

Mechanical Engineering in Ancient Egypt, Part 108: Civilization Rights II (Rights 1 to 9)

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Abstract:

This is the 108 paper in a series of research papers exploring the history of mechanical engineering during the Ancient Egyptian era. The paper investigates a new archaeological subject called ‘civilization rights’ aiming at preserving ancient civilizations anywhere specially the ancient Egyptian civilization. The paper investigates nine ‘civilization rights’: stopping tomb robbery, stopping antiquities smuggling, antiquities dedication by high officials, education and edification of archaeological guards, drying up sources of illegal weapons, dismantling all antiquities theft gangs, establishment of a special heritage court, stopping unfair excavation contracts and stopping attack on existing Egyptian monuments.

Keywords — Mechanical engineering history, Ancient Egypt, ancient Egyptian civilization, civilization rights.

I. INTRODUCTION

There are two important expressions associated with the life of the human being on our earth. The first expression is an old one emerged during the 17th and 18th centuries known as ‘civil and political rights’ (first generation of human rights) [1] followed by two generations of the ‘human rights’ [2]. Because of the importance of the ‘human rights’ aspects specialized ‘human rights institutes’ were established such as: ‘Cairo Institute for Human Rights’ founded in 1993 [3], ‘Institute for Human Rights’, University of Alabama at Birmingham founded in 2014 [4], ‘Arab Institute for Human Rights’ founded in 1989 [5], ‘German Institute for Human Rights’ founded in 2001 [6], ‘The International Institute of Humanitarian Law’ in Italy founded in 1970 [7] and ‘The Urban Morga Institute for Human Rights’ in USA founded in 1979 [8].

On the other hand the second expression is new one called ‘Civilization Rights’ introduced by Dr. Ahmed Rashed, Architecture Professor in the British University at Cairo (BUC) and followed by a ‘Civilization Rights Institute (CRI)’ located in Virginia of USA founded in 27th July 2022 [9] to be the first institute handling the subject of ‘civilization rights’. The mission of the CRI is to promote the cultural and civilization heritage of all

nations and communities worldwide by raising awareness, conducting research, providing education and advocating the rights of civilization [10]. The CRI announced in 2022 a ‘Universal Declaration of Civilization Rights’ introducing eight articles about the materials rights and the origins of things contributed to shape today's and future knowledge and wisdom [10]. The document of the CRI regarding its universal declaration introduced its eight articles by an important statement saying: ‘the culture heritage that forms an integer part of their identity, history and civilization is a fundamental human right recognized by the Universal Declaration of Human Rights’ [11]. This statement clarified the link between ‘human rights’ and ‘civilization rights’ and gives a reason for surveying some of the publications concerned with ‘human rights’.

The Joint Committee on Human Rights (2007) in its 9th report of session 2006-7 investigated the meaning of public authority under the human rights act, creating a human rights culture, scheduling public authorities and clarifying the meaning of functions of a public nature [17]. Mendrok (2010) in his thesis about human rights and states investigated whether Somalia as a failed state has capacity to protect human rights. His research covered the definition and history of human rights, the concept of state capacity, and Somalia's

capacity human rights in Somalia [18]. The Office of the High Commissioner of the United Nations (2011) in a report about human rights in armed conflict studied the international human rights law and humanitarian law in armed conflict territory, applicability and limitations of the international human rights law and international humanitarian law (IHRLIHL), state and individuals responsibility for the IHRLIHL and the application of the IHRLIHL by the United Nations [19]. Tushnet (2015) outlined that there are three types of rights: civil rights, political rights and social rights. He studied the limitations and expansion of the domain of civil rights, Late 20th century understanding and 21st century issues [20].

