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Management and Quality Management Principles in Ancient Greece and their Reflection Today

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Abstract

The work of ancient Greek philosophers is, to say the least, timeless, multifarious and continues to be cited all over the world. Among all issues they highlighted the significance of management and the way in which the State as well as private affairs were organized. This proves that the prevailing view arguing that Management Science is the result of the industrial revolution and especially in Anglo-Saxon countries is not consistent with reality.

In ancient Greece the structure of city-states has proven that an effective management function had been established, and by extension its application to all aspects of public life as well. Xenophon is considered by many the father of Management Science. The Oeconomicus by Xenophon refers to the art of household management, while the definition of management is introduced as well. The Nicomachean Ethics by Aristotle is widely considered a classical work which could be taught today in the Faculties of Management and Economics and particularly emphasizes on ethics, leadership and education. Aristotle laid the foundations of the scientific method and introduced the definition of Science.

Through the Socratic method (maieutics), Socrates is considered the philosopher who established the concept of guidance, and regards management as a special skill, distinct from experience and knowledge. Plato referred to leadership and general culture as well as issues of ethics.

Many political and military leaders (such as Cleisthenes, Miltiades, Thucydides, Solon and many others) engaged in state affairs management or took the lead in the military sector.

The aim of the proposal under evaluation is to present the classical theories and the way they are incorporated into the modern management of both public and private sector in the era of globalization, multi-culturalism, diversity, electronic government and digital transformation.

The proposal under evaluation has adopted the qualitative research method and specifically the tool of literature review. The aim is the holistic approach and analysis of the subject under research. Through the survey of literature, the researchers wish to present the timeless views on Management Science, as well as form new and modern ideas. For this reason, secondary publications relevant to the subject have been selected, such as the works of ancient Greek philosophers, studies, articles, reports, electronic books, texts from websites, etc.

The conclusions of the proposal under evaluation are particularly significant and, whatever their utilization may be, can substantially contribute to the upgrading of Management Science in Greece. Ideally, these classical works could be taught in University Faculties at both undergraduate and postgraduate level.

JEL Classifications: M00, N01

Key words: Quality Management, Administrative Science, Ethics, Management, Education

At the end of the century there will be two kinds of businesses. Those that apply Total Quality Systems and those that will no longer exist in the business world.

E. Deming

1. Introduction

It is widely argued that the development of Management Science (and by extension of management) is the result of the industrial revolution. It is typical that in many writings of Anglo-Saxon countries the references to the development of Management Science begin to exist since the period of the 1st Industrial Revolution. In the most well-known writings, it is shown that management appears in the 20th century as a result of the Industrial Revolution. Taylor is considered to be the father of management. He referred to scientific management in 1911. Taylor studied the “industrial management”. Weber engaged in bureaucracy and the ideal type of organization through the bureaucratic management. Frank and Lillian Gilbreth studied the mobility of employees and many work-related issues. Fayol presented the 14

principles of management, while Mayo studied employee efficiency in Western Electric Co enterprise. Maslow presented the pyramid of needs and dealt with human resource management as well. Respective theories were developed by Mintzberg, Ford and other theorists of business management. E. Deming is considered by many the father of quality management. Management (Business Management) is one of the most popular specializations all over the world, while there is an ever-increasing need for competent managers (Schermerhorn & Bachrach, 2018).

However, researchers argue that automatization as well as the first inventions are the result of Ancient Greeks' efforts to improve the quality of their life. In the documentary entitled "Ancient Greek technology: From God to human" (2021)¹, it is argued that if the social changes of the first AD centuries had not been effected, the industrial revolution would have already appeared in the known world of that time".

Aristotle and Xenophon belong to the first philosophers (if not the very first ones) who systematically engaged in management, leadership, economy and ethics. The first references to quality control were also recorded (on inscribed columns) in Ancient Greece. The aim of this paper is to explore and present the classical works that relate to management and quality management in Ancient Greece and the reflection of these theories in modern reality. The classical authors highlighted the significance of management and the way in which the State as well as private affairs were organized.

The conclusions are particularly significant and their utilization can substantially contribute to the upgrading of Management Science in Greece. Ideally, these classical works could be taught in University Faculties at both undergraduate and postgraduate level.

2. Conceptual Definitions

A short presentation of the definitions of the main concepts to be dealt with in this proposal is attempted to better understand the issues involved.

This proposal is based on administrative history which deals with the origin and evolution of administrative institutions as well as practices. Administrative history studies among other issues the processes of management science and its evolution. It is the history of institutions and refers to all administrative functions (Triantafyllopoulou & Kostis, 2015).

¹ Documentary (2021). «Αρχαία ελληνική τεχνολογία: Από τον Θεό στον άνθρωπο» ("Ancient Greek technology: From God to human"). Retrieved from <https://www.youtube.com/watch?v=rktzFnmvZt8>. Accessed April 14, 2021

The study aspires to describe the references to management science in Ancient Greece. “Management science constitutes a structured approach which focuses on business decision-making. Moreover, it is based on specific scientific methods and uses the quantitative analysis to a great extent ... Except for the term management science, two widely-used terms are operations research and decisions science. The afore-mentioned terms are very often used to describe the same subject. The use of quantitative methods in business organization and management has its origins on the revolution of scientific management, which emerged in the early 20th century and was based on Taylor’s work” (Anderson et al., 2014, p. 24).

Mondy and Martocchio (2018) define Human Resource Management as “the use of the individuals for the achievement of organizational goals” (p. 3). Human Resource Management refers to all executives irrespective of the hierarchical level they are at.

“The term Total Quality Management (TQM) denotes the emphasis placed by a business as a whole on quality, from the relationships with clients to the suppliers. In this approach there are three basic principles: a) the perpetual effort for improvement (continuous improvement), b) the involvement of all employees, c) the main goal is client satisfaction. The aim of TQM systems is the prevention of bad quality in every aspect of the business/ organization” (Adamidis, 2016, p. 209).

