Industrial heritage management in the context of urban planning

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Introduction

The management of industrial heritage sites requires rethinking in the context of urban change; the issue of how to balance protection, preservation/conservation, and development becomes all the more crucial as urban industrial heritage sites grow in number. This brings into play new challenges—not only through the known conflicts between heritage conservation and contemporary architecture, but also the increasing demand for reusing industrial heritage sites as a driver of economic urban development.

The following contribution discusses industrial heritage and conservation concerns regarding urban and site development. Industrial heritage is not only an issue of monument protection or heritage preservation, nor is it only about identity, memories, and cultural traditions; it belongs to cities and their transformations. Beyond the theme of cultural heritage, the conservation and use of industrial heritage (heritage management) is an issue for planning and urban development. Recognition and management of industrial heritage sites—as protection, re-uses, or partial demolition—go hand in hand with conflicts in planning practices. The core message is: Industrial heritage sites are part of urban transformation and its planning practices. Therefore, heritage management involves more than dealing with the protection and conservation of the heritage site itself; it also encompasses the urban transformation of the city and the site. Consequently, heritage management practice has to balance heritage conservation concerns and the interests of development, which often include new production of architecture, and has to bridge the gap between these three different perspectives and rationales.

The recent debate surrounding the ‘Maritime Mercantile City’ UNESCO World Heritage Site in Liverpool provides insights into this complexity, and illustrates similar questions faced by agents at other UNESCO sites, such as the former Zollverein Industrial Complex at North Rhine-Westphalia, Germany. A three-year project provided profound scientific understanding of the conflicts involving heritage site management in the context of urban planning (Oevermann and Mieg 2015). The project findings will be introduced in the following sections, with some details on the case studies from Liverpool and Zollverein. I argue that the scientific knowledge resulting from our project is useful for heritage management practice, and I will offer first insights into my suggestion on developing best practices for bridging the gap between the concerns of heritage conservation, those of urban development and new production of architecture. Furthermore I suggest a processual collaboration between researchers and practitioners.

Transfer of scientific knowledge into practice

There is a broad literature providing guidance on heritage management practices, including manuals for UNESCO World Heritage Site Management (Ringbeck 2008; Wijesuriya et al. 2013) and guidance on heritage planning (Kalman 2014). Such guidelines represent a profound depth of knowledge and describe general procedures that are very helpful

in understanding the overall context of managing UNESCO World Heritage Sites, and of heritage conservation in the context of planning. However, existing guidelines do not consider the specific heritage category of large industrial heritage sites, nor do they deeply address the challenge of balancing and bridging heritage conservation concerns and the interests of urban/site development. Approaches to this challenge derive from other categories of heritage: that of the historic city. Goetzmann (2009) describes a successful procedure employed in developing the masterplan (Leitbild) for the UNESCO World Heritage Site at Potsdam. There, conflicts were resolved through establishing alternative concepts, designs, and practices to bridge the gap between heritage conservation and urban development. Another example from the field of historic cities is given by Rodwell (2007), who applies the value of sustainability to bridge heritage conservation concerns and urban development interests.

There are also specific tools for conflict management and resolution, such as the internationally acknowledged instrument of Heritage Impact Assessments (HIA), developed by ICOMOS (2011). The heritage management practice in the case of Liverpool shows that this tool supports identifying risks and potential benefits for the heritage site through a large-scale urban development project, but that it does support the preparation of alternative concepts, designs, or practices. Furthermore, the case study shows that the HIA does not meet the challenge of resolving competing interests, such as heritage conservation and development. As we see later, its two assessments stick within the perspective and rationale of either heritage conservation or urban/site development.

