

A NEW APPROACH TO FIND ORIGIN OF THE WORD *ROBOT*

## A ROBOT SZÓ EREDETE – EGY ÚJ MEGKÖZELÍTÉS

There are many scientists calling robotics for achievement of the modern era. Robotics is a multi-, and interdisciplinary field of the technical and other sciences, based on the newest results of classical-, modern-, and also post-modern control theory. Leaning on tools of modern robotics it is possible enhance manufacturing, improve quality of products. Robots can serve for, and instead of the Man in many dirty-, dull-, and dangerous applications. The goal of the author is to make an attempt to find origin of the word “robot” via historical epochs famous for slavery, free labour, and corvée work.

Sok tudós a modern kor vívmányának tekinti a robotikát. A robotika multi-, és interdisciplinális tudomány, amely a műszaki-, és más tudományágak eredményeire építkezik, felhasználva a klasszikus-, a modern-, illetve a poszt-modern szabályozáselmélet legújabb eredményeit. A modern robotika javítja a gyártás hatékonyságát, és a termék minőségét is. A robot számos piszkos-, unalmas-, és veszélyes feladat végrehajtása során helyettesítheti az embert. A szerző célja, hogy új megközelítésben mutassa be a robot szó születését, és megadja annak etimológiai fejlődését is. A szerző az ősi-, illetve az antik társadalmak fejlődését vizsgálja, különös tekintettel a rabszolgaság, az adós rabszolgaság, a fizetett-, illetve az ingyenmunka kialakulására, és fejlődésére.

## 1. INTRODUCTION

There are many scientific textbooks and articles trying to find origin of the term of *robot* or *robotics*. Common questions are put very often: what is the historical root of those words of *robot* or *robotics* used very often in many languages, or, what language used first the word *robot*?

The answer is often a very schematic one: of course, *our* mother tongue was the first using word robot. There is an informal agreement that the word *robot* first was introduced and used by Karel Čapek<sup>1</sup>.

On the other hand it is recognized by Karel Čapek that the word *robot* is suggested for use by his brother, Jozef Čapek. First widely known use of the term *robot* was in science fiction work of Karel Čapek titled Rossum' Universal Robots (R.U.R), published firstly in 1920. The R.U.R introduces firstly description of robot machines owning human shape and behaviour [1, 2, 3].

After translation of the R.U.R into many foreign languages, its use became international one (Fig.1.). Isaac Asimov, the lawmaker of the 3 Laws of Robotics, himself conceived that “*this writing is awful, but it is undying for a simple word*” [18].

<sup>1</sup> [Malé Svatoňovice](#), Austro-Hungarian Empire 9 Jan 1890 – [Prague](#), Czechoslovakia, 25 Dec 1938.

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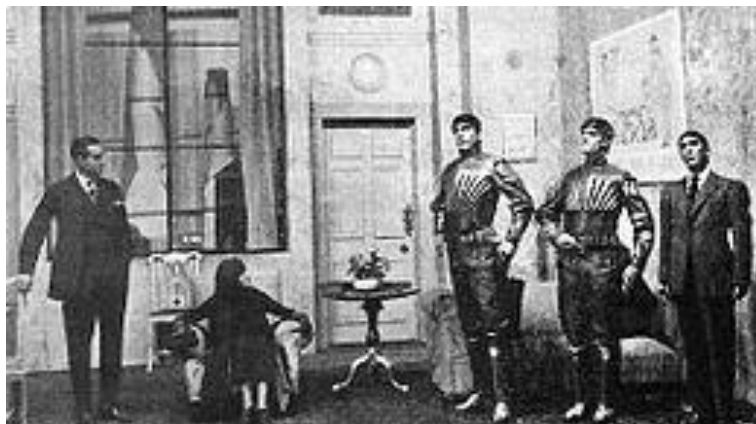
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Fig. 1. The R.U.R on the Stages

There are few of those scientists who tried to answer a question: was it necessary to discover a word *robot*, or it was the existing one in other languages?! In Wikipedia a search for the word “robot” gives following: the origin of the word *robot* is a Czech word *robotá* meaning unpaid, forced labour of the serfdoms executed on the land owned by the Landlord of the manor.

There are some assumptions that the origin of the word *robot* is traced back to the archaic Slavic word *rab*, meaning unfree person [1]. The historical origin links back to the conquering of the Carpathian Basin's ancient Slav residents by the Magyars in 896 (Fig. 2.)



Fig. 2. The Settlement of the Magyars in Hungary.  
(National Gallery, Budapest, Hungary. Painter: Mihály Munkácsy, 1893)

The painting on Fig. 2 represents receiving reverence of the Slavs by the Warlord of the Magyars, named Áprád, represented by offering for the winners soil, grass and fresh water of the Carpathian Basin. There is an arising question how the *rab* was able to work on the lands of the Landlord being confined [16, 17, 19, 21]?! Of course, to answer this question with the modern languages, and with modern meaning of the words, quit difficult. In the Hungarian language word *rab* still stands for the jailed person.

There might be a confusion existing between archaic Slavic words of *robot*, and *robotá*. In general, word *robotá* stands for the paid, uncompulsory labour, against the unpaid, compulsory work called *robot*.

The aim of the author is to highlight some interesting questions of the economy, of the society and, of the evolution of the legal systems allowing understanding main topic of this research. The establishment of the ancient societies, ancient cultures are the simultaneous ones to the appearance of the slavery, and to the debt slavery.

