

Moravian master builders and their contribution to sustainability

Z. Syrová

Národní památkový ústav/National Heritage Institute, Prague, Czech Republic

J. Syrový

Společnost pro obnovu vesnice a malého města/Association for the Renewal of the Village and the Small Town, Brno, Czech Republic

ABSTRACT: At least since the end of 18th century vernacular architecture in historic Czech lands was not created without the participation of trained craftsmen. Due to the statutory obligation to submit building plans since 1787 followed by first building codes 1833 and 1835, it was designed, if not by architects, then by master builders or trained master masons. The work of the master builders (*stavitel* in Czech, *Baumeister* in German) was naturally influenced by numerous state regulations on one side and requirements of their clients on the other side. Thanks to their training they became familiar with contemporary treatises on construction and from their practice with local building traditions. Thus they played also an important role in the diffusion of earthen constructions and provided Czech and Moravian villages and small towns with numerous new earthen structures. The way, how they were dealing with tradition in case of new constructions as well as in case of interventions in existing building stock, may become a lesson for us in our efforts on sustainability.

1 INTRODUCTION

In recent years specialists of historic structures survey largely contributed to the studies on vernacular architecture, for which the Czech language uses since the period of the Czech National Revival of 18th–19th centuries the term *lidová* (*folk* or *popular*) architecture. In recent decades the original plan documentation has become one of the major sources for these studies. The works of Martin Ebel enabled also better understanding of the legislative background of vernacular constructions in specific conditions of historic Czech lands (Bohemia, Moravia and Silesia) as a part of Austrian Empire (Ebel 2007, Ebel & Škabrada 1996).

The presented paper is based on a series of historic structures analysis that we elaborated for protection reserves and zones in southern and central Moravia. According to established methodology of surveys of historic towns and villages a short report was prepared for each element in surveyed area including description, analysis of architectural evolution (dating) and evaluation, recommendations for listing and future interventions. Exceptionally well-preserved archives of building offices of Uherské Hradiště, Uherský Ostroh (distr. Uherské Hradiště) and Příkazy (distr. Olomouc), enabled us to learn in detail the work of several master builders (*stavitel* in Czech, *Baumeister* in German), who were key factors

in vernacular construction. Among them Josef Šuta, caught our attention by the quality and evolution of his work gradual merging with tradition (Eliáš et al. 1994). Our study of the work and life of Josef Šuta would not be possible without the contribution of our colleague, ethnologist Helena Beránková.

2 TRADITIONAL CONSTRUCTIONS

The traditional building construction manifestations of historic Czech lands are similar to those of other Central European countries, with whom they share since 16th century the history of the Habsburg monarchy.

2.1 Building materials and techniques

Leaving aside the archaic underground or semi-underground dwellings dug out in soil, the predominant building materials and techniques were:

- wood used in timber framed walls (*hrázdění*) in progressively growing area of northwest Bohemia and Silesia
- corner-timbered constructions with horizontal timbers connected by corner notching (*roubení*) predominantly present since medieval period in the whole region

- daubed earth used in conjunction with wooden support
- massive earthen walls built using cob, stacked or coffered bread-shaped pieces—*války* and adobe, present with the exception of unbaked bricks in the traditional region of southern and central Moravia.

Furthermore, especially in later periods, masonry made of hard materials, stone and bricks, was used.

2.2 Preserved building stock

The age of the majority of the preserved building stock of our villages and small towns does not exceed the end of the 18th century.

Compared to earlier periods, it is already influenced by many factors related to the activities of the modern state. However, even in this period, in most of the regions until the mid 20th century, traditional materials and techniques in a rural environment largely survive.

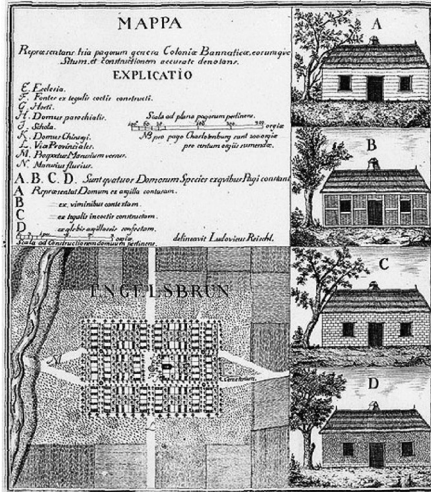


Figure 1. Franz Grisselini: Standardized houses proposed for the recolonisation of Banat in 1780; A—rammed earth, B—wattle and daub, C—adobe, D—bread-shaped pieces (*glebis*—*války*) (Moravian Library).

3 STATE INTERVENTIONS SINCE THE END OF THE 18TH CENTURY

3.1 Regulations associated with fire protection and with lack of timber

The reforms of Mary-Therese and her son Joseph II and following state interventions including first building codes, regulations against fire and repeated interdictions of wooden constructions undoubtedly played important role in spread of earthen constructions and later also brick masonry in Czech and Moravian regions.

At their beginning is the fire patent for Moravian margraviate and for Bohemian kingdom from 1751, followed by patent for extinction of fires (1755), fire order of the emperor Josef II for Bohe-

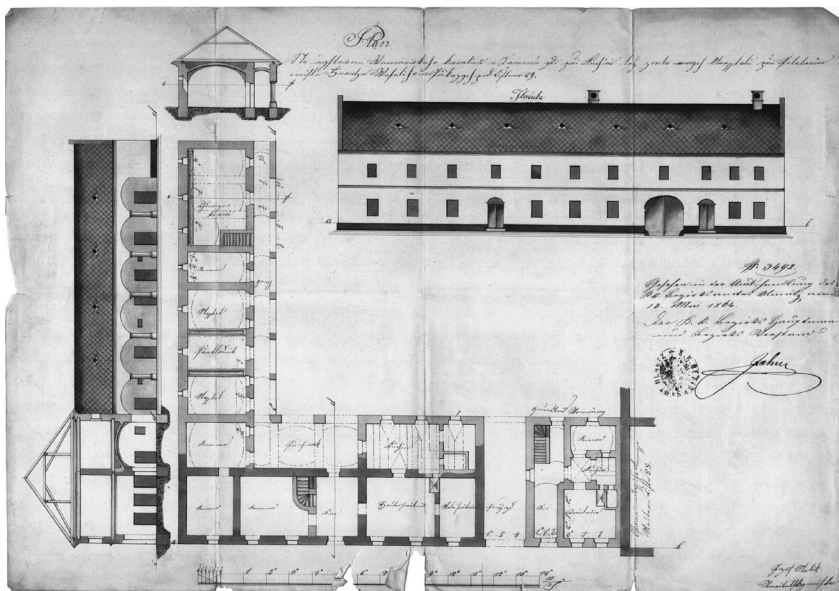


Figure 2. P. Malík: Příkazy, distr. Olomouc, plan for extension of farm; 1864 (Archive of the village Příkazy).

mian kingdom (1785), fire order for countryside, towns and villages in Moravia and Silesia (1787), decree of general obligation to submit the plans of building construction (1787), general prohibition of wooden constructions (1816), decree authorizing peasants to produce bricks (1819) and orders of the construction for kingdom of Bohemia and margraviate of Moravia (1833, 1835). These slowly and with difficulty enforced regulations set out technical details of use of clay for fire protection purposes and conditions under which it is possible

to build massive earthen constructions (construction purposes and location, wall thickness, height of plinths) (Ebel 2007).

The development was influenced also by changing relations between lords and peasants after the serfdom abolition in 1781 and finally after 1850, when peasants lost access to the construction timber from dominical forests, and the decrease of the forests in general.

3.2 *Obligation to submit plans and building permission*

General obligation to submit plans of building construction represent important part of Mary-Therese and Joseph II reforms that affected building production. By the decree from 1787 anyone, who intended to start new construction, had to submit a thorough and clear representation of the building to the authorities of the domain, who had to examine and confirm it, in case of need correct it and also interrogate the neighbors and settle eventual conflicts. The details of the building condition and control are then specified in the first building codes of 1833 / 1835. Its regulations concerned not only new buildings, but also reconstructions and repairs. Pursuant to these codes the form of building plans and protocols was sta-



Figure 3. Uherský Ostroh, distr. Uherské Hradiště, main square of the town; postcard from the early 20th century (private collection of authors).

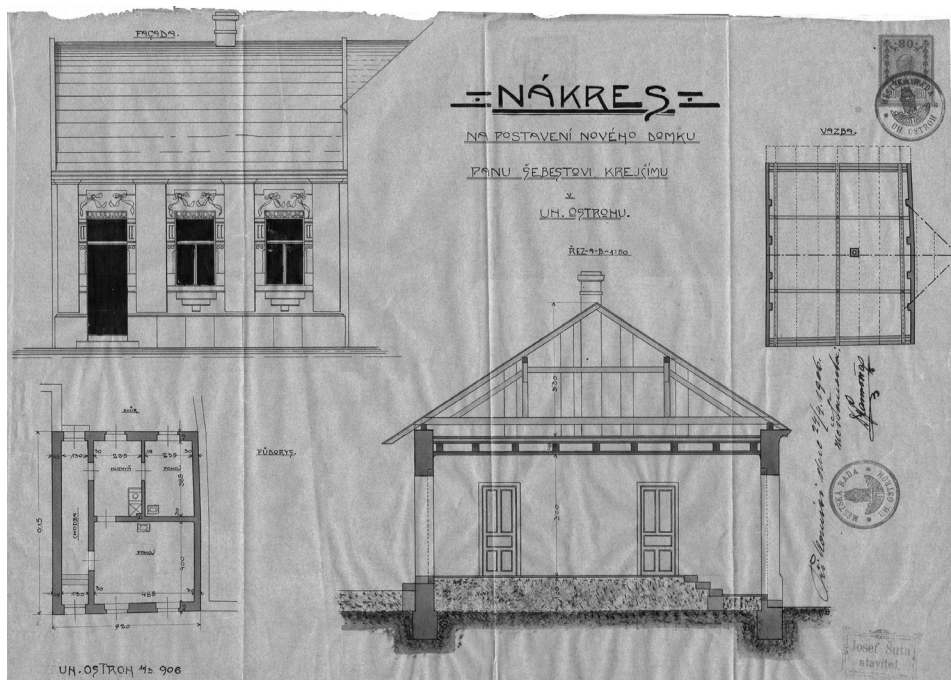


Figure 4. Josef Šuta: Uherský Ostroh, distr. Uherské Hradiště, plan for the construction of new house for the tailor Šebesta; 1902 (State District Archives Uherské Hradiště).

bilized. Since 1845 two copies of plans should be submitted with the application, from which one was archived. Building commission with the participation of the builder, neighbors, representatives of the municipality (usually mayor and local doctor), of the domanial (since 1850 state) authorities and independent master builder. The commission examined the plans and after the inspection of construction site drew up a protocol summarizing

the documentation, project, eventual reclamations and corrections. After completion of the construction the same commission elaborated final building approval. With the end of patrimonial administration in 1850 the competencies of construction supervision were transferred from the domanial authorities to the district offices and from 1864 to 1942 for private buildings to the municipalities.

4 BUILDING PLANS

Plans for the buildings that we consider as vernacular, could be made already before 1787. It is mainly the case of imperial and royal, so called chamber, estates. These plans were drawn directly by the engineers of the chamber office. We can find among them interesting plans of standardized buildings, foremost schools. Mention should be made here at least of the resettlement of the villages demolished due to the building of the fortresses Terezín (Theresienstadt) and Josefov (Josephstadt). Master carpenter Josef Šiša drew up in 1783 standardized plans for three categories of villagers (farmers, gardeners and cottagers), all designed yet as fully timber-cornered.



Figure 5. Uherské Předměstí, distr. Uherské Hradiště, farmhouse No. 30 designed by Josef Šuta (Zuzana Syrová).

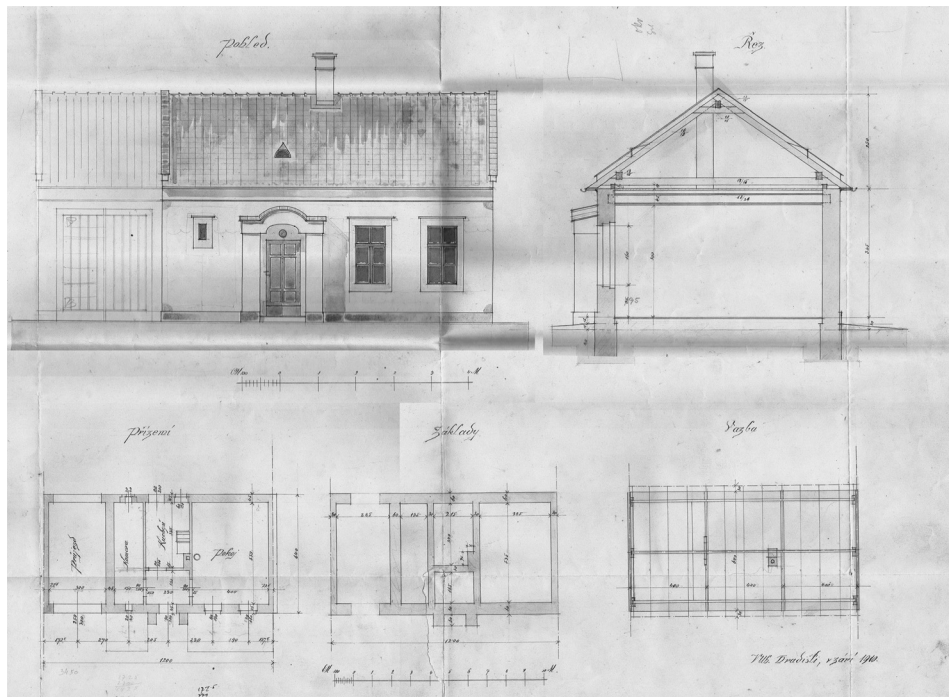


Figure 6. Antonín Mrkva: Plan for standardized post-flood house for Uherský Ostroh and Kunovice; 1911 (State District Archives Uherské Hradiště).

In the context of the Austrian monarchy we find an example of standardized earthen houses proposed for the recolonisation of Banat on the Franz Grisselini's "map" from 1780, which shows basic types of techniques: rammed earth, wattle and daub, adobe and bread-shaped pieces (*glebis—války*).

The decree from 1787 as well as the first building codes were really applied in rural conditions with certain delay. At the turn of the 18th and 19th century we find mostly the plans of the buildings of domanial farms. Thus in case of Ostrožské Předměstí, suburb of Uherský Ostroh, plans of several buildings belonging to Liechtenstein farm are conserved from this period.

In the middle of 19th century the building control has become an established practice, so that, if the archives of the building offices are preserved, we can find plans for most of the rural constructions newly built or reconstructed in this period.

Plan themselves were drawn by pen, less often by pencil. Colour legend distinguished existing gray constructions, those to be demolished were coloured in yellow and new constructions in red. Meaning of the colours was thus stabilized around 1825.

5 MASTER BUILDER AND MASTER MASON

Only a trained master builder graduated obligatorily since 1810 from the polytechnic school, or under certain circumstances also a trained master mason, was responsible for the construction and was entitled to draw up plans for building permission.

5.1 Education and training

Master mason, eventually master carpenter, achieved his highest education in the guild. Their plans reveal untrained authors, who are often uncertain when drawing more complex structures (facades of houses with multiple wings or staircase of storey house).



Figure 7. Ostrožské Předměstí, distr. Uherské Hradiště, house of the new quarter built after the flood in 1911 (Zuzana Syrová).

Master builder could obtain necessary education in Wien or Prague, where the Royal Nobility Engineering School was founded in 1718. Its successor, the Polytechnic Institute was divided in German and Czech one in 1869.

The Imperial Czech Technical University of Franz Joseph in Brno was founded only in 1899.

There master builders became familiar with contemporary treatises on construction, which considerably influenced the building production of the whole 19th century.

5.2 Treatises on construction

Contemporary treatises on construction, builder handbooks and textbooks of technically oriented secondary school deal with the constructions of wood, stone and clay (Lengerke 1838, Gabriely 1861). The first treatise written specifically with regard to building in small towns and villages, was published in 1840 simultaneously in German and in Czech by Johann Philip Jöndl (Jöndl 1840a, b), who in this work paid special attention to timber framed and timber corned wooden construction, rammed earth (*Pisé-Bau*), unbaked bricks and stone masonry.

In the case of construction for his rural clients master builder becomes a connecting link between contemporary publications and local building traditions.

5.3 Building business

Master builder after completing the usual practice in the company of one of his already established colleagues could devote himself to a career of building officer and/or start his own business. Part of his production might be speculative, built in his own account and sold after completion.

5.4 Josef Šuta (1863–1941), one example for all

We know little about his private life, which he spent in Uherský Ostroh in Southern Moravia. After his studies at polytechnic school, he worked in the office of master builder Josef Schaniak in Uherské Hradiště. He might meet there famous architect Dušan Samo Jurkovič, who made his practice in the same office.

Šuta designed in Hradiště several conventional historicist villas. After his return to Uherský Ostroh he becomes practically the only builder in this small, although originally royal, town and designs and constructs hundreds of buildings in Uherský Ostroh and its surroundings.

Among the urban buildings, mention should be made here at least of the plans for reconstruction of rammed earth houses on the main square of

this town. He incorporated existing earthen walls of till then mostly single storey houses in the new representative two storey buildings with classicist, historicist and Art Nouveau facades.

In his projects for the farms in the suburbs and surroundings of Uherský Ostroh we can observe a gradual inclination to tradition.

It is manifested inter alia in the description of rooms, for which he begins to use the traditional names in his plans (e.g. *jizba* instead of *pokoj* for the main living room). He returns also under the influence of his clients to the traditional layout of the farms. By comparing plans with preserved buildings we also know, that he largely uses traditional earthen building techniques of his region, especially unbaked bricks. He uses them also in case of the houses built in his own account. The most important of them are the houses constructed in the new quarter of Ostrožské Předměstí built after a catastrophic flood in 1911. The master plan of this quarter, founded by prince Liechtenstein was designed by Antonín

Mrkva from the provincial building office, who is also the author of plans of standardized houses, with small porches (*žudro*) inspired according to the folklorist movement by traditional architecture. Houses in this quarter designed by Josef Šuta are despite their outward appearance closer to the tradition by their layout, building materials and construction details.

Josef Šuta usually elaborated several variants of facades of designed buildings and flexibly adopted contemporary trends in architecture.

His work is thus remarkable for architectural qualities of the design as well as for the merging with tradition.

6 CONCLUSIONS

Since the late 18th century the architectural production of the Bohemian and Moravian countryside was no more vernacular in terms of “architecture without architects” and had to reflect the requirements of state regulations.

Building protocols and plans from that period, yet only fragmentary explored, represent an exceptional and promising source for better knowledge of this architecture. They attest humble and intelligent approach of master builders to their client needs and to the building traditions. Findings of historic building surveys and study of these plans show that:

- clients had traditional and modest requirements regarding the spatial layout of the house and farm buildings

- master builder respected tradition in terms of layout, constructive culture, use of local materials and urban context
- in case of reconstructions he incorporated existing constructions
- he flexibly adopted new ideas from Vienna, but reflected them only in the external appearance of buildings with representative street facades

In wider context one of the consequences of the uniform building control and uniform education of master builders in the whole Austrian, later Austro-Hungarian, monarchy, was the gradual disappearance of regional character traits. Rural buildings in South Moravia have the same appearance as those in neighboring Lower Austria or in far-distant Transylvania or Slavonia. On the other hand, the conditions of the legislation and the education of master builders together with the demands of their rural clientele allowed the survival of traditional building materials, traditional layout and spatial arrangement of farm buildings and villages.

Adaptability of master builders and their creativity gave birth to a remarkable architectural heritage of the last stage of traditional rural architecture.

We can learn from the master builders, that reconstruction does not necessarily accompany the complete demolition of old buildings and traditional materials and building techniques are also applicable in modern times.

REFERENCES

- Ebel, M. 2007. *Dějiny českého stavebního práva*. Praha: ABF—Arch.
- Ebel, M. & Škabrada, J. 1996: *Původní dokumentace lidové architektury*. Praha: Vydavatelství ČVUT
- Eliáš, J.O., Surová Z. & Surový J. 1994: *Uherský Ostroh, stavebně historický průzkum památkové zóny*. Brno: unpublished document available at NPÚ, Praha.
- Gabriely, A. 1861. *Hlavní pravidla stavitelství*. Brno: Bušák a Irrgang.
- Jöndl, J.P. 1840a. Unterricht in der Landbaukunst überhaupt und bezüglich auf Privat—und Gemeindegebäude in Landstädten, Marktflücken und Dörfern. Prag: Druck und Papier von Gottlieb Haase Söhne.
- Jöndl, J.P. 1840b. Poučení o stavitelství pozemním vůbec a zvláště vzhledem na privátní a obecní stavení ve venkovských městech, městečkách a vesnicích: Ponaučný a výkonný díl./Od J.P. Jöndla; V češtině od Jana Nep. Štěpánka. Praha: Tisk a papír Synů Bohumila Háze.
- Jöndl, J.P., Niklas, J. & Šanda, F. 1865. *J.P. Jöndlovo Poučení o stavitelství pozemním*. Praha: I. L. Kober.
- Lengerke, A. 1838. Landwirthschaftliches Conversations—Lexicon für Praktiker und Laien. Prag: Calve.