RE-CLAIM
SILESIA
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A strategic proposal for a long-term urban remodelling of the post-mining economies and landscapes
Spatial interventions: Community Incubator as a key building of the new, long-term masterplan, Bytom, Upper Silesia, Poland

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The Upper Silesian agglomeration is an industrial area in southern Poland, currently facing numerous issues rooted in its legacy as a formerly prosperous coal mining industry. The rise of the industrial empire, which emerged in the beginning of the 19th century, made this coal-rich area a boom region which, being exhausted today make it in need of new models of labour and living. The political transformations of 1989 did not help the plight of Silesia. Inept authorities, poorly executed restructuring and unsuccessful privatization saw the decline of big industry, the loss of workplaces and energy sources. Along with it, the whole community lost its prior identity. The mines has not just been a center of work but also friendship and celebration.

Nowadays cities like Bytom, one of the most specific and problematic of the Silesian area, face issues of the constantly rising unemployment, population decline and an uncertain future. At the same time, the industrial spirit is still there, most of the former miners are still alive, adrift in the post-industrial landscape. The question is - does it really need to be ‘post’? Can the current limbo lead to the reinterpretation of industrial traditions at the roots of a new urban system, contemporary, but still rooted in the atmosphere and tradition of the past?
Post-mining melancholia

With the research, I sought to investigate the themes of the regional labour identity, at a broad spectrum of scales, all linked and influenced by each other: the regional, urban, architectural and social. Upper Silesia is not a place that could be treated as 'tabula-rasa' for the new, dogmatic and hardcore experiments. The specific duty, multilayered spirit of the mining industry, with all of its tradition, remains even though most of the mines are already decommissioned. Walking through the coal hills, passing next to the old mines, or talking to the locals, a strong sense of nostalgia remains in the area. Despite the disappointment and bitterness towards the current economic and social situation and a deep concern about the future, the inhabitants look towards the past with a great measure of rapture and melancholia. Desperately hoping for solutions that will provide the future workplaces and a better quality of life, they are keen to retain their identities in the process. The identity that needs to be reclaimed.

to reclaim /English dictionary translation/
- to demand the restoration or return of a possession for example
- to claim again or back
- to require or deserve again
- to bring into or return to a suitable condition for use, as cultivation or habitation
- to bring back as from error to a right or proper course; reform.
- to use or reinterpet (historically derogatory name or term) in a positive way

Why not recycle or reuse? This thesis considers that the process of regenerating post-industrial areas, marked by so many layers and meanings over the years, should respect what is already there in a way which belongs to the local citizens. This is not about stirring and grinding the legacy to squeeze out new value. What is required to build a prosperous, contemporary economic and social conditions, is a careful observation of the local needs, rooted in longstanding traditions and habits.

'Disneyfication' is not the answer

Unfortunately to date, the local Silesian authorities, inspired by the projects of the Ruhr area, have generally encouraged the politics of gentrification by 'Disneyfication' of the post-industrial architectural and spatial heritage. Very beautiful complexes start to emerge - like the Silesian Museum in Katowice - located in the city center on a post-mining site. Another example occurs in Bytom - a picturesque golf course by Armada Development on a former industrial super-pilot. More recently the Heat Power Plant Szombierki - the most spectacular example of Polish industrial architecture - has just been sold to a private investor whose plan is to transform it into a theme park.

These are very attractive projects, especially for the tourists, however, they do not provide any quality of life (except for leisure) for the local residents. These isolated 'iconic' projects do not propose a regional solution. In my opinion, it is the residents that represent the most valuable and characteristic actors of the regional culture - with their habits, stories, specific dialect and other attributes. Most of them feel a sense of belonging there but their property - which is the identity of well-prospering, industrial Silesia - was taken away by larger political decisions and by the land itself.