The author puts into the focus the ancient epoch and ancient cultures of Europe, and, the Middle-East. The examined historical era was chosen by the author due to its importance, and in chronological order they are as follows: Empire of Babylonia; Middle-East countries in the era of the Birth of the Holy Bible (Canaan, Judea, Israel, Palestine); the antique Greece; the Roman Empire; feudalistic countries in Europe in the Medieval, focusing mainly on the Hungarian Kingdom [40, 41].

## 2. THE ORIGIN OF THE TERM *ROBOT*

What is the word *robot* stands for, really?! How *robot* is defined in the modern meaning?! The Webster's Dictionary defines as "*technical system or gauge, able to move independently*" [23]. Some others think that the *robot* is an automat able to execute human-, physical-, and theoretical activities [15, 16, 17]. There are many sophisticated, modern definition of the *robot*, and the trend towards to the new systems, and new applications.

Some scholars think that first description of the working machine like humans is in legendary heroic poem of Homer<sup>2</sup>, titled *The Iliad*. Part XVIII of the poem sounds as [24]: "*There were golden handmaids also who worked for him, and were like real young women, with sense and reason, voice also and strength, and all the learning of the immortals*".

Perhaps it was the first description of the robot working for the man?! The original poem was written in archaic Greek language, so its translation to any languages difficult enough not to lose the original meaning and message. Anyway, the great poet Homer discussing about visit of a goodness, Thetis to house of the Thin-leg Hephaestus<sup>3</sup> (Latin: *Vulcan*) whose moving was supported by golden handmaids like young women having abilities as human beings have.

Latter the slavery meant legal status, what is defined in [14], and originally described by Ulpianus<sup>4</sup> in D.50.17.209. regula as follows in Latin: "*Servitutem mortalitati fere comparamus*". In other words, "*Slavery can be considered close to death*".

There are two different points of view: first is about golden made robots, health caring Hephaestus. The second is the ultimate standpoint: better to die than to get into status of slave.

One can put a question what is the significant, and, more realistic of these definitions? The author will travel via historical epochs analysing ancient, antique societies, economy, and legal systems to highlight origins of the debt slaves, and the slavery in general. It is also needs proof: was really the status of slaves as so bad as defined by famous regula of Ulpianus?

## 3. BACK TO THE PAST – THE HISTORICAL ORIGIN OF THE SLAVERY, DEBT SLAVERY, AND LEGAL STATUS OF THE SLAVES

Let us travel virtually via historical era determining till today development of the Mankind. It is difficult to imagine but the legal system of the slavery existed although in Europe till past decades. In 1996 Prime Minister of Ireland on

<sup>2</sup> Greek poet, 8<sup>th</sup> Century BC

<sup>3</sup> the King from Mount Olympus, son of Zeus and Hera. God of [blacksmiths](#), [craftsmen](#), [artisans](#), [sculptors](#), [metals](#), [metallurgy](#), [fire](#) and [volcanoes](#). By the myth he also built [automatons](#) of metal working for him, what is included tripods that walked to and from [Mount Olympus](#).

<sup>4</sup> Ulpianus, Domitius (? – A.D. 223), Roman lawmaker with Phoenician origin.

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behalf of the Republic beg pardon of those citizens sentenced and forced to work for the Catholic Church unpaid in theirs laundries between 1923 and 1996 [38].

### 3.1. THE CODE OF HAMMURABI

Hammurabi (1792 BC – 1750 BC) was the king of Babylonia, founder of the Ancient Babylonian Empire. Conquering the Mesopotamian small city-states, kingdoms, in the 28<sup>th</sup> year of his ruling he founded a new kingdom, called Babylonia (Fig. 3.).

The second year of his ruling called as “Hammurabi the king established a justice, and released a forced labour in his land”.

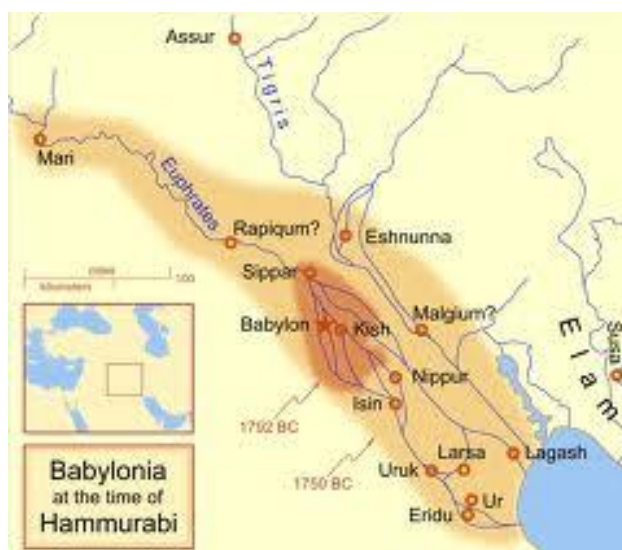


Fig. 3 The Map of the Ancient Babylonia

It is known that three hundred years(?) before Hammurabi's Code of Law there was another existing code of law of the king Ur-Nammu (21<sup>th</sup> Century BC), who was Sumerian king, ruling city of Ur.

