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Teze disertační práce
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Grain Storage in Ancient Egypt (2600-1650 BC)
Typology and socio-economic implications

**Skladování obilí ve starověkém Egyptě (2600-1650
př.n.l.)**
Typologie a socioekonomické implikace

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I Introduction

In recent years, research in the field of the ancient Egyptian economy in the earlier historical periods has blossomed¹. However, despite all the efforts of last decades, the question of the nature of economic system has not yet been satisfactorily resolved. The prerequisite of this work is that storage, as a key component of food distribution² be it on the household or institutional level (Paulette 2013: 106), has the potential to inform us not only about important changes in agrarian system, economy of domains *etc*³ but also shed a light on the question of economic system in general.

The main aim of the present work is to obtain a new multi-faceted picture of grain storage during the era between the 3rd and 13th Dynasty (2600-1650 BC). This picture was subsequently analysed in order to better understand socio-economic and political developments which took part in this above mentioned era.

The first part of the presented work (*Chapters II-IV*) is descriptive and focuses on the attestations of cereals and description of basic characteristics of attested storage facilities as they appear in the archaeological (*Chapter II*), iconographic (*Chapter III*) and written evidence (*Chapter IV*). The obvious aim of the first part is to provide the data for further analysis. In this case the data represents the typology of storage structures/institutions and cereal species and

¹ Many economic topics have been addressed, such as questions of the macroeconomic structure, and interconnections between social and economic structures (e.g. Baines and Yoffee 1998; Bleiberg 1996, 2007; Cooney 2007; Eyre 2009, 2011; Helck 1975; Janssen 1975, 1982; Kemp 2006, 2013; Lehner 2000; Moreno García 1999, 2006, 2008, 2014; Papazian 2013; Richards 2005; Warburton 1997, 2010; Warden 2014). Rations have been studied through the measurements of bread moulds; research has been carried out on cereals and their transformation into final products (e.g. Heinrich and Cappers 2014; Wade 2014; Warden 2014), and studies have been released focusing on expeditions to obtain raw materials and luxury goods (e.g. Aubert 2013; Caubet and Yon 2006; Diego Espinel 2011, 2013; Flammini 2001; Harell 2012; Klemm, Klemm, Murr 2002). Besides the previously-mentioned areas, some scholars also carried out studies focusing on structures used for the storage of foodstuffs (e.g. Kemp 1986, 171–179; Florès 2015).

² Food distribution was an important tool to execute power and accomplish goals of specific actors in a system. Importantly, storage is also an analytical marker for studying cultural evolution because it is a necessity common to all sedentary and many nomadic societies all over the world (Rothman 2016: 19). An important and logical prerequisite is the assumption that storage systems are connected to different adaptive strategies of societies and individuals (Rothman 2016: 19). Different storage strategies (storage technology, storage capacity or system of control) are thus designed by each player in a system to meet goals and are adapted to environmental as well as socio-economic and/or political circumstances (Rothman 2016: 28). Concrete storage structures thus had their place not only in the techno-economic system, but were also related to particular socio-jurisdictional organization of the agricultural exploitation (Sigaut 1978: 34). In addition, different techniques of storage employed by populations/communities are to some extent linked to the climate (García 1997: 88). The relation is not as straightforward as it might seem – we cannot clearly link the use of particular technology to particular climate (i.e. aerobic to wet conditions and anaerobic to dry conditions). But, importantly, the existence of very a need to store for a long term might depend on climatic conditions. As shows Sigaut (1978: 38-39) on the case of storage in Nigeria the long term storage was important in zones with more risk of insufficient harvest, meanwhile in the zones with sufficient precipitation the long term storage practically did not play role.

³ Of special importance is understanding of the socio-economic functions of long term reserves – they might have been aimed to consummation, or to agriculture (seeds) eventually to commerce (García 1997: 88; Sigaut 1978: 4).

products stored in them.

The second part of this work (*Chapter V*), focuses on the role of the previously defined storage facilities within the organizational scheme of cereal production, storage and distribution. The *Chapter V* deals with two main issues. First, the types of storage facilities that were used by various economic agents in selected sites are examined. Second, the particular distribution patterns of storage facilities in specific sites are studied and compared with prerequisites and assumptions of the Patrimonial Household Model.