Schmidt (2016) outlined that the difference between civil rights and civil liberties and explained how the differentiation between them arose and considered its consequences. He constructed the largely forgotten history of the origins of the civil rights-civil liberties divide and identified the ways in which labelling and categorizing the legal landscape can advance [21]. Alvano (2019/2020) in his master thesis defined the human rights defenders. He investigated the Iranian human rights defenders in exile, positive effects and challenges due to work in exile and supporting the creation of an activist network [22]. De Mesquite, Kapilashrami and Meier (2020) in their report about human rights dimensions of the COVID-19 pandemic investigated some important aspects such as: protection of human rights under international law and human rights impacts arising from COVID-19 [23].

Kasembeli (2021) investigated the universal applicability of human rights and the argument about equality of all human beings. He concluded that democratization led to the rise in courageous individuals not afraid to confront their governments and demand equal rights for civilians [24]. Steiner (2022) pointed out that human rights are under increasing attack in many regions across the globe and some of the worst human rights violations occur during violent conflicts. He also stated that access to a clean healthy and sustainable environment is a universal human right. Besides, he said that starting from 2022, 10 December will be a human rights day [25]. Loft (2023) in his report

about Commonwealth and human rights discussed the issues: democracy, women and girls, freedom of religion, tools to monitor and intervene and establishing institutions [26]. Hassaan (2023) started a series of research papers about civilization rights. In his first paper, he discussed civilization documentation, civilization ingratitude through monuments transfer, tomb robbery and antiquity smuggling [27].

II. CIVILIZATION RIGHTS

This expression is new in the globe of human civilizations and heritage. It was introduced by Prof. Ahmed Yahia Rashed, the Egyptian Professor of Architecture engineering in the British University at Egypt [28]. According to personal communications with Professor A. Rashed he summarized this subject as: ‘principles of civilization rights emphasize the rights inherent to all countries, nations, and communities in protecting their civilization (ancient and modern) and claim these rights from any entity that generates material profit from it in any form’ [29]. Here, I open the objectives of human rights to fifteen activities aiming at preserving the civilization of any nation (specially the Egyptian civilization). The rights of the civilization, from point of view of the author are as follows:

1. Stop tomb robbery

- This is the first step in preserving our civilization and representing its first right.
- Tomb robberies destroy our history, culture and civilization.
- If we are serious and keen to preserve our civilization, this crime has to stop immediately. Doing this is not a great problem if people in power love really Egypt. Some of the procedures that may be used to fight tomb robbery are:
 - Transfer all the residential houses away from the archaeological sites.
 - Build armed walls around all the archaeological sites.
 - Use ‘Unmanned Aerial Vehicles (UAV)’ to observe the archaeological sites 24 hours a day.

- Providing archaeological sites with guard stations that receive signals from the UAV's and send armed helicopters to attack tomb robbers.
- Using well paid heavy armed guards to protect the archaeological sites and prevent any tomb robbery.
- The crime of tomb robbery was discussed in detailed by the author in part number 107 of this series about mechanical engineering in ancient Egypt [27].

2. Stop antiquities smuggling

- This is the second step in preserving our civilization and representing its second right.
- Antiquities smuggling means *'illegal transportation of ancient objects or artefacts across national or international borders in violation of applicable laws or regulations'* [30].
- Unfortunately, this happens in Egypt and other countries having old civilizations for purpose of trading and having the antiquities of those countries in the foreign museums for display and making money.
- Criminal gangs specialized in antiquity smuggling work inside Egypt and outside with cooperation of transition stations in Dubai, Italy and other countries.
- If we are serious and keen to preserve our civilization, this crime has to stop immediately.
- Dr. Hussein Duqeil presented seven valuable proposals to stop the smuggling of Egyptian antiquities abroad [31].

3. Stop antiquities dedication

- Why this right?.
- Did former *'Egyptian Officials'* dedicate Egypt's antiquities to foreigners?. Here are some facts [31]:
 - In 1828, Mohammed Ali Pasha, Ruler of Egypt, offered King Charles V of France the obelisk of Ramses II as a gift.
 - In 1960's Gamal AbdelNasser, President of Egypt, gave five ancient Egyptian temples to countries and official bodies.