A hundred year before Hammurabi the other code of law was established connected to king Lipit-Istar (1875 BC), ruling city of Isin. Theirs code of laws were engraved to stele. There are other lawmakers as Bilalama, king of Eshnunna, and king Sumu-Lailu, the King of Babylonia, establishing systems of norm to regulate relationship of the citizens of theirs kingdoms.

The Code of Hammurabi in fact is a collection of the adjudications of him and is more than a classical code of law. The reason is that only the God could create a law, and the mission of the kings was the “*kittu(m)*”, so as to keep the truth of God in force.

The Code of Hammurabi is written in the 2.25 meter high diorite stele having shape of the finger, and finger nail. The stele was found in 1902 during excavations in city Susa. The Code of Hammurabi consists of a prologue, 282 articles, and finally an epilogue. The last six articles are missing from the code (Fig. 4., Fig.5.).

The Prologue is a laudation to the King Hammurabi, to the Highest, to the lawmaker, who established justice and rights in the kingdom of Babylonia, “the king, obeyed by the four quarters of the world; Beloved of Ninni”.

After a long appreciation the Code says: “When Marduk sent me to rule over men, to give the protection of right to the land, I did right and righteousness in ... and brought about the well-being of the oppressed”.



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The Code of Hammurabi consists of many articles ruling over debt slaves, and common slaves. Some of those famous articles are as follows by [9, 19]:

Article I/7. If any one buy from the son or the slave of another man, without witnesses or a contract, silver or gold, a male or female slave, an ox or a sheep, an ass or anything, or if he take it in charge, he is considered a thief and shall be put to death.”

Article IV/15. If any one take a male or female slave of the court, or a male or female slave of a freed man, outside the city gates, he shall be put to death.

Article IV/16. If any one receive into his house a runaway male or female slave of the court, or of a freedman, and does not bring it out at the public proclamation of the major domus, the master of the house shall be put to death.

Article IV/17. If any one find runaway male or female slave in the open country and bring them to their masters, the master of the slave shall pay him two shekels of silver.

Article IV/18. If the slave will not give the name of the master, the finder shall bring him to the palace; a further investigation must follow, and the slave shall be returned to his master.

Article IV/19. If he holds the slave in his house, and they are caught there, he shall be put to death.

Article IV/20. If the slave that he caught run away from him, then shall he swear to the owners of the slave, and he is free of all blame.



Fig. 4 The Diorite Stele with Code of Hammurabi  
(Photo by R. Szabolcsi. The Louvre, Paris, France, 2011.)



Fig. 5 The Code of Hammurabi  
(Accessed at [http://en.wikipedia.org/wiki/Code\\_of\\_Hammurabi](http://en.wikipedia.org/wiki/Code_of_Hammurabi))

The Code is defining the legal status of the debt slaves. If any have sold his family members, the slaves must serve for three years and in the fourth year they must be released from slavery. The Code is consists of articles about marriage between citizens and slaves, and defines many other relations of actions of slaves, and actions with slaves.

The criminal code and the penalty code of the law of Hammurabi were very easy to learn to it: the rest of the criminal acts, violations, although the simplest were penalized with the strongest sentence to death.

The epilogue of the Code closes with many mercies, such as: „Hammurabi, the king of righteousness, on whom Shamash has conferred right (or law) am I. My words are well considered; my deeds are not equaled; to bring low those that were high; to humble the proud, to expel insolence. If a succeeding ruler considers my words, which I have written in this my inscription, if he do not annul my law, nor corrupt my words, nor change my monument, then may Shamash lengthen that king's reign, as he has that of me, the king of righteousness, that he may reign in righteousness over his subjects”

If any does not hearing to the written norms of the Code, Hammurabi prayed for imprecatories against them as follows: „May Nin-tu, the sublime mistress of the lands, the fruitful mother, deny him a son, vouchsafe him no name, give him no successor among men.”

As a conclusion from those written norms established by Hammurabi one can state that a written law replacing customs created a strong basis for the reliable and stable legal system. The Code helped the citizens to have clear relationships with landlords, with the Church, with Kingdom and the King, and they were able to manage the everyday life leaning on those articles given in the Code. It is evident from the Code that although slaves could own private properties, and contract on them: they could sell or buy goods, having witnesses, or, having written contracts.

Some articles of this Code survived many centuries with no changes in it, and was used in other codifications of written norms, e.g. the Article 196 of the Code of Hammurabi known in the Roman Law as *lex talionis* (An eye for an eye) [9]. The lucidity, the straightness, and the brutality of the Code helped to create norms acceptable for all. Otherwise, if any broke the rule he could count for very strong sentences from the court.

### 3.2. THE HOLY BIBLE AND THE SLAVERY

The first, and the oldest books compiled in the Old Testament is book of king David dated from (1010 BC – 970 BC). The latest books of the New Testament were written in 2<sup>nd</sup> Century AD.

Many verses of the Old Testament disserts about pauperization, debt slaves, and about slavery. The author will highlight some fragments from the Holy Bible interesting from the point of view of this article. If someone due to pauperization lost his land, instruments, and tools used in production of goods he could be sold for debt Slave.

The law of the slaves can be read in 2<sup>nd</sup> book of Moses, in verses 21,1-10. By the sentence of the God, if someone buys a slave, the slave must serve for the new master six years, and in the 7<sup>th</sup> year he must be released with no rewards. Worth to mention that this norm is stricter than it was in the era of Hammurabi [13, 19].