II Tools

The main tool of this work is the *Source-Database* produced in Filemaker. Its aim was to ideally record all available archaeological, iconographic and textual evidence of storage facilities in the time from the beginning of the Old to the end of the Middle Kingdom. Therefore, returning to the above quote defining object context, I claim that the context (relevant environment to discern the meaning) of ancient Egyptian storage facilities also includes the texts and images in which they appear.

The “relevant environment” is, however, not only provided by specific archaeological contexts, texts and images, but it is also temporal. In my work I decided to study grain storage practices from the long-term perspective. The studied era is a thousand years long – it starts at the beginning of the 3rd Dynasty and ends with the disintegration of the 13th Dynasty (ca. 2650–1650 BC). This might at first sight seem excessive, but the work is designed to include the historical era from the Old to Middle Kingdoms, which enables us to study and compare two subsequent phases during which the Egyptian state was considered strong and centralised as well as the era in between them – the period of decentralisation separating the two phases. It is not necessary to stress that, necessarily, huge socio-economic, political and religious changes occurred during the studied era. Considering the utmost importance of grain (staple diet, means of value) in the economy as well as in creating and reproducing social networks as well as studying the technical aspects and the role/place of grain storage and grain management over this long period of time full of transformations enables us to better assess the meaning of grain storage and its relations with the socio-economic structures and politics.

III Analysis and discussion

The Source Database is obviously not explicatory in itself. It is important to consider why such a study is of importance and what the outcome should be from such an investigation.

The analysis of the data was done in two steps. Step 1 – an overview (*Chapters II-IV*)

focused on the creation of typology of storage structures/institutions and on overview of cereal products stored in them.

Step 2 interpretation (*Chapter V*). In the previous step the most important aspects of grain storage system(s) were identified. The aim of the last step is to interpret them with regard to particular socio-economic and historical conditions. *Chapter V* seeks to relate specific economic partakers with specific storage facilities and potentially specific strategies to pursue their goals. The first part of *Chapter V* is therefore dedicated to an overview of a variety of agents who produced and stored/managed grain resources. The question of the above mentioned economic agents will be considered from the viewpoint of a model that has been in recent years employed more frequently to explain the socio-economic structure of Old and Middle Kingdom Egypt - The Patrimonial Household Model (PHM) (more *cf.* *Chapter V.2*).

The second part of *Chapter V* concerns two main issues. First, the types of storage facilities that were used by various economic agents in selected sites are examined. Specific attention is given here to questions of capacities in relation to extension of fields that could yield similar quantities. In addition, this issue is also closely related to the question of whether any relationship between the purpose of storage and the employed storage facility can be observed. Second, the particular distribution patterns of storage facilities in specific sites are studied and compared with prerequisites and assumptions of the PHM.

IV Conclusions

The analysis of the corpus (*Chapters II-IV*) leads us to the following conclusions: First, several cereals (all sub-species of barley and emmer)⁴ were cultivated in Egypt. These were stored in spikelets and temporarily as a processed grain⁵. Second, several types of installations where grain was stored were identified in all types of evidence. However, while archaeology and iconography provides us mostly with the information on their appearance, texts give us little

⁴ Textual sources present us several terms referring to cereals as well as to structures and containers in which they were stored. However, they were neither easily related to archaeologically retrieved samples of cereals nor types to storage structures identified in archaeological and iconographic evidence. The main reason for this is that ancient Egyptians based their classifications on different criteria than we and that we do not well understand which criteria they chose. In the case of cereals it was probably the appearance (Germer 1998: 84-85) contrary to our classification based on genetics/species.

⁵The identification of cereal-related terms was summed up in the *Chapter IV*, Fig. 74. Here we can find overview of cereals as well as information on the type of structures in which a particular cereal was stored. The latter, however, should be dealt with cautiously as the data are insufficient. Similarly, the identification of certain terms, namely *sw.t*, *ph3*, *sh.t* are problematic. They could represent barley/emmer sub-specie or processed grain/grain products. Considering all evidence at our disposal, the latter possibility (processed grain) seems more probable. Especially in the case of the term *ph3*

clue regarding the form of storage facilities. In addition, it seems that the form of storage facility was less important in their classification than the functional and/or administrative context for ancient Egyptians.

The attested storage installations belonged to the following three broad groups: 1) built-up facilities, 2) pits (not cased with bricks) and 3) movable containers. The first group, built-up storage facilities, are generally better documented and published. They were therefore analysed into more detail.

