VILLAGE CENTRE INTERNAL RESOURCES USED FOR NEW DEVELOPMENT

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Summary

The rebuilding of rural areas is a long-debated issue. Currently, it begins to reflect the recent trend in energy management. The historic core of the village, which is now going through a usability crisis, restricts the potential development of the village in its current layout. Urban problem solving offers a non-invasive approach: priority use of vacant areas and parcels after demolition without substantially altering the existing land allotment or an invasive approach which changes the existing urban structure of the village. However, it is necessary to ensure that the original urban trace of the village remains still visible and thus retains a reference to the previous form of the village. Architects can then find solutions that they can use with the existing building stock (refurbishment and adaptation) or they may choose to construct new buildings. This offers a solution with using either a traditional Czech homestead with contemporary detail, or introducing a modern design to a rural area; which is always a sensitive issue. In terms of function, agriculture is disappearing in the historical centre. Rather, it is highly desirable to support residential and public facilities, which can be used successfully**.** Therefore when we mention Internal Resources of the village we are referring to the buildings, structures and land of the village centre core.

Keywords: village, rural architecture, rural-urban planning, rustic farms, conversion

1 The historical centre village crisis

The historical urban centre structure of Czech villages was based on a close relationship between man and farmland. From the 19th century, this relationship began to unravel. Society is changing and with it; its needs as well. All this culminated especially in the second half of the 20th century, when the influence of socio-political change and unstoppable technological progress led to the abandonment of the traditional way of farming. The natural consequence of this process has been a long-term rural population lifestyle change. While a hundred years ago, most villagers earned a living in agriculture, today the focus has shifted to a livelihood in the service sector. This is also reflected in housing. Deep, elongated parcels, that met the needs of the medieval feudal society, have lost reason in the modern rural urban structure. This is not a historically new phenomenon. In the Middle-Ages, homes were often built at the cost of the previously older village which had been abandoned to create a new extension of the village. This was allowed thanks to the then large land reserves. The displacement of villages was a relatively frequent phenomenon. Today, the Czech settlement structure is dense enough so that the idea of mass abandonment of current villages and building new villages to new locations is completely utopian. The logical solution has been the emergence of suburbs. New housing that meets the present needs of people is expanding beyond the historic core of the

originally agrarian villages. This modern trend breaks a direct relationship between farms and farmland and voraciously occupies more and more parts of the arable land. It also blurs the transition element of green orchards and gardens between the village and the open landscape. This phenomenon is not just a Czech problem. It occurs throughout Europe in villages that were based on the needs of the feudal land order. This creates a configuration of the core of the village being abandoned and the population moving into modern houses in marginal areas outside the core, but often with no ties to any services, which need to be supplied from the nearby village.

Recent research is concerned with the possibility of even redefining parcels on the basis of the energy needs of the population [1]. In essence this is an analogy to the Middle-Ages processes transformed to the current priorities of humanity. While medieval village parcels were designed in regard to yield capacity, current parcels should be designed and built with respect to their energy efficiency. Conversion of the historic core of the village and the prevention of further expansion of buildings into the countryside is the first step to maintaining energy efficiency of the whole urban system.

The gradual abandonment of unsatisfactory arrangements inside the historical village centre is a hot topic currently. As early as the 1950s the options of rebuilding rural settlements were researched [2]. In the 1970s, the team of authors (Vodera – Skabrada) defined how it was possible to use the historic core of the village for new features and how to repair and modify rural buildings [3]. At the Faculty of Civil Engineering of the Czech Technical University in Prague, the issue has been extensively studied (both theoretically and practically); especially the architectural studio projects led by Professor Sykora, Associate Professor Kosatka and Architect, Mrs. Knappova which address these rural issues. The Faculty of Civil Engineering participated in Buildings for Rural Areas [4] and the competition of Rural Ways. Even today, the issue of rural areas is taught to students. On the basis of design the basic theoretical resources can be summarized in dealing with village historic centre [5].