- In 1971-1975 Anwar El-Sadat, President of Egypt gave more than 100 artefacts to some world leaders including Shah of Iran in 1971, Henry Kissinger in 1973 and French President Giscard in 1975.
- This farce has to stop if the rulers of Egypt love its civilization and like to preserve its heritage for actual development of the poor Egyptians.

4. Educate and edify archaeological guards

- This is an important *'civilization right'*. Why?:
 - Without *'education'*, the guards will not read available information about the Egyptian civilization and its antiquities.
 - Because of ignorance it will be easy for them to allow tomb raiders to get to the tombs and temples and steal our history.
 - Without *'edification'* the guards will lose the feeling and love towards the heritage hidden inside the tombs and the desire to protect it to the last drop of their blood.
 - By *'education'* and *'edification'* both, the guards can easily resist any temptations to allow the *'tomb robbers'* to get in.
- This is not a difficult objective to achieve. With reasonable pay, undergraduate and postgraduate degrees holders will apply for the *'archaeological sites guarding'*.

5. Drying up sources of illegal weapons

- Tomb robbers in Egypt are armed with sophisticated weapons while the site guards are armed with light weapons [32].
- This *'civilization right'* means that to preserve our civilization we have to stop this futility and dry all the sources of the illegal weapons in the hands of the robbers and their guards. This right can be activated in a specific archaeological site through:
 - Taking all modern houses and tombs outside the site.
 - Surrounding the whole site with high walls with strong steel locked gates.
 - Designing a monitoring system using digital cameras feeding their output a central computer in a control room.

- Upon recording any suspicious activity of specific characteristics, unmanned armed vehicle moves automatically to the suspicious location, makes close-up video photography and if gets order shoots the tomb robbers.
- All illegal weapons that enter the archaeological site have to be confiscated and their owners have to be prosecuted.
- This procedure is sufficient to stop all activities of tomb robbery completely.

6. Dismantling the antiquities theft gangs

- This civilization right is essential to fight all antiquities theft gangs between tomb robbers and smuggling gangs. Features of some of those gangs:
 - The gang size may reach 11 members (an 11 members gang was arrested by the Egyptian Police in September 2018) [33].
 - Smuggling gangs may reach 12 members (one gang encountered 11 Egyptians and one American charged on 6th November 2022 by the Cairo Court of Appeal) [34].
 - Excavation gangs may house up to 17 members (in a 2021 gang, a former MP was within a 17 members excavation gang arrested in June 2021) [35].
 - Unfortunately Egyptian business individuals may participate in financing the illegal excavation of antiquities [36].
- These facts about Egyptian antiquities gangs clarify the need to dismantle those gangs at all the levels independent of the rank and power of their members. Doing this, we proof to ourselves that we appreciate and love our civilization and preserve it from the futility of their enemies.

7. Establishment of a special heritage court

- The crime of antiquities excavation, sale and smuggling is huge.
- Local courts couldn't stop those crimes and preserve our heritage.
- A 'special international heritage court' may be a good solution.

- All violation of the heritage protecting laws will be reported to this court anywhere in the world.
- It will have the right to transfer the heritage criminals to its location and charge them with well prepared strict laws.
- This is will be suitable for the multi-national smuggling gangs and cleans the societies from the evil of those criminals.
- All states having ancient antiquities have to accept and participate as a member in the 'declaration of the 'international heritage court' and handle the members of the antiquities excavation and smuggling gangs to the court.