Three⁶ main types of built-up storage facilities were recognised based on their form in the archaeological and iconographic evidence. Structures classified in type 1 had a circular shape (so-called beehive silos). The type 2 and 3 structures were, on the other hand, of rectangular shape. In addition, types 1 and 2 were further subdivided considering further the architectural features as well as the context of particular facilities.

It is not easy to assess how suitable these storage facilities were for grain storage. The type 2A and type 3 facilities were definitely too polyvalent to employ any specific grain storage technology. As such they were probably deliberately destined for short-term storage (*Chapters II.2.2.1 and II.2.3*). The type 1, 2B and 2C facilities might operate on the basis of restricted atmosphere and thus be potentially suitable for long-term storage (*Chapters II.2.1, II.2.2.2, II.2.2.3*). However, the facilities based on the principle of restricted atmosphere can only be opened once and cannot accommodate regular withdrawals or filling. Therefore, it is essential to consider the exact context in which a facility operated to be able to state whether it served to conserve grain or not.

Turning to the textual sources (*Chapter IV*) the term that was most closely related to the storage and management of cereal produce was *šnw.t*. The picture of *šnw.t* obtained from both Old and Middle Kingdom sources is that of an institution managing grain resources as well as a physically existing building. These *šnw.wt* installations operated in the residence as well as in the provinces (towns, royal foundations) and in cultic contexts (*Chapter IV.2.1.1*). It seems that the administration of *šnw.wt* installations as well as their place in the economy and administration underwent changes between the Old and Middle Kingdom. The general feeling is that Middle Kingdom *šnw.wt* were less independent and more intermingled with administration of the entities to which they belonged (*Chapter II.2.2.3, IV.2.1.3, V.2.6*).

⁶ Three types that could be specifically recognised in the evidence. It is possible that other types of facilities simply did not survive to our days, such as *e.g.* installations on the roofs (*Chapter II.2.5*). In addition, some rooms or houses might have been reused for storage, but these are not characterized by any specific features.

The second installation related to the storage of cereal products was *mhr* (*Chapter IV.2.2*). Unlike *šnw.t*, *mhr* is quite underrepresented in the written evidence and attested only since the Middle Kingdom. It appears in both private and institutional contexts and it is the only term for storage facility clearly attested from non-elite households. A variety of products could be stored in it, though cereal products are preponderant in the scarcely preserved sources. The storage period is unknown (*Chapter IV.2.2*). Bats (2017: 166) suggested translating the term as “barn.” However, based on the evidence, it might simply be a kind of storage chamber/storeroom.

The third term related only to the storage of cereal products is *šzʿ*. It appears only in two very specific Middle Kingdom contexts (*cf. Chapter IV.2.3*). It seems that *šzʿ* was very similar to *mhr* – a single storage facility, maybe an individual chamber within a larger storage facility. It is related with the storage of *j.t mh*, *ʿgw.t j.t* and *sšr* respectively. However, a possibility exists that *šzʿ* might simply designate a space (Chace, Bull and Manning 1929: pr. 41, note 2).

The remaining three facilities dealt with in this chapter (*šnʿ*, *wḏz*, *htm*) share certain common characteristics. Firstly, they were not closely related to grain storage only. The only exception might be a specific type of Old Kingdom *wḏz* where grain destined for baking/brewing was sometimes stored. Secondly, they only served as temporary grain storage, not its conservation. All three installations – *šnʿ.w*, *wḏz.w* and *htm.w* – might reflect their purpose in taking up specific architectonic features. Thus while all three are mostly known to take the form of type 3 magazine, when their main purpose was to store grain (in bakery/brewery or for distribution) they often took the form of type 1 or type 2 A facilities (*cf. Chapter IV.2.7*).

Movable containers scarcely appear in written sources and when they do they usually serve as a unit of measure.

Below, in Fig. 1 is presented an overview of most important characteristics of built-up storage structures and the suggested terms/contexts to which they might relate. The most important result obtained is that each of the analysed terms could be related to various types of archaeologically attested storage structures.