The 3<sup>rd</sup> Book of Moses, in verses 25,35-55 gives norms of caring about poor men. If a Jewish man got poor losing his land tools etc., the surrounding land owners were ordered to give him a paid work. If someone gave money for the poor Jewish, it was forbidden to ask interest for the loan. The reason for it was that Hebrew man was a God's slave and he could not put under power of other man [13].

The 5<sup>th</sup> Book of Moses, in verses 15,1-11 defines conditions for the releasing debt slaves. It was ordered at the 7<sup>th</sup> year to release the Hebrew slave with no loans. After that a man could return to his beloved [13].

The 5<sup>th</sup> Book of Moses, in verses 15,12-16 defines conditions for the release of the slave. He must be given goods to start newly the production. If he did not want to leave the house of the master, after his statement he could stay as slave for ever [13].

The 5<sup>th</sup> Book of Moses, in verses 20,1-20 defines norms for the war, mainly how to deal with the conquered nations. If the sieged city located far surrendered, the residents became taxpayer. If the sieged city located far did not

surrendered, after siege men were killed, women and children were captured for slaves. If a city located near did not surrender, after siege all residents were killed [13].

The slavery of the ancient societies cannot be judge from point of view of modern societies. Many cultures were in full power for many centuries to be felt down and be client for the stronger culture.

### 3.3. THE LEGAL STATUS OF THE SLAVES IN THE ANCIENT GREEK DEMOCRACY

The first Greek constitution was created by the famous mythical founder-king of Athens, Theseus, against whom Minotaur defeated, who was a creature with the head of a bull, and with body of a man. The constitution created an order in the society. The main orders were aristocracy, tillers, masters, and peasantry. The power of the aristocracy was based upon owning the land. It is worth to mention that although peasants could own land. From the 7<sup>th</sup> Century BC the state was ruled by the chief magistrates, representing the aristocracy, called archons<sup>5</sup>.

The landlords granting loans for theirs clients usually get them as debt slaves, due to pauperization of the debtors, and the plebeians. The Demos started to fight against superpower of the aristocracy, for the rights of the demos. They formulated following vindications:

- terminate debt slavery;
- create written laws instead of the custom in legal actions;
- emancipation, and equal rights with aristocracy;
- for all the Polites grant possibility to take part in the city-state common decisions, and government of Athens.

The Demos fights for the equal rights lasted for hundreds of years. At the beginning of the 5<sup>th</sup> Century the democracy was the form of the state.

The famous archon called Dracon<sup>6</sup> in 621 BC created the first written code of laws replacing the unwritten custom. The first written code of laws was famous for its rigour called after its lawmaker *draconian rigour* punishing almost every violations and deeds with final sentence to death [7, 11].

Archon called Solon<sup>7</sup> in 594 BC satisfying the wish of the citizens of the ancient Athens created a new code of law. He terminated the debt slavery, remissioned the debts of the debtors, but the political rights he provided based upon wealth. He was the founder of the timocracy based upon principle that only property owner can take part in the government in which love of honour is the ruling principle [7, 12].

Archon called Cleisthenes<sup>8</sup> in 508 BC finished widening rights of the Athenian Demos and strengthening of the democracy is connected to him [7].

### 3.4. SLAVERY IN THE ROMAN EMPIRE

In Chapter 2 the famous Latin regula of Ulpianus, numbered as D.50.17.209 was discussed as follows: "Servitutem mortalitati fere comparamus", or in English, "Slavery can be considered close to death" [14].

Reading this article from the code of law the reader can imagine a very rigorous Roman Code of law. The person condemned in legal action, e.g. in civil code of law, was forced to satisfy the judgement in one month. If a person missed this deadline he was warned to satisfy the judgement one more time and debtor must take him into the court second time, in front of the Public showing that the condemned missed the satisfaction of the judgement. If the debt remained unpaid by the debtor creditor can take him for the second month. If the debt still remained unpaid the

<sup>5</sup> meaning from the Greek language: ruler, or lord.

<sup>6</sup> Greek politician (7<sup>th</sup> Century BC)

<sup>7</sup> politician, warlord, poet, one of the Seven Greek Philosophers (638 BC– 558 BC).

<sup>8</sup> noble Athenian politician, the Father of the Athenian democracy (570 BC – ?)

condemned person could be sold as slave beyond the River Tiber (Latin: *Tiberis*), or, could be executed on him capital sentence<sup>9</sup>. The *regula* read before disserts about differences between slavery and death.

A question might arise here: what happened to the Roman Code of Law after decline and fall of the Roman Empire in 476 AD?! Was it cleared once for all, or is it survived?! In spite of the rigour of the Roman Code of Law it was used both in Western–, and in Eastern Roman Empires. In the Byzantine Empire the Roman Code of Law was organic part of the legal system till 1453. In the era of the Ottoman Empire when a Turkish yoke was put onto Greece the Roman law was in force and used as local law called *Hexabiblos* law book, established and compiled in years of 1344/1345. Important to mention that the Greek Civil Code of Law established and compiled in 1946 is also involves many norms from the Roman Code of Law [28, 29].

It is evident that after the Decline and fall of the Roman Empire in 476 AD, the Roman Code of Law was in force and was used as written code of norms. In the era of resuscitation (Latin: *receptio*) of the Roman Code of Law more and more state used the Roman Code of Law. The Roman Code of Law was inspired many lawmakers and its *institutiones* were used in codes of law Allgemeines Landrecht, Prussia, 1794; Code Civil, France, 1804; ABGB, Austria, 1811; Codice civile, Italy, 1865; BGB, Germany, 1896 [28, 29].