On the website of Harokopio University the definition of Home Economics is mentioned as it was presented by the International Federation for Home Economics in Sligo, Ireland in 1972. More specifically, it is stated that “Home Economics is the science that utilizes, develops and organizes human skills and material goods for the present and future welfare of individuals, families, communities and social institutions. To this end, studies and research are done in sciences and arts that refer to all the fields and interactions of family life with the natural, economic and social environment of humans” (Harokopio University, n.d.).²

3. Research methodology

The research adopted the qualitative method and specifically the tool of literature review. The aim is the holistic approach and analysis of the subject under research. Through the survey of literature, the researchers wish to present the timeless views on Management Science, as well as form new and modern ideas. The specific method includes the presentation of the concepts and practices so as to highlight the significance of the subject under research.

² Harokopio University. (n.d.) *Η Ιστορία της Επιστήμης (The History of Science)*. Retrieved from <https://www.hua.gr/index.php/en/18-2016-04-06-17-48-03/hs/undergraduate-programme/483-2010-05-28-07-40-1823>. Accessed April 14, 2021

To this end, both the original texts and secondary publications relevant to the subject have been selected, and more specifically the works of ancient Greek philosophers, historical studies, written documents, articles, reports, electronic books, texts from websites, etc. In the context of this tool, the adequacy of the literature review was assessed and criticism was levelled at the value of the subject under research with a view to recording new knowledge (Babbie, 2018; Chalikias et al., 2015; Saunders et al., 2015; Zafeiropoulos, 2015).

4. Relevant References

In the Bible, there are references to issues of leadership and human resource management. For example, when God asked Solomon what he wanted, he answered wisdom and prudence, namely the main traits a leader must have (influence, persuasion and not coercion towards his “subjects”) (Mentis, 2021). Characteristically, in Chronicles II (1.10-1.12)³ the following is mentioned: “(1.10) Give me wisdom and knowledge, so that I may go out and come in [performing my duties] before this people, for [otherwise] who can rule *and* administer justice to this great people of Yours?” (1.11) God replied to Solomon, “Because this was in your heart and you did not ask for riches, possessions or honor *and* personal glory, or the life of those who hate you, nor have you even asked for long life, but you have asked for wisdom and knowledge for yourself so that you may rule *and* administer justice to My people over whom I have made you king, (1.12) wisdom and knowledge have been granted you. I will also give you riches, possessions, and honor, such as none of the kings who were before you has possessed nor will those who will come after you.”

In the Old Testament (Exodus 18: 20-21), there are references to characteristic traits relating to the organization and management of society. Jethro advises Moses to choose the suitable commanders and organize the Israelites’ flee from Egypt in the best possible way using specific criteria. Characteristically, it is mentioned “(20) You shall teach them the decrees and laws. You shall show them the way they are to live and the work they are to do. (21) Furthermore, you shall select from all the people competent men who [reverently] fear God, men of truth, those who hate dishonest gain; you shall place these over the people as leaders of thousands, of hundreds, of fifties and of tens.” (Aspridis, 2004, p. 26)⁴.

³ *Chronicles II (1.10-1.12)*. Retrieved from <https://www.bible.com/el/bible/1588/2CH.1.AMP>. Accessed April 14, 2021

⁴ *Exodus 18: 20-21*. Retrieved from <https://www.bible.com/el/bible/1588/EXO.18.AMP>. Accessed April 14, 2021

In the Gospel According to John (Chapter 13: 12-15)⁵, servant leadership is for the first time presented, according to which the leader takes care of the employees, namely he leads for the good and benefit of many and not just his own. (Mentis, 2021). More specifically, it is mentioned “(13.12) So when He had washed their feet and put on His outer robe and reclined at the table again, He said to them, “Do you understand what I have done for you? (13.13) You call Me Teacher and Lord, and you are right in doing so, for that is who I am. (13.14) So if I, the Lord and the Teacher, washed your feet, you ought to wash one another’s feet as well. (13.15) For I gave you this as an example, so that you should do in turn as I did to you”.

Furthermore, the concept of quality was associated with the constructions of Ancient Egyptians and then was diffused through the philosophical thought. Egyptian wall-paintings dating back to 1450BC show evidence of measurements and controls. Egyptians had developed particular issues pertaining to organization, interactions among members of the society, working conditions, living conditions, etc. The administration of the state was supported by educated citizens with expertise and the military (Vercoeur, 2009).

5. Ancient Greek philosophy and management

According to ancient Greeks, Hermes, the Olympian god, was the protector of trade and was called Empolaios meaning "engaged in traffic and commerce". In the Orphic hymn about Hermes, it is mentioned that he is “*the Protector of commercial profit*”⁶. In the early Mycenaean period, there are references to inscriptions recording the economic activity of the specific era (Doukas, 2008). Hermes also protected the secrecy of correspondence.

Ancient Greeks also assigned great importance to entrepreneurship, the growth of society and economy. Relevant references appear in the works many authors. For example, Xenophon refers to an Athenian citizen’s business idea of buying stretches of land, which he sold later on at a much higher price after having first increased the productivity of these stretches. Moreover, Demosthenes and Lysias mention that a businessman must earn a profit and face risks and uncertainties (Korres, 2015).

In the same economic context, Aristophanes in his comedy “the Frogs” says (718-737) that “the city has done the same thing with the best and the brightest of its citizens as with the old coinage and the new gold currency. For these, not counterfeit at all, but the finest it

⁵John 13: 12-15. Retrieved from <https://www.bible.com/el/bible/1588/JHN.13.AMP>. Accessed April 14, 2021

⁶Retrieved from <https://www.theoi.com/Olympios/Hermes.html>. Accessed April 15, 2021 (in Greek)

seems of all coins, and the only ones of the proper stamp, of resounding metal amongst Greeks and foreigners everywhere, we never use, but the inferior bronze ones instead, minted just yesterday or the day before with the basest stamp”⁷.