Understanding Conflicts

Heritage management is an issue for many diverse agents with different perspectives on and interests in industrial heritage (Kierdorf and Hassler 2000; Albrecht et al. 2011; Douet 2012; Cossons et al. 2015). Creating advocacy among former and new users, local citizens, or local communities is an important issue that has been addressed by several studies (Smith et al. 2011; Cossons et al. 2015, pp.204–207). In this article the empirical studies focus on professional planning agents in heritage management and decision making processes. They mostly advocate either the heritage conservation concerns or the interests of urban/site development. The latter often requires architects and new architecture in order to implement their purposes. Already, it becomes obvious that the differing interests of these various planning agents lead to conflicts. But what are the conflicts about? We can generalize two main lines of conflict that challenge industrial heritage sites. One relates to culture as a driving factor in urban development, the other to architecture and its current production.

Conflict 1: Culture in urban development

Culture is increasingly recognized as a driving force for urban development. Today, cultural institutions such as museums, or events such as the European Capital of Culture, are used as tools for improving a city's image, upgrading urban spaces, and providing a lively urban environment. The concept of culture-led development refers to these approaches. Heritage and heritage sites have become assets for urban development, often described as heritage-led development. On the one hand, we can recognize this as an opportunity to legitimize and promote heritage concerns and requirements. On the other hand, this superficial understanding triggers conflicts by failing to acknowledge that heritage values are deeply interwoven with the historical fabric of the sites and city.

Conflict 2: Demands on the production of architecture

Additionally, conflicts emerge out of the different demands on architectural production. Heritage conservation is based on the intrinsic values of material heritage—be

they objects, buildings, or sites, their authenticity and integrity have to be maintained. Conservation therefore demands careful and minimal architectural intervention. However, urban development often uses architecture as an icon of and for structural change, a new image, and urban brands. Cities employ iconic architecture to promote themselves, attracting both talent and investment. Lastly, architectural design often follows new requirements for re-use, e.g. the upgrading of façades to improve thermal comfort. Architects understand architectural production as a tool to re-design the historical fabric and site. Consequently, conflict with conservationist interests is driven by the reality that competition for professional architectural recognition is better served by singular, iconic projects than by modest and sympathetic treatment of existing sites.

We can explain these conflicts due to the differences in values of the three introduced perspectives. Agents of heritage conservation and urban/site development use different concepts and instruments and follow diverse objectives, and their practices are led by different values. In social sciences, we can frame these different concepts, objectives, and values as different discourses. In heritage management, they clash and influence heritage management practice. This conflictive interplay can be understood with the help of synchronic discourse analysis (Oevermann and Mieg 2015a). Through our research, it became obvious that the divergent values encountered throughout the constellation of discourses become sources of conflict (Oevermann and Mieg 2015b). What is needed in heritage management practice is to integrate the different core values and to employ further, shared values to define objectives and concepts for implementation. Both the integrated core values as well as the shared values function as bridges (henceforth ‘bridging values’) between the diverse agents and the differing perspectives and rationales. Table 1 provides an overview of the values and discourses relevant to heritage site management.

Table 1: Values and Discourses

Value	Discourses
Accessibility	Architectural production, Heritage conservation, Urban development
Authenticity*	Heritage conservation
Bottom-up	Heritage conservation, Urban development,
Character	Architectural production, Heritage conservation, Urban development
Design*	Architectural production
Development*	Urban development
Economic value*	Urban development
Environmental value*	Urban development
Esthetics*	Architectural production
Historic values* (*Denkmalwerte*)	Heritage conservation
Image	Architectural production, Urban development
Integrity*	Heritage conservation
Re-use	Architectural production, Heritage conservation, Urban development
Sensitivity	Architectural production, Heritage conservation
Vision*	Urban development
* = Core value	

Two case studies, from Liverpool and Zollverein, will illustrate the argument. Our research showed that Liverpool and Zollverein are specific cases but not exceptional ones,

regarding this basic conflict between heritage conservation concerns and urban/site development interests.