Archaeology	Iconography	Suitable for long-term storage	Related terms	Stored products (archaeology)	Stored products (iconography/texts)	Volume (individual chambers in m ³)	Volume (in Hq)
Type 1	Type M1a	YES (especially the subterranean version)/ only when grain is not regularly filled or withdrawn	<i>wḏs</i> (OK), <i>mḥr</i> (MK), <i>ḥtm</i> (MK)	processed		0.8 - 21 m ³	167-4419
Type 1B	Type 1, Type M1b	YES /only when grain is not regularly filled or withdrawn	<i>šnw.t</i>			individual chambers <i>cf.</i> above	individual chambers <i>cf.</i> above
Type 2A	X	subterranean variant possibly/ only when grain is not regularly filled or withdrawn	<i>ḥtm, mḥr</i> (?)			up to 3-4 m ³	up to 600-800
Type 2B	Type 2A (possibly B); Type M2a	YES / only when grain is not regularly filled or withdrawn	occasionally <i>šnw.t</i>			1.9-7.2 m ³ individual chambers	400-1500
Type 2C	Type 3?, Type M2b	YES /only when grain is not regularly filled or withdrawn	<i>šnw.t</i>				1667 - 29898
Type 3	not certain maybe Type 2A/B	NO	<i>šn^c, wḏs, ḥtm</i>	multifunctional		not relevant	not relevant

Fig. 1 Types of storage structures, their functions and related terms. Based on *Source-Database*.

While the first part of this work (*Chapters II-IV*) was focused on the identification and description of storage facilities and related terms, the second part focused on their distribution on selected sites (*Chapter V*). The observed patterns were then evaluated and tested against the Patrimonial Household Model (PHM).

The PHM predicts a socio-economic system that consisted of a hierarchy of nested households – each of them forming a self-sufficient unit. On the top of this hierarchy was all encompassing royal household. This arrangement has several consequences, among them: the existence of no real bureaucracy, no fundamental difference between urban and rural components of a society or no real market in basic commodities. Importantly, it supposes that only a handful of the population were full-time specialists completely dependent on rations. The majority of the population was part-time specialists and farmers at the same time (Schloen 2001: 101). Already in *Chapter V.1* it was shown that it is difficult to accept that ancient Egypt was since at least 5th Dynasty purely PHM. It was probably already a mixed system closer to patrimonial bureaucracy. This must necessarily reflect in storage practices. The question is how?

Below, we will again try to study it based on the distribution pattern of storage facilities. Even though the evidence, especially the Old Kingdom evidence, was not as varied as we would need, the following conclusions could be made. First, no substantial differences were found between types of facilities used in different contexts (houses, bakeries, distribution centres) (*Chapters V.2.9* and *V.3.9*). The only differences encountered were diachronic - use of particular types only in certain eras. Namely, use of type 2B facilities only between the late Old Kingdom and early Middle Kingdom and use of type 2C facilities only during the Middle Kingdom (more in *Chapter II.4*).

The distribution pattern of grain storage facilities does not give the impression that huge capacities were concentrated in central nodes⁷, but might have been dispersed in local magazines. This stands out especially when the Old Kingdom evidence is compared with the situation during the Middle Kingdom (*cf. Chapter V.3.9*) as Middle Kingdom installations related to royal interests far exceeded anything attested from the Old Kingdom. This might be related to the different storing subjects that survived from the Old Kingdom evidence. Eventually, the Old Kingdom subjects might function differently. For example, different storage periods might have been preferred (*e.g. monthly*) during the Old Kingdom (*Chapters*

⁷ Mind that in *Chapter V.2.1* we have stated that even RAB was probably regularly refilled and its capacity were probably not much more than 100 m³. Compare with large Middle Kingdom facilities which sometimes had capacity over 1000 m³ (*Chapter II.1*).

V.2.9 and V.3.9). However, this impression might simply be caused by the evidence at our disposal. We definitely miss key installations of the era in the evidence – the royal residence or royal *hw.wt*.

It however seems that already the Old Kingdom evidence does not correspond very well to a pattern we would expect from the PHM model developed by Schloen (*cf. Chapter V.1.2*). Numerous sites of consumption as well as installations not directly managing their own production that Schloen considers marginal in PHM society existed during the whole studied era. Of course, the significance we ascribe to these sites might be simply result of the biased evidence. Nevertheless, it would be difficult to accept that *e.g.* construction (and later maintenance) of pyramid complexes, expeditions to deserts and foreign countries would not involve participation of a significant proportion of country's population (though many of them on "part-time" basis). It is also difficult to consider some of the attested installations simply households. Although one might argue they formed a component of a large royal household, they certainly obeyed different logic and were managed differently than households. In addition, there were probably communal storage places, rather contradicting a pure PHM. However, as we have seen not all storage facilities detached from houses necessarily had to be communal (*cf. Chapter V.2.1*). Lastly, there were seal imprints/seals referring directly to storage facilities and not necessarily to officials (*cf. e.g. Chapter V.2.5.1*). These remind us of the better-known Middle Kingdom institutional seals.