In the tragedy “Prometheus Bound” by Aeschylus (5th century BC), Kratos (“Strength”) and Bia (“Force”) (under the instructions of Zeus) accompany Prometheus to Mount Caucasus and bind him to a rock. His punishment is imposed as a consequence of the theft of fire and giving it to humans. Kratos is the personification of every form of power (state or otherwise). Bia, on the other hand, is the personification of violence. Both of them are permanent escorts, servants and proxies of Zeus. Weber’s reference that the State is the only authority to exercise the monopoly of physical violence compared to other social authorities constitutes an immediate allusion to Aeschylus’ tragedy. In the first lines of the tragedy, Kratos mentions that “And now, Hephaestus, yours is the charge to observe the mandates laid upon you by the Father—to clamp this miscreant [5] upon the high craggy rocks in shackles of binding adamant that cannot be broken. For your own flower, flashing fire, source of all arts, he has purloined and bestowed upon mortal creatures. Such is his offence; for this he is bound to make requital to the gods, [10] so that he may learn to bear with the sovereignty of Zeus and cease his man-loving ways” (Prometheus Bound, 1-35).⁸

In the tragedy “Antigone”, Sophocles highlights the concept of resistance and dignity, the conflict of customary law with the Laws, as well as the reason why people tend to obey irrational and unjust orders (Sophocles, 2008).

5.1 Homer

Homer (c. 750BC) refers to Mentor, a loyal friend of Odysseus, whose role was to counsel the hero’s son, Telemachus, and help him shape his moral values, when Odysseus left for the Trojan War. Characteristically, he mentions “So saying he sat down, and among them rose [225] Mentor, who was a comrade of noble Odysseus. To him, on departing with his ships,

⁷ Stavrou, Thr. (2012). *Αριστοφάνης Οι Βάτραχοι* (Aristophanes. *Frogs*). Thessaloniki: CGL. Retrieved from https://www.greek-language.gr/digitalResources/ancient_greek/library/browse.html?text_id=147&page=20. Accessed April 18, 2021

Aristophanes. *Frogs* 718-737. Translation by Matthew Dillon. Retrieved from <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0032%3Acard%3D718> . Accessed April 18, 2021 (in Greek)

⁸ Retrieved from <https://www.mikrosapoplous.gr/prometheus/prom.htm>. Accessed April 18, 2021 (in Greek)

Aeschylus. *Aeschylus*, with an English translation by Herbert Weir Smyth, Ph. D. in two volumes. 1. *Prometheus Bound*. Herbert Weir Smyth, Ph. D. Cambridge, MA. Harvard University Press. 1926. Retrieved from <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0010>. Accessed April 18, 2021

Odysseus had given all his house in charge, that it should obey the old man and that he should keep all things safe” (The Odyssey, Book 2, 224-266)⁹.

In the works of Homer, there are recordings of data relating to agricultural structure and the crops, the possession and use of estates. In Homer’s era, the core of society is the family, whose members are identified with the local community. The goal of the members of these societies is self-sufficiency and the provision of the necessary goods. The basic forms of profit are the provision of raw materials, the exchange of gifts and services and the spoils of war. In his rhapsodies, he presents the closed agricultural economy dominating at the time, which was based on family, while there was no specialization and division of labour. Production was within the house. Foreign trade focused on the provision of metals and slaves. The basic characteristics of the economy were based on exchangeability of goods (Backhouse, 2009; Soueref, 1994). Furthermore, in Homer’s rhapsodies there are references to the secrecy of correspondence (Aspridis et al., 2018).

5.2 Hesiod

Working is no reproach, but not working is a
reproach

Hesiod

They tell of things that are, that shall be, and
that were before

Hesiod

In his work “Works and Days” (286 - 319), Hesiod (late 8th century BC) refers to the issue of employment and unemployment. Many argue that economic theory is based on Hesiod’s work. In “Works and Days” he gives advice to his brother and offers instructions about a more efficient cultivation of the land in such a way that it is considered to be the first writing of Political Economy (Pseiridou & Lianos, 2015).

Characteristically, he says that “Both gods and men are angry with a man who lives idle, for in nature he is like the stingless drones who waste the labour of the bees, eating without working; but let it be your care to order your work properly, that in the right season

⁹ Maronitis, D. (2009). *Ομήρου Οδύσσεια, μετάφραση (Homer’s Odyssey, translation)*. Athens: Manolis Triandaphyllidis Foundation.

Homer. *The Odyssey* with an English Translation by A.T. Murray, PH.D. in two volumes. Cambridge, MA., Harvard University Press; London, William Heinemann, Ltd. 1919. Retrieved from <https://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0136%3Abook%3D2%3Acard%3D224>. Accessed April 18, 2021

your barns may be full of victual. Through work men grow rich in flocks and substance, and working they are much better loved by the immortals [310]. Work is no disgrace: it is idleness which is a disgrace. But if you work, the idle will soon envy you as you grow rich, for fame and renown attend on wealth. And whatever be your lot, work is best for you, if you turn your misguided mind away from other men's property to your work and attend to your livelihood as I bid you." (Works and Days, 303-316)¹⁰.

5.3 Socrates

Socrates (470BC or 469BC - 399BC) founded ethical philosophy. He argued that a stable morality of objectivity emerges and tried to define it, unlike the sophists who had concluded that there is no ethical experience. Socrates taught ethics based more on the demands of individual consciousness and less on those of the state. He associated ethics with the knowledge of what is really good and useful to man. On condition that "virtue is knowledge" he argues that if man does not have and does not acquire knowledge, he cannot be virtuous. According to the philosopher, only the conscious and deliberate action can be judged and evaluated from an ethical point of view and on the basis of moral standards. He believed that anyone who knew what is right and just, could not do injustice and wrong (Aspridis, 2015; Plato, 2005).

Following Homer's mentor, Socrates also established maieutics or the dialectic method as well as the Socratic irony. In his work "Apology of Socrates", Plato mentions that "[37e] I cannot keep quiet, you will think I am jesting and will not believe me; [38a]and if again I say that to talk every day about virtue and the other things about which you hear me talking and examining myself and others is the greatest good to man, and that the unexamined life is not worth living, you will believe me still less. This is as I say, gentlemen, but it is not easy to convince you. Besides, I am not accustomed to think that I deserve anything bad." ¹¹.