8. Stop unfair excavation contracts

- Egypt adopted a law preventing any excavation practices outside scientific missions [37].
- The law states that 'all discovered antiquities found by foreign and Egyptian scientific missions shall be the property of the state [37].
- In 'law number 91 of 2018 'it stated in Article 31 that the 'Ministry of Defence' has the final word in allowing foreign missions to excavate for antiquities [31].
- In 1874, a regulation was issued allowing the system of dividing the discovered antiquities between the discovering mission and the Egypt (50 % each) [31].
- The law number 117 of 1983 was amended in 2010 to cancel the 10 % granted to the foreign excavation missions [38].
- An example of what happens with foreign excavation missions is the discovery of 'Architect Kha' tomb in 1906 [39]:
 - 'Kha' was the 'Overseer of Works' in Deir el-Medina who constructed the Royal tombs during the reign of Pharaohs 'Amenhotep II', 'Thutmose IV' and 'Amenhotep III' of the 18th Dynasty [39].
 - In 1906 excavations conducted by Ernesb Schraparell on behalf of the Italian Archaeological Mission.
 - Kha's tomb contained 500 items.
 - Kha's tomb was considered the most complete non-royal one found in Egypt.

- Kha's sarcophagus contained a two nested coffins in human shape, the innermost of them was entirely gilded as shown in Fig. [40]



Fig.1, Coffin of Architect Kha from the 18th Dynasty [40].

- Following the discovery, the 'Director of the Antiquities Service (Gaston Maspero)' awarded the majority of the contents of Kha's tomb to the excavators!!!! where they were housed in the Egyptian Museum in Turin, Italy [39].
 - Egypt retained only a number of small items (loaves of bread, 3 blocks of salt, 19 pottery vases out of the 500 wonderful items)!! [41].
 - Some of the items in Kha's tomb were Royal ones given to Kha as gifts and awards from Amenhotep II (7th Pharaoh of the 18th Dynasty, 1425-1398 BC), Amenhotep III (9th Pharaoh, 1388-1350 BC) [39].
 - Within months of arriving to Italy, the change in humanity affected the leather seats of the stools and the 'Book of Dead' rendering them to fragile and cracked [39]. This is a clear example on the crime of taking the Egyptian antiquities outside Egypt. It's a crime way of destructing the Egyptian heritage. Because of this I say to all the honest and lover of the Egyptian civilization: *'please return the ancient Egyptian antiquities back to Egypt, to their original locations to preserve them to be safe and satisfy their sustainability as a design feature of the ancient Egyptian antiquities'*.
- 9. Stop attack of fool Egyptians and foreigners on existing Egyptian monuments**
- This is the 9th 'civilization right' proposed to preserve the great ancient Egyptian civilization. Here are some of the sad examples of this attack over centuries:
 - In 1303 AC a huge earthquake attacked the Great Pyramid at Giza where many of the outer casing stones were loosened [42].
 - The Egyptian authorities at that time didn't take any action restore the pyramid's outer casing where all the stones were in place.
 - Instead, Sultan Nasir-adDin al-Hassan (ruled Egypt during the period: 1355-1361 AC) decided in 1356 to use the pyramid's casing stones in building mosques and fortress [42].
 - In Early 19th century, Mohammed Ali Pasha, ruler of Egypt removed plenty of the Great Pyramid casing stones and used them in building his 'Alabaster mosque' [42].
 - Later, the British archaeological missions excavated around the Great Pyramid and found original casing stones in the rubble around the pyramid. Fig.2 shown one of those stones in display in the British Museum [42] which is the first example.



Fig.2, Casing stone from the Great Pyramid at Giza in display in the British Museum [42].

- The second example is the 'Rosetta Stone' discovered in 1799 by 'Napoleon's expedition to Egypt'. In 1802 it was presented to the British Museum by the 'British Officials' where it still the most visited exhibit as Nevene El-Aref of the English Ahram reported in 19 October 2022 [43]. Fig.3 shows the image of the 'Rosetta Stone' as displayed in the British museum [43].