No overall distribution pattern of storage facilities can be concluded for all of Middle Kingdom Egypt. Several types of places existed in this regard. First, places like Ezbet Rushdi (*Chapter V.3.2*) or certain neighbourhoods of organically grown towns (*Chapter V.3.1*) where half or more houses might possess sufficient storage capacities to provide for the whole household. Second, places like Illahun's western quarter where only about 7% of houses had more considerable storage facilities (*Chapter V.3.6*). Third, places like Nubian fortresses where only central storage facilities existed (*Chapter V.3.7*).

The proportion of houses equipped with built-up storage facilities changed in the course of time at these particular sites (more *e.g. Chapter V.3.1, V.3.9*). Similar changes might be related to both: evolution of individual household as well as to political shifts and related changes in local socio-economic structures. For example, we might observe that in the vicinity of Heqaib's sanctuary in Elephantine, where the cult seems to have stopped in the course of the 13th Dynasty, during the 13th Dynasty a larger proportion of houses consisted of built-up storage facilities than previously (*cf. Chapter V.3.1*).

Thus similarly to the Old Kingdom evidence, the Middle Kingdom does not seem to correspond very well to a pattern we would expect from the PHM model developed by Schloen (*cf. Chapter V.1.2*). Again, sites of consumption as well as installations not directly managing their own production that Schloen considers marginal in PHM society existed – Nubian fortresses, camps. However, they might have drawn fewer resources than during the Old Kingdom. Nevertheless, they were not simply households. Although, again, one might argue they formed a component of a large royal household, they certainly obeyed different logic and were managed differently than households. In addition, there were probably communal storage places, again contradicting pure PHM (*cf. Chapter V.3.4*). Lastly, seal imprints/seals now frequently refer to institutions and were only countersealed by officials (*cf. e.g. Chapter V.3.8*).

It is, in fact, very difficult to accept or refuse the identification of ancient Egyptian socio-economic and political system with PHM. It is clear that no single PHM model existed and that there were many variants of it (*cf. Chapter V.1.2*). The same holds true also for patrimonial bureaucracy. What the presented evidence shows very well is, that ancient Egyptian system (2600-1650 BC) does not exactly correspond to what was described in the literature concerning the PHM, especially that concerning the Egypt's neighbours. This does not necessarily mean that we cannot consider Old – Middle Kingdom Egypt as PHM. It might simply represent a specific variant of it. However, it is difficult to accept this identification without doubts. In this sense it would be worth to pay in the future more attention to particularities of the ancient Egyptian system(s).

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2015 PhD in History, Faculty of Arts, Charles University, PhD thesis title: Spanish Embassy in Prague supervised by Doc. Marie Koldinská

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2011-2015: Charles University Prague, Faculty of Arts: postgraduate student, field of study: history (Ph.D.)

2015 January-April: Visiting Research student at Institute of Archaeology, University College London

2009–2010 September-February: study of Egyptology supported by an Erasmus scholarship, University Paris IV – Sorbonne

2006-2011: Charles University Prague, Faculty of Arts, field of study: Egyptology-History (Mgr. degree – equivalent of Master degree)

Languages and other skills

- Modern languages: fluent in written and spoken: English (CAE certificate); advanced level: Spanish (certificate C1); intermediate level: French; passive knowledge: German- Ancient languages: Egyptian (hieroglyphic script, Old and Middle Egyptian); Latin.

- Advanced use of data processing software: Microsoft Word, Excel, PowerPoint, Access, Publisher, Explore; FileMaker Pro 12, 15

Research Grants:

2015-2017: GAUK 114815 *“Patronát jako základ společenské struktury a hospodářských vztahů Staré a Střední říše?” Did patronage played an important role in the ancient Egyptian social structure and economic relations (Old Kingdom – end of the Middle Kingdom)?*

2014: Internal Grant of the Czech Institute of Egyptology (financed by a private sponsor). Project concerning the creation of the database of archaeological evidence of the Old and Middle Kingdom granaries and the quantitative and qualitative analysis of the data.