Case studies: Liverpool and Zollverein

Liverpool and Zollverein's UNESCO World Heritage Sites are huge, complex, and constituted by long-term transformation processes. In both cases, it is accepted by all planning agents that both heritage conservation and future urban development are necessary and yet must be balanced. Due to limited space, this article focuses on two details of the transformations. In Liverpool, this concerns the conflictive debate around the ongoing (2014) large-scale development project called Liverpool Waters, located at the Northern Docks. One instrument of heritage management practice—the Heritage Impact Assessment (HIA)—will be introduced to illustrate the extent to which the differences between conservationists and developer influence heritage management practice, and how difficult it is to achieve an appropriate balance. In the case of Zollverein, the Masterplan Zollverein (2001) from the Office of Metropolitan Architecture in Rotterdam is introduced, together with the conservation masterplan (Denkmalpflegerischer Rahmenkonzeption) of Reinhard Roseneck, and the compromises that were agreed—on the basis of bridging values—to balance heritage conservation concerns and development interests. The following discussion does not take into consideration other interesting arguments on the conflicts (e.g. Gaillard and Rodwell 2015 in the case of Liverpool).

Liverpool's large-scale development project

Liverpool Maritime Mercantile City has been scheduled as a World Heritage Site since 2004; In 2010 an outline planning application from Peel Land and Property (Peel Waters) was first submitted by Liverpool City Council; since 2012, Liverpool has been included on the UNESCO List of World Heritage in Danger, as a result the density and heights of buildings within the Liverpool Waters proposal, and the resulting impact on the Outstanding Universal Value (OUV) of the heritage site. The Liverpool Waters project is partly located within the heritage territory and its buffer zone north of Pier Head and Prince's Dock, and will re-use 60 ha of dockland area. It comprises a mixed-use, high-value urban quarter development that will create around 1.7 million square meters of new built space. The project has impacts on archeological objects in the ground, on views and the waterfront, as well as on the overall urban morphology of Liverpool (Bailey 2011; Chadwick and Dicks 2011; Rodwell 2015). In 2014 the project has been revised since the first masterplan; the revised masterplan was approved in 2013, and individual planning applications are still needed.

Positive or negative impacts of new development projects on heritage can be assessed by the HIA framework developed by ICOMOS (2011). The central idea is that: "World Heritage sites are thus single heritage assets with an international value that has been clearly articulated. Not everything within them contributes to OUV, but those attributes that do must be appropriately protected." (ICOMOS 2011, p. iii). Three leading questions will be addressed: What is the heritage at risk and why is it important—how does it contribute to OUV? How will change or a development proposal impact OUV? How can these effects be avoided, reduced, rehabilitated, or compensated? (ICOMOS 2011, p. 4, 2-2-2). It is important for assessing the impact of new developments to understand the intrinsic value of all heritage assets and their contribution to the significance (described as OUV) of the heritage site. Each significance (from minor to major importance as heritage) is assessed to obtain single and cumulative impacts (classified from major beneficial to major adverse) on the heritage site. In summary, the HIA helps to identify upcoming risks or benefits and to differentiate these impacts on heritage sites. However, it does not help to bridge the differences between heritage conservation concerns and the interests of urban/site development.

In the case of Liverpool, both conflicting agents—conservationists and developers—commissioned consultants to produce HIAs. However, the introduced conflicts were repeated in assessing the impacts, as demonstrated by the following quotations from the closing comments. The following conclusion regarding the high density and building heights in the HIA commissioned by English Heritage:

"The legibility of the Central Docks and the central commercial core of the City will be damaged by the secondary cluster of tall buildings in the Buffer Zone. Together, the primary and secondary clusters of tall buildings and the string of mid-rise structures along the Mersey's edge that form part of this submission, will overwhelm the historic primacy of the Pier Head buildings along the City's waterfront, causing significant harm to the WHS's OUV." (Bond 2012, pp. 392–393).

Obviously, this argument gives high importance to the historic values of the site. Historic values are core values of heritage conservation, as Table 1 has shown. In contrast the next argument demonstrates the importance given to economic values as core tenets of urban development:

"Tall buildings are included in the scheme to create a new international business destination that will attract investment from around the world. Research confirms that positive economic impacts can accrue from the development of tall buildings. Furthermore, central waterfront locations are a finite and scarce resource, and are highly valued as commercial locations in cities across the world. Therefore, given the difficulties faced by Liverpool in attracting commercial investment and jobs since the demise of the old docks, it is crucial to make the most efficient use of the land through high density development and tall buildings. By using this finite resource carefully, tall buildings also provide more space for creation of high quality public realm." (Liverpool Waters 2011, p. 13).