2 Village historic centre as a potential for further development

2.1 Spatial solution

2.1.1 The Urban answer

A non-invasive solution involves leaving the land allotment and historic urban structure in its current state. Vacant lots, ruins and demolished structures are indentified during the processing of urban planning documentation on their parcels so that they are designated as new functional plots. Regulations then outline the character of the new buildings. Defined stages can clarify which will be the first sections developed and after what may be extended to the current level of the built-up area of the village centre. Basically it is a solution of minimum intervention, which does not respond to the need for changes to the existing urban structure of the village and does not offer to greatly exploit the potential of the historical village centre. In terms of property relations, the minimum intervention proposal is a straightforward method that can be applied in the preparation of urban plans relatively smoothly.

The invasive solution constitutes of interfering in the surviving historical land allotment.

It can be divided into two possible approaches:

- The original Gothic land allotment is divided crosswise into two or three smaller parcels, which are operated either from the existing behind-threshing floor path or by newly constructed service roads that divide the plots transversely [3]. This solution can be observed by the width module of original parcels and in the total land allotment module depth. Buildings towards the central area can be maintained (**Fig. 1**). The original farm buildings are either replaced by a new building, or they can be adapted to a new function within the housing on the second to third plot. This solution is, after all, common in the countryside, "the young build their house in the garden."

