

## Title

---

Low-threshold reconstruction of underused industrial plants with user-orientated modification to workspaces at optimal costs for the creative industries in economically underdeveloped regions during continuative energetic improvement

## From industrial waste land to creative production plant



*Cover of the research report*

## Occasion/ Initial situation

---

In the centre of attention of this work, combining applied building research and model projects in Saxony, occur two well-known problems: the continuing vacancy and decay of historical industrial wasteland and the acute absence of suitable workspaces for the young and rapidly increasing branch of creative industry. Its growing requirement of inexpensive workspaces is hardly to cover due to the ascending rental prices in German cities - wanted are so called „creative production plants“.

## Object of examination

---

Against the background of demographic change the adaption of the house stock is a key-factor to city development. Apart of the ageing population, there has to be considered progressively the modifying life situations of the young and average generations including transformations in their world of work and the production sites.



*Studio of the artist Elisabeth Howey in the Tapetenwerk in Leipzig*

However, a deficit can be seen as a chance: the industrial wastelands, which are regarded problematical in urbanistic and economical sense due to their seize, are evaluated as attractive open space by the creative industries. Furthermore, they often are dense storages of resources with a high percentage of grey energy.

Besides the constantly accented particular charm of historical industrial architecture, the concrete advantages and problems of these buildings from the point of view of the interested clientele of users were compiled and evaluated. To highlight as particularly positive are

- the compact architecture combined with an individual room arrangement
- the flexible space utilization
- the non-standardized room structures
- the open development potential

Accordingly, the practice orientated focus of this work is on the transferability of already successful projects and the model project of the former leather factory in the Saxon city Freital as a documentation of investor- and user-friendly activation concepts in the same time.

Nachhaltigkeit der Revitalisierung von Industriebrachen  
**Das Tapetenwerk und gespeicherte „Graue Energie“**  
 Vergleich zur Herstellungenergie von VW Golf 4 TDI



Nach einer gängigen Methode zur Ermittlung der „Grauen Energie“ wurde für das Tapetenwerk eine Summe von ca. 11 Mio. MJ ermittelt. Im Verhältnis entspricht diese bilanzierte Energie der aufgewendeten Energiemenge zur Herstellung von 127 VW Golf 4 TDI (Volkswagenumweltbericht 2001/2002).

rb architekten leipzig www.rbarchitekten-le.de

*Grey energy of the Tapetenwerk in production-comparison*

Alongside with the characteristics of various best-practice-examples in Saxony, the low-threshold reconstruction of the Tapetenwerk in Leipzig, from the evaluation of the degree of damage to the step-by-step reconditioning to an energetic survey are explained at length.

The sustainability of revitalization of the industrial wastelands is illustrated by the determination of grey energy and the carbon-dioxide-bilanz of the Tapetenwerk.

Nachhaltigkeit der Revitalisierung von Industriebrachen  
**Das Tapetenwerk und das „gespeicherte“ CO<sub>2</sub>**  
 Vergleich Einspeichervermögen von CO<sub>2</sub> durch Wald



Für die Errichtung des 140 Jahre alten Tapetenwerkes wurden 920.000 kg CO<sub>2</sub> aufgewendet (\*). Dies entspricht der jährlichen Bindung an CO<sub>2</sub> eines Waldes von 70 Hektar - dies entspricht der Fläche der Innenstadt von Leipzig. Ein Wald auf der Grundfläche des Tapetenwerkes braucht ca. 160 Jahre um diese Menge an CO<sub>2</sub> zu binden. Der Abbruch des Tapetenwerkes wurde der Rodung eines 160 Jahre alten Waldes entsprechen. (\*gemäß CO<sub>2</sub>-Äquivalent Ermittlung.)

rb architekten leipzig www.rbarchitekten-le.de

*Carbon-dioxide-balance of the Tapetenwerk in forest- and surface-comparison*

Through the project numerous interviews with protagonists of creative industries, proprietors, operators, representatives from the administration and other decision-makers in Saxony have been made and in two workshops the problem catalogue and solutions approaches were discussed intensely.

As a result of the first project workshop the question catalogue “room-requirement” has been simplified and released as a survey on the website, accompanying the project. The room space preferences requested online have very little to do with workplace regulations and the possibility to a flexible change of use is not provided by any federal land utilisation ordinance so far. The urgent occasion for a new application to the point of an amendment concerning the set of rules of construction are given by the new working environments in any case. Their rapid development has caught up – if not even outdated – most of the rule sets, having brought proprietors, users, founders and the administration to their limits frequently. These, but as well tenancy problems are treated detailed in the legal report of this work.

The second workshop was specifically set under the headline “creative industries beyond metropolises” and organized in the small town Freital. Especially within the model projects in Saxony there was the possibility of discussing, sorting and analysing the general and regional requirements very good. Besides the flexible room-supply, creatives measure their surroundings superficially concerning places of communication and opportunities of social interaction. Is this not (yet) provided by an urban district, the corresponding offer in the factory replaces the shortage. Is this offer not given, the place won't be accepted.



Grey energy of the Tapetenwerk in production comparison

Precisely concerning smaller towns the high affinity of the creative industry to manufacture, eases the decision whether targeted support and settlement of creatives is beneficial. Besides the simple effect of flexible companies of small and middle class establishing, every city is using as well a special instrument of urban development – through the active revitalization of their historical production sites and thereby a highly modern, demonstrative and inexpensive reconditioning of their own urban history. Using the example of the “Kreativfabrik Freital” (creative factory Freital), where utilisation concepts are opposed to management concepts and acting recommendations for an creative vacancy management are given – even beyond metropolises.

## Conclusion

---

For municipality, the private sector and other participants and decision-makers will be provided by this work an comprehensive action catalogue for low-threshold reconstruction of extensive wasteland, ranging from professional activation

steps to management concepts to regionally varying utilisation structure. The results were exemplary transferred to the “Kreativfabrik Freital” (creative factory Freital), a concept ready for implementation. On the website, accompanying the project, was installed a first database of best-practice-examples serving as well as a network and contact platform. Besides of a new component catalogue for low-treshold reconstruction, a nationwide opening of the contents of this website are going to be element of the second part of the project, which already started Mai 2015.

**[www.kreative-produktionsstaedte.de](http://www.kreative-produktionsstaedte.de)**

## **Caption**

---

Copyright rb architekten/ fotgrapher: Kirsten Nijhof