The different core values influence significantly the two HIAs, not only in this detail but more generally, as shown by the comparative cumulative impact assessment (Table 2). Each number represents a single impact assessment of a heritage asset reflecting OUV, including impacts on (key) views, strategic landmark buildings, townscape characteristics, and compliance with guiding documents and policies. Table 2 shows that the HIA commissioned by English Heritage assesses nine large negative/adverse impacts and no moderate positive/beneficial impacts (versus zero and thirteen respectively, in the HIA commissioned by the developer).

Table 2: Cumulative impacts of the Liverpool Waters project on OUV from HIA English Heritage and Liverpool Waters (Bond 2011, p. 356; Bond 2012, p. 386; Liverpool Waters 2011, p. 5).

	Very large positive/ beneficial	Large positive/ beneficial	Moderate positive/ beneficial	Slight positive/ beneficial	Neutral	Slight negative/ adverse	Moderate negative/ adverse	Large negative/ adverse	Very large negative/ adverse
Stephen Bond for English Heritage (2012)	0	0	0	3	8	7	3	9	3
Peter de Figueiredo for Peel Waters (2011)	0	1	13	9	17	1	1	0	0

From my point of view, the HIA is a very useful instrument to understand in detail the possible impacts on heritage sites, and for assessing these via the core values of a single rationale, such as giving importance to historic values (conservation) *or* to economic values (development). Nevertheless, it fails to integrate the divergent core values that lead to conflicts, and does not create bridges between the diverse agents and their perspectives and values.

Transformation of the Zollverein Industrial Complex

Coal extraction at Zollverein ceased in 1986 (Shaft 12), followed by the end of coke production in 1993 (coking plant). At the beginning of the transformation process, discussions were held on whether any (and if so, which) parts of the huge area might have value as monuments. Since 2000, all four of the remaining shaft sites (Shafts 1/2/8, 3/7/11, 4/5/11, and Shaft 12) and the coking plant have been listed as monuments; and in 2001, Shafts 1/2/8, Shaft 12 and the coking plant were also designated an UNESCO World Heritage Site. Since the 1990s, Zollverein has been transformed by creative interventions, and was an anchor project of the International Building Exhibition (IBA) Emscher Park (1989–99). The transformations of the site are ongoing as new uses of art, design, and culture are slowly established. A chronological overview of the history of Zollverein and its transformation (2010) is given in Table 3.

Table 3: Chronological overview of the history and transformation of the Zollverein industrial complex, 1928–2010