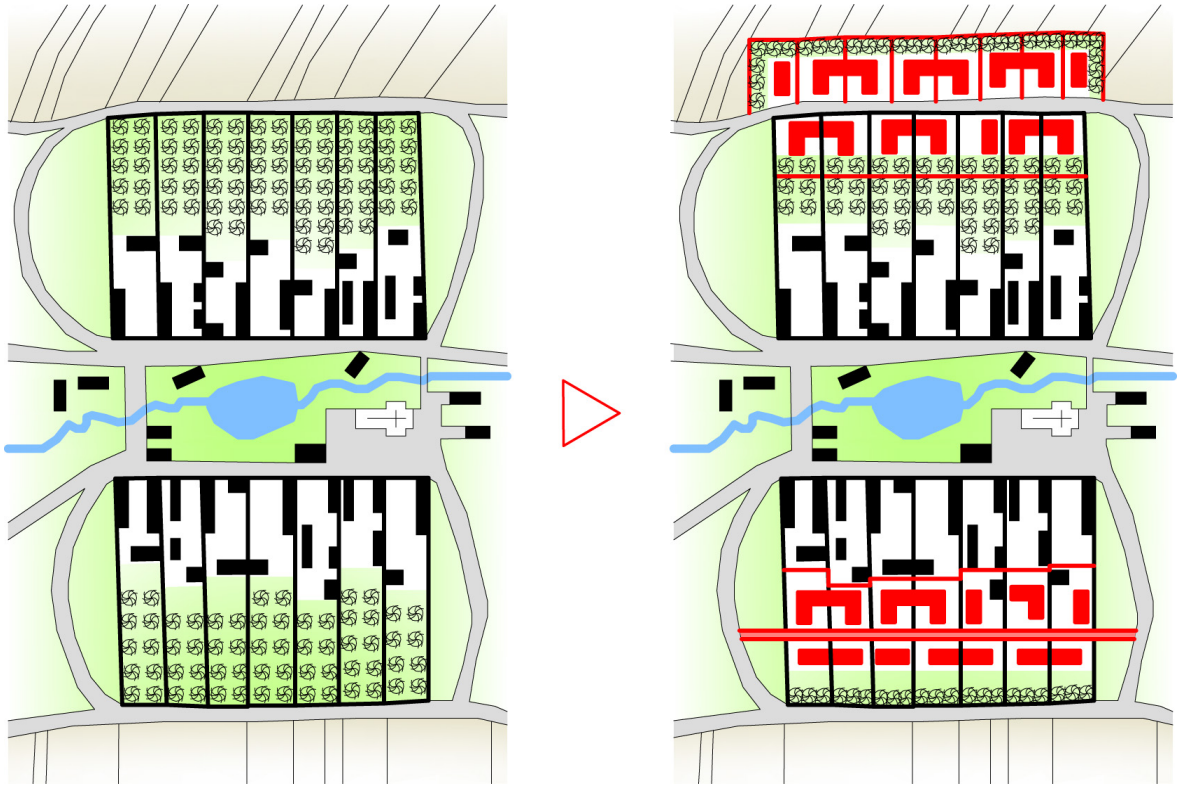

Fig. 1 *The sketch on the left: the original village.*
Sketch on the right: two opportunities to place new buildings to preserve traces of the original land allotment of the historic village center (sketch by author).

- The farmhouse is treated as a whole. Individual objects are adapted to new functions. The inner courtyard can be used as a semi-public space, connected with an adjoining garden and orchard behind the barn. This arrangement can be used for both functions in public and small-scale production, as well as housing. This newly restores the principle “Raabizace” of farmhouses, with which can create interesting community housing by using proper segregation. Splitting large parcels into smaller sections that sub-users can manage should always allow for re-interpreting the original land allotment (**Fig. 2**).