It is an interesting fact that Roman law although today is in force in South Africa, besides its modern code of law. It is a unique state still keeping Roman law in force in the field of ownership, in survivance, and in privity legal actions [28, 29].

The first written form of the Roman law was the “Law of the Twelve Tables” (Latin: *Leges Duodecim Tabularum*) [8, 10]. The unwritten rules, the custom could change by the time, and its application of the legal procedures was very difficult, and depending on the personality of the judge. In 451 BC the team of lawmakers consisting of ten persons (Latin: *decemviri legibus scribundis*) was nominated to formulate Roman law based upon the Greek traditions and examples [8, 28, 29, 37]. It is fact that there are some articles in the Twelve Tablets in accordance with articles of the written rules of Solon. The philosophers say that there was a visiting team sent to Greece to learn to the Greek code of law.

It is important to mention that in the Roman Empire there was known an unpaid, public work (Latin: *opera publica*) on properties of the public e.g. on roads, on public facilities etc. during building and during reconstruction works, too [26].

### 3.5. SLAVERY IN THE HUNGARIAN KINGDOM IN THE MEDIEVAL

The purpose of this chapter is to summarize historical events from the era of the Hungarian Kingdoms related to slavery. The slavery is well-known from the early years of the Hungarian Kingdom. The first code of law defined and derived theirs social status, theirs rights, theirs obligations, and, sanctions in case of violations. The slavery in the Hungarian Kingdom was not a classical slavery: the slaves could be liberated from slavery and slaves can own properties, although they can serve for the Church. The legal status of the slaves was mainly derived in the laws of famous Hungarian kings, we will deal with.

#### 3.5.1. Slavery in the era of King St Stephan the First

Saint Stephen I<sup>10</sup> ([Hungarian](#): I. Szent István; [Latin](#): Sanctus Stephanus; [Slovak](#): Štefan I. or Štefan Veľký) is the first Hungarian King, the founder of the Hungarian Kingdom (Fig. 6).

<sup>9</sup> Law of the Twelve Tables, Table I, III.1. (Latin: *Leges XII Tabularum*).

<sup>10</sup> 975, Esztergom, Hungary – 1038, Székesfehérvár, Hungary.



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As a ruler Saint Stephen I compiled two books of laws and a book for his son, Duke (Saint) Emeric on moral education of his, titled *Admonitions* (Latin: *De institutione morum*). It is supposed that the First book of law was compiled during life of Saint Stephen, while the Second book of law was compiled in the era of King Andrew I.

The oldest written documents dealing with First book of law of Saint Stephen were found in the Monastery of Admont (Province Steiermark, Austria). From the point of view of the main topic of this article it is worth to stop here for a while and read the book of law focusing attention to legal status of the slavery, debt slaves, and common slaves [4, 6].

The main articles of the First book of law deriving order in the ancient Hungarian society, involving those articles connected to slavery and slaves are as follows [4, 6, 30]:

- Article 14: if someone killed a slave, and if he was a slave too, he must be given to the master of the killed slave. If killer was a freeman he must pay for the killed slave.
- Article 20: the slave cannot accuse anybody in criminal act, and cannot be considered as witness.
- Article 21: if somebody liberate slave of someone else he must pay compensation both for the King and for the owner of the slave.



Fig. 6. King Saint Stephen with the flag and double cross.  
(Accessed at [http://en.wikipedia.org/wiki/Arpad\\_dynasty](http://en.wikipedia.org/wiki/Arpad_dynasty))

- Article 22: for the Military (Latin: *Miles*) and for the governors it was forbidden to put freemen (free citizens) persons into slaves.
- Article 28: it was forbidden for freemen the fornication with slaves. If someone breaks this rule two times his hair was cut, for the third time he was put into slaves, unless he saved himself by payment.
- Article 29: so as to keep honour of the freemen, if a freemen man married for a slave woman with the allowance of her master the freemen man was put into slavery, and he cannot save himself also with payment.

The main articles of the Second book of law deriving order in the ancient Hungarian society, involving those articles connected to slavery and slaves are as follows [4, 6, 31]:

- Article 3: if a slave killed other slave then master of the killer slave must pay half of the price of the killed slave. If he could not pay in 40 days, the killer slave must be sold and the price must be split into two parts and shared between masters.
- Article 4: if a slave killed a freeman, his master could pay for him one hundred oxen, if he wanted to do that. If he did not pay, the slave was given into the court.

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- Article 5: if a freeman wanted to liberate slave of others, he must give the same number of the slave he wanted to liberate. The given slaves were split into two parts: 2/3 of the slaves went to the King, 1/3 went to the master of the liberated slaves. The King shared his slaves with the governor by half of the number of slaves.
- Article 6: if a slave has stolen property of others, for the first his nose was cut, unless he saved himself by payment. For the second time of the robbery his ear was cut, unless he saved himself by payment. If a slave has stolen for the first time he was sentenced to death.
- Article 16: if someone of the slaves put to the service for the Palace or for the fortress by the King, then in legal actions the word of a slave was considered equal for the word of the freemen.

From careful study of history it can be deduced that the early roving of Hungarians in Europe till 955 AD resulted in the capturing prisoners of wars taken into the Palace of the warlords as slaves. The slaves could be sold, changed, although killed having no consequences. The second large part of the slave order in Hungary was the conquered Slav residents of the Carpathian Basin.