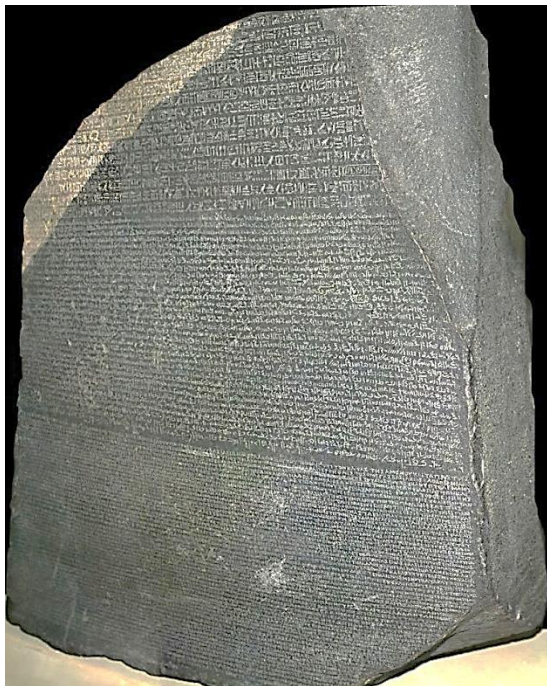


Fig.3, Rosetta stone in display in the British Museum [43].

- Both French and British missions were colonization missions of Egypt. One of

them discovered the 'Rosetta stone' and the other took it home and didn't leave it to Egypt, its original home.

- The third example is a dirty assault of French antiquity dealers on the 'Hathor Temple of Dendera' housing a unique relief on its ceiling which was a 'circular zodiac' characterized as the 'only complete map of an ancient sky' [44], [45].
- In 1821 Saulneir (French antique dealer) led an attack on Dendera Temple through another criminal French (Claude Leleurrain) to remove the 'zodiac ceiling' using simple mechanical tools and moved to Paris where it was installed by Louis XVIII in the Royal Library where it was moved again in 1922 to the Louvre Museum [45]. Its image as displayed in the Louvre Museum is shown in Fig.4 [46].



Fig.4, Zodiac ceiling in display in the Louvre Museum [46].

- The Egyptians of that time were so weak to protect their antiquities against robbery and transfer outside Egypt to France or UK.
- The fourth example is a casing stone from the Great Pyramid of Giza owned now by the National Museum of Scotland in

Edinburgh since 1872 and set in display in the museum on 8 February 2019 and shown in Fig.5 [47]. No information about its looting and smuggling history because of the careless attitude of the Egyptians in following their antiquities outside Egypt.



Fig.5, Casing stone from the Great Pyramid of Giza in display in the National Museum of Scotland [47].

- The fifth example is a 1.15 m height red granite fragment belonging to King Khufu of the 4th Dynasty (2551-2528 BC) obtained by the British Museum in 1891 (during the British colonization of Egypt during the 19th/20th centuries), now in display by the British Museum and shown in Fig.6 [48].



Fig.6, Fragment of King Khufu name in display in the British Museum [48].

- This is a Royal artefact cut may be from a temple and smuggled outside Egypt. The Egyptians left this piece 133 years without claim to return it back to its original position and prevent looting and

smuggling it again if they really love their civilization.

- The sixth example is an inscribed 90 mm height limestone fragment from the shrine of a Royal Woman within the temple of Mentuhotep II (5th King of the 11th Dynasty, 2061-2010 BC). It was given as a gift from the 'Egypt Exploration Fund' in 1907 to the Metropolitan Museum of Art which is displayed by the Museum and shown in Fig.7 [49].



Fig.7, Limestone fragment from the 11th Dynasty in display in the Metropolitan Museum of Art [49].

- This piece has Royal characteristics and if it was found by excavation missions it has to return back to its original position in the temple. But they didn't and instead they moved it straight forward to their museum. This clarifies the objective of this 'civilization right'. Return back the ancient Egyptian antiquities to their original archaeological position.
- The seventh example is a 0.98 m width limestone coloured panel for King Mentuhotep II of the 11th Dynasty and Goddess Hathor extracted from his temple at Deir el-Bahri by the Egypt Exploration Fund excavations (of the USA), 1907. This unique Royal panel was given to the Metropolitan Museum as a gift in the same excavation year. The panel is shown in Fig.8 [50]. The image depicts a wonderful Royal piece of art transferred from Egypt 117 years ago and didn't find Egyptian antiquities authorities claiming its return to its original location in Thebes.