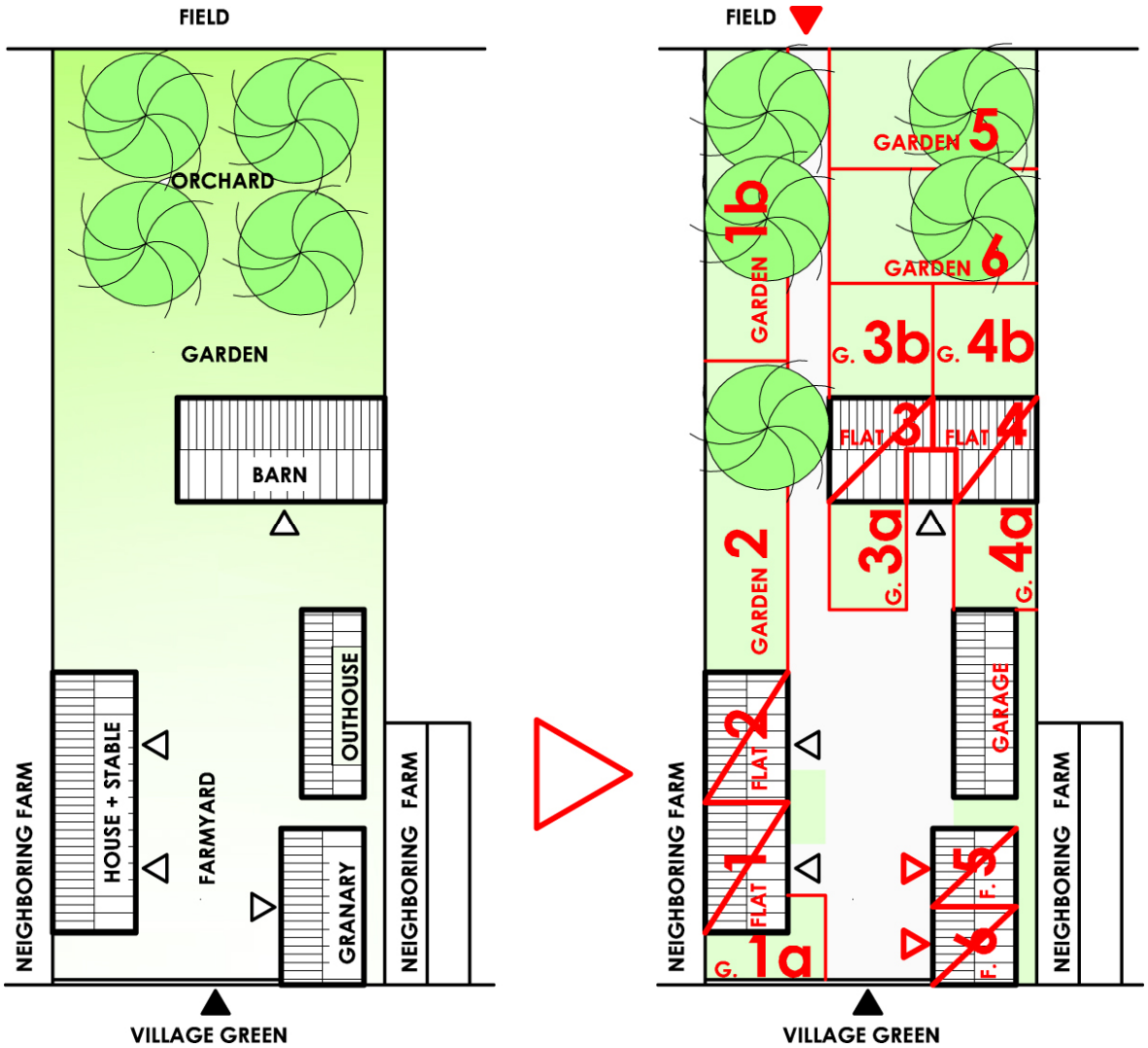

Fig. 2 *The sketch on the left: the original farm. Sketch on the right: an example of an adaptation of the buildings to a new function, including the redistribution of the plot (sketch by author).*

2.1.2 Architectural answer

Reconstruction of a historical building is often a very expensive method, which never brings such comfort to the user as a new building. On the other hand, there are factors that balance all the rational arguments: the genius loci, the character of the historic buildings and structures, life events that occurred in the building – something difficult to describe exactly, but are very well perceived (**Fig. 3–7**). An interesting potential in the reconstruction features of original farm objects, especially barns and sheds with this free disposition and large span roof can be more able to meet the needs of modern people than the traditional rural dwelling [3].