Finally, although freemen were threatened by slavery if to pauperize, or marry a slave woman, or if to commit a crime many times. Often a few years of crop failure, a war, or [brigandage](#) committed against peasants might leave them unable to make their own way, and they must to take a loan at barons. If they failed with repayment they could serve as debt slave of the obligee. It was strongly forbidden to liberate slaves. However the King could put them into service although in the Palace with equal rights as governors owned [5, 6, 27, 28, 40, 41].

### 3.5.2. Slavery in the era of King Saint Ladislaus I

King Ladislaus I<sup>11</sup> of the Dynasty of Árpád reigned in the Hungarian Kingdom between 1077 and 1095 (Fig. 7).

As a king he was said to be righteous lawmaker. His main motivation was to prevent private properties of the owners. He was the first Hungarian King able to fight and win a war against Croatia interfering into internal unpleasantness of the nobleness. To the end of this war Dalmatia was in personal union with Hungarian Kingdom till the Mongol Invasion of Hungary in 1241 [4, 6].



<sup>11</sup> Poland, 27 June 1046 – Nyitra, Hungarian Kingdom, 29 July 1095.)

Fig. 7. The golden herma of the King Saint Ladislaus I of Hungary.  
(Accessed at [http://en.wikipedia.org/wiki/Arpad\\_dynasty](http://en.wikipedia.org/wiki/Arpad_dynasty))

After his enthronement he turned to finish with anarchy in the kingdom. Due to development of the economy many freemen were put into slavery. The pauperization of the population has led to a new tendency of massive robbery of goods so as to survive and not to starve. A protest against the established feudal order threatened the basics of the existence of the Hungarian Kingdom, and the lawmaker king Ladislaus I gave adequate code of law [32, 33, 34].

The King Saint Ladislaus I compiled his 3<sup>rd</sup> Book of law (3<sup>rd</sup> Decree) in 1077. The 2<sup>nd</sup> Book of Law was established and compiled after 1077, and it was a Penalty Code of Law [4, 6, 34]. The 1<sup>st</sup> Book of Law was established and compiled at sessions of synod held in city called Szabolcs, 20 May 1092.

The main articles of the 3<sup>rd</sup> Book of Law dealing with slaves, debt slaves, and with slavery in general, are as follows by references [4, 6, 34]:

- Article 4: if a freeman committed a robbery and he run into the Church, he was the slave in the Church providing asylum for him. If the priest liberates the refugee slave, the priest must be slaved and must serve for the Church as slave. The liberated slave must be sold in other country.
- Article 5: if a slave committed a robbery and run to the Church, he must be returned to his master. If the freeman commits robbery and if he runs to the Church, he must serve as slave of the Church. If slave run to the Church his master can take him out by payment. If master not able to take him out he will remain in the Church as slave.
- Article 7: if a virgin female commits robbery she must be sold for slavery, and could never return to freeman. If someone liberates her he must pay its price as fine.
- Article 17: if a robber runs to the Church and he says he is innocent he must be put under trial by combat. If he not an innocent person he must be judged as a freeman.
- Article 21: the reception of the runaway slaves or maids is forbidden. If someone hosts runaway slaves or maids he must pay fine.

The 2<sup>nd</sup> Book of Law of Saint Ladislaus rules many aspects of the problems of strengthening of the respect of the private property as follows [4, 6, 33]:

- Article 2: if a slave committed robbery his nose must be cut, and it could not be saved by paying fine. If he commits robbery second time his head must be cut.
- Article 6: if the judge does not cut the nose of the slave, or a freeman is escaped from the hanging, the judge will lost all of his property and he must be sold to slavery.
- Article 10: if someone surprize a slave during his robbery he must send the slave to the court for trial, otherwise his nose must be cut.
- Article 11: if foreign slaves gather for fights they must be sold.
- Article 12: if some freeman or a slave is surprized at robbery he must be hanged. If robber asks for the asylum in the Church he must be taken from the Church and instead of being hanged he must be blinded. If a freeman committed a robbery and asked asylum in the Church he must be taken from, losing his property, and, all of his children older than 10 year must be sold for slavery.

Regarding articles of the 2<sup>nd</sup> and the 3<sup>rd</sup> Book of Laws of Saint Ladislaus getting into order of slaves was a form of punishment of the criminal acts. The deed and the punishment were not equal. However these norms served very effectively in strengthening respect of the private properties although involving the trial combat. The Article 1/d of the 3<sup>rd</sup> Book of Law says that nobles of the Hungarian Kingdom swear that the robbery cannot remain unpunished; they would not spare and not hide the robber.

## 3.5.3. Slavery in the era of King Coloman I

King Coloman I<sup>12</sup> of the Dynasty of Árpád reigned in the Hungarian Kingdom between 1095 and 1116 (Fig. 8). King Saint Ladislaus I wanted him to succeed as king of Hungary, and wished to make Coloman a bishop. Therefore, Coloman was educated pursuant to the clerical traditions and acquired his subsequently famous learning, which earned him the appellation "*the Book-lover*" [4, 6].