¹⁰ Girgenis, St. (2001). *Ησίοδος. "Εργα και Ημέραι", "Θεογονία", "Η ασπίδα του Ηρακλή". Εισαγωγή, μετάφραση, σχόλια (Hesiod "Works and Days", "Theogony", "The shield of Heracles". Introduction, translation, commentary)*. Thessaloniki: Zitros. Retrieved from https://www.greek-language.gr/digitalResources/ancient_greek/library/browse.html?text_id=134. Accessed April 12, 2021

Hesiod: Works and Days, translated by Hugh G. Evelyn-White (1914). Retrieved from <https://people.sc.fsu.edu/~dduke/lectures/hesiod1.pdf>. Accessed April 18, 2021

¹¹ Nirvanas, P. (1923). *Πλάτωνος Απολογία Σωκράτους, μετάφραση (Plato's Apology of Socrates, translation)*. Athens: Eleftheroudakis. Retrieved from https://www.greek-language.gr/digitalResources/ancient_greek/library/browse.html?text_id=104&page=15#m1. Accessed April 12, 2021

Plato. *Plato in Twelve Volumes*, Vol. 1 translated by Harold North Fowler; Introduction by W.R.M. Lamb. Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1966. Retrieved from

5.4 Plato

Four kinds of perfect virtue there are:
the first is wisdom, the second is justice,
another is courage, the fourth is temperance
Plato

Plato (427BC - 347BC) argues that a leader is born, not made. He supports that the art of leadership isn't taught but is based on the acquired qualities of each man and especially lords. The particular characteristics, such as wisdom, temperance, justice and courage, contribute to the development of society's unity. Moreover, he maintains that a leader must go through many responsibility posts and be tested in them. His work "Statesman" (Politikos), refers to leadership as art and science (Kalfas, 2015; Makrydemetres, 2008; Mentis, 2021).

In "Republic" (Politeia), he points out that if a city is to be managed properly, there must be ethical leadership that pursues the common good and contributes to all members of society, so that "[421c] they are to be constrained and persuaded to do what will make them the best craftsmen in their own work, and similarly all the rest. And so, as the entire city develops and is ordered well, each class is to be left, to the share of happiness that its nature comports." (Book D, 421c)¹². He also argued that quality was associated with virtue, as well as the moral, spiritual and natural superiority of man (Plato, 2002).

Many centuries before Maslow, Plato mentioned that the greatest need to be met is food (and all the other foods such as salt, etc.), then other needs must be met such as housing, clothing and footwear. Finally, luxury needs such as music, dance, theater, arts, are met. In "Republic", he says that "[369d] Now the first and chief of our needs is the provision of food for existence and life." "Assuredly." "The second is housing and the third is raiment and that sort of thing." (Book B, 369d)¹³.

Furthermore, in "Republic" regarding the completion of a project within a certain schedule, he mentions that "And, furthermore, this, I fancy, is obvious—that if one lets slip

<https://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0170%3Atext%3DApol.%3Asection%3D38a>. Accessed April 18, 2021

¹² Gryparis, I. (2015). *Πλάτων, Πολιτεία, μετάφραση (Plato, Republic, translation)*. Thessaloniki: CGL. Retrieved from https://www.greek-language.gr/digitalResources/ancient_greek/library/browse.html?text_id=111. Accessed April 12, 2021
Plato. *Plato in Twelve Volumes*, Vols. 5 & 6 translated by Paul Shorey. Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1969. Retrieved from <https://www.perseus.tufts.edu/hopper/text?doc=Perseus:text:1999.01.0168>. Accessed April 12, 2021

¹³ See Footnote 12.

the right season, the favorable moment in any task, the work is spoiled.” “Obvious.” “That, I take it, is because the business will not wait upon the leisure of the workman, but the workman must [370c] attend to it as his main affair, and not as a by-work.” (Book B, 370b-370c)¹⁴.

Ethics constitutes a central concern in Plato's work. Platonic ethics moves towards the pursuit of happiness. Furthermore, at this point emphasis should be laid on the role of education in an ideal state, as well as the close relationship existing, according to the philosopher, between ethics and politics. Plato teaches ascetic ethics, that is ethics waging war on the desires of the body, on pleasure (Theodorou, 2015).

Plato attempted to define communication through rhetoric. Gorgias defined virtue as the pre-eminent art of discourse. Socrates noted that a rhetorician persuades and that experts are needed to deal with specialized subjects. He mentions that (Gorgias 456a-457c) “for there is no subject on which the rhetorician could not speak more persuasively than a member of any other profession whatsoever, before a multitude. So great, so strange, is the power of this art. At the same time, Socrates, our use of rhetoric should be like our use of any other sort of exercise.”¹⁵.

5.5 Xenophon

Working is good, laziness is bad
Xenophon

In Greek tradition the use of the term administration seems to prevail. This is largely due to Xenophon and his reference in *Oeconomicus* (in the sense “to manage the household”). Xenophon (430BC - 354BC) refers to the basic principles of household and farm management and distinguishes the roles of spouses (Aspridis, 2020). Among other things, he refers to the division of labour, discipline, leadership and the reactions of the participants (Kalfas, 2015). Moreover, in *Oeconomicus* he highlighted the significance of agriculture, which he linked to

¹⁴ See Footnote 12.

¹⁵ Tzoumeleas, S. (1939). *Πλάτων. Γοργίας. Εισαγωγή, μετάφραση, σχόλια* (Plato. *Gorgias. Introduction, translation, commentary*). Athens: Zacharopoulos. Retrieved from https://www.greek-language.gr/greekLang/ancient_greek/tools/corpora/anthology/content.html?m=1&t=491. Accessed April 12, 2021

Plato. *Plato in Twelve Volumes*, Vol. 3 translated by W.R.M. Lamb. Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1967. Retrieved from <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0178%3Atext%3DGorg.%3Asection%3D456c>. Accessed April 12, 2021

stock-breeding offering goods and bodily strength to farmers. Xenophon associates agriculture with seasonal and local celebrations and power (Manakidou & Manakidou, 2015).

The main dimensions of home economics are provided in the work of Xenophon "*Oeconomicus*" and not without reason the author is considered to be the founder of home economics. Xenophon gives advice to the head of the family (for example, effectively, to manage teamwork, to divide staff duties, to define the role of woman in the house, etc.) (Kadigianopoulos, 2014).

"SOCRATES. Tell me, Critobulus, is estate management the name of a branch of knowledge, like medicine, smithing and carpentry?