European financial help and local bureaucratic lassitude

Without doubt, it was work and industry that defined the image and atmosphere of Silesia for decades. Today, in this time of transition, people both skilled and trained in physical work and engineering are losing employment and opportunities. Very often it means moving abroad - to Germany, Netherlands, UK - and people are forced to work below one's qualifications because the local government cannot provide decent conditions for small, private enterprises to grow. The shrinkage of population can be observed at a demographic level, from 240 000 inhabitants of Bytom in 1989 to 160 000 in 2015. The former political system in Poland - communism - made live out of every day life for many people, especially due to the political repression. However, the central steering was surprisingly very profitable for many branches of the industry. We can clearly see a changing situation in Silesia before and after the process of privatization of mines that ended with the mass decommissioning of the industrial plants. As an example, in Bytom, 7 out of 8 went bankrupt, with the last one about to close. The decommissioning of mines does not only mean the loss of jobs for the thousands of miners but also the employment of administration, craftsmen, engineers, other specialists and all the local companies related to the coal industry. It is a significant branch of the industry that disappears and has to be replaced by new forms of work to keep the local economy developing.

Apparently, Silesia did not fare well in an emerging free market of the 90's. And this situation of the uncertainty continues today because most of the residents are used to receiving help from the state. Miners used to be a very favored group, with numerous privileges and social benefits. Moreover, their work was well organized and it was an easy choice for a person to gain a job as a miner or steel-worker because these were the requirements of the local market. Today, young people, as well as the more experienced ones, are trying their own smaller or bigger scale businesses but the local authorities do not offer any help - even when receiving so significant funding from the European Union. I believe that I, as a Design as Politics student, a young architect and designer, can offer a long-term spatial strategy based on the collaboration with the municipality as well as with the inhabitants. I think that a specific system for land planning as well as architectural construction could be a stimulus of social and economical change, providing a right environment for smaller and bigger entrepreneurs to grow and collaborate.

The municipality of Bytom has recently received an offer from institutions of the European Union to financially prop up the investment process of urban revitalization to the amount of 100 million Euros. Surprisingly, the municipality officials do not seem to be interested in taking advantage of this opportunity. With the deadline for the document delivery to the EU in October 2016, Bytom's officials were still in the concept design phase in August. The threat of losing this funding is very real, simply because the officials do not have any ideas pertaining to programmes of revitalization. They base their knowledge on pure statistics instead of site visits and analysis, ignore social debate and do not collaborate with residents or specialists. The discussion with the vibrant NGOs of Silesia (like for instance Miasto Dla Mirekaców - City for Residents or Napraw Sobie Miast - Fix City Yourself) is indisposed by the chronic absence of the officials at scheduled appointments. Another neglected obligation of the municipality is to take care of the funding for the project. Stimulation to professional activity of the 30+ population registered in Bytom and Professional activation of the youth of Bytom. The Polish government wants to support the city with a funding for 2 million Polish zloty (around 50 000 euro), however the landscape of the local government may again cause a loss of potential financial means. This time, the impotence of the officials lead even to their formal disqualification from funding eligibility, as they were not able to propose any program to combat unemployment.

Worried by these absurd circumstances, I decided to present a strategic proposal for the long-term urban remodel-ling of the post-mining economies and landscapes. This proposal is based on the numerous sites visits, conversations with the residents, officials, NGOs members and analysis of the current and past situation in Bytom.

Design proposal - community work incubator building and long-term masterplan

The proposal containas an architectural design for a community work center located on the industrial site, next to the former Szombierki mine remaining building (Krystyna shaft, Ewa shaft and a machine building). The building should serve rather as a manual of the architectural language (materials, how to join them, building systems) than as a closed, final composition. The centre, except for being a start-up place for experimentation for material and construction, remains a key building for the future development around.

The community incubator offers flexible space of different qualities of volume, height, atmosphere, with the potential use for building technology workshop, smaller material workshops, communal canteen, kitchen and food processing workshop, building material market, municipality offices, municipality "knowledge market", computer rooms, pilot 'ateliers' on the roof and ground and start-up spaces for new entrepreneurs who would potentially move to their own plots within the development.

Another part of the project is a growing masterplan inspired by the idea of allotment planning that would emerge around. With its specific planning and offered infrastructure, it would function as an economic stimulus for the city and its residents where small-medium scale industry, housing and all the different functions can coexist on one site.

The costs of the land purchase (it is currently semi-private but the private owners are willing to sell it for a low price because of the lack of infrastructure around), building construction and infrastructure implementation would be covered from the European Union funding and governmental funding for the fight with the unemployment (totalling 10, 5 millions euro).