At his time he was one of the most educated rulers of his age. The Polish chronicler, [Gallus Anonymus](#) described him as the king "who was more educated in literary sciences than any of the kings who were living in his age". His royal legislation work reached the pick in the Synod of Tarczal, where the prelates and barons of the Hungarian Kingdom revised the laws of the preceding kings. King Coloman issued new decrees reducing sensitivity of the laws of King Saint Ladislaus I [4, 6, 40, 41].



Fig. 8. King of Hungary Coloman I – The Book-Lover  
(Accessed at [http://en.wikipedia.org/wiki/Arpad\\_dynasty](http://en.wikipedia.org/wiki/Arpad_dynasty))

The 1<sup>st</sup> Book of Law of King Coloman rearranged the norms of the penalty code of book of laws of King Ladislaus I as follows [5, 6, 35]:

- Article 41: if the King grants a slave for someone slave's hair must be cut half-twink.
- Article 41: if someone holds in his house a runaway slave without permission of the King he must pay fine for the master of the slave.
- Article 43: if someone caught a runaway slave, the master of the slave could save him by payment.
- Article 44: if someone caught a runaway slave, keeping him in the master's house, and selling him, both the vendor and the purchaser must pay fine.
- Article 77: it was forbidden to sell Hungarian slaves abroad.

<sup>12</sup> Born 1074 – died 3 Feb 1116. King of Hungary and Croatia. From 1108 his full royal title was: King of Hungary, Slaviconia, Croatia and Dalmatia.

The 2<sup>nd</sup> Book of Law of King Coloman often referred as Decrees of Synod of Esztergom. Articles dealing with slavery, and slaves were as follows by [5, 6, 36]:

- Article 15: it was forbidden to keep a slave of the Church at private houses and lands;
- Article 29: if a slave of the Church became rook his child was a freeman of the Church.
- Article 30: it was forbidden to order a slave for a priest, unless he was liberated by his master.
- Article 67: it defined how share the incomes between the Church and the slaves, if he used own oxes, or used oxes of the Church.
- Article 69. if someone taught slave of someone else for writing and reading, or someone make a priest from the slave with no permission of the master of the slave, the teacher was obliged to buy the slave, and pay extra fine for his action.

The books of law of King Coloman I were more human as laws of the King Saint Ladislaus I. Important to mention that slaves can have private properties, they could serve for the Church, although can could get a priest, after liberating them. They were valuable labour force; therefore he must not kept by others in case of runaway from the master, or landlord: it was forbidden to sell them abroad as slaves.

#### 4. SERFDOM IN THE HUNGARIAN KINGDOM IN THE MEDIEVAL

##### 4.1. THE LEGAL STATUS OF THE SERFS

The term "serf" (Hungarian: *jobbágy*, Latin: *joubagio*, *jobbagio*) had many interpretations in the early Hungarian Kingdom. Those early meaning were as follows: noble, baron, the first, the highest between the freemen at high positions [4, 6, 20, 21, 40, 41].

In the 11<sup>th</sup> Century the word *jobbágy* (English: *serf*) was used for noble freeman serving the King straight in the Palace. From the 13<sup>th</sup> century servants in the King's Palace were called for barons [4, 6, 40, 41].

The etymology of the word *jobbágy* is as follows: originally this word was used to call freeman peasants owning land, but with the obligations to work unpaid for the lord of the manor, and in return serf were entitled to protection, justice and the right to exploit certain fields within the [manor](#) to maintain their own subsistence.

There are some argues that it comes from the intermediate adjectival of the word "jó" (English: *good*) getting "jobb" (English: *better*). Other rivaling hypothesis that the origin of the word "*jobbágy*" can be traced back to Turkish word „*jagbu*”, which was transmitted to the Hungarians by the the Khazars [21].

The royal fortresses mainly served as elements of the defence system of the country. The defenders of the fortresses were knights and military persons (Latin: *Miles*). The personal of the fortress (Hungarian: *várjobbágy*, Latin: *iobaggiones castr*) was recruited from Hungarian freemen, from the freemen of the population found in the Carpathian Basin. In spite of the term *jobbágy* they were freemen and, they were fighting under the flag of the King (Latin: *servientis regis*), or under the flag of the Comes (Hungarian: *ispán*, from the original Slavic word *pan*, *span*, *zsupan*) in the brigades of the county [4, 6, 22, 40, 41].

The social class *serfdom* meant also a peasants working for the landlords, and for the Church the predestinated group of serfs charged with necessity of service as equestrian warrior (Latin: *jobbagiones equites*), the warriors of the Abbey of Tihany, or noble warriors (Latin: *jobbagiones nobiles*).

In the middle of the 14<sup>th</sup> Century there was established a unique social class of the population owning the same rights and obligations, called *serfdom*. The [manor](#) formed the basic unit of feudal society and the [Lord of the Manor](#)



and his serfs were bound legally, economically, and socially. Serfs formed the lowest [social class](#) of feudal society of the Hungarian Kingdom [4, 6, 25, 40, 41].

#### 4.2. DEBT SERVICE OF THE SERFS

The serf was committed to give service for the lord of the manor. The order of the Medieval was the following: a serf "worked for all", a knight or baron "fought for all", and a churchman "prayed for all". Thus, everyone had a place in the society. The serf was the worst fed and paid, however he had his place and, unlike [slaves](#), serf had certain rights in land and property owning, too. The debt service level was changing year by year, and the serfdom was fighting for hundreds of years to fix the debt they might pay for the lord of the manor [4, 6, 21, 25, 40, 41].