CRITOBULUS. Yes, I think so.

SOCRATES. And can we say what the function of estate management is, just as we can say what is the function of each of these arts?

CRITOBULUS. "Well, I suppose that the business of a good estate manager is to manage his own estate well."

SOCRATES. Yes, and in case he were put in charge of another man's estate, could he not, if he chose, manage it as well as he manages his own? Anyone who understands carpentry can do for another exactly the same work as he does for himself; and so, I presume, can a good estate manager.

CRITOBULUS. I think so, Socrates.

SOCRATES. Is it possible, then, for one who understands this art, even if he has no property of his own, to earn money by managing another man's estate, just as he might do by building him a house?

CRITOBULUS. Yes, of course; and he would get a good salary if, after taking over an estate, he continued to pay all outgoings, and to increase the estate by showing a balance.

SOCRATES. But what do we mean now by an estate? Is it the same thing as a house, or is all property that one possesses outside the house also part of the estate?

CRITOBULUS. Well, I think that even if the property is situated in different cities, everything a man possesses is part of his estate" (1.1-1.5)¹⁶.

¹⁶ Dimitriadou- Toufexi, E. (2007). Πλάτων, Συμπόσιον. Εισαγωγή, περίληψη, μετάφραση, σχόλια. (Plato, Symposium. Introduction, summary, translation, commentary). Thessaloniki: Zitros. Retrieved from https://www.greek-language.gr/digitalResources/ancient_greek/library/browse.html?text_id=113#m1. Accessed April 18, 2021

Xenophon, *Oeconomicus* (translation). Retrieved from https://stuff.mit.edu/afs/athena/course/21/21h.401/www/local/xenophon_oikonomikos.html. Accessed April 18, 2021

In the same work (4.1), Critobulus characteristically mentions that “Surely, Socrates, there is no need to go through the whole list. For it is not easy to get workmen who are skilled in all the arts, nor is it possible to become an expert in them. Pray select the branches of knowledge that seem the noblest and would be most suitable for me to cultivate: show me these, and those who practise them; and give me from your own knowledge any help you can towards learning them”¹⁷.

Xenophon also refers to subjects concerning staff organization and particularly issues pertaining to the recruitment of staff members and their qualifications. In the same work (13.6-13.12), Ischomachus tells Socrates of how he tries to train and motivate his staff in their work. He says characteristically that “[13.9] And men can be made more obedient by word of mouth merely, by being shown that it is good for them to obey. But in dealing with slaves the training thought suitable for wild animals is also a very effective way of teaching obedience; for you will do much with them by filling their bellies with the food they hanker after. Those of an ambitious disposition are also spurred on by praise, some natures being hungry for praise as others for meat and drink. [3.10] Now these are precisely the things that I do myself with a view to making men more obedient; but they are not the only lessons I give to those whom I want to appoint my bailiffs. I have other ways of helping them on. For the clothes that I must provide for my work-people and the shoes are not all alike. Some are better than others, some worse, in order that I may reward the better servant with the superior articles, and give the inferior things to the less deserving. [3.11] For I think it is very disheartening to good servants, Socrates, when they see that they do all the work, and others who are not willing to work hard and run risks when need be, get the same as they. [3.12] For my part, then, I don't choose to put the deserving on a level with the worthless, and when I know that my bailiffs have distributed the best things to the most deserving, I commend them; and if I see that flattery or any other futile service wins special favour, I don't overlook it, but reprove the bailiff, and try to show him, Socrates, that such favouritism is not even in his own interest” (13.9-13.12)¹⁸.

Xenophon also analyzed the concept of Home Economics, namely the ideal way of organizing family life. For example, it is the woman that takes care of the children and the

¹⁷See footnote 16.

¹⁸ Kekropoulou, M. (1997). *Ξενοφών. Οικονομικός. Εισαγωγή, μετάφραση (Xenophon. Oeconomicus. Introduction, translation)*. Athens: Enalios. Retrieved from https://www.greek-language.gr/greekLang/ancient_greek/tools/corpora/anthology/content.html?m=1&t=478. Accessed April 12, 2021

Xenophon, *Oeconomicus* (translation). Retrieved from https://stuff.mit.edu/afs/athena/course/21/21h.401/www/local/xenophon_oikonomikos.html. Accessed April 18, 2021

house, controls the household appliances, undertakes the upbringing of the children. It is the man that undertakes all the heavy outdoor tasks that lead to the acquisition of goods (Kadiganopoulos, 2014).

5.6 Aristotle

Moral virtue comes about as a result of habit
Aristotle

Aristotle's teaching (384BC - 322BC) dealt with ethos and ethics, reason (logos) and logic. He analyzed that when one possesses all these qualities, one can achieve excellence. He associated ethics with virtue and treatise. Aristotle's ethics is transformed into an organizing principle of society and is rational. He considered that human experience is necessary to be studied first and, once understood, people should be made aware of how to behave. The fundamental virtues he outlined were prudence, justice, wisdom and intellect (Aspridis, 2015).

In the "Nicomachean Ethics B1, 1-4", he mentions that "[1103a] Virtue being, as we have seen, of two kinds, intellectual and moral, intellectual virtue is for the most part both produced and increased by instruction, and therefore requires experience and time; whereas moral or ethical virtue is the product of habit (ethos), and has indeed derived its name, with a slight variation of form, from that word. [2] And therefore it is clear that none of the moral virtues formed is engendered in us by nature, for no natural property can be altered by habit. For instance, it is the nature of a stone to move downwards, and it cannot be trained to move upwards, even though you should try to train it to do so by throwing it up into the air ten thousand times; nor can fire be trained to move downwards, nor can anything else that naturally behaves in one way be trained into a habit of behaving in another way. [3] The virtues therefore are engendered in us neither by nature nor yet in violation of nature; nature gives us the capacity to receive them, and this capacity is brought to maturity by habit. [4]"¹⁹.