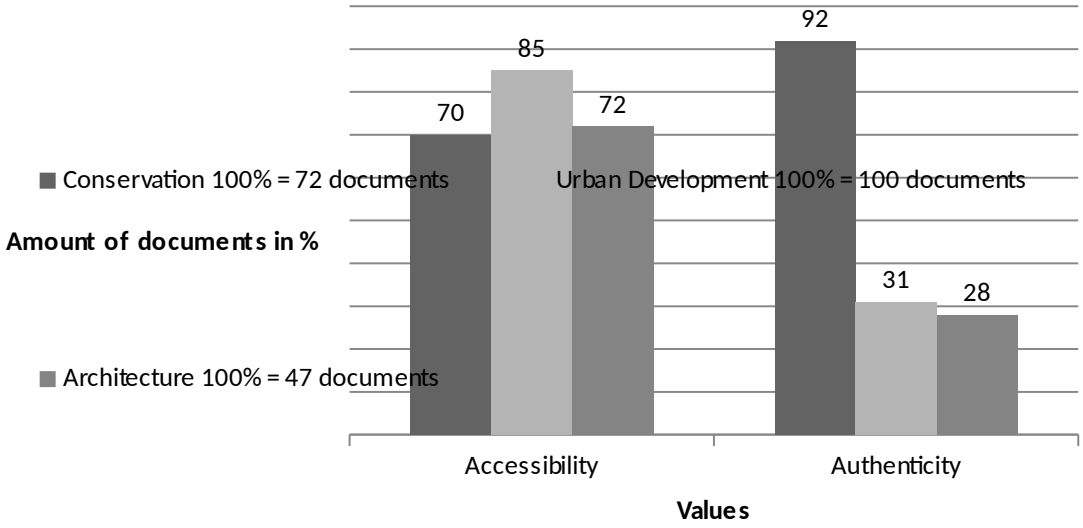
Date		Topic
1928–1932		Construction of Shaft 12 by the architects F. Schupp und M. Kremmer
1957		Planning of the Cokery Plant by F. Schupp
1986	26.11.	Preliminary listing of parts of Shaft 12
1986	15.12.	Sale of Shaft 12 at NRW /LEG
1986	16.12.	Listing of Shaft 12 by the ferderal government
1986	23.12.	**Closure of Shaft 12**
1988	24.01.	Final listing of Shaft 12
1989	Herbst	Shaft 12 became IBA project
1993	30.06.	**Closure of Cokery Plant**
2000	20.06.	Listing of Shaft1/2/8 and Cokery Plant
2001	16.12.	Recognition as UNESCO World Heritage
2006		Opening vistor center
2010	Jan.	Opening European Capital of Culture and Ruhr Museum

Following the closure of Zollverein, its subsequent transformation stems from the IBA Emscher Park, which was crucial to establishing the linkages between heritage conservation and regional development. The conviction was that future development of the Emscher region would only be possible and successful by conserving the large industrial sites that constitute the region's historic landmarks (Ganser and Wermker 1994). The agenda Denkschrift Zollverein 2010 (Ganser et al. 1999) followed this integrative planning approach and defined three basic values on which the future transformations of Zollverein: The first of these is to

understand historic shafts and plants as the basic urban design structure, while the others refer to the nature and the future uses of art and design (Ganser et al. 1999, pp. 15–16)[1].

Despite all critic, Zollverein's masterplan from 2001/2002 integrated these values in the new development project. A visitor center and Ruhrmuseum, a design school, a congress center, and two industrial design parks are the main new elements, partly realized in 2015. Even more interesting is the urban design concept of the masterplan, which defines the historic complex as the core to be conserved, around which new functions and buildings are to be located. In this 'shell area' the demands for protection and preservation are not as stringent as within the former plants. This idea was also implemented in a second masterplan concept, called Denkmalpflegerischer Rahmenkonzeption, written and design by a conservation consultant Reinhard Roseneck (2002). Although there are differences between these two masterplan concepts, both define and respect the protection and conservation area—the core—and define change and development through new buildings in the surroundings.

Research findings from synchronic discourse analysis of Zollverein indicate some values function as bridging values between the different concerns and interests of the diverse planning agents. One is accessibility (Zugänglichkeit), a value pointed out by the diverse agents, with nearly the same importance. This became evident through the analysis of planning documents referring to the transformation, from 1989 to 2010 (225 documents in total). Accessibility means facilitating physical access to the formerly inaccessible production site and plants. Graph 1 shows the quantity of documents (in %) that make reference to this value. Next to the common concern of conservation and development, further bridging values are: reuse, and aesthetic values (spatial quality, design and character). However, the value of authenticity—understood according to the rationale of heritage conservation—is introduced. The importance given by the diverse agents differs enormously, thereby indicating sources of conflict, which alsco become obvious in the expert interviews.