The stakeholders are:
- the municipality together with the local NGOs, architects, planners and engineers - supervising the start-up of the project
- the residents and local building companies - helping with the construction of the building
- the residents - as future users of the allotments around the community incubator

The project should be treated as a pilot proposal for the region because the site of Szombierki former mine is not an isolated example. There is a dense network of decommissioned coal mines and their neighbouring neglected mega-sites around Bytom and whole Silesia.

My design decisions and conclusions were based on the observation of the potential elements to be reclaimed.

These are:
- labour identity and culture (that I have already introduced)
- building typology
- construction material
- land and its energy
- as a result: community
Lasitude of the officials of Bytom municipality can lead to loss of the European funding of 100 million euro for revitalization.
Specificity of the post-mining landscape in Bytom: neglected mega-sites around former industrial plants, labour housing settlements

Model site - former Szombierki mine in Bytom - Krystyna shaft, Ewa shaft, machine building
New architectural reuse

The current tendency of architectural revitalization in Silesia and more broadly in Europe, is to renovate the buildings on site and give them a new purpose - very often not related to the former one. At the same time, the buildings that are considered as not useful/needed in a certain area or damaged because of the mining activities, are very often entirely demolished. Minimal attention is given to the thought of reuse - not only by means of a full recycling (namely by stirring, grinding and technological form change - in case of steel or concrete it is already a common procedure) but in their reuse at a scale of 1:1. This solution, requires much more attention and care and is already quite popular within work of experimental architectural offices - mostly in relation to interior finishing but sometimes for facade elements. It is successfully realized by the offices of Rotor and Superuse for instance. We know this approach is well from real life - and especially from allotment complexes. The DIY constructions and renovations with a use of reclaimed material are omnipresent on these urban green plots. Silesian people are in general, used to frequent renovations and DIY solutions because of the mining damage that causes smaller and bigger destructions, making each architectural intervention, temporary in a way. 

I decided to go a step further and reuse the structural materials like steel beams and columns, grates, bricks, wooden structures, light steel constructions - they are all very common within the local industrial and residential architecture which is being partially demolished.

Need of a system

To make such a system of reuse viable, the designer or structural supervision should participate in the process of demolition from the early beginning - controlling the right treatment of the structural and finishing elements that could be reused. Promotion of such activities as sale or exchange of the building material could be one of the drives of the local economy and could facilitate the building process of private and public investors.

The design process starts with a proposal of a building, based on the basic knowledge of the characteristic local typologies, material, typical dimensions, spans. After the first, conceptual phase, an investor/designer start to check the database of the demolitions going on in the area (to make the system fully sustainable and viable - we should reuse the material from the closest locations). After examining the material available, we can introduce changes to our project or decide to buy partly new material because of lack of sources.

One of my important reflections regarding this system is that buildings based on a reclaimed material structure should be relatively simple to assemble and disassemble (no welding, possibly low use of concrete in favor of skeleton wooden or steel construction, bricks etc). This solution is being studied and tried by the Spanish office Recetas Urbanas that designs and builds reclaimed material buildings.

With the community center building, I want to make this system as visible as possible, keeping the structural elements exposed, making a dominant theme out of them. Thanks to that, it can serve as a manual for the future residents of the location around, to develop their own investments. Spending time in workshops, they can also observe how the space around them is constructed.

Being already advanced with the project, I had a consolidating experience to visit the headquarters of the structural engineering office - IMD in Rotterdam and have a long talk about the reuse of the structural elements with its director - Jim Peters. Why consolidating? Because during this conversation, many of my intuitive decisions regarding the structure and construction turned out to be accurate and similar to those already being introduced in real projects by IMD. It is also very promising that even though it is a very fresh, experimental direction, interest is not restricted solely to architects or interior designers but also some of the structural engineers. It indicates that we are moving towards a sustainable, holistic architectural design process where the achievement of a real sustainability is a drive for the reuse of materials, beyond the hipster DIY recycling aesthetics.