Aristotle approached the concept of communication from the aspect of rhetoric. He proposed a model with the primary elements being the speaker, the message, the audience,

¹⁹ Lypourlis, D. (2006). *Αριστοτέλης : Ηθικά Νικομάχεια*. 1^{ος} τόμος: Βιβλία Α-Δ, 2^{ος} τόμος: Βιβλία Ε-Κ, μετάφραση (Aristotle: *Nicomachean Ethics*. Vol.1: Books A-D, Vol.2: Books E-K, translation). Athens: Zitros. Retrieved from https://www.greek-language.gr/digitalResources/ancient_greek/library/browse.html?text_id=78&page=14#m1. Accessed April 12, 2021

Aristotle in 23 Volumes, Vol. 19, translated by H. Rackham. Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1934. Retrieved from <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0054%3Abook%3D2>. Accessed April 12, 2021

the effect and the final goal. He considered that the city resulted from man's innate need for social life and communication. In the "Nicomachean Ethics" (1168a28 – 1172a15) he considers that the essence of friendship is the continuous communication between friends. "[1172a] And whatever pursuit it is that constitutes existence for a man or that makes his life worth living, he desires to share that pursuit with his friends.", he mentions (Aspridis et al., 2018, pp. 30-31)²⁰.

Aristotle described the art of rhetoric, its kinds and means. He defined rhetoric as the art of persuasion and then categorized the ways of persuasion into an appeal to logical reasoning, emotion and ethos (character) of the speaker. He added that the rhetorician uses the rhetorical syllogisms, enthymemes and paradeigmata (examples). Yet, since most enthymemes are based on special conditions, namely on premises in question appertaining to a specific scientific field, he considered at this point that it was necessary to define the genres of rhetoric, so as for the rhetorician to be able to use each time the appropriate conditions (Lypourlis, 2002).

In his work "The Art of Rhetoric" (Book 1: 1358a36 – 1359a29), he mentions characteristically that "The kinds of Rhetoric are three in number, corresponding to the three kinds of hearers. For every speech is composed of three parts: the speaker, [1358b] the subject of which he treats, and the person to whom it is addressed, I mean the hearer, to whom the end or object of the speech refers. Now the hearer must necessarily be either a mere spectator or a judge, and a judge either of things past or of things to come."²¹

He continues to add that (Book 1: 1358a36 – 1359a29) "Each of the three kinds has a different special end, and as there are three kinds of Rhetoric, so there are three special ends. The end of the deliberative speaker is the expedient or harmful; for he who exhorts

²⁰ Moskovis, V. (1993). *Αριστοτέλους Ηθικά Νικομάχεια I-II, μετάφραση (Aristotle's Nicomachean Ethics I-II, translation)*. Athens: Nomiki Vivliothiki. Retrieved from https://www.greek-language.gr/greekLang/ancient_greek/tools/corpora/anthology/content.html?m=1&t=40 . Accessed April 12, 2021

Aristotle in 23 Volumes, Vol. 19, translated by H. Rackham. Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1934. Retrieved from <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0054%3Abook%3D9%3Achapter%3D12%3Asection%3D2> . Accessed April 12, 2021

²¹ Lypourlis, D. (2002). *Αριστοτέλης. Ρητορική Βιβλίο Πρώτο. Εισαγωγή, μετάφραση, σχόλια (Aristotle. Rhetoric Book 1. Introduction, translation, commentary)*. Thessaloniki: Zitros. Retrieved from https://www.greek-language.gr/greekLang/ancient_greek/tools/corpora/anthology/content.html?m=1&t=54 . Accessed April 12, 2021

Aristotle in 23 Volumes, Vol. 22, translated by J. H. Freese. *Aristotle*. Cambridge and London. Harvard University Press; William Heinemann Ltd. 1926. Retrieved from <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0060%3Abook%3D1%3Achapter%3D3> . Accessed April 12, 2021

recommends a course of action as better, and he who dissuades advises against it as worse; all other considerations, such as justice and injustice, honor and disgrace, are included as accessory in reference to this. The end of the forensic speaker is the just or the unjust; in this case also all other considerations are included as accessory. The end of those who praise or blame is the honorable and disgraceful; and they also refer all other considerations to these. (...) From what has been said it is evident that the rhetorician must first have in readiness the propositions on these three subjects. Now, necessary signs, probabilities, and evidence are the propositions of the rhetorician; for the syllogism universally consists of propositions, and the enthymeme is a syllogism composed of propositions as the ones above mentioned. (...) We have now stated the topics concerning which the rhetorician must provide himself with propositions; after this, we must distinguish between each of them individually, that is, what the three kinds of Rhetoric, deliberative, epideictic, and forensic, are concerned with”²².

Figure 1. The Classical authors



Photo source : Retrieved from <https://pixabay.com/el/>. Accessed April 15, 2021.

²² See footnote 21.

Table 1. The theories of classical philosophers

HOMER	HESIOD	SOCRATES	PLATO	XENOPHON	ARISTOTLE
The role of mentor in education	Provision of advice to farmers on the cultivation of land	Ethics in society	The ethical dimension of society	Definition of the concept of management	Ethics in society
Agricultural economy and society	Work is the only way to succeed	The method of maieutics in education	The formation of the ideal Republic	Provision of advice for the better use of staff	Communication and persuasion
Principles of Political Economy			Principles of leadership	Provision of advice on financial issues	Leadership
			Education		Education
			Human needs		
			Communication in human relationships		