Graph 1: Zollverein: Bridging and conflicting values

1The citation in German: "1. Die Gesamtheit der baulichen Anlagen mit den Eckpfeilern Schacht XII, Schacht 1/8, Kokerei, den Gleisanlagen, den verbindenden Bandbrücken und der Kohlenwäsche in der Mitte als Knoten im Netz von Kohleförderung und Kohleverarbeitung. Diese bilden das städtebauliche Gerüst. 2.Die Artenvielfalt und die Schönheit der Natur auf en Industriebrachen. Diese sind Basis für den Zollvereinpark. 3. Die Widmung des Standortes für die Kunst und Kultur des 20. Und 21. Jahrhunderts in einer Qualität die im Weltvergleich bestand hat." (Ganser et al. 1999, pp. 15–16).

It is striking how few documents on urban development and architecture address values of authenticity. Authenticity is a conflictive value, assigned high importance among agents of conservation yet low importance among agents of urban development and architecture. This result was confirmed by statements in expert interviews. We see that conservation and accessibility function as bridging values because they are implied by most of the documents produced by each group. Development is also integrated within most of the documents, although less so in the field of conservation. The data confirm that the urban design ideas of the two masterplans integrate heritage conservation concerns with the interests of urban development.

However, next to these introduced bridging values that facilitate masterplanning, conflicts arise when planning became more detailed. The proposed transformation of the former coal-washing plant into a visitor center and the Ruhrmuseum was a particular issue of debate, which I have reflected in another article (Oevermann 2012, p. 193). In this part of the transformation, addition bridging values were needed to bridge the gap (Oevermann and Mieg 2015a; Oevermann and Mieg 2015c).

Identifying best practice in balancing heritage conservation and urban development

From my point of view, research findings concerning conflictive and bridging values are useful in the practical sphere of heritage management. In the following sections, I offer first insights into the debate on best conservation practices for bridging the gap between heritage conservation concerns and the interests of urban/site development in this complex field. Four assumptions lead my argumentation:

1. Scientific research findings are generally valid for broader or different constellations of agents. Other values might be relevant.
2. There are tools available, e.g. agent-oriented discourse analysis (akteurszentrierte Diskursanalyse), which allow analysis of different interests and rationales (objectives, concepts, values) and which can be used in practice (Mieg and Oevermann 2015). Synchronic discourse analysis, as briefly introduced here, is an instrument for scientific research.
3. Best practice means the integration of diverse concerns and interests;
4. Understanding the constellation of agents, their perspectives and core values, is the basis for developing best practice for balancing heritage conservation and urban development.

The following tools are suggested for identifying best practice in industrial heritage management, balancing heritage conservation concerns with the interests of urban/site development. They are preliminary and need to be discussed and adopted together with partners in practice.

Tool 1 (WZ1):

A simple matrix might help to structure the perspectives and rationales of diverse agents. Perspectives and rationales can be described by three categories: objectives, concepts, and values. Differences, especially in values, indicate prospective conflicts; shared positions indicate common ground for heritage management practice. Shared values might function as bridging values in practical heritage management. The matrix reveals challenges and opportunities within the constellation of agents, and their perspectives and rationales. It can be used for transparent communication.

The use of structured questions can reveal the objectives, concepts, and values of the respective agents during workshops, interviews, round table discussion, etc. These questions are:

1. What are your objectives regarding the industrial heritage management of xxx?

2. What concepts do you use regarding the industrial heritage management of xxx?
3. A prepared list of values, which have to be ticked (multiple-choice), might help to answer the question: What is of great importance regarding the industrial heritage management of xxx?

Tool 2 (WZ2):