In the Hungarian Kingdom in the 12<sup>th</sup> Century the landlords, the fiefs and the serfs, sometimes the cities formulated the debt service in the form of the contracts, warrants, or patents in written form. These actions were known as *conditionarii*. This type of warrant called *urbarium* in Latin language.

In the Hungarian Kingdom the debt service provided for the fiefs by the serfdoms consisted of three elements:

- 1/9 part of the product being produced by the serfs;
- rental fee for the parcel of land serf has cultivated. The fee was paid in money.
- forced and unpaid work on the lord's fields, on his mines, forests and roads (*this type of work was called as 'robot'*)

During reign of the Louis I the Great, who was the most senior member of the Capetain House of Anjou, the Article 6 of the Book of law of his of 1351 ordered to collect the 1/9 part of the products for the landlords, otherwise it was collected on behalf and for the King. It meant that it was impossible to avoid tax paying.

As monetary system was strengthened in Hungary in the 14<sup>th</sup> Century the general rule was to pay rental for the land cultivated by serfs in money (Latin: *terragium, census*).

The serfs were forced to work unpaid on the fiefs manor depending on the parcel they cultivated. The average territory of the serf parcel was cca. (20-30) acres. The unpaid, forced work (*robot*) was derived in (15-20) working days per a serfs' parcel, and per a year [4, 6, 21].

There were many revolts, wars against taxes paid by the serfs. In Hungary, after the Dózsa rebellion of peasants in 1514 there was established an act about the unpaid work of the serfs (Hungarian: *robot*) calling it for the *servitium ordinarium* (English: normal, common service). The Law of the year of 1514 redefines the debt service of the serfs and defining 52 working day as unpaid work to be executed on the lord's fields. Every week a day must be spent and worked on the fiefs' land. There was established the forth additional item in the debt service: serf must give the gift for the landlord [4, 6].

In the Hungarian Kingdom the forced, unpaid work (*robot*) of the peasants executed for their fiefs, landlords for the rental fees of lands is known from the early years of the Kingdom, starting in 1000 with enthronization of the King Stephen I. It means that since that time the word *robot* was known and used in the Hungarian language.

After conquest of the Carpathian Basin by the Magyars the Slav nations living in the basin were put into slavery providing labour force for the production mainly in the agriculture. The slavery was ceased, and was replaced by serfdom. The social, economical, and political status of the serfs were formed for hundreds of years. In Hungary the debt services persisted till the emancipation from serfdom held in 11 April 1848, till this year serfs were forced to work unpaid for the fiefs and landlords [4, 6, 21, 25, 40, 41].

## 5. "MALENKIJ ROBOT" – THE MODERN UNPAID AND FORCED LABOUR AFTER WWII

The term from the Russian language „маленькая работа” (English: *small/few work*; Hungarian: *kis munka*) came to use in the Hungarian language after the World War II. In Hungarian language it means forced, unpaid work, executed mainly in very difficult circumstances, for example in Siberia. There was in force a Red Army Order Number 0060 dated from 22 December 1944 to gather the population both men and women, although youth from occupied countries and send them to Soviet Union to support rebuilding and reconstruction works [39, 40, 41]. It is said that approximately 130 thousands of Hungarians were transported to Soviet Union by this military order.

By the legend the Soviet soldiers tried to whist Hungarian people that they will serve only for a while, and there is a small work to do in the Soviet Union (Russian: *маленькая работа*). There are thousands of those souls taken for the *malenkij robot* to Soviet Union had never returned back to the Mother Land, they died in the Soviet Union. The survivors of this *small work* returned to Hungary in the middle of 50's.

What is interesting here is that inspite of the meaning of the original Russian word *маленькая работа*, Hungarian language received this Russian word as *robot*, because feature of theirs work executed in the Soviet Union was a penal servitude rather than the free and paid work called in Russian language as *работа* [39, 40, 41].

## 6. CLOSING REMARKS

The author made an attempt to find origins of the term *robot*, starting with ancient societies and cultures prospering thousands of years before modern era. After finding roots of the establishment of the slavery, the Hungarian Kingdom's first lawmaker-kings were put into focus of attention.

It was derived, that already in the early centuries of the existence of the Hungarian Kingdom the term *robot* was known and used in the Hungarian language for deriving debt services of the slaves.

Inspite of many disputed accuracies in the etymology of the term *robot* one can say that the origin of the term *robot* can be traced back to the archaic Slavic term *rab*, meaning *unfree* person. The unpaid, forced work of the Slavs, latter the work of the serfs was called for *robot* and the term was used also in the Hungarian language.

Worth to make difference between Slavic languages: the Slovak, the Czech and the Polish languages use this word for the same meaning of forced, unpaid labour, whilst the Russian worf *работа* means paid, free labour. In the modern Hungarian language term *robot* is still used for exhausting and long-lasting work, and still popular to use it.

It is easy to see that statement of Isaac Asimov, that the first use of the word *robot* for the automata made Karel Čapek's name immortal. Starting with the first automata of the ancient beginnings from 1<sup>st</sup> Century AD by Heron of Alexandria, till present day many languages use this term prosaically. Understanding importance of the science fiction work of Karel Čapek the programming language of the Fanuc robots was named after the famous Czech writer as Karel.

*Keywords: Corvée, serfdom, slave, slavery, robot.*

*Kulcsszavak: Ingenymunka, jobbágy, szolga, szolgaság, robot.*

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