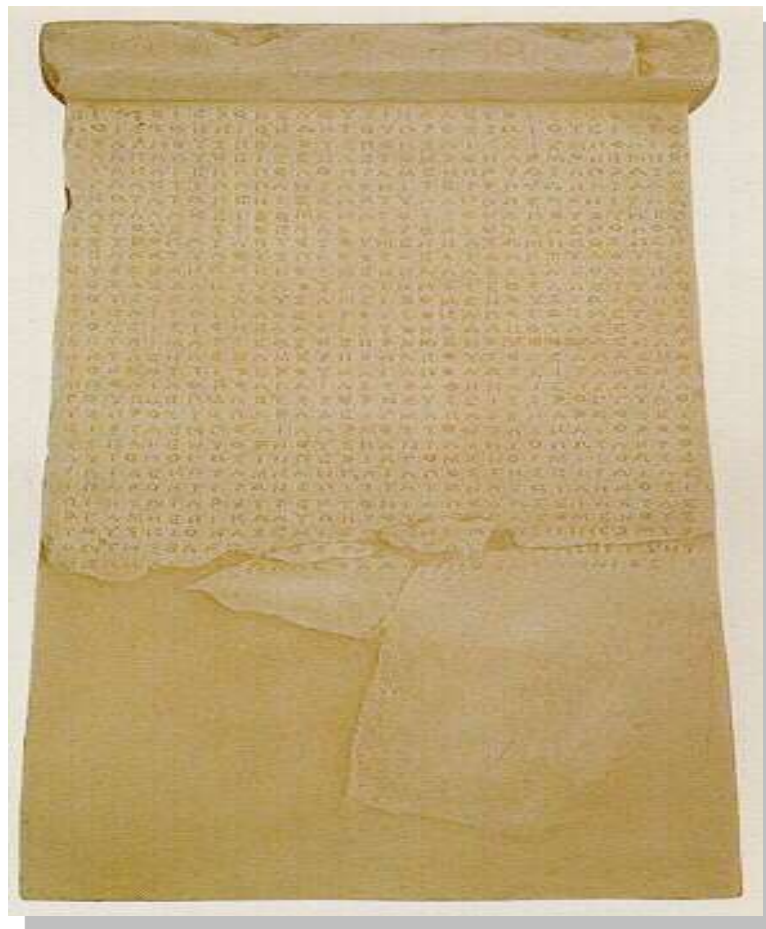
Source: Personal data processing

6. Management and quality control

According to the Hellenic Organization of Standardization (ELOT) the first recorded European quality standard appears on an inscribed column (“stele”) of the 4th century BC. On this column, the text inscribed refers to a decree concerning the manufacture of bronze fittings to be used for the assembly of the column drums of the Philonian Stoa. The particular specifications pertained to the chemical composition and manufacture of the bronze fittings known as “poloi”, according to the specific specimen. It actually refers to an empirical procedure of quality control and the strict quality control specifications stipulated by Ancient Greeks to avoid fraud in orders. The inscription characteristically mentions “copper, which is actually bronze and not pure copper, should be produced, according to the inscription, in Marion of Cyprus, a very important commercial and metallurgical centre at that remote time, and the alloy should be made of twelve parts, eleven of copper to one of tin” (Varoufakis,

1996)²³. Moreover, during the same period there was a quality and authenticity control of the Athenian coins by specialized inspectors of the Athenian State (Varoufakis, 1996).

Figure 2. The first European Quality Standard²⁴



Source: (a) Ephorate of Antiquities of West Attica- Archaeological Museum of Eleusis and (b) ELOT.

However, this is not the only recorded case of quality control in ancient Greece. For example, in Oropos a decision had been made ensuring that new utensils were subjected to quality control based on the samples from the original ones. In the 5th century BC in Thasos wine quality control had been recorded on an inscribed column.

Amongst the individual authorities of the Athenian State, Aristotle mentions the agoranomoi and the metronomoi (both being magistrates). The former examined the quality of the articles exposed for sale in the market, while the latter carried out inspections on whether the weights and measures used by merchants were in conformity with the set

²³ Retrieved from http://www.elot.gr/781_ELL_HTML.aspx. Accessed April 15, 2021 (in Greek).

²⁴For the publication of the photograph special license was issued by the Ephorate of Antiquities of West Attica with No. 168451/YPPOA/22-4-2021. Copyright Hellenic Ministry of Culture and Sports.

standards. In his work "Constitution of the Athenians", he mentions that the agoranomoi "To these the laws assign the superintendence of all merchandise, to prevent the sale of adulterated and spurious articles" (51.1) and finally the metronomoi dealt with the inspection "who superintend all measures and weights, in order that sellers may use just ones" (51.2)²⁵ (Varoufakis, 2005; Yeroulanos, 2016).

7. Conclusions – The dialectic relation of ancient and modern era

Man's character is his fate
Heraclitus

Servant leadership appeared in the Gospel According to John for the first time. Servant leadership highlights that the leader contributes to the creativity and growth of the employees and the organization, the reduction of professional burnout. At the same time the image of employers towards all other participants improves. This term was introduced in modern management in 1970 by R. Greenleaf and this theory is constantly being enriched and evolving (Bachelder, 2018). The main characteristics of the leader have been recorded in the works of Plato and Aristotle and modern theories are based on them.

In the 1940's Maslow formulated the theory of human needs and their satisfaction. Maslow's hierarchical pyramid includes physiological needs, safety needs, social needs, self-esteem needs and self-actualization needs (Aspridis, 2020). His theory is based on and is in line with the theory and views of Plato on the satisfaction of human needs as described in the Republic. Xenophon presented proposals for Human Resource Management, employee training, the working framework and their motivation. These thoughts formed the basis of modern theory, especially in the era of multi-culturalism.

Through the story of Mentor, Homer became the first to refer to issues of education/training and presented the concept of coaching which is dominant in modern management. At this point a reference should be made to the Socratic method, the method of maieutics, which is also widely used in management today through the method of brainstorming.

In "Rhetoric", Aristotle highlighted the significance of Persuasion. Persuasion belongs to the science of communication and constitutes a quality of competent speakers.

²⁵ *Aristotle in 23 Volumes*, Vol. 20, translated by H. Rackham. Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1952. Retrieved from <https://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0046%3Achapter%3D51%3Asection%3D1>. Accessed April 12, 2021

Communication is part of the soft skills an executive ought to possess and contributes to the ability to attract clients, suppliers, the improvement of marketing strategy and the improvement of the team's function. Characteristically, Warren Buffet states that the improvement of communication skills enhances the value of the executives by 50% (Panagoulia, 2019).

A competent manager mostly invokes justice, courage, prudence and honesty, just like Socrates. Aristotle highlighted the criterion of virtue in good governance. He states that ethical virtues are formed by habit and people do not possess them by nature. Plato considers that the role of the State is to educate citizens according to the Laws, as well as the prevailing ethos. In this context, it is presumed that the virtuous senior executive will not deceive the participants in the business for the sake of the common good. These references have been the basis for the development of Corporate Social Responsibility and Business Ethics since the late 20th century both in Europe and the USA (Aspridis, 2015).