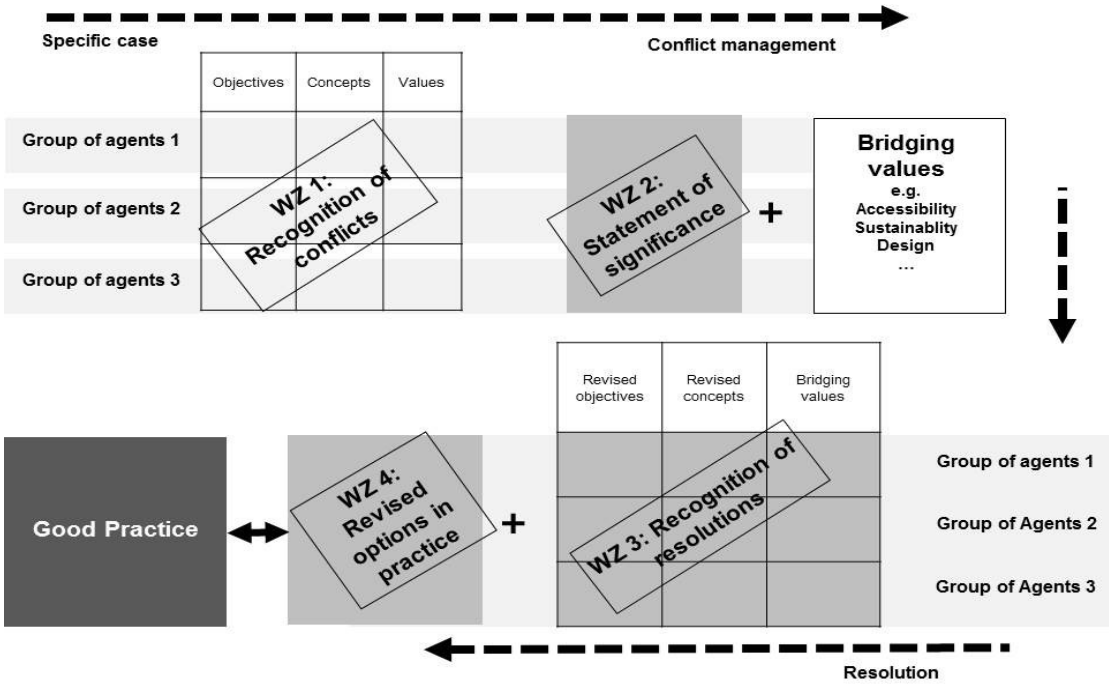
A two-page statement of significance can clarify the OUV/the historic values of the heritage site for all parties involved in the transformation processes. The importance of a shared understanding was highlighted previously, with reference to the ICOMOS Heritage Impact Assessment. In a second step, knowledge on possible bridging values (see *Tool 1*) can be introduced to all partners.

Tool 3 (WZ3):

The third tool is a slight revision of the matrix *Tool 1*. An understanding of the significance of the heritage site and bridging values might enable parties to work out slightly shifted objectives and concepts, and to add some shared values. Examples of shifted objectives might include the adapted re-use of buildings; slightly shifted concepts might involve conservation-led development rather than real estate-oriented development; additional shared values might include accessibility, sustainability, or sensitive design. All agents should be involved in this process of revision.

Tool 4 (WZ 4):

The fourth tool supports the recognition of best practice to balance heritage conservation concerns and urban development interests. Best practice is identified on the basis of shared objectives, concepts, and values, which are likely be those agreed through the process of mutual understanding and revision. Furthermore, best practice has to take into consideration the statement of significance. The simple matrix can again help to communicate the findings to a broader public and to agents involved in heritage management at other sites. Graph 2 illustrates these first insights toward identifying best practice in industrial heritage management.



Graph 2: Suggested toolkit to identify good practice

Conclusion

Conflicts in heritage management practice are often based on different perspectives on and interests in industrial heritage sites. Diverse agents might consider the need for both heritage conservation *and* urban development, but their practice often sticks to the core values of either heritage conservation concerns *or* development interests. In these cases, planning and assessment instruments such as the HIA do not bridge the differences between the diverse perspectives and rationales. Here, the suggested approach comes into play, a toolkit to help to identify and communicate best practice with the aim of balancing different interests. This suggestion includes: Diverse agents are involved in the process right from the beginning; potential points of conflict are disclosed; the statement on heritage significance is clarified; bridging values are considered; and integrated planning approaches with alternative concepts are defined. It would be of great interest to arrange for collaboration between our research center and partners in practice, to improve the suggested approach and implement it in the practical management of industrial heritage.

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Vita

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