Fig. 3 *Large farm in Karlstejn in original condition, 2004 (photo by author).*

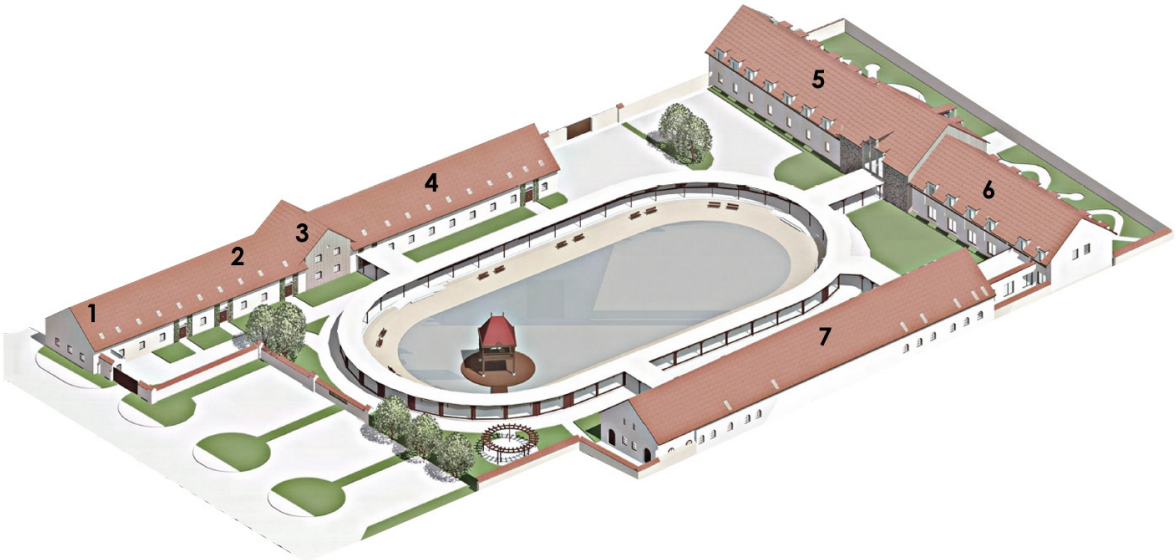

Fig. 4 *Conversion of the farm in Karlstejn:1–4 gatehouse and a caretaker's apartment, fitness, entrance hall, restaurant, upstairs guest rooms (originally a stable), 5–6 guest rooms, a small conference room, upstairs guest rooms (originally a barn), 7 – a large conference room (originally a shed), designed by Peskova, Z., supervised by Sykora, J., 2004.*

Fig. 5 *Farm in Koneprusy in original condition of the farm buildings, 2009 (photo by author).*

Fig. 6 *Farm in Koneprusy, adaptation of farm building for family housing, architects Sykora J. and Peskova Z., 2009–2011 (photo by author).*

***Fig.** 7 Farm in Koneprusy, adaptation of farm building for family housing – new farmyard, architects Sykora J. and Peskova Z., 2009–2011 (photo by author).*

When dealing with a new building again there are two possible methods: either respect the traditional aspect of the surrounding buildings and use contemporary detail or use rural environment modern design.

- Traditional volume & modern detail (**Fig. 8**): Our ancestors were very economical with heat. The development of rural housing is essentially the development of the heating method. As was shown in a unique project for the construction of passive houses in Koberovy, a rectangular ground plan with a saddle roof in terms of house volume is a very suitable energy design [6]. The choice of using traditional folk architecture shapes is therefore a safe way to design a new object in a given locality in the context of the surrounding buildings and also meet current requirements. Professor Skabrada defined ten rules of etiquette for new buildings in the Czech countryside which respect the traditional volumetric design of buildings [7]. The reason is to prevent excessive modern design in villages, preserve historical areas, avoid damage and preserve the distinctive character of Czech villages for future generations.

Fig. 8 *Application example of traditional Czech homestead and contemporary architectural detail (Hybralec village center, student design, author Tomasova S., supervisor Peskova Z., Kosatka B., Kaspar J., 2012).*

- Modern Design: Using Modern Design is always an individual matter and very sensitive. Unfortunately, Czech villages have had some negative experience with this architectural approach from the days of the socialist construction village. Not all designers are able to deal with the task, but if successful, it can enrich rural areas. A suitable approach can be considered an architectural design that works with the landscape (**Fig. 9**) so that it completes the existing construction. In essence, the new building is hidden in the terrain modelling and the green roof creates a base of the historical village pyramidal composition. Architecture that uses various inclined planes is acceptable (**Fig. 10**). Using pure cubes is not a good solution in the context of the surrounding buildings.

2.2 Functional solution

Mixed functions of agricultural, residential, manufacturing and civic facilities were all situated in the original historic centre. Today, the agricultural function has almost disappeared in the centre, and its mass production should not disturb the character of the village core. Residential and civic facilities should be strengthened even in different mixed functions. Unused farm buildings can be utilized to provide space to strengthen these components of functional use in the historic centre.

Fig. 9 *Application example of modern design (Hybralec village center, student design, author Vild J., supervisor Peskova Z., Kosatka B., Kaspar J., 2012).*

Fig. 10 *Application example of modern design (Hybralec village center, student design, author Olexova B., supervisor Peskova Z., Kosatka B., Kaspar J., 2012).*

3 Conclusions

Even though the historic core of the village is viewed as dilapidated and already considered as obsolete urban structures which are gradually being abandoned, these places and their building stock offer a great potential for development within the current borders of the built up areas. Suitable urban planning and architectural interventions can adapt very well to the needs of contemporary people while maintaining the continuity of the development village, including its historical urban and architectural traces. (Examples of designs are part of full versions of the paper.)

Acknowledgement

This paper was supported by SGS12/018/OHK1/1T/11 The identification of urban and architectural values in the main public space of a village.

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