In the context of the evolution of the concept of ethics from ancient Greece till today, a business operates effectively to the extent that it satisfies social needs and at the same time its conduct is in accord with both ethics, as well as the effort to meet social needs. Each organization ought to function as a citizen and not as an individual, according to the ancient Greek meaning of the term. In that way it will be accepted by and will develop along with the local community. The members of each organization are interested in the benefit of the business. As a result, the business, especially when it operates within the local community, also sees to its common good. The self (I) becomes part of the whole (we), which is defined by the broader context of the local community it operates in (Papandropoulos, 2017; Tsoukas, 2004).

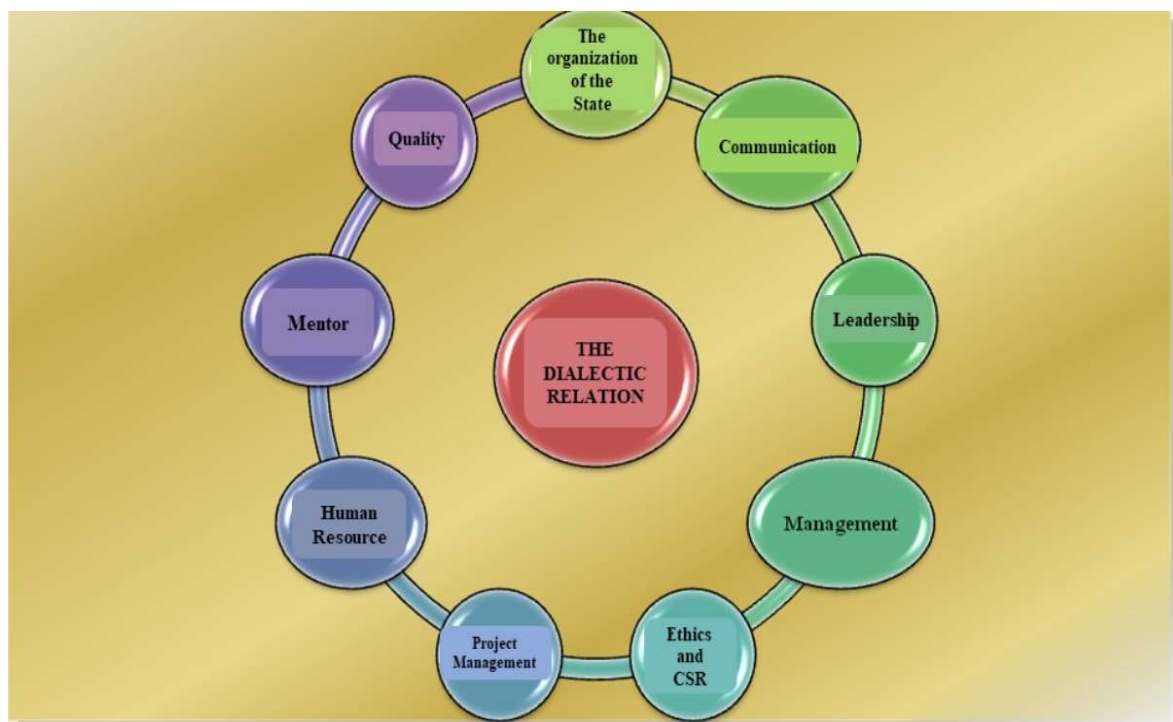
The experiments of famous psychologists, such as Milgram's, are called upon to answer the timeless question set by Sophocles in "Antigone", namely whether people must obey orders, especially when these orders are in direct conflict with their conscience. This question has undergone a lot of analysis over the centuries.

Yet, the ancient philosophers were pioneers even in more specialized subjects. Xenophon was the father of Home Economics, which flourished after the 1970's, particularly with the establishment of many University Faculties. For example, the Harokopio University was established in Greece. In Home Economics, the main principles for environmental protection and ecology are recorded, namely the roots for the emergence of sustainable development.

Plato laid the foundations for the emergence of management and project management in his references to the completion of projects within a certain schedule and the specialization of projects. Furthermore, he referred to issues of risk management, tactics and strategy in his work “Cyropaedia”. Finally, in his references to the increase of profitability and the development of work, there are allusions to knowledge management and how it can constitute a learning and development factor of the organizations. He states that both the range and amount of knowledge an educated citizen should necessarily possess are determined in this context.²⁶

The principles of quality, as recorded in ancient Greece for the first time, were in a broader sense adopted in modern management and contributed to the introduction of TQM in business management, creating thus a more reliable and effective perspective for the survival and development of business.

Diagram 1. The dialectic relation of management theories over the centuries



Source: Personal data processing

²⁶Retrieved from <http://www.mentzelidis.gr/management-epixeiriseis/197-i-symvoli-tis-dioikitikis-skepsis-stin-arxaia-ellada-sto-sygxrono-manatzment>. Accessed April 12, 2021 (in Greek).

8. Epilogue

On November 16th 2016, President Obama, during his speech at the Stavros Niarchos Foundation Cultural Center (SNFCC), highlighted the contribution of Ancient Greek authors to the evolution of sciences, as well as their contribution to the understanding of the world and specifically the organization and function of the modern State and by extension modern management. Besides, Democracy was established in ancient Athens (be it with the facts of that time, for example women and slaves had no rights). Certain ideas emerged, such as the concept of citizenship, equality before the law, the right to administrate, good institutionalization. Pericles highlighted the significance of the Constitutional consolidation of individual and social rights, as well as the fact that the Constitution favours the many instead of the few. Characteristically, he mentions that “Our understanding of the world and our place in it has been expanded by Socrates and Aristotle...Pericles explained, ‘our constitution favors the many instead of the few...this is why it is called a democracy’” (Obama, 2016, pp. 8,10).

Consequently, it is a fact that modern management has its roots in the teachings of the classical ancient Greek authors presented in this paper (along with many others), and many theories that have emerged since the industrial revolution onwards are based on the Greek classical authors. These principles can and should be taught in modern University Faculties since they are very much more apropos than ever before. A more extensive and interdisciplinary research will prove that these effects also extend to other management tools such as knowledge management, risk management, etc.

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