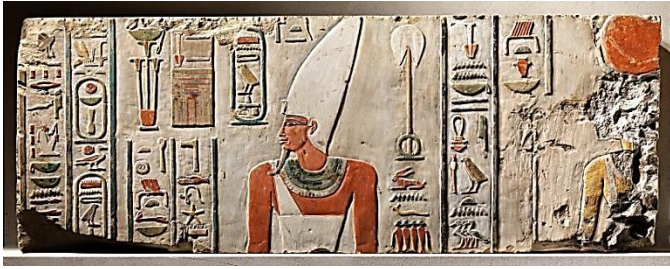


Fig.8, Limestone panel for King Mentuhotep II of the 11th Dynasty in display in the Metropolitan Museum of Art [50].

III. CONCLUSIONS

- The paper presented nine 'civilization rights' suggested to preserve the Great civilization of ancient Egypt.
- The first civilization right was about tomb robbery and suggested definite suggestions to stop this crime against the Egyptian civilization antiquities.
- The second civilization right was about antiquities smuggling outside Egypt to stop this crime against the Egyptian civilization.
- The third civilization right was about antiquities dedication by high officials from 1828 to 1975 and the need to stop this bad habit of the Egyptian rulers for sake of the preservation of the Egyptian civilization
- The fourth civilization right was about the need to educate and edify archaeological guards and presented specific suggestions to increase the efficiency of the guarding process of the archaeological sites.
- The fifth civilization right was about drying up sources of illegal weapons in the Egyptian society and presented specific suggestions to achieve this purpose and stop tomb robbery protected by heavy weapons.
- The sixth civilization right was about dismantling all the antiquities theft gangs inside Egypt. Statistical analysis of theft gangs was presented for the period between 2018 and 2022 and some of the low and high rank officials involved in this crime.
- The seventh civilization right investigated a suggestion about the establishment of a special heritage court and how it can be

used to preserve the human civilizations everywhere.

- The eighth civilization right was about the need to stop unfair excavation contracts and how bad regulations regarding the Egyptian antiquities started in 1874 through 1983 providing certain percentage of excavated antiquities to be offered to the foreign excavation missions. The paper presented what happened with the discovery of the tomb of Architect Kha from the 18th Dynasty.
- The ninth civilization right was about the need to stop attack of Egyptians and foreigners on existing Egyptian monuments since 1303 AC to 1907 with examples on this attack for antiquities still in display in a number of world museums.

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DEDICATION



Ahmed Yahia Rashed

I dedicate this work to Professor Ahmed Yahia Rashed, Professor of Architecture Engineering, founder of Farouk Elbaz Centre for Sustainability and Future Studies in the British University in Egypt, president of the Institute of the Civilization Rights in Virginia, USA and the PI of the National Initiative Civilization Rights to build Civilization (the initiative of 'Civilizology Science').

This dedication is for his sincere and hard work to remind the national and international community with the great Egyptian civilization he loved and facing troubles to preserve it.

BIOGRAPHY



Galal Ali Hassaan

- Emeritus Professor of System Dynamics and Automatic Control.
- Has got his B.Sc. and M.Sc. from Cairo University in 1970 and 1974.
- Has got his Ph.D. in 1979 from Bradford University, UK under the supervision of Late Prof. John Parnaby.
- Now with the Faculty of Engineering, Cairo University, EGYPT.
- Research on Automatic Control, Mechanical Vibrations, Mechanism Synthesis and History of Mechanical Engineering.
- Published more than 300 research papers in international journals and conferences.
- Author of books on Experimental Systems Control, Experimental Vibrations and Evolution of Mechanical Engineering.
- Chief Justice of the International Journal of Computer Techniques.
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