









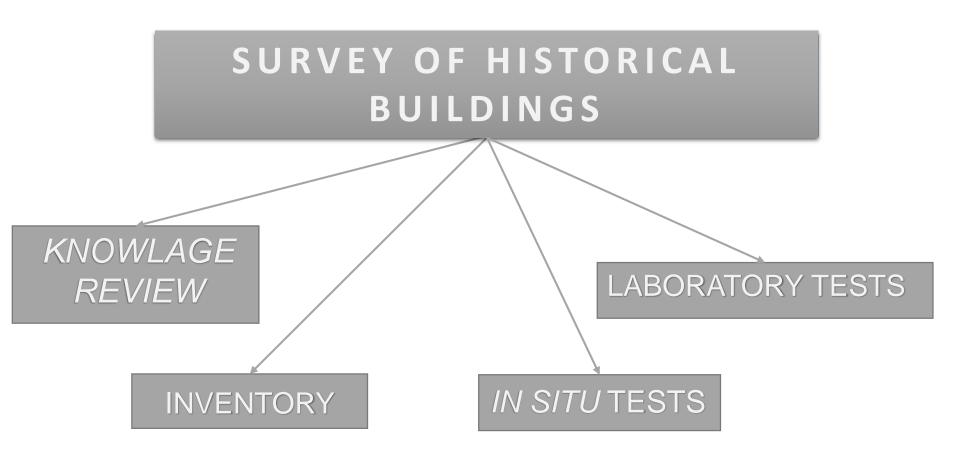






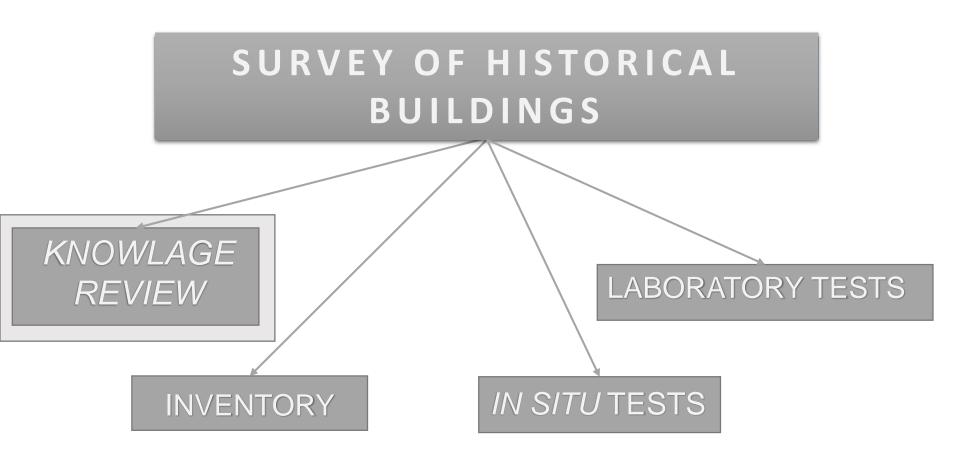
INVENTORY AND SURVEY OF HISTORICAL BUILDINGS HISTORICAL BOOKS AS A SOURCE OF KNOWLEDGE















The very beginings: Vitruvius' *De Architectura libri decem (De Architectura)*

The first (probably) a copy of this book went to the Polish in 1465, was owned by a canon regular of Trzemeszno John Sprinkler. Thus called Codex Cornicensis sive Trzemesnensis, otherwise Vitruvius de Cropidlo. In the XVI-XVII centuries work was already widely known in Poland, distributed in printed form at the Latin original. Latin in those days for the educated Poles did not present any difficulties.

Vitruvius was also undoubtedly a source of knowledge about architectural orders not only for architects and artists, but even for the guild masters. This is evidenced by the statutes of the Cracow guild bricklayers and stonemasons 1591 and 1618 years. In the older exam requirement is included to drew "Port of Doriki" and other things taken from this book.

Used in schools and as a manual build at the beginning of the Latin and then in French translation and finally the first Polish translation in 1840.





The begining:

Poland and other countries of medieval Europe throughout the Middle Ages did not develop literature in the field of construction or generally understood technique and technology. We are prepared **prayer books**, **fiction**, **legal and historical ones**. This does not mean total absence of any development of technology in the Middle Ages, they were, however, technologies and techniques passed down orally from generation to generation. He ennobled because such knowledge was not holding her willingness to share it, or whether it perpetuated. The special position in this range is the Brotherhood of the Free Masons. They had extensive

practical knowledge, used in the construction of Gothic cathedrals.

Free masons, they were skilled laborers working on the treatment of "free stones" or stones with expensive species and high aesthetic value. They formed a quasi-union, with its code, the system degrees of initiation, promotion path and access to knowledge. They worked in separate rooms called "lodges". Technical knowledge was transmitted both within the same box as well as between lodges.





From 1450:

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Technical poems 1553:

As an example, something like a technical manual can we used Regni Poloniae work Salinarium Vielicensium descripto Sdsms Schroeder from 1553. Let me translate into Polish to illustrate the problem:

.. Many winding walkways and underground adits

Leads to the goal, the miracle is indeed great.

Perhaps the only faithful Achates accompanied him,

Could a healthy his head in a maze save!

When quickly so we are wandering the salt of the caves,

Our curiosity grows, we go farther,

To arrive chambers, and so it is called Sarmatian,

Since the magnitude equal to the great theaters.

The chambers of these pillars, supposedly at the temples,

A salt pillars to protect them from collapse.

But the expedition and wood in many places we see,

And that is hundreds of years old, it makes only salt

As you can see far different from today's textbooks in technical sciences.





Technical poems 1553:

The first texts where construction work can be found were mainly about: agriculture, fotifications, and ponds, the known ones are listed below:

- Krescentyna Peter "Book of the farm and the propagation been provided with numerous benefits everyone is needed"; Krakow 1549
- As the oldest Polish concerning the construction work is recognized Latin print: "Ordinationes de carpentariis, muratoribus et lapicidis" or "provisions of carpenters, masons and stone mans" from the year 1554. It contained unfortunately only a set of guild regulations.
- Olbrycht Strumieńsk: "About the case, pouring, measurement and restocinkg ponds, as well as crosscuts, for weighing and running water, a book of all the hosts needed" Krakow 1573
- Anselm Gostomski; "Farms" of 1588. In this work are given personal experience regarding arranging "the farm" author landlord. Here we can find the first instructions for proper locating the building: "...As for the apartment, let him have his own house and ready and hungry deployed, power, built on proper way, in a healthy square, view and neatly placed. In the buildings (rooms) of different measures, according to the state, prosperous myself, wife and children up to time made: quiet winter, summer cool, always keep tidy. For this let her was to submit a Friend (lounge), hide the hardware, flat servants. In the middle of the yard healthy water spring: kitchen at home; bath with water; stable on the page; kennel least in hlaf-mile..."





1659:

"Very short teaching of building Mansions, Palaces, Castles acording Heaven 's and in a Polish way "about the authorship of unconfirmed.

It is the first Polish position treats only about the art of building. It provides guidance on the development of buildings, ways to climb its individual parts.

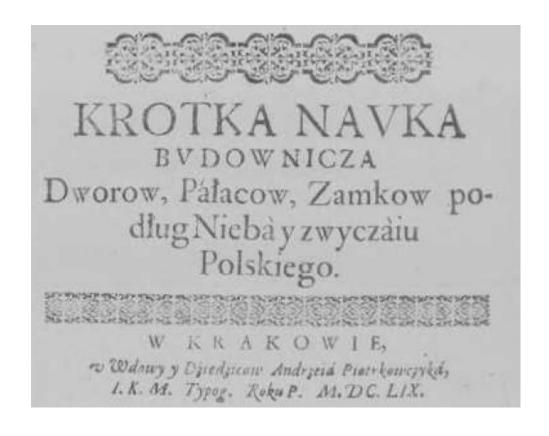
It was written very simply, guidance as to the methods of erecting buildings are few and defined in very general terms. The difficulty in collecting this work also consists of the fact that theoretically written in Polish has plenty of foreign inclusions.

Tips are given in the form of rules that had to behave with proper design and execution of buildings.

Some of his pieces, but you can be treated as a customs guidance as to the proper construction of buildings: ".... about bricklaying then saying / it with these things weigh each individual need. The foundation / walls / holes needed in the walls / stairs / Chimneys .. At last the roof. I'm starting from the foundation rightly Because error in it committed / very harmful could be and hardly repaired"











1744:

"Ziemianska Generalna Oekonomika "

Manual written by James Kazimierz Haur. Kind of encyclopedia of all manner of knowledge, which should have a landlord.







12

Onie vwa-

y pluid.

O tychie.

OEKONOMIKI ZIEMIANSKIEY,

O BVDYNKACH.

Bydynkow wszelkich ták Párískich iáko Gospodárskich, czesto do-gladáć y wcześnie popráwiáć, áby nie záciekáło, á osobliwie Dáchy opátrywáć, áby dla mátey rzeczy wszytek się nierumował Bu-

Osobliwa to káżdego Gospodarzá czułość, y ozdobá, kiedy kto przy fwym fkromnym według kondicycy żyćiu, pięknie, dobrze,

Kominy wycieráć, od Ogniá ochraniáć, miánowićie kiedy ko-

Drzewo ná Budynek, y popráwy, in Nouembri, Decembri, d la muario, wyčináć; á kiedy drogá dobra, ile pod czás fánney zwoźić, tákże gliny, kámienia, y inne do budynkow przysposabiáć w cze-

śnie necessaria.

Budynkow żadnych, śni popraw znacznych okrom Dáchow, vrzednik, áni żaden flugá, nie powinien bez wiádomośći Páńskiey y roskazánia budowáć.

Lamus alias Sklep z porzannym mieć záwárciem, ták dla ogniá Skiej dia na [strzez Boże] iáko też y dla postromego y domowego złodzieja, a-majny, wajmuda. byś był wednie y w nocy swoiey pewten substancycy.

SVPPLEMENT ARCHITEKTONIKA albo NAVKA BVDOWNICA GOSPODARSKA.

TEżeli náczym cáłemu świátu wszelkim Páństwom, y krolestwom Inależy pewnie ná ośiadłośći Miast, w Kościołach Bożych Rzymskich, w Portách, Zamkách, Pálácách, Fortecách, Miasteczkách, v Wsiách geftych, murownych, y budownych ; á wnich potym ná ludziách madrych y gospodárnych, przy osobliwcy spráwie, y dobrym rzadzie: do tego przy wynioflych y okazátych Budynkách ktorzyby fano mentis confilio, wszytko sporzadzáli: rozumiem isz kożdy przyzna. A ktorelž to sa septem miracula mundi ô ktorych potomne wieki, wspominája, y wspomináć beda, tylko wynioste w murách ma-chiny; ktore Málarze y koperstycharze w swoich wyrazája kunsztách. Przeto ofobliwym sposobem te Budownicza Náuke, dla vważenia mieyść fundámentálnych, iákie w nich mája bydź wárowne budowánia, iáko ie ákkomodowáć, y conferwowáć, oraz y dla vpátrowánia, nie tylko dla wczáfu, wygody, y fwego vpodobania, ále też áby jedno przy drugim we wszytkim swoie miáło, dla ozdoby, y pozoru proporcya, y dobra dyspozycya, rożne tedy w tey ArOEKONOMIKI ZIEMIANSKIEY,

I w tym rádzidbym zázyć rostropnośći, aby glupiego y nie vwaimb to bu- żnego niektorych zaniechać zwyczanu, ktorzy to na iakiey Fabryce ábo Fáciacie tráfia iáka do ozdoby skulpture, ábo státue sznicerska, ábo Málárska robota, do niey iák do iákiego pewnego celu, z Ruśnice, ábo z tuku strzelája, y owę ozdobe, y kofzt, psuja, szkodza, y oszpecája. Tosz się y gałce dziele, a potym od deszczu zacieka, y wieże, dachy, przez to ruinowáć lie mulza.

I w tym wielka sie dźseje indiscretio owych, ktorzy z kilofámi, obuszkámi, z podkowkámi po murách, po Pawimentách, kryzmola, Xemfy kámienne vtracája, y Imioná swoie rysuja, v.g. Hie suit Adamus Nitoniowski. Hie fuit Andreas Nietrzpielski, We. Calz nawet na Páwimentách pieknych, iák ná niecnote podkowkámi zákręcánia czynia, v kuláfy kryzmola.

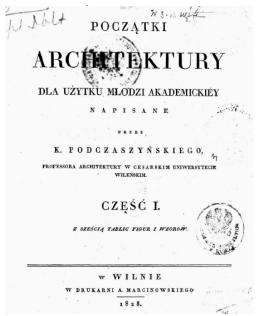




1828:

"Początki architektury. Dla użytku młodzi akdemickiey"

Two-volume work of architect Charles Podczaszyński. It was given in Vilnius in 1829. It is a textbook for students and builders. Discusses the principles climb, design and calculation of

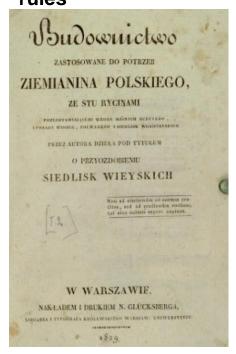


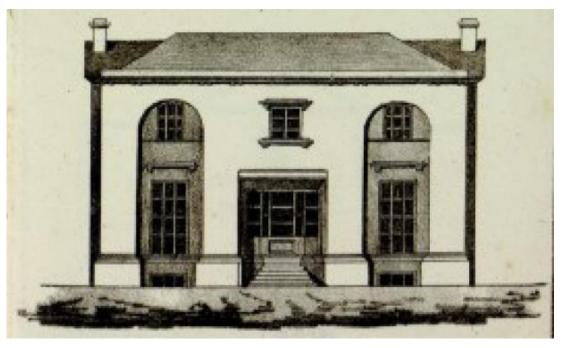






1829: "Gizycki Ksawery - Budownictwo Ziemianina Polskiego" – The Polish landlord building rules



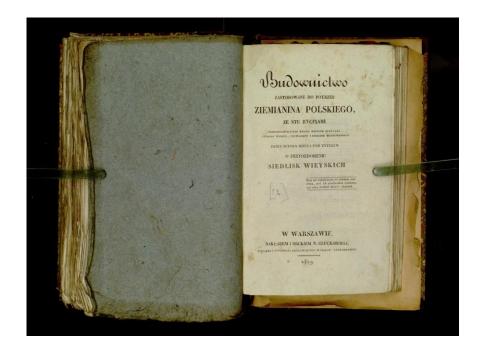






1829:

"Gizycki Ksawery - Budownictwo Ziemianina Polskiego" - The Polish landlord building







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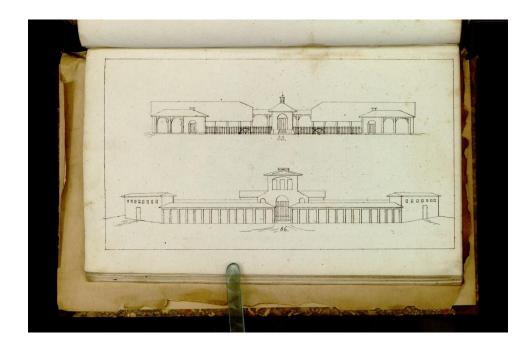






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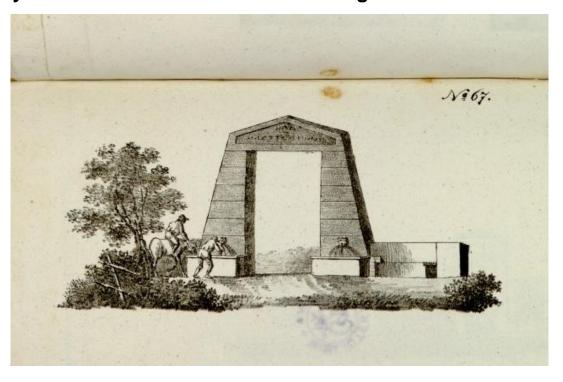






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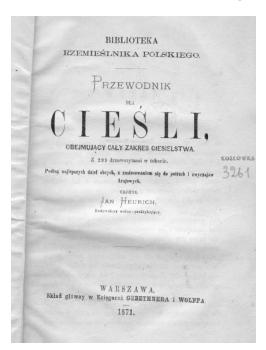
"Gizycki Ksawery - Budownictwo Ziemianina Polskiego" - The Polish landlord building

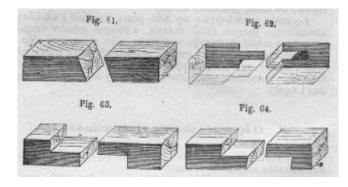


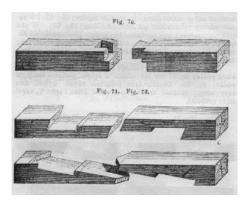




1871: "Jan Heurich - The carpenters manual"



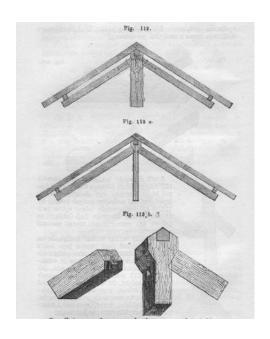


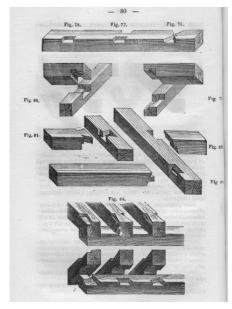






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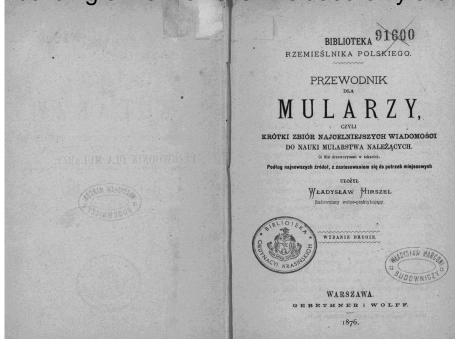




1876:

"Władysław Hirszel- The masons manual" The first textbook of the

building skills. however included only a bricklaying trade.



Takaż sama belka wymurowana na zaprawę złożoną z 1 części cementu i 3 części piasku, okazała częściowe pękniecie pod ciężarem 47 centnarów i dopiéro po kilku uderzeniach młotem kowalskim, zupełnie się przełamała. Przy użyciu do spojenia cegieł mieszaniny, składającéj się z 5 części piasku i 1 części cementu, tychże co wyżéj wymiarów belka zniosła przed złamaniem, obciążenie w środku 31 centnarów; gdy tymczasem takaż sama belka, w podobny sposób podparta i obciążona, lecz wymurowana na zaprawę z Roman-cementu pomieszanego w równych ilościach z piaskiem, złamała się już pod obciążeniem 29 centnarów. Fig. 3. Z 16 cegieł połączonych podług figury 3-ciej zaprawą z Portland-cementu, zmieszanego w równych ilościach z piaskiem, utworzona belka i w końcach podparta, złamała się pod ciężarem zawieszonym w środku, który wynosił 15 centnarów. Wielką siłę spójności Portland-cementu wykazały następujące doświadczenia: Dwie sztuki z najlepszego portlandzkiego kamienia (którego moc wyrównywa prawie mocy piaskowca krzemienistego), na 2 stopy długie, 9 cali szerokie i tyleż grube, zostały z sobą spojone patentowanym Portland-cementem; po upływie dni 28, dolny kamień, sposobem na figurze 4-éj wskazanym, obciążono 38 centnarami, w skutek czego, kamień górny rozerwał się powyżej stosugi spojenia, zaprawa zaś pozostała nienaruszona. Dwa kamienie z tegeż samego materyału i takich samych jak wyżéj wymiarów,





1876:

Przewodnik dla Mularzy - Guide for Masons

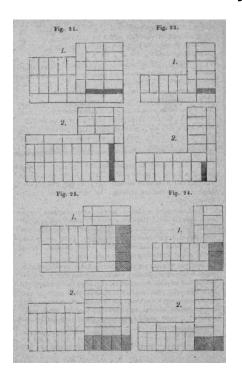
The next item is the Science of masonry by Władysław Hirszl. This is the first construction manual that corresponds to today's standards for this type of publications.

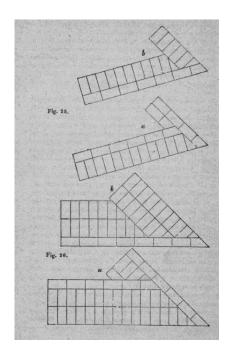
The development includes issues concerning the foundation, erect walls and vaults, plastering and basic information on the measurement time and cost of erecting the individual elements of the building. Author lot of space devoted for material and workmanship issue masonry, plastering and technologies and configurations of the mixtures.

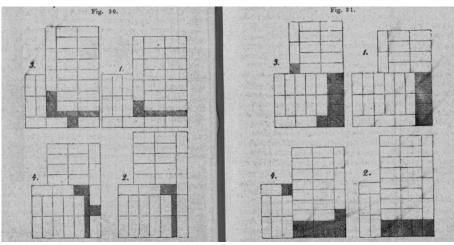




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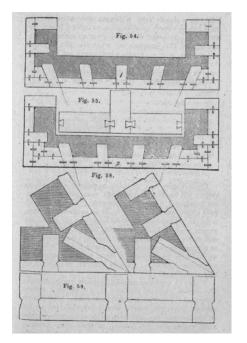


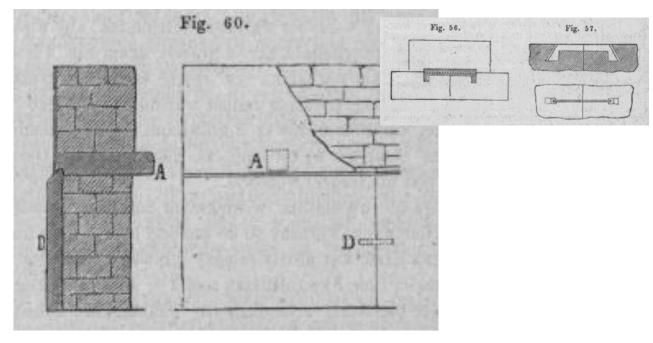






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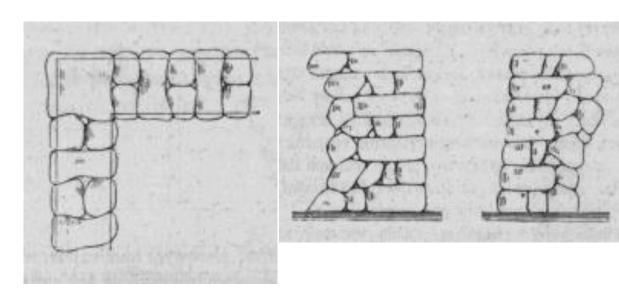


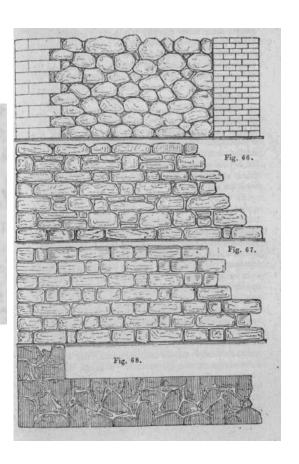






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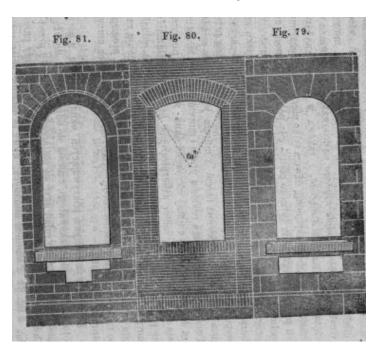


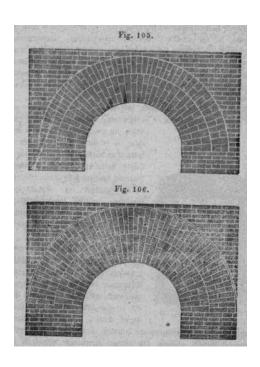






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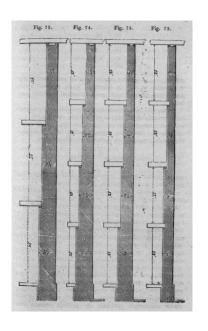


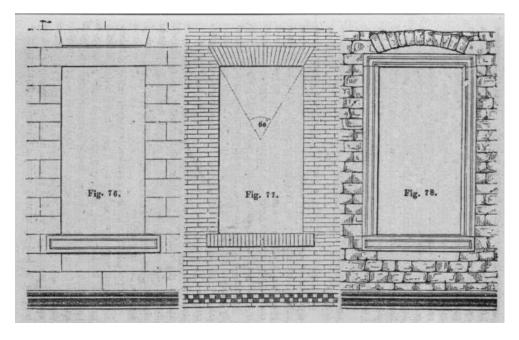






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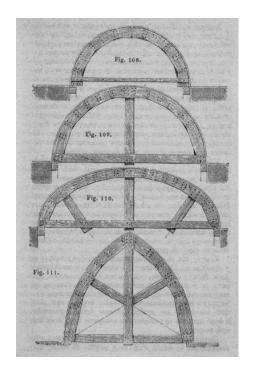


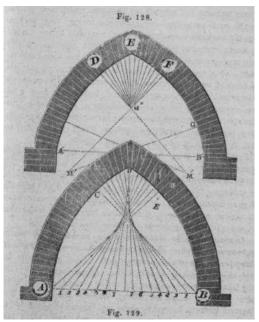


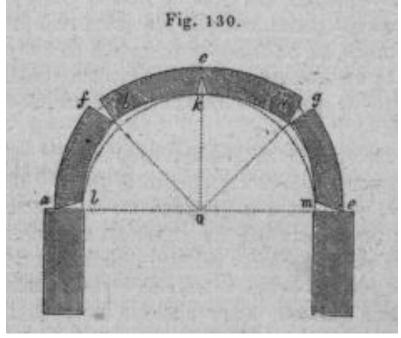




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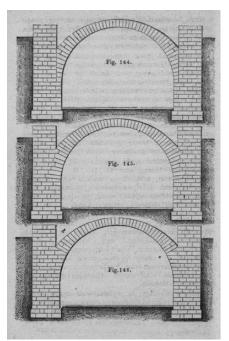


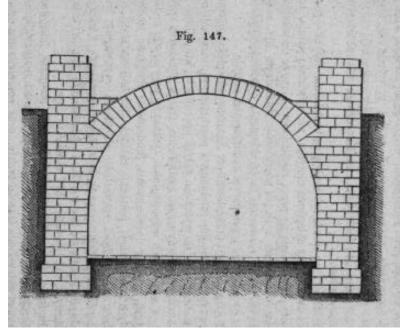






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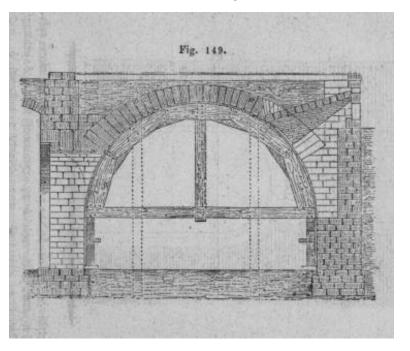


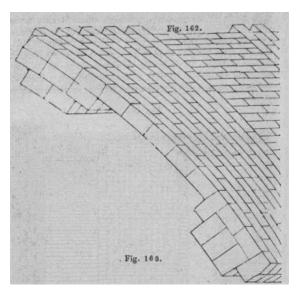






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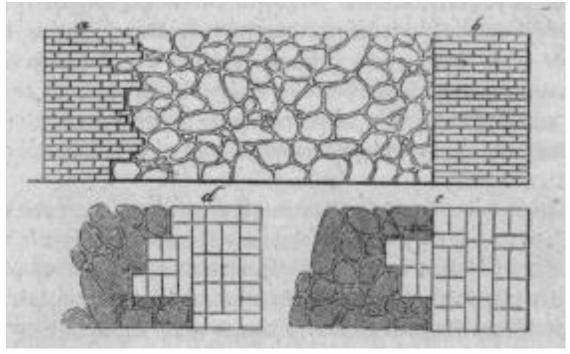








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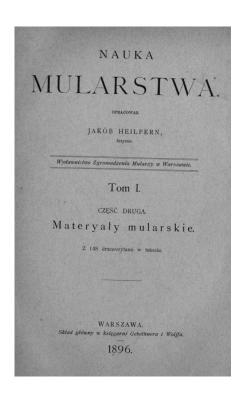


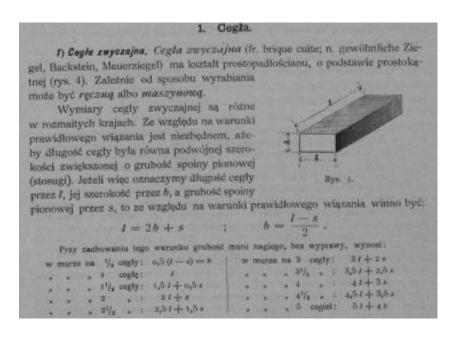


1896:

"Nauka mularstwa"

First two of planned four books of super-mannul for the Polish builders.





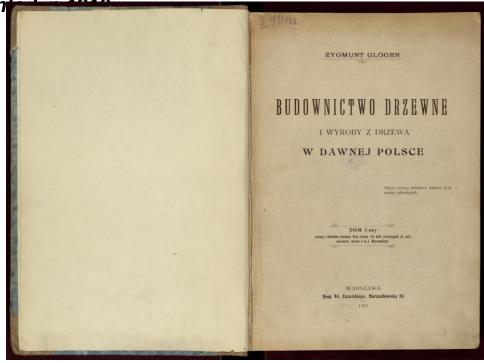




1910:

Zygmunt Gloger "Woodden buildings and things mady by wood in ancient poland" book





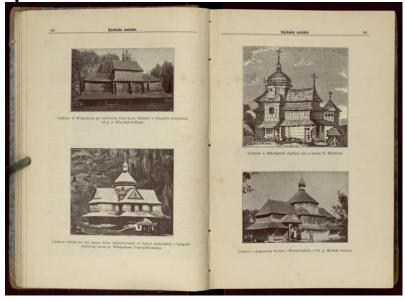


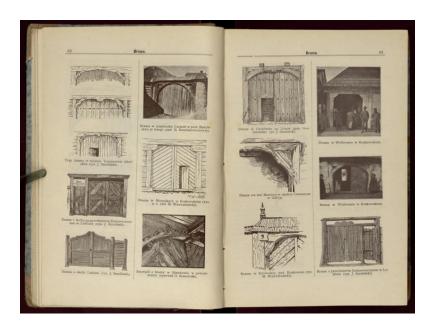


1910:

Zygmunt Gloger "Woodden buildings and things mady by wood in ancient poland" book

printed in 1910



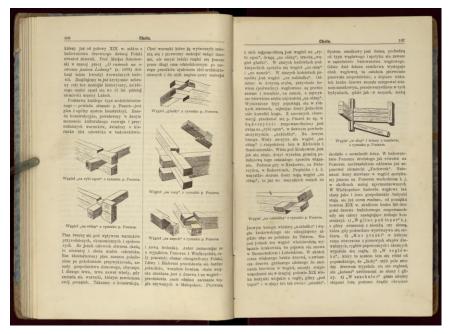






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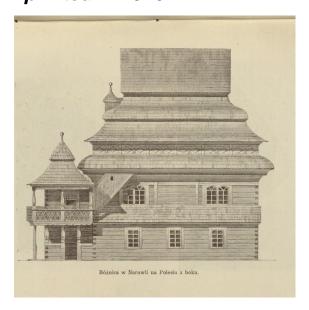
Zygmunt Gloger "Woodden buildings and things mady by wood in ancient poland" book printed in 1910







1910: Zygmunt Gloger "Woodden buildings and things mady by wood in ancient poland" book printed in 1910









BIBLIOGRAPHY

All books come from private collections.

Preparation of the lecture: MSc. Eng. Bartosz Szostak





















Project "SURE - Sustainable Urban Rehabilitation in Europe" implemented in frames of Erasmus+ Programme Key Action 2: Strategic Partnership Projects Agreement n° 2016-1-PL01-KA203-026232

This publication has been funded within support from the European Commission.

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Co-funded by the Erasmus+ Programme of the European Union

