetted, development of brownfields on the European scene is likely to proceed only with considerable caution.

References