Reclaiming material of different scales

The problem of material waste does not relate solely to big scale architecture. This issue is also present in the architecture/artistic schools where students produce a great amount of model making material waste while preparing products for their presentations. It also occurs in architecture offices. As the research and project touch all the scales, I decided also to implement the idea of reclaiming to my models. In the period of presentations, I walked through the Faculty of Architecture in Delft and through Willem de Kooning Academy and collected MDF plywood, foam, plexiglass, glue, sprays and other potential materials that were to be thrown away and that could be useful for my models. I have also collected samples of materials from KAAN architects who were moving their headquarters.

The amount of material collected was outstanding, exceeding my needs, moreover I needed to catalogue it with all the measurements and thicknesses to be able to use it later on. 

This small-scale experiment shows well how it would work in a real life. There is a need of material catalogue that would be available for many different projects - this is the only way to avoid the waste.
Structural section through the building fragment - steel/glulam structure and additional structure of the path

Use of new/reclaimed construction material - main structure, finishing - reclaimed; secondary structure, thin structural elements - new

Short section through the building - wooden structure / path-connector / steel structure / path

Use of new/reclaimed construction material - zoom in
In search of the flexible space

A key challenge of the building program was to provide a flexible, multifunctional space for users to access as an experimental building laboratory - with areas for workshops of differing sizes, computer rooms, offices, building materials market, collaborative canteen to the small studios.

The design process was from the beginning very diverse and dynamic.

First, I explored the concept of the free floorplan - a kind of a cage into which program could be generated by the users, depending on their wishes. First iterations however generated spaces too generic and undefined. I learnt that flexibility in architecture is not only about the endless possibility of choice but also about the creation of the right frames. The open-space plan, limited only by its structural elements and the shell is too open as a proposal for such a hybrid function. Moreover, the dogmatic open modernist plans - like Le Corbusier's Dom-inos house or - from the contemporary examples - Dogma's research outcomes on Living/Working - allow almost unlimited freedom which by my observations would not work in the regions where the officials can not provide a revitalization program document by themselves and where people are used to the central steered workplaces.

As the building would be used by numerous changing stakeholders, the major decisions about the space divisions should be taken in advance, by a designer, still offering a space that can be interpreted and used in many different configurations. I started to analyze the grid more deeply, departing from the idea of the generic, universal division.

The grid, by its diversity can create flexibility based on the possibility of choice - choice of many different spaces without requiring their dedication to a specific function. But spaces of specific spatial qualities - grid, structure, surface, volume, height, openness, light...

Reinterpreted local typologies

From Adolf Loos' Hotel Babylon to contemporary Ishigami's minimalist workshop, I am inspired by buildings offering flexibility of use and the perceptions of space they create/suggest through providing certain architectural conditions/frames.

To create a diverse meet, work and collaborative environment, I decided to use the richness of the typologies of many scales that Silesia has to offer. I looked to both - original industrial buildings and smaller scale buildings emerging on the wild mega-sites as well as smaller locations of the post-mining cities. From the big-scale industrial typologies I identified:

- Two storey industrial factory hall with the steel structure
- Platform building on columns characteristic for the coke plants or for the additional on-ground functions of mines like a lamp room for instance - steel structure

From the smaller scale buildings, usually being inhabitants' investment or even DIY construction:

- Wooden shed - with increased amount of floors
- Row garages - light steel structure, also increased amount of storeys
- Greenhouse - light steel structure and glass
- Canteen and clubhouse brick building, covered with tiles

The typologies, by reinterpretation of their purpose and role as symbols, become the units of a new community centre complex, merged with the interstitial space.

Silesian color romanticism

The specificity of the Silesian architecture is not only hidden in its characteristic functions, typologies and structures related to them. It is also in the smaller scale - the scale of colour and materiality. Visiting the industrial sites and interiors, it can be observed that specific colour palettes are present. Except the brick, very characteristic for the region and overused as a reference in new realizations, there are plenty of diverse steel elements - I-beams, C-beams, trusses, railings, stairs covered in bright colors like: ultramarine blue, cobalt, red, turquoise, green, bright yellow or even gold. They are highly visible, contrasting with the dirty, dark, industrial background.

Alloting a building

The act of walking between the units become a stimulus of collaboration and meeting as instead of narrow corridors, the in-between space, with its diverse widths and heights, becomes a fruitful interstitial space and extension of the rooms. That kind of composition references the way over-land parts of the mines were composed - many fragmented smaller buildings within a landscape - often connected by footbridges or platforms.

The idea of walking and of a specific arrangement of the units is related to another phenomenon I have studied, one very specific to Poland, and in industrial cities like Bytom: family allotments. The greenplots, the idea and planning of which is based on the community but also on a clear routing and division of the private plot. What is of greatest interest is what happens at the boundaries of each allotment. I use the idea of allotments and allotting in both - programming of the building (in a more abstract understanding) and of the masterplan, basically in every scale.

to allot /English dictionary translation/
- to divide or distribute by share or portion, distribute or parcel out apportion
- to appropriate for a special purpose
- to assign as a portion: set apart; dedicate

Coke plant Walenty in Ruda Śląska

Garages used as an informal marketplace in Bytom

Reclaimed typologies - industrial hall, greenhouse, platform building, garages, shed, canteen
Walk through the allotments of Bytom - walking and rooting as a program inspiration / DIY architecture and Silesian color romanticism

Former Szombierki mine in Bytom - samples of the interior elements - Silesian color romanticism
Southern facade

Northern (main) facade from the side of the public square

Long section - spatial variety of reinterpreted typologies and connecting in-between space

1st floor - creating flexible space by allotting
The production of energy is the main reason why Silesia looks how it looks today. It is the reason for the former prosperity of the area thanks to the coal mines and hopefully a stimulus of the new, sustainable solutions. The former mine shafts’ towers are located all around the city of Bytom and the whole region of Upper Silesia. Massive and overwhelming, decaying the landscape as dead monuments to industry. What my project proposes, is to make use of the deep, coal mining shafts, adapting them into water heat pumps. I had the pleasure to talk with the supervisor of the Szoombierki shaft (situated on my site) who explained to me that the water needs to be pumped out from the shaft all the time. Unfortunately, it is currently only pumping out water to be poured directly into local water bodies, but the quality and purity of water is high enough to be utilized for heating purposes. Its temperature on the level -400m is high enough (+20 degrees) to use it for the best pump. In this case, instead of turning another nice brick building into a museum, we may use its original purpose but in a contemporary way, giving a new source of energy for the developments that could emerge around such towers, like in case of my project.

My site is just a model location. With this approach, the whole network of energy exchange could be created across the region.

**Walk towards Kryystyna**

When we compare the historical part of the city centre of Bytom to the areas influenced by the industry, the dramatic difference of the urban fabric can be observed. The gigantic industrial plants located within the city borders, created specific, hetero-topic wastelands which, formerly vibrant, are now undefined urban voids. Even though most developed infrastructure was happening underground, with the maze of corridors, the on land part was also quite rich in architecture. Today, most of the buildings are already demolished. On my site, there are only three remaining. One of them is a monumental Krystyna shaft tower from 1928, of the height of 57m, the most characteristic landmark of Bytom. It is visible from every corner of the city and would serve as a guidepost, leading people to get to the new development site from the city center or from the train station. All the shafts of the former mines are very well visible afar off, what adds more three-dimensional visibility to the idea of regional network.

**On-land mines and urban heterotopias**

After studies of the plans from the local archive, I can see that the whole area above the mine was covered with smaller and bigger workshops, administration buildings and beautiful gardens. Nowadays, these picturesque wastelands lie in juxtaposition to the remnants of the old infrastructure, architecture, coal mines. Covered with new layers of wild greenery they become a serious spatial urban problem. Beautiful and green - but not cultivated or supervised towards any function. I am an adherent of keeping the qualities of each of these spaces - both industrial and natural. One of the main reasons for the retention of its current, pseudo-natural regeneration is that this land, before the advent of the industry, used to comprise the surrounding rural villages of Bytom. This is how the history comes full circle with the resurfacing of natural flows.

**Patchwork planning**

The urban location of mining mega-sites has influenced a characteristic patchwork planning of Bytom. The city (except the historical city centre) seems to be composed of patches - post industrial mega-sites, wild greenery, housing settlements, closed industrial sites and of course family allotments. By analyzing Bytom’s plans, I discovered that the allotment gardens - very important elements of every worker’s leisure weekend life - become a filler for the difficult sites.

**New labour allotments**

I developed the urban idea of allotments in a relation to work and industry. Nowadays these tiny plots serve only as a place of leisure and hobby gardening, which is even protected by political legislation - Act of Family Allotments’. Inspired by the social life on the allotments, as well as the specificity of planning of these sites, I decided to create a system of new ‘labour allotments’ where the business/services activity is encouraged and facilitated rather than forbidden which is what happens currently.

I find the role of the architect in this process to be characterized more as a planner and coordinator, rather than an artistic designer. I propose certain rules and principles about the quarters, plots sizes, access to infrastructure and roads. These new developments would be focused on sustainable energy sources and a mixture of material, immaterial, small and medium scale work with leisure and everyday life in the natural – engaging with the area’s urban-rural context. I believe that this organisation of life and work embedded within the remnants of the great industry could lead, counter-intuitively in some respects, to the better understanding of the natural rhythms of life. However, I find this rurally located urban area of emerging urban tendency, not only in terms of urban agriculture but also realizing that, by slowing down, we can still achieve professional success.

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**Labour Allotments Act**

3 March 1949

Allotments only for the PEOPLE OF LABOUR as a remuneration for their hard work.

**PERPETUAL LEASE from the Polish Union of Allotment Gardeners**

- FUNCTIONS of the allotment complexes:
  - leisure
  - recreation
  - assurance of better social conditions
  - integration of multigenerational family
  - bringing back community
  - natural environment and health protection
  - additional source of food

**New Labour Allotments Act**

4 October 2016

Allotments only for the PEOPLE OF LABOUR as an opportunity to develop their businesses and investments, trigger the economy of the city and bring back the community.

**Cheap Land Rental from the Municipality**

- new additional FUNCTIONS of the allotment complexes:
  - heating
  - place of work
  - small and medium scale industry
  - services
  - education
  - other agriculture

**REQUIRED:** to qualify for a cheap allotment rental, a stakeholder has to register any kind of business activity.
Post-industrial patchwork planning of the mega-plot within the ‘ring’
Politics of the new planning

The quarter-organized plots of the development become the clusters for cooperation across different fields - from the smallest entrepreneurs, craftsmen or gardeners to the medium scale factories. They are organized around the main core which, being an infrastructural core, also becomes a public space for each cluster. The starting point of this model development would be the square where the three remaining mine buildings and the community center are situated. With cheap municipality plot rental and supervision, the community would start to emerge around this main square, in four phases of a long-term conceptual strategy. I think, that the current inefficiency of the local authorities in terms of the spatial and economic revitalization is based on an overly abstract approach. The inhabitants need certain delineated frameworks to start their own investment or business. To offer a piece of land is not enough. I believe that thanks to this strategic project, a new, vibrant community of workers could emerge again in Silesia.

Social allotting

The approximately 100x100m quarters are organized around the infrastructural (piping, electricity) and social (public square/pack/spot facilities) core. There are proposed zones for three types of plots: large, medium and small. Inhabitants who decide or are assigned to create a cluster around one of the cores can decide about the plots divisions within the zones, taking into account if it is a large/small or medium plot zone. There are also requirements for the gross covered area (maximum 25%) and to cover the rest of the plot with greenery. The building line varies between the zones (1.2, 4 meters from the border of the plot, depending on the size).

In Design as Politics studio, I have learnt a lot about a broader role for the designer. Increasingly, a contemporary architect or planner must take on a role as a 'designer of systems' and of strategies rather than the more limited role of creator of purely formal outcomes. Even by offering a building, which is in a way finished, we can increase a consciousness of its users and allow them to be inspired with certain simple and understandable solutions. With this approach, the architects can avoid an obsession with authorship, by offering smart frameworks and paths, through which people can consciously influence and make independent decisions in and about their spatial environments. Participatory architectural projects are often criticised for being diagrammatic and basic. I hope that with my proposal, I demonstrate that, through socially engaged design, designers can offer an interesting and diverse architecture, rooted in its context.

Quarter development phases

Infrastructure - piping, roads, main pedestrian paths, square

Plots size coming

Plots division

Buildings construction

Scenario of the masterplan development
Development of a quarter - medium, small and very small scale together; housing mixed with allotment gardens, immaterial and material workplaces; greenery; public infrastructural-social square

Housing, farming and small/medium-scale industry together - view towards the community center and shafts
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