2012-2013: Grant VG 004/2012. Project concerning the reconstruction of the functioning of the Spanish embassy in Prague at the beginning of 17th Century.

Archaeological Missions to Egypt:

2018 January-March: member of archaeological mission to Qubbet el-Hawa (Universidad de Jaén)

2017 January-March: member of archaeological mission to Qubbet el-Hawa (Universidad de Jaén)

2016 September-October: member of archaeological expedition to Abusir (Czech Institute of Egyptology)

2016 February-March: member of archaeological expedition to Qubbet el-Hawa (Universidad de Jaén)

2015 November: member of archaeological expedition to Abusir (Czech Institute of Egyptology)

2015 September-October: member of archaeological expedition to Tell ed-Daba (Austrian Institute of Archaeology)

Excavations in Czech Republic:

2009 June-August: archeological excavation in Prague

Other professional activities:

Since 2013: Part-time job at the Czech Institute of Egyptology, Charles University (database of the documentation from excavations)

Since 2007: cooperation in the course of various exhibitions in *Náprstkovo Muzeum* and in Brno (guided tours) dedicated to ancient Egypt: (2007: exhibition Thebes, 2008 exhibition dedicated to the 50th anniversary of The Czech Institute of Egyptology; 2008–2009: exhibition Tutankhamun (Brno); 2011: exhibition Mummy)

Experience in teaching:

2017 (Summer semester; Faculty of Arts, Charles University): lecturing (undergraduate students); topic: “*History of Egypt (First Intermediate Period-Second Intermediate Period: 2150-1550 BC)*“

2014 (Summer semester; Faculty of Arts, Charles University): lecturing (undergraduate students), course in cooperation with Jana Mynářová and Daniel Šichan “*Selected questions of ancient-Egyptian foreign policy*”

Public Engagement

2018 November: lecture in the Museo de Jaén “*Nuevos hallazgos de la tumba QH 35n*”.

2017 November: lecture in the Museo de Jaén “*Trigo para la eternidad*”

2016 April: lecture at University of Pardubice (University for the 3rd Age) “*From the Hut to the Palace: Everyday life in Middle Kingdom Egypt*”

2015 March: lecture at British Museum “*The two pictures of Granaries*”

2015 March: lecture at Petrie Museum, London “*Silos and Granaries: Old Kingdom – Middle Kingdom*”

2013 April: lecture in the Gallery of South Bohemis (České Budějovice): “*Ancient Egyptian Funerary Architecture (OK-end of SIP)*”

2013 March: National Museum of the Czech Republic, lecture „*Life in the Ancient Egypt*“, (lecture was part of the cycle about living and houses in the ancient world)

2013 March: lecture within “the circle for the Early Modern History” (in cooperation with Archive of the Capital City Prague and Faculty of Arts, Charles University): “*A diplomat is a person who can tell you to go to hell in such a way that you actually look forward to the trip.*”
Spanish Diplomacy at the Imperial Court 1608-1617

2011 July: supervisor and instructor in the summer camp organized by The Experimental University (Dana Steinová) (theme *Ancient Egypt, lectures and game activities for seniors and their grandsons in the age from 6 to 12*), Prague

Conferences and Publications

Organized

2017 ***Generous Patrons, Loyal Clients***, an interdisciplinary two-day workshop, Prague, September 2017

Presentations

2017: “*I never deprived any man of his belongings*” *Testimony of some Late Old Kingdom – First Intermediate Period intrusive burials at Qubbet el-Hawa necropolis*, Old Kingdom Art and Archaeology, Milan 2-7 July (main author)

2017: *An Intact Late Sixth Dynasty tomb from Qubbet el-Hawa*, Old Kingdom Art and Archaeology, Milan 2-7 July (co-author)

2017: *A granary scene from a Middle Kingdom coffin from Qubbet el-Hawa*, CECE 8 Lisbon, June 26 – July 1 2017(co-author)

2016: „*Prince’s court is like a common fountain*“, *Middle Kingdom royal patronage in the light of a modern sociological concepts*, *Middle Kingdom Workshop*, Jaén. 2-3 June 2016

2016: *Generous Patrons, Loyal Clients*, *Current Research in Egyptology XVII*, Krakow, 2-7 May 2016 (co-author)

2015 *Curious Routes of Barley and Emmer: The Grain transport in the Middle Kingdom Era*, *Current Research in Egyptology XVI*, Oxford, 15-18 April 2015:

2014 *The Middle Kingdom Society seen through its supply pattern*, *Current Research in Egyptology XV*, London, 9-12 April 2014

2014 *The grain storage in the Old Kingdom*, *Old Kingdom Art and Archaeology*, Warsaw 2-7 July 2014

2014 *Reflection of ceremonial in the diplomatic correspondence of don Baltasar de Zúñiga*, *Ceremonial as a Key to Understand Early Modern Diplomacy* (Prague 14 November 2014)

2014 *Španělská mise Kryštofa Haranta, Kryštof Harant ve světle nových objevů*, Pecka, 20 September 2014

2013 *The Spanish embassy in Prague under don Baltasar de Zúñiga: reconstruction of an embassy at the beginning of 17th century: sources, problems and the possibilities of further research*, *SPLENDID ENCOUNTERS I Premodern diplomats*, Warsaw 20 – 21 September 2013

2013 “*Por tener tantos y tan diversos gastos forçosos...*” *La embajada y sus finanzas (La embajada española en Praga 1608-1617)*, II ENCUESTRO DE JÓVENES INVESTIGADORES EN HISTORIA MODERNA, Madrid, July 1-2 2013

Poster

2017 *Whose grain? The suppliers and supplied between the Old and the Middle Kingdom*,
Current Research in Egyptology XVIII, Naples, 3-6 May 2017

Publications:

To be published

Bardoňová (Forth). Grain Storage in the Old Kingdom. Relation between an object and its image. To be published in Proceedings from Old Kingdom Art and Archaeology 2014, Warsaw.

Bardoňová, M. (Forth.) „Prince’s court is like a common fountain“, Middle Kingdom royal patronage in the light of a modern sociological concepts. To be published in Proceedings from the Middle Kingdom Workshop 2016, Jaén.

Bardoňová, M., E. Montes Moya and A. Jiménez Serrano (Forth.). An Intact Late Sixth-dynasty tomb from Qubbet el Hawa. To be published in Proceedings from Old Kingdom Art and Archaeology 2017, Milan.

Jiménez Serrano, Alejandro *et al.* (forth.). Proyecto Qubbet el-Hawa: trabajos arqueológicos de las tumbas QH32, QH33, QH34, QH35p, QH 35n y QH36. Décima campaña (2018). *Boletín de la Asociación Española de Egiptología* 27.

(author of the entry on tomb QH 35n)

Published

Jiménez Serrano, A. *et al.* (2017). Proyecto Qubbet el-Hawa: trabajos arqueológicos de las tumbas QH32, QH33, QH34aa, QH34bb, QH122, QH35p y QH36. Novena campaña (2017). *Boletín de la Asociación Española de Egiptología* 26, 13-109.

(author of the entry on tomb QH 122)

Bardoňová, M. and Nováková, V. (2017). Generous patrons, loyal clients? Some remarks on patronage of Middle Kingdom elites, in J. M. Chyla, J. Dębowska-Ludwin, K. Rosińska-Balik, and C. Walsh (eds.), *Current research in Egyptology 2016*, 74-90, Oxford.

Bardoňová, M. (2015). The Middle Kingdom Society seen through its supply pattern, in M. S. Pinarello, J. Yoo, J. Lundock, C. Walsh (eds.), *Current Research in Egyptology 2014: Ancient Egypt in a Global World*, 194-208 Oxford.

Bardoňová, M. (2015) Stát a ti druzí. Role velkokapacitních sýpek ve Střední říši, *Pražské egyptologické studie XIII*, 23–30. (State and the others. The role of the Middle-Kingdom large rectangular granaries)

Non-Egyptological papers

Bardoňová M. (2015). Por tener tantos y tan diversos gastos forçosos.... La embajada y sus finanzas (la embajada española en Praga 1608-1617), in Félix Labrador Arroyo (ed.), *II Encuentro de Jóvenes Investigadores en Historia Moderna*, 205-223, Madrid.

Bardoňová M. (2015), Španělská mise Kryštofa Haranta, in *Kryštof Harant ve světle nových objevů*, 23-30, Pecka: Městys Pecka.

Bardoňová M. (2013). Correspondencia diplomática de don Baltasar de Zúñiga y el Enbaxador: práctica e ideal de la época sobre aspectos seleccionados de la función informativo-comunicativa de la diplomacia moderna, *Prague Papers on the History of International Relations 1/2013*